



CITY OF CORCORAN  
**Corcoran Planning Commission Agenda**  
**June 4, 2020 - 7:00 pm**

**1. Call to Order / Roll Call**

**2. Pledge of Allegiance**

**3. Agenda Approval**

**4. Open Forum**

**5. Minutes**

- a. Minutes – May 7, 2020\*

**6. New Business**

- a. **Public Hearing.** Park Dedication Ordinance Update (20-004)

- i. Staff Report
- ii. Open Public Hearing
- iii. Close Hearing
- iv. Commission Discussion & Recommendation

- b. **Public Hearing.** Preliminary Plat for Kariniemi Addition (PID 33-119-23-22-0004 and 33-119-23-21-0001) (city file 20-016)

- i. Staff Report
- ii. Open Public Hearing
- iii. Close Hearing
- iv. Commission Discussion & Recommendation

- c. **Public Hearing.** Spanier Conditional Use Permit and Variance for the Property located at 10580 Cain Road (PID 02-119-23-23-004) (city file no. 20-019)

- i. Staff Report
- ii. Open Public Hearing
- iii. Close Hearing
- iv. Commission Discussion & Recommendation

- d. Sign Variance at 9350 CR 19 (city file 20-020)

- i. Staff Report
- ii. Commission Discussion & Recommendation

- e. **Public Hearing.** Comprehensive Plan Amendment, Rezoning, Preliminary Plat and Preliminary PUD Development Plan for “Tavera” (PID 35-119-23-44-0001, 35-119-23-11-0001, 35-119-23-12-0002, 35-119-23-41-0001 and 35-119-23-43-0001) (City File 20-017)

- i. Staff Report
- ii. Open Public Hearing
- iii. Close Hearing
- iv. Commission Discussion & Recommendation

**7. Reports/Information**

- a. Planning Project Update\*
- b. City Council Report\* – Council Liaison Schultz

**Telephone Meeting Call-in Instructions**  
**Call: +1 312 626 6799 US**  
**Enter Meeting ID: 835 8146 1670**  
**Press \*9 to Comment during the Public Comment Sections in the meeting.**  
**For more information on options to provide public comment visit: [www.ci.corcoran.mn.us](http://www.ci.corcoran.mn.us)**

**\*Includes Materials** - Materials relating to these agenda items can be found in the House Agenda Packet by Door.

c. Other Business

## 8. Commissioner Liaison Calendar

City Council Meetings

6/11/20	6/25/20	7/9/20	7/23/20	8/13/20	8/27/20
Jacobs	Dickman	Vehrenkamp	Wu	Shoulak	Jacobs

## 9. Adjournment

**Due to the COVID-19 health pandemic, the Planning Commission's regular meeting place is not available and is not open to the public. Pursuant to Minnesota Statute 13D.021 the one or more members of the Planning Commission may participate by telephone or other electronic means.**



CITY OF CORCORAN  
**Corcoran Planning Commission Minutes**  
**May 7, 2020 - 7:00 pm**

The Corcoran Planning Commission met on March 5, 2020 at City Hall in Corcoran, Minnesota.

Present via telephonic or other electronic means were: Chair Jacobs, Commissioner Wu, Commissioner Dickman, Commissioner Shoulak, and Commissioner Vehrenkamp.

Also present via telephonic or other electronic means were: City Administrator Martens, City Planner Lindahl, Code and Council Liaison Schultz. Compliance Official Pritchard was present at City Hall.

**1. Call to Order / Roll Call**

Chair Jacobs called the meeting to order at 7:00pm.

**2. Pledge of Allegiance**

**3. Agenda Approval**

**Motion** made by Dickman seconded by Shoulak to approve the agenda as presented.

Voting Aye: Jacobs, Wu, Dickman, Shoulak, and Vehrenkamp. (Motion carried 5:0)

**4. Open Forum – None**

**5. Minutes**

a. Minutes – March 5, 2020

**Motion** made by Vehrenkamp seconded by Wu to approve the agenda as presented.

Voting Aye: Jacobs, Wu, Shoulak, and Vehrenkamp. (Motion carried 4:0) *Dickman Abstained*

**6. New Business**

a. **Public Hearing.** Open Space & Preservation Plat for “Paulsen Farms” (PID 09-119-23-34-0001) (city file no. 20-011)

i. Staff Report – Planner Lindahl presented her staff report.

ii. Open Public Hearing – Chair Jacobs opened the public hearing.

Chas Billin, 9820 High Bluff Lane, submitted written comments prior to the meeting regarding Co Rd 30, school bus stop, and the intersection. The email was included in the agenda packet.

iii. Close Hearing

**Motion** made by Vehrenkamp seconded by Shoulak to approve the agenda as presented.

Voting Aye: Jacobs, Wu, Dickman, Shoulak, and Vehrenkamp. (Motion carried 5:0)

iv. Commission Discussion & Recommendation – Staff provided clarification regarding the OSP rules, requirements and expectations. The Commission discussed transportation and access, trail maintenance, access, and location, as well as architectural design and stormwater management. The Commission also discussed use of open space, connections to adjacent parcels, and access for the remaining agricultural area. Lot size and buildability related to septic and wetlands, as well as the area under the overhead electrical lines was discussed. Staff clarified wetlands and the wetland delineation. The Commission discussed concerns regarding stormwater, drainage, and existing drain tile. Tree preservation and landscaping was also discussed.

**7. Reports/Information**

a. Planning Project Update – Information only.

b. City Council Report – Council Liaison Schultz update the Commission on Council activities.

c. Other Business

**8. Commissioner Liaison Calendar**

a. Discuss liaison attendance and calendar City Council Meetings. Discussed.

<b>5/14/20</b>	<b>5/28/20</b>	<b>6/11/20</b>	<b>6/25/20</b>	<b>7/9/20</b>	<b>7/23/20</b>
Vehrenkamp	Shoulak	Jacobs	Dickman	Vehrenkamp	Wu

**9. Adjournment**

**Motion** made by Shoulak seconded by Wu to adjourn.

Voting Aye: Jacobs, Wu, Dickman, Shoulak, and Vehrenkamp. (Motion carried 5:0)

Meeting adjourned at 9:18pm

*Submitted by Mike Pritchard  
Code Compliance Official*

DRAFT



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**TO:** Corcoran Planning Commission  
**FROM:** Kevin Shay through Kendra Lindahl, Landform  
**DATE:** May 28, 2020 for the June 4, 2020 Planning Commission Meeting  
**RE:** **Public Hearing.** Park Dedication Fee Update (city file no. 20-004)

**60-Day Review Deadline:** N/A

**1. Application Request**

Review and comment on an update to the park dedication requirements of the Subdivision Regulations, Chapter 9 of the City Code.

**2. Parks Commission Discussion**

The Parks Commission had limited discussion about the update to park dedication fees and recommended approval of the revised fees.

**3. Background**

Corcoran’s current park dedication standards were developed in 2011 based on the park and trail system needs identified by the City’s 2030 Comprehensive Plan.

In December 2014, the City made several amendments to address specific concerns about the method for calculating density, how park dedication credit would be given for trails and what trail improvements developers must make. Language was also added to clarify that “park dedication is not due for parcels that have previously paid park dedication (land or cash-in-lieu)”.

In April of 2016, more significant amendments were made to address concerns with the residential dedication formula and ensure that the cash dedications were adequate to meet the City’s needs.

**4. Analysis**

MN Statute §462.358 requires that park dedication requirements be based on the adopted comprehensive plan. The 2040 Comprehensive Plan update was recently adopted by the City of Corcoran. The Comprehensive Plan provides the anticipated future parks and trails based on the growth forecast for the City. The parks and trails planned for in the Comprehensive Plan are different from the previous comprehensive plan. Park dedication is the City’s tool to fund the necessary park and trail improvements and is being updated to be consistent with the planned improvements from the updated comprehensive plan. The fair market value of land is required to be based on the





annual tax valuations or other relevant data determined annually by the municipality. We contacted the City Assessor for the current land values that are used in the park dedication calculations.

As part of the update the cost assumptions for land value, trail construction and park improvements were updated to the current values in the market. The table below shows the previous park dedication and updated park dedication.

Park Dedication	2016 Park Dedication	2020 Park Dedication	Change
Single Family	\$3,970	\$4,628	+16.6%
Multi-Family	\$2,694	\$3,141	+16.6%
Commercial and Industrial	\$4,135	\$4,498	+8.7%

The fee increases would be amended at the June 11<sup>th</sup> City Council meeting as part of the fee schedule amendments.

The increase is a result of several factors:

- the total population expected has decreased from the growth forecast in the 2030 plan;
- the land value has increased since the last update;
- a portion of boardwalk has been included for the total off road trail length increasing the overall cost;
- The planned overpass/underpass crossings have been added to the trail costs.

Now that the 2040 Comprehensive Plan is complete, staff recommends an annual review of the park dedication calculations to update the land values and construction costs and ensure that the park dedication fees keep pace with development costs.

The fee schedule update does not require Planning Commission review but is provided for informational purposes.

#### *Ordinance Amendment*

In addition to the fee schedule updates, staff is recommending two minor changes to the Subdivision Ordinance to implement these changes. The changes update the code to be consistent with the density for each land use identified in the 2040 Comprehensive Plan and update the percentage of dedication to be consistent with the updated fees. The code revisions are shown below.

#### **Land Dedication Requirements:**

Land Use Category based on the Comprehensive Plan	Units per acre (Density, Net - Pre-Development)	Percentage of land
Rural/Ag Residential	Less than 3	4%
Low Density Residential	3-5	15%
Medium-Density Residential	<del>6</del> 5-8	17%
Mixed Residential	8-10	<del>27</del> 28%



High-Density Residential and Mixed-Use	10+ <del>30</del>	<del>22</del> 4%
<u>Mixed-Use</u>	<u>8-30</u>	<u>19%</u>
Commercial and Industrial	N/A	3%

**Commercial and industrial land uses:** Dedication requirement is ~~five~~ three percent (3%) of land or equivalent market value in cash.

**5. Recommendation**

Move to recommend approval of new park dedication fees and the ordinance modifying Section 955 of the City Code.

**Attachments**

- a. Draft Ordinance 2020-xx amending Section 955.020 of the Subdivision Ordinance
- b. Draft Resolution 2020-xx approving findings of fact for the ordinance amendment
- c. Park Dedication Fee Spreadsheet

**ORDINANCE NO. 2020-xx**

**Motion By:**  
**Seconded By:**

**CITY OF CORCORAN**

**AN ORDINANCE AMENDING THE TEXT OF TITLE IX OF THE CORCORAN CITY CODE  
RELATED TO PARK DEDICATION (CITY FILE 20-004)**

**THE CITY OF CORCORAN ORDAINS:**

**SECTION 1.** Amendment of the City Code. The text of Chapter 955.020 "Required Dedication" (Subdivision Ordinance) of the Corcoran City Code is hereby amended by deleting the ~~stricken~~ material and adding the underlined material as follows:

**Land Dedication Requirements:**

<b>Land Use Category based on the Comprehensive Plan</b>	<b>Units per acre (Density, Net - Pre-Development)</b>	<b>Percentage of land</b>
Rural/Ag Residential	Less than 3	4%
Low Density Residential	3-5	15%
Medium-Density Residential	<del>6</del> <u>5</u> -8	17%
Mixed Residential	8-10	<del>27</del> <u>28</u> %
High-Density Residential <del>and</del> <del>Mixed-Use</del>	10+ <del>20</del> <u>30</u>	<del>22</del> <u>24</u> %
<u>Mixed-Use</u>	<u>8-30</u>	<u>19</u> %
Commercial and Industrial	N/A	3%

The City Council will identify a park dedication fee per residential unit to be paid in lieu of land dedication when the council determines that that land is not needed in the area of the proposed subdivision. If the council determines that land is needed in the subdivision, but in a lesser amount than the required percentage, the council will require payment of the per unit fee based on a pro-rata share of the land dedication that would otherwise be required.

The City Council shall review park dedication fee requirements periodically, to ensure that the required fee remains consistent with park and trail system development costs.

**Commercial and industrial land uses:** Dedication requirement is five three percent (3%) of land or equivalent market value in cash.



**SECTION 2. Effective Date.** This Ordinance shall be in full force and effect upon its passage.

**VOTING AYE**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

**VOTING NAY**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

Whereupon, said Resolution is hereby declared adopted on this xx day of June 2020.

\_\_\_\_\_  
Ron Thomas - Mayor

**ATTEST:**

\_\_\_\_\_  
Jessica Beise – Administrative Services Director

*City Seal*

**RESOLUTION NO. 2020-xx**

**Motion By:**  
**Seconded By:**

**A RESOLUTION APPROVING FINDINGS OF FACT FOR AN ORDINANCE AMENDING THE  
TEXT OF TITLE IX OF THE CORCORAN CITY CODE RELATED TO PARK DEDICATION  
(CITY FILE 20-004)**

WHEREAS, the City has initiated an amendment to update the park dedication fees to be consistent with the adopted 2040 Comprehensive Plan as required by MN Statute §462.358.

WHEREAS, the amendment would be consistent with and implement the 2040 Comprehensive Plan;

WHEREAS, the Planning Commission has reviewed the request at a duly called Public Hearing and recommends approval, and;

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF CORCORAN, MINNESOTA, that it does approve an amendment to Title IX (Subdivision Ordinance) of the City Code to amend the park dedication, based on the following findings:

1. The proposed amendment would be consistent with State law and the City's Comprehensive Plan.
2. The amendment changes the density to match the density outlined in the 2040 Comprehensive Plan for each residential land use.
3. The amendment would align the percentage of park dedication for each land use to match the updated park dedication fees.

**VOTING AYE**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

**VOTING NAY**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

**Whereupon, said Resolution is hereby declared adopted on this xx day of June 2020.**

\_\_\_\_\_  
**Ron Thomas - Mayor**

**ATTEST:**

\_\_\_\_\_  
**Jessica Beise – Administrative Services Director**

**City Seal**

**City of Corcoran Park Dedication Calculations, 2020**

Population Estimates			Units per acre			Persons Per Acre			Total Pop		
Land Use Category	Acres	Pop/Unit	Minimum	Max	Avg	Min	Max	Avg	Min	Max	Avg
Rural/Ag Residential	6,270	2.8	0.10	0.10	0.10	0.28	0.28	0.28	1,756	1,756	1,756
Low Density Residential	2,657	2.8	3.00	5.00	4.00	8.40	14.00	11.20	22,319	37,198	29,758
Medium Density Residential	66	1.9	5.00	8.00	6.50	9.50	15.20	12.35	627	1,003	815
Mixed Residential	450	1.9	8.00	10.00	9.00	15.20	19.00	17.10	6,840	8,550	7,695
High Density Residential	80	1.9	10.00	30.00	20.00	19.00	57.00	38.00	1,520	4,560	3,040
Mixed Use	230	1.9	8.00	30.00	19.00	15.20	57.00	36.10	3,488	13,082	8,285
Commercial and Industrial	707	0									
<b>Total Population Expected:</b>									<b>36,550</b>		
(Use minimum densities)											

<b>Per Capita Share of Park System</b>		
Residential Share	95%	\$60,417,354
C/I Share	5%	\$3,179,861
Total Cost of Park System		\$63,597,215
<b>Per Capita Share</b>		<b>\$ 1,653.01</b>
<b>Per Unit Share</b>		
<b>Single Family</b>	2.8	<b>\$ 4,628.44</b>
<b>Multi Family</b>	1.9	<b>\$ 3,140.73</b>
<b>C/I Share Per Acre:</b>		<b>\$ 4,497.68</b>

# Attachment A: Corcoran Park Dedication Park Facilities and Land Cost Estimates, 2020 Update

2040 Park Facility Needs					
Parks	Existing Parks		2040 Future Parks		
	Total # of Existing Park Facilities	Total # of Existing Park Acres	Total # of Future (2040) Park Facilities	Approx. acres per park	Total # of Future (2040) Park Acres
Neighborhood Parks	1	5	3	12.5	37.5
Community Parks	1	8	0	0	0
Community Playfields	1	76	0	15	0
Open Space Park	0	0	2	30	60
Linear Park	0	0	1	9	9
<b>Totals</b>		<b>89</b>			<b>107</b>

Future neighborhood parks are assumed to be town center, bellweather and downtown north park  
Existing city park estimated at 8 acres per page 73 of the comp plan. Is this going to be considered as a park for the purposes of park dedication?  
Future parks are assumed to be the open space parks that are a part of ravinia and bellwether

Notes:

1. Approximate acres per park are based on park classification range of acres.
2. This estimate is based on a forecast population of 11,300 by the year 2040.
3. Community playfields include Athletic Search Areas(ASA) as identified on the plan.

2040 Park Facility + Land Costs								
Parks	Facility Costs			Land Cost				Land + Facility Cost
	# of Parks to develop	Unit Cost	Facility Cost	Approx. acres per park	Acres Required	Unit Cost	Land Cost	
<b>Inside MUSA</b>								
Neighborhood Parks	3	\$533,830	\$1,601,490	12.5	37.5	\$90,000	\$3,375,000	\$4,976,490
Community Parks	0	\$0	\$0	0	0	\$90,000	\$0	\$0
Community Playfields	1	\$3,347,700	\$3,347,700	0	0	\$90,000	\$0	\$3,347,700
Open Space Park	2	\$906,647	\$1,813,294	30	60	\$90,000	\$5,400,000	\$7,213,294
Linear Park	1	\$533,830	\$533,830	9	9	\$90,000	\$810,000	\$1,343,830
<b>Total Park Development Costs to Year 2040</b>								<b>\$16,881,314</b>

Notes:

1. Land costs: \$90,000/acre (MUSA) and \$13,000 (Non-MUSA) based on information from surrounding communities and Assessor's Office. Costs of each land parcel will vary depending on location, size and site features.
2. Neighborhood Park Cost Estimate would account for parking, lighting, utilities, picnic shelter, benches, playground, play court, a special amenity such as a mini splash pad, and design fee
3. Community Park Cost Estimate would account for parking, lighting, utilities, picnic shelter, benches, trails, lg. playground, restroom building, and a special amenity such as a hockey rink/performance area and design fee
4. Athletic Complex Park Cost Estimate would account for 3 full size soccer fields, 4 adult softball fields, youth playfields, tennis court, parking, lighting, fencing, utilities/irrigation, trails, picnic shelter/restrooms/concessions, and design fee
5. Community Play Fields Cost Estimate would account for a combination of play fields and courts of softball/soccer/basketball/tennis/volleyball, parking, lighting, restrooms, picnic area, and design fee.
6. Open Space Park Cost Estimate would account for trails, signage, parking, and natural resource enhancements
7. Cost Estimates are based on park improvements costs developed for each park

2040 Trail Facility + Land Costs							
Trails	Facility Costs			Land Cost			Land + Facility Cost
	Qty	Unit Cost	Facility Cost	Acres Required	Unit Cost	Land Cost	
<b>Inside MUSA</b>							
On Road Trail (LF)	157,093	\$30	\$4,712,790				\$4,712,790
Off Road Trail (LF)	130,320	\$30	\$3,909,600	60	\$90,000	\$5,385,124	\$9,294,724
Boardwalk (LF)	14,480	\$650	\$9,412,000	7	\$90,000	\$598,347	\$10,010,347
Overpass (Each)	5	\$1,000,000	\$5,000,000				\$5,000,000
Road Crossings (Each)	4	\$41,000	\$164,000				\$164,000
<b>Outside MUSA</b>							
On Road Trail (LF)	184,339	\$30	\$5,530,170				\$5,530,170
Off Road Trail (LF)	109,898	\$30	\$3,296,943	50	\$13,000	\$655,957	\$3,952,900
Boardwalk (LF)	12,211	\$650	\$7,937,085	6	\$13,000	\$72,884	\$8,009,969
Road Crossings (Each)	1	\$41,000	\$41,000				\$41,000
<b>Total Trail Development Costs yo Year 2040</b>							<b>\$46,715,901</b>

Notes:

1. Land costs: \$90,000/acre (MUSA) and \$13,000/acre (Non-MUSA) based on information from surrounding communities and Assessor's Office. Costs of each parcel may vary depending on location, size and site features.
2. Trail Costs are based on a 8' bituminous trail with a 20' wide easement
3. Trails are based on full development from the 2040 parks and trails map
4. Above costs are based on purchased easements.
5. On-road trails assume no acquisition of additional land or easements.
6. Road crossings assume rapid flashing beacon (2 per) and countdown timers on signals (4 per) at an existing signal.
7. On Road trails assume 4-travel lanes to 2 -travel lanes with blackout of existing lines and striping new lines including bicycle lanes. Assumes no signal modifications.
8. Off road trails include associated signage.
9. Costs updated May 2020 using using trail planning estimates developed by Hennepin County and the City of Corcoran.
10. Trail improvement costs came from Hennepin County Ped and Bike Coordinator and the City fo Corcoran

Grand Total Park + Trail Facility Costs through 2040	
System Item	Cost
2040 Park Development Costs	\$16,881,314
2040 Trail Development Costs	\$46,715,901
<b>Grand Total Costs</b>	<b>\$63,597,215</b>

Trails	
Inside MUSA	Qty
Off Road Trail (LF)	144,800
<b>Outside MUSA</b>	
Off Road Trail (LF)	122,109



From Site to Finish

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**TO:** Corcoran Planning Commission

**FROM:** Kevin Shay through Kendra Lindahl, Landform

**DATE:** May 27, 2020 for the June 4, 2020 Planning Commission Meeting

**RE:** **Public Hearing.** Preliminary Plat for Kariniemi Addition (PID 33-119-23-22-0004 and 33-119-23-21-0001) (city file no 20-016)

**120-Day Review Deadline:** September 10, 2020

## 1. Application Request

Nate Kariniemi has submitted a request for a Preliminary Plat to create four lots from two existing lots. The proposal is to replat the parcel at 6780 Rolling Hills Road and 6855 Willow Drive.

## 2. Context

### *Level of City Discretion in Decision-Making*

The City's discretion in approving or denying a preliminary plat is limited to whether or not the proposed plat meets the standards outlined in the Comprehensive Land Use Regulations. If it meets these standards, the City must approve the preliminary plat.

### *Zoning and Land Use*

The subject property is guided Rural / Ag Residential in the 2040 Future Land Use Plan and zoned Rural Residential. The properties to the south, west, east and north are guided Rural / Ag Residential and zoned Rural Residential.

### *Natural Characteristics of the Site*

There are various medium quality wetlands shown in the 2040 Comprehensive Plan. A wetland Delineation has been approved by the Elm Creek Watershed Management Commission for Lots 1, 2 and 3.

### *Background*

On October 24, 2019, the City Council approved a final plat for Rolling Hills Acres, which subdivided the existing 40.8-acre parcel into 4 single family lots. Lot 3, Block 1 (6780 Rolling Hills Road) was purchased by the applicant is and now proposed to be combined with the property to the east and replatted.





### 3. Analysis of Request

#### *Preliminary Plat*

The applicant is proposing a preliminary plat that will combine the 12.8-acre Lot 3, Block 1, Rolling Hills Acres and the 40-acre parcel to the east to create four parcels.

Lot 3, Block 1, Rolling Hills acres has one development right for construction of a single home on the property. The property to the east has four development rights (one for the existing home and three remaining). The applicant is proposing to create four lots and assign one development right each to the proposed Lots 1-3 and assign two to Lot 4 (one for the existing home and one for possible use in a future subdivision).

#### *Access/Streets*

The existing home at 6855 Willow Drive has an existing driveway out to Willow Drive. It is staff's understanding that there is an existing private driveway easement, but we have included a condition requiring a copy of this easement to the City to ensure access will remain for the existing home. Because this is an existing condition and the boundaries of Lot 4 are not changing, staff does not believe a variance is required. However, if Lot 4 is subdivided in the future to use the remaining development right, both of the lots will need to show compliance with the frontage requirements in the City or request a variance.

The three western lots are proposed to have access off a private drive that connects to Rolling Hills Road. A private drive is allowed in the Rural Residential District only if the Council finds the following conditions are met:

- That a public street connection is not required for the street network.
- That the private drive meets the design standards adopted in the Subdivision Ordinance.
- That the access for each lot in the subdivision is from the private drive and the private drive is not included in the parcel size calculation.
- That an easement and maintenance agreement are established for all private drives.
- That an HOA (homeowners association) is established to ensure that the private drive remains "private".

As part of this application an access easement is being dedicated over the private drive. The city engineer has reviewed the private drive for compliance with the design standards and the memo has been included as a condition of approval.

As part of the final plat a recordable easement document, maintenance agreement and HOA document must be submitted to ensure the private drive is properly maintained in perpetuity. The private drive agreements must include plans for snow storage to ensure it does not impact adjacent properties. All four of the proposed lots must be party to the private drive easement, maintenance agreement and HOA. If all of the conditions in the draft resolution are met, the Code requirements will be met for a private drive.



The private drive is shown extending to Lot 4 to provide future access to the lot. Lot 4 has one development right remaining. Although subdivision of Lot 4 is not proposed at this time, the applicant must provide enough information to show how access could be provided. There are several items that will need to be addressed to allow for the development right to be utilized. The private drive crosses wetland, floodplain and a trail easement. Extension of the private drive in the future will require approval from Federal Emergency Management Agency (FEMA) for the floodplain fill and approval from the City as the LGU for the Wetland Conservation Act for the wetland fill prior to any development approval for subdivision of Lot 4. There is no guarantee that these approvals will be granted. Any future subdivision of Lot 4 will require the developer to show that access to each of the new lots can be provided in compliance with ordinance requirements.

### *Lot Standards*

The applicant is proposing to create four lots. The proposed lots on the preliminary plat exceed the minimum lot size and depth standards in the zoning ordinance for the RR district. For purpose of complying with the minimum lot width requirements, the front of the lot shall be the lot line adjacent to the private drive. The proposed lots meet the lot width requirement at the private drive.

Lot 4 will continue to use the existing private driveway, but it should be noted that future subdivision will require 200 feet of lot frontage along the private drive, public street or a variance from these standards. A ghost plat must be provided which shows how the private drive could provide access to Lot 4.

### *Wetlands*

A wetland delineation report was submitted for proposed Lots 1, 2 and 3 that was approved by the Elm Creek Watershed Management Commission. Prior to submittal of a final plat application, the applicant must obtain approval of a wetland delineation for Lot 4.

Section 1050.010 of the Zoning Ordinance provides standards for wetlands. The wetland on-site is defined as a medium quality wetland on site, which requires a 25-foot average wetland buffer and a 15-foot buffer setback. The Rolling Hills Acres plat met these requirements but this plat must show these buffers, setbacks and signs for all four lots.

Wetland buffer monuments must be installed for all four lots prior to issuance of a building permit. Where the City and ECWMC differ in standards, the applicant shall comply with the more restrictive standard.

### *Landscaping*

Each single-family residential lot is required to have one tree. A landscaping plan has been provided showing the required trees which will be installed at construction.



### *Utilities*

This site is located outside of the MUSA boundary and will be served by individual water wells and septic sites. The proposed septic locations comply with the city wetland setback standards. Septic locations need to be approved by the Hennepin County Public Health Department prior to submittal of the final plat application.

### *Parks and Trails*

There is an existing trail easement on the east property line of the proposed Lot 3, which must be maintained as part of this plat and recorded in the HOA documents.

### *Park Dedication Requirements*

Under the current ordinance, park dedication is only taken for newly created lots. The existing Lot 3, Block 1 of the Rolling Hills Acres final plat previously paid park dedication and Lot 4 of the Kariniemi Addition is an existing developed lot and is exempt from park dedication. Therefore, park dedication is due for the two newly created lots with this plat.

There is no park land planned on this site, therefore, staff recommends cash-in-lieu of land for this site. For residential developments, the cash in lieu of land fee has been calculated based on the per capita share of park system costs at \$3,970 per single family unit (2 x \$3,970 = \$7,940).

Park dedication is due prior to release of the final plat for recording. The fee will be based on the fee schedule in place when the final plat is submitted.

### Conclusion

Staff has reviewed the plan for consistency with the applicable standards in the Zoning Ordinance and Subdivision Ordinance.

## **4. Recommendation**

Move to recommend approval of the resolution approving the preliminary plat, subject to the attached conditions.

### **Attachments**

- a. Draft Resolution approving the preliminary plat
- b. Location Map
- c. Engineer's Memo dated May 27, 2020
- d. Public Safety memo dated May 7, 2020
- e. Letter from Andrew and Lisa Wyffels dated May 18, 2020
- f. Preliminary Plat dated April 21, 2020
- g. Engineering Plans dated April 21, 2020



**RESOLUTION NO. 2020-xx**

**Motion By:**  
**Seconded By:**

**APPROVING PRELIMINARY PLAT FOR KARINIEMI ADDITION FOR NATE KARINIEMI ON THE 52.8-ACRE SITE AT 6780 ROLLING HILLS ROAD AND 6855 WILLOW DRIVE (PID 33-119-23-22-0004 AND 33-119-23-21-0001) (CITY FILE 20-016)**

WHEREAS, Nate Kariniemi (“the applicant”) has requested approval of a preliminary plat to create 2 lots from an existing 12.8-acre parcel and plat an existing 40-acre parcel legally described as:

Parcel 1:

Lot 3, Block 1, ROLLING HILLS ACRES, Hennepin County, Minnesota, according to the recorded plat thereof.

Parcel 2:

The Northeast Quarter of the Northwest Quarter of Section 35, Township 119, Range 23, Hennepin County, Minnesota.

WHEREAS, the Planning Commission has reviewed the plan at a duly called Public Hearing and recommends approval, and;

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF CORCORAN, MINNESOTA, that it should and hereby does approve the request for a preliminary plat, subject to the following conditions:

1. A preliminary plat is approved to allow the creation of four lots, in accordance with the application materials and plans received by the City on April 28, 2020 and revisions received May 11, 2020, except as amended by this resolution.
2. The applicant shall comply with all conditions in the City Engineer’s memo dated May 28, 2020.
3. A wetland delineation for Lot 4 must be submitted to the LGU and approved prior to submittal of a final plat application.
4. Septic locations must be approved by the Hennepin County Public Health Department prior to submittal of a final plat application.
5. The applicant must comply with all wetland buffer requirements for all four lots:
  - a. Plans must be revised to show the required wetland buffer, wetland buffer setback and wetland buffer signs for Lot 4 after approval of the wetland delineation.
  - b. A Wetland buffer planting plan and maintenance plan must be submitted for review and approval. The HOA shall be responsible for maintenance of the wetland buffers in accordance with these plans.

**RESOLUTION NO. 2020-xx**

- c. Wetland buffer monuments shall be installed on all four lots prior to issuance of building permit.
  - d. The developer must install the wetland buffer plantings prior to issuance of certificate of occupancy for any of the lots.
6. Drainage and utility easements must be provided over all wetlands, wetland buffers and ponds.
7. The existing trail easement on east property line of proposed Lot 3 must be maintained as part of the plat.
8. Lot 4 has one existing home and one development right remaining. Lots 1-3 have no development rights remaining.
9. The applicant must provide a ghost plat showing how Lot 4 could be subdivided.
10. The ghost plat must show how access could be provided to the new lot either over the private drive extension (with 200 feet of frontage) or an alternative route.
11. The applicant must provide a copy of the existing driveway easement for the proposed Lot 4
12. The developer is required to create a Homeowners Association (HOA) for maintenance of the private drive. The applicant shall provide copies of the final HOA documents/covenants for City review as part of the final plat application.
  - a. The HOA documents shall ensure that the private drive remain "private" in perpetuity
  - b. The HOA documents shall require mandatory participation of all homeowners that have access via the private drive and shall include the requirement for creation of a fund to address maintenance, drainage and snow removal on the private drive.
  - c. HOA shall be responsible for the wetland buffer maintenance.
  - d. The existing trail easement shall be included and recorded in the HOA documents.
13. The applicant shall provide a recordable access easement for the private drive as part of the final plat.
14. The applicant shall apply for an easement vacation for Rolling Hill Acres Lot 3 with the final plat application.
15. The applicant shall provide a maintenance agreement for the private drive as part of the final plat application, subject to the review of the City Attorney.
16. Park dedication shall be cash in lieu of land in accordance with the park dedication policy in place when the final plat is released for recording.
  - a. Park dedication is due for the two new lots.

**RESOLUTION NO. 2020-xx**

17. Approval shall expire within one year of the date of approval unless the applicant has filed a complete application for approval of a final plat.

**VOTING AYE**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

**VOTING NAY**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

Whereupon, said Resolution is hereby declared adopted on this xx day of June 2020.

\_\_\_\_\_  
Ron Thomas - Mayor

ATTEST:

\_\_\_\_\_  
Jessica Beise – Administrative Services Director

*City Seal*



# Hennepin County Property Map

Date: 5/28/2020



Division in Process

The displayed parcel boundary may not be the actual boundary because this property is in the process of being divided or replatted.

PID: 3311923220004

ADDRESS: 6780 Rolling Hills Rd, Corcoran MN 00000

## Comments:

This data (i) is furnished 'AS IS' with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this data.

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# Technical Memo



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## ENGINEER'S MEMO

**To:** Kendra Lindahl, AICP, City Planner

**From:** Kent Torve, P.E., City Engineer

**Date:** May 28, 2020

**Subject:** Kariniemi Addition

Plans dated 4-21-2020 show Nate Kariniemi is proposing to create 4 rural residential lots on Rolling Hills Road. Lots 1, 2 and 3 were previously platted as Lot 3 of Rolling Hills Acres and Lot 4 has an existing home.

### 1. General

- ▲ Provide documentation from Elm Creek WMO that permit was received and comments addressed.
- ▲ Individual lot grading plans showing building constraints are required prior to final plat. This will simplify the building permit process for the future owner.
- ▲ Septic is approved by Hennepin County.
- ▲ Individual lot grading plans will be provided prior to final plat approval. These will be consistent with overall plans but provide document to be followed for the building permit process.
- ▲ Watershed permit required.
- ▲ Road will be required to pass a roll test as observed by City Engineer

### 2. Private Street ROW and Entrance

- ▲ 60-foot ROW is required
- ▲ Pave first 75 feet of access from Rolling Hills ROW per City requirement.

### 3. Drainage

- ▲ Offsite drainage areas and calculations are required. Design appears to allow flow over private road from the north. Entrance culvert calculations required.
- ▲ All drainage swales require profiles on plans for additional review.
- ▲ North side of private road requires a swale to manage drainage. Drainage to east down steep slope requires erosion prevention.

- ▲ Dry pond may need to be modified to filtration basin with forebay for WMO water quality requirements.
- ▲ OCS may be required and EOF shall be 1 foot above HWL.
- ▲ Basin discharge shall to be directly east on Lot 3 (prohibited from discharging across property line to south). Additional pipe may be necessary.

#### **4. Lot 4**

- ▲ Access to Lot 4 does not appear feasible from the private road due to floodplain and wetlands. Trail crossing required to be addressed also.
- ▲ Lot 4 requires a wetland delineation and easements over wetlands and floodplain.
- ▲ Driveway spot elevation shows 998, should be corrected.
- ▲ Future Subdivision of Lot 4

The following comments were identified by staff if Lot 4 will be further subdivided in The future.

- Extend the private drive 200 feet into future lot with turnaround
- Complete hydrologic modeling to determine actual floodplain elevation
- Mitigate any floodplain or wetland impacts
- Add additional stormwater treatment consistent with current ECWMC permit requirements
- Implement a future trail crossing as approved by City

#### **5. Grading**

- ▲ Offsite grading is shown, provide easement from adjacent landowner.
- ▲ North edge of Lot 4 may need erosion stabilization for steep slope.



## CITY OF CORCORAN

8200 County Road 116, Corcoran, MN 55340

763.420.2288

E-mail - [general@ci.corcoran.mn.us](mailto:general@ci.corcoran.mn.us) / Web Site - [www.ci.corcoran.mn.us](http://www.ci.corcoran.mn.us)

# Memo

**To:** Planning (Planner Lindahl)  
**From:** Director Gottschalk  
**Date:** May 7, 2020  
**Re:** Kariniemi Plan Review

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A Public Safety plan review meeting was held on 05/06/2020. In attendance were: Director of Public Safety Gottschalk, Lieutenant Ryan Burns, Fire Chief Feist, Fire Chief Dave Malewicki, Fire Chief Leuer, Building Inspector Todd Geske, and Code Compliance Official Pritchard. The following are comments from the meeting:

1. The private driveway, since it is serving three properties, will need to meet fire apparatus road specifications and be subject to the associated maintenance and parking restrictions.

This memo serves as a preliminary review and assumes that all specifications not articulated in the concept meet City standards. Additional fire and building codes will apply.

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18th May 2020

City of Corcoran  
8200 County Rd 116,  
Corcoran, MN 55340

To whom it may concern,

It has recently come to the attention of my wife and I that the owners of Lot 3, Block 1, Rolling Hills Acres are inquiring about splitting the parcel from a single lot into three individual lots. My wife and I own Lot 2, Block 1, Rolling Hills Acres and are writing the city this letter to express our concerns about a subdivision being put in next to our lot.

The original parcel was split into two 10 acre lots (lots 1 and 2), a 6.8 acre lot with existing homestead (lot 4), and an additional 12.8 acres (lot 3). At the time of this split, each lot was given a single building entitlement. One of the main reasons my wife and I purchased our lot in November of 2019 was with the belief that all four lots would remain intact and only retain the rights for one building entitlement per lot. By splitting lot 3 we would no longer have the type of property we purchased. Aside from the aesthetic impact to our land, we also have concerns about the impact this would have on water drainage.

First, both lot 1 and 2 depend on the drain tile that runs under lot 3 for proper drainage. If this is disrupted it could lead to additional standing water on lots 1 and 2. It was originally not an issue as the potential for impact was minimal and addressed in the original split. But if there were three houses in that area, there is a higher potential for disruption.

Secondly, the plat design has a shared driveway as tight as possible to the northern property line of lot 3. While it looks like the driveway is within the easement requirements, the plat is not addressing some critical items. With the edge of the private driveway being only 15 feet from our property line, it is not showing any ditching. I would expect some sort of ditch to address runoff and drainage from the private drive and I would expect the edge of the ditch to not enter the 15 foot restriction. Additionally, the design does not show that the owners are ensuring that snow drift and snow removal is not intruding onto lot 2. If snow removal pushes or blows the snow to the north, this will cause additional snow drifting onto lot 2. Not only could this cause complications in the winter and additional kill-off of crops in lot 2 in the spring, but now there



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will be additional water run off in the spring. This could easily lead to flooding on our property.

Third, at the middle point of lots 2 and 3, there is significant water drainage. Before, this was not an issue, as the expectation was that the driveway for lot 3 would be towards the middle of the property, or the single building entitlement to be built at the front of the property. With the proposal of a shared driveway running to the extreme north of lot 3, this could likely create a water dam causing water to back up on our property. It is obvious to see how the water flows when standing at the property looking east. (See image at the end of the letter.) If a raised drive is put 15 feet from my property line, it is very likely that it will act as a dam pushing flowing water back onto our property. Even with proper culverts it could still create temporary water restrictions saturating the ground on lot 2. With the soil in this area consisting of heavy clay, proper water drainage is a must to avoid standing water. We plan to plant various crops, fruits, and vegetables near the south line of lot 2 and do not want drainage problems created by the driveway that will compromise those.

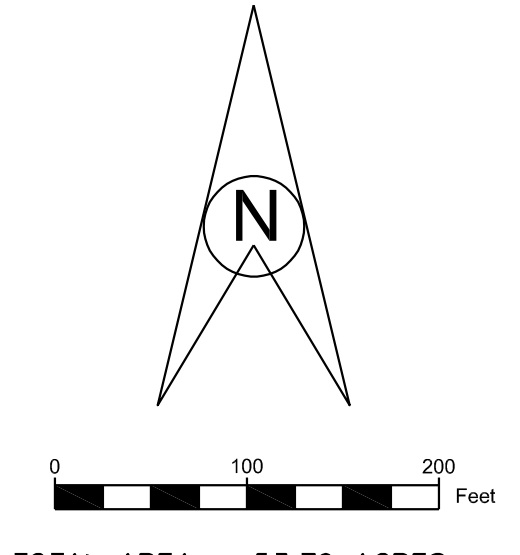
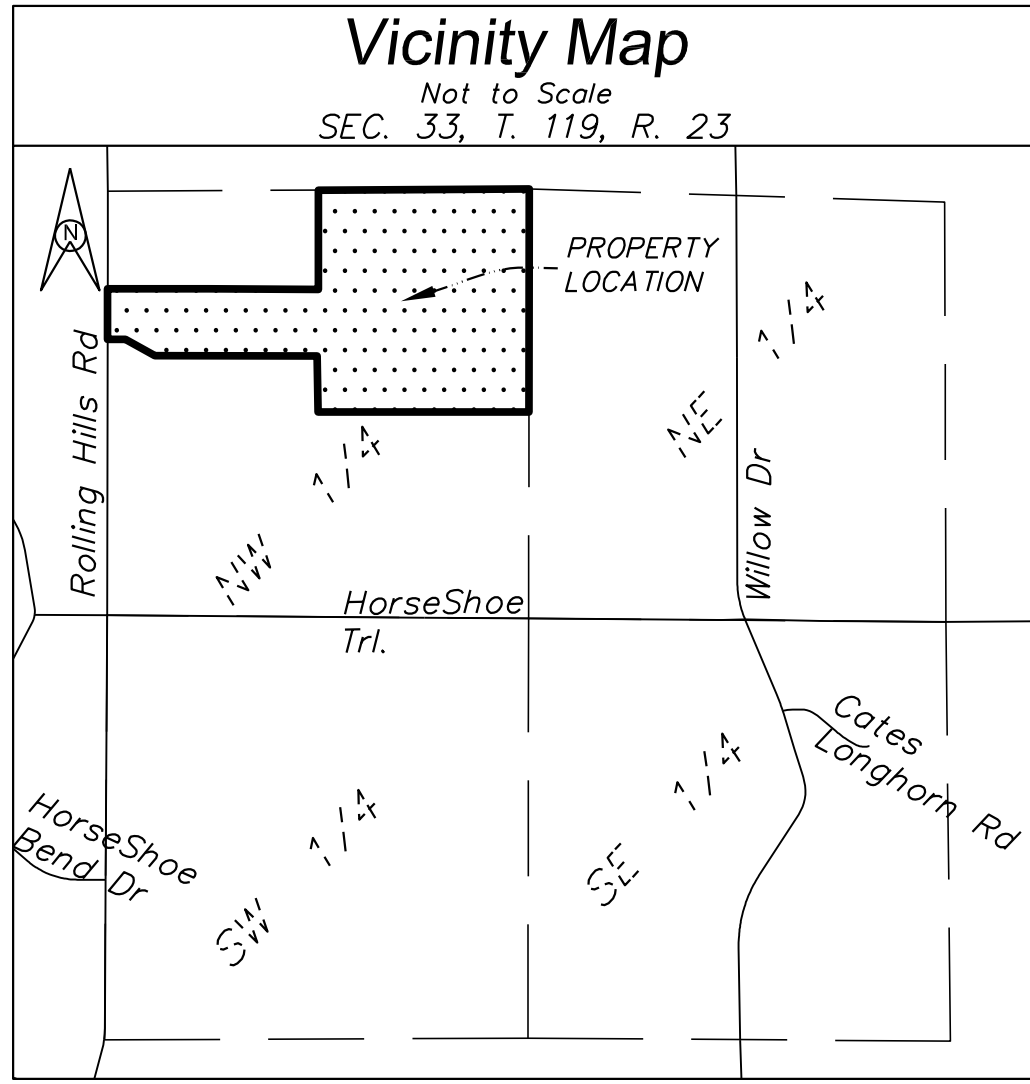
My wife and I have been living in Corcoran for the past 8 years and plan to continue to live here for many more years to come. Being part of the community and having the quality of life we set out to obtain when purchasing this land are important to us. Most new lots along Rolling Hills Road are 7+ acres with single homesteads. Splitting up a 12.8 acre lot into three parts with a shared driveway to make a subdivision just does not fit with the look and feel of the Rolling Hills community. We would like the city to consider the local landscape and whether this makes sense for the local community to split the land in this way. We hope you will take all of this into consideration when reviewing this land use application.

Thank you,

Andrew & Lisa Wyffels



# Preliminary Plat of KARINIEMI ADDITION

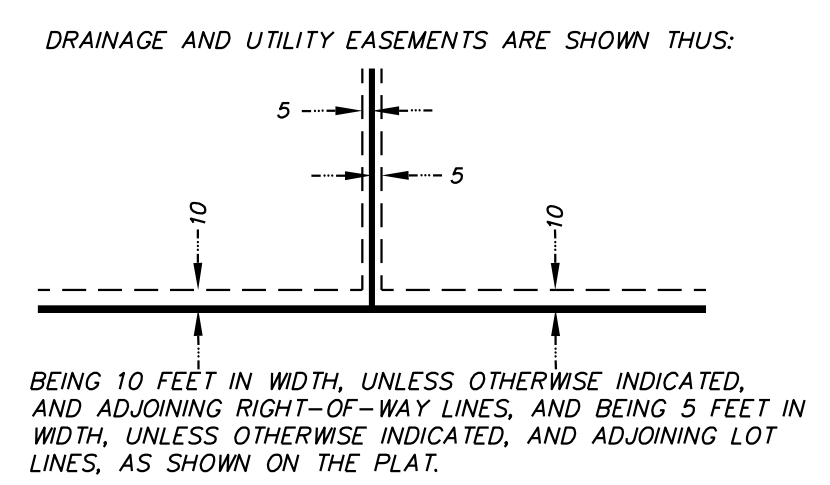


TOTAL AREA = 53.79 ACRES  
ADDITIONAL WETLAND BUFFER AREA = 46,970 SF

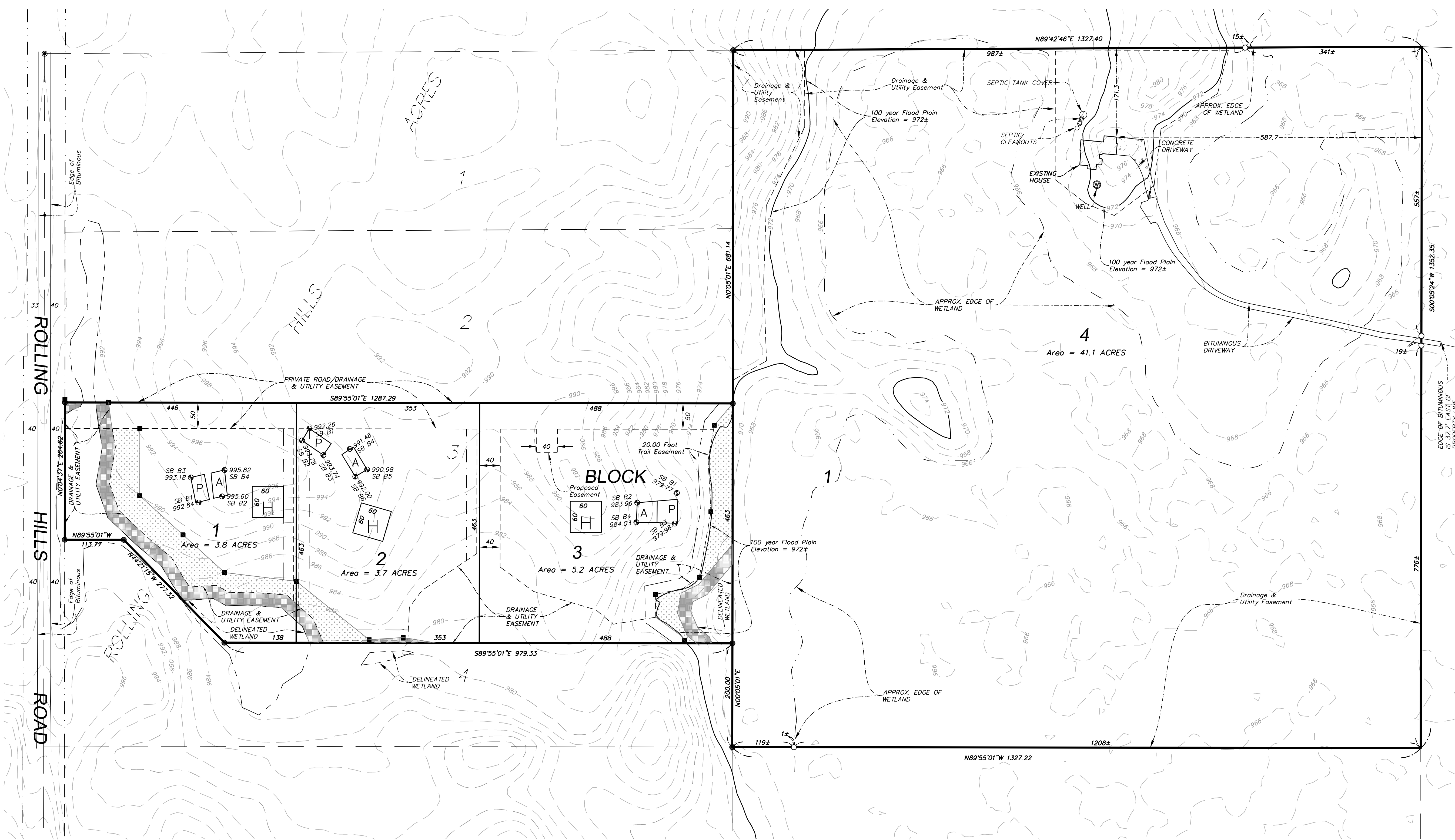
- NOTES:
- SEPTIC AREAS BY OTHERS
  - WETLANDS DELINEATED BY KJOHLIUG ENVIRONMENTAL SERVICES

- LEGEND**
- 988 — denotes Existing Contour
  - ⊙ denotes Well
  - SB B2 denotes Soil Boring
  - denotes 25' Wetland Buffer
  - ▨ denotes Additional Wetland Buffer
  - denotes Proposed Wetland Buffer Sign Location
  - - - denotes Wetland Edge
  - - - denotes Building Setback Line  
Front = 50'  
Side = 25'  
Rear = 25'  
Wetland = 40'

- P denotes Possible Primary Septic Area
- A denotes Possible Alternate Septic Area
- H denotes Possible House Pad Location



**PROPERTY DESCRIPTION:**  
Lot 3, Block 1, ROLLING HILLS ACRES, Hennepin County, Minnesota, according to the recorded plat thereof.  
AND  
The Northeast Quarter of the Northwest Quarter of Section 35, Township 119, Range 23, Hennepin County, Minnesota.



Requested By: **Nate Kariniemi** Checked By: **P.E.O.**

Date: **4-21-20** Drawn By: **E.M.S.** Scale: **1"=100'**

Revised: \_\_\_\_\_

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

Paul E. Otto  
License #40062 Date: 4-21-20

www.ottoassociates.com  
9 West Division Street  
Burling, MN 55313  
(763) 662-4727  
Fax: (763) 662-3522

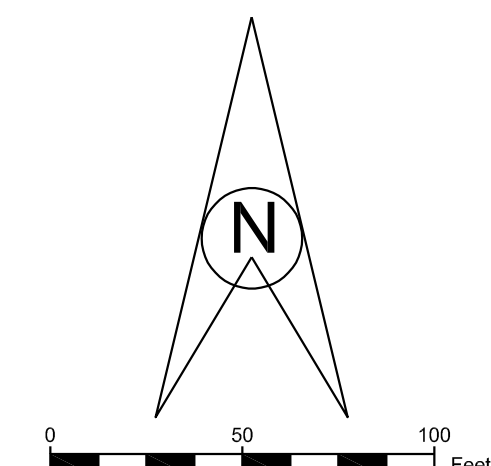
**OTTO ASSOCIATES**  
Engineers & Land Surveyors, Inc.

Project No. **19-0540**

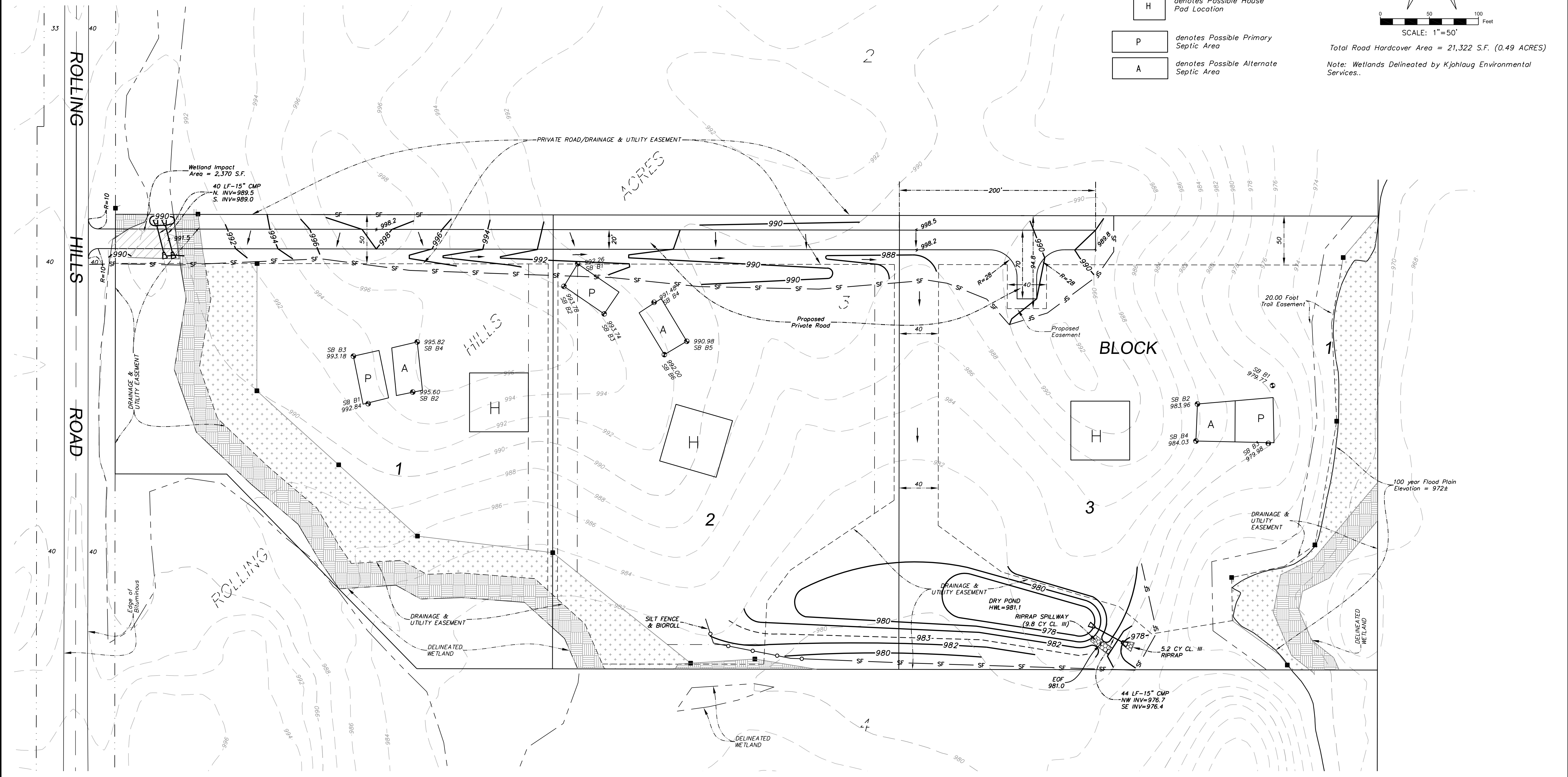
denotes iron monument found  
denotes 1/2 inch by 1/4 inch iron pipe set and marked by License #40062

SHEET 1 OF 5 SHEETS

- LEGEND**
- 988 — denotes Existing Contour
  - 988.00 X denotes Existing Spot Elevation
  - 1010 — denotes Proposed Contour
  - 1017.5 X denotes Proposed Spot Elevation
  - denotes Proposed Drainage
  - denotes Wetland Buffer Sign
- 
- H denotes Possible House Pad Location
  - P denotes Possible Primary Septic Area
  - A denotes Possible Alternate Septic Area



SCALE: 1"=50'  
 Total Road Hardcover Area = 21,322 S.F. (0.49 ACRES)  
 Note: Wetlands Delineated by Kjøhlaug Environmental Services..



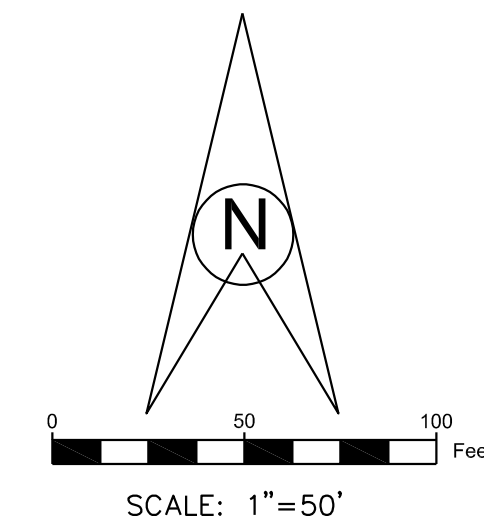
REV. NO.	DATE	BY	DESCRIPTION

DESIGNED DRAWN  
 P.E.O. T.J.B.  
 CHECKED  
 P.E.O.  
 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.  
 Paul E. Otto  
 License # 40062 Date: 4-21-20

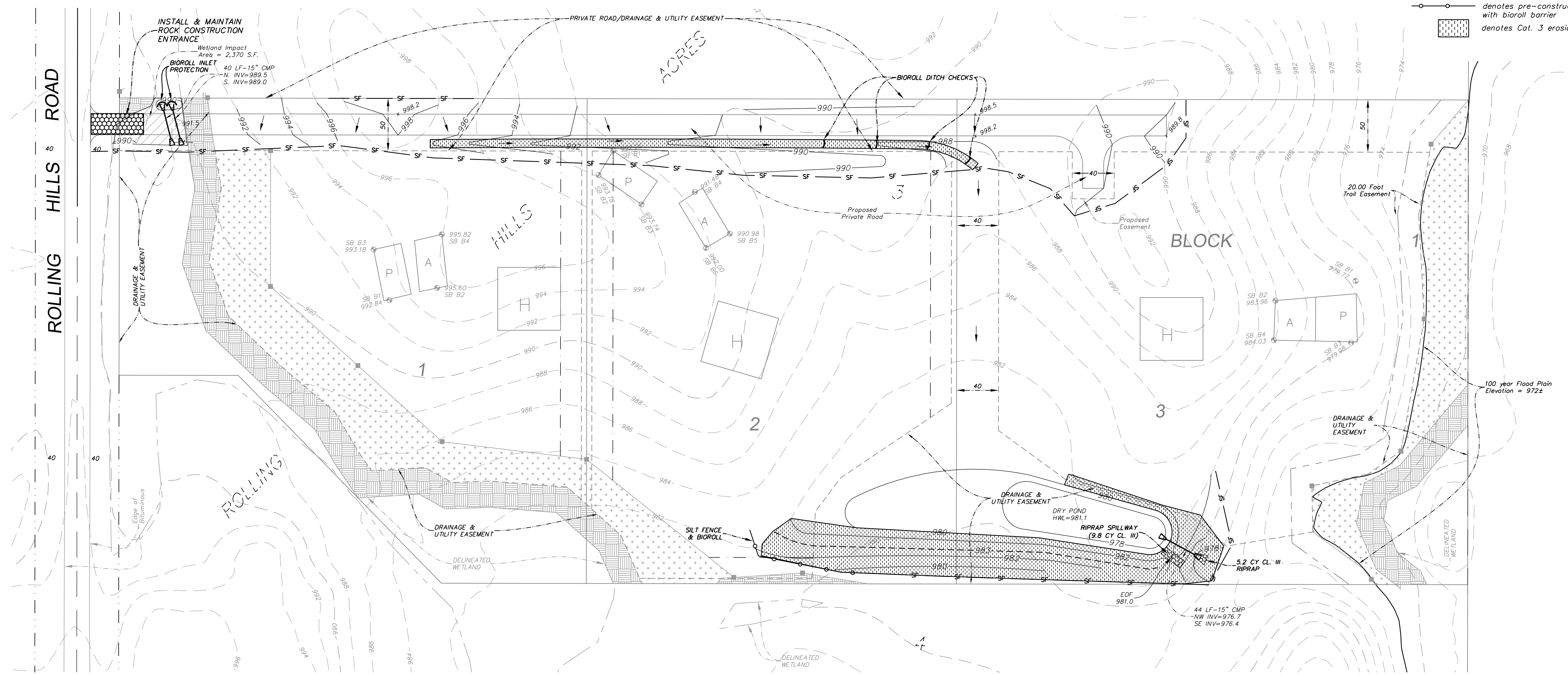
**OTTO ASSOCIATES**  
 Engineers & Land Surveyors, Inc.  
 www.ottoassociates.com  
 9 West Division Street  
 Buffalo, MN 55313  
 (763)682-4727  
 Fax: (763)682-3522

**KARINIEMI ADDITION**  
 NATE KARINIEMI  
 HAMEL, MN

**PRELIMINARY GRADING PLAN**  
 SHEET NO. 2 OF 5 SHEETS  
 PROJECT NO: 19-0540  
 DATE: 4-21-20



- LEGEND**
- SF — denotes pre-construction silt fence
  - ○ denotes pre-construction silt fence with bioroll barrier
  - ▨ denotes Cat. 3 erosion control blanket



REV. NO.	DATE	BY	DESCRIPTION

DESIGNED DRAWN  
P.E.O. T.J.B.

CHECKED  
P.E.O.

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.

*Paul E. Otto*  
Paul E. Otto  
License # 40062 Date: 4-21-20

**OTTO ASSOCIATES**  
Engineers & Land Surveyors, Inc.

www.ottoassociates.com  
9 West Division Street  
Buffalo, MN 55313  
(763)682-4727  
Fax: (763)682-3522

**KARINIEMI ADDITION**  
NATE KARINIEMI  
HAMEL, MN

PRELIMINARY STORMWATER  
POLLUTION PREVENTION PLAN

SHEET NO. 3 OF 5 SHEETS

PROJECT NO:  
19-0540

DATE: 4-21-20

**GENERAL PROJECT INFORMATION**

PROJECT LOCATION AND NARRATIVE:

THIS PROJECT CONSISTS OF A 4 LOT SUBDIVISION IN HAMEL, MN. THE SITE IS LOCATED NEAR LONGITUDE -93.6020, LATITUDE 45.0780. THE SITE IS ACCESSED FROM HART AVENUE NW.

CONSTRUCTION ACTIVITIES INCLUDE GRADING, ROAD CONSTRUCTION, AND DRY POND CONSTRUCTION.

CONSTRUCTION IS PLANNED TO BEGIN \_\_\_\_\_ OF \_\_\_\_\_ AND END \_\_\_\_\_ OF \_\_\_\_\_.

RESPONSIBLE PARTIES:

CONTRACTOR MUST BE TRAINED FOR BOTH CONSTRUCTION INSTALLER AND SITE MANAGEMENT PER REQUIREMENTS OF THE PERMIT, PART III.F.

OWNER	CONTACT PERSON	PHONE
-------	----------------	-------

OTTO ASSOCIATES, INC.	PAUL E. OTTO	763-682-4727
-----------------------	--------------	--------------

PLAN PREPARER	CONTACT PERSON	PHONE
---------------	----------------	-------

TRAINING: 11/29/2018 (EXPIRES 2022) U OF MN CERTIFICATION - DESIGN OF CONSTRUCTION SWPPP

CONTRACTOR (RESPONSIBLE FOR INSTALLATION & INSPECTION)	CONTACT PERSON	PHONE
--	----------------	-------

PARTY RESPONSIBLE FOR LONG TERM O&M OF PERMANENT STORMWATER MANAGEMENT SYSTEM	CONTACT PERSON	PHONE
---	----------------	-------

PROJECT AREAS:

TOTAL PROJECT SIZE (DISTURBED AREA) = 2.6 ACRES

EXISTING AREA OF IMPERVIOUS SURFACE = 0.0 ACRES

POST-CONSTRUCTION AREA OF IMPERVIOUS SURFACE = 0.83 ACRES

TOTAL NEW IMPERVIOUS SURFACE AREA CREATED = 0.83 ACRES

RECEIVING WATERS:

SURFACE WATERS AND WETLANDS THAT WILL RECEIVE STORM WATER RUNOFF FROM THE SITE AND ARE WITHIN ONE (1) MILE OF THE SITE ARE INDICATED WITH DIRECTION ARROW ON THE SWPPP PLAN SHEET AND ARE LISTED BELOW:

NAME OF WATER BODY	IMPAIRED WATER
UNNAMED WETLAND COMPLEX	NO

THE OWNER SHALL SUBMIT A NOTICE OF TERMINATION (NOT) AFTER ONE OF THE FOLLOWING HAS BEEN COMPLETED, WHICHEVER OCCURS FIRST.

1. WITHIN 30 DAYS AFTER FINAL STABILIZATION (PERMIT SECTION 13) IS COMPLETE.
2. WITHIN 30 DAYS AFTER SELLING OR OTHERWISE LEGALLY TRANSFERRING THE ENTIRE SITE.
3. IF 90% (BY AREA) OF ALL ORIGINALLY PROPOSED CONSTRUCTION ACTIVITY HAS BEEN COMPLETED AND PERMANENT COVER HAS BEEN ESTABLISHED ON THOSE AREAS.

ALTERNATIVELY, THE OWNER MAY SUBMIT A PERMIT MODIFICATION FORM FOR EACH HOMEOWNER/HOMEOWNER AS LOTS ARE SOLD. THE NEW OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR AMENDING THE SWPPP AS NECESSARY TO SPECIFICALLY ADDRESS THEIR WORK AND SUBMIT A NOTICE OF TERMINATION (NOT) ACCORDING TO THE SAME REQUIREMENTS ABOVE.

**CONSTRUCTION ACTIVITY NOTES**

ALL CONSTRUCTION ACTIVITIES MUST MEET THE REQUIREMENTS OF THE MPCA'S NPDES GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY.

EROSION PREVENTION:

ALL EXPOSED SOIL AREAS (INCL. STOCKPILES) MUST BE STABILIZED. STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION BUT COMPLETED NO CASE LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

TEMPORARY TURF RESTORATION SHALL BE MNDOT SEED MIX 25-111 @ 100 LB/ACRE WITH MNDOT TYPE 1 MULCH @ 2 TONS/ACRE (DISC ANCHORED) AND 22-5-10 TYPE 3 FERTILIZER (350 LBS/ACRE). STABILIZATION MUST BE INITIATED IMMEDIATELY BUT IN NO CASE COMPLETED LATER THAN 14 DAYS AFTER THE ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

PERMANENT TURF RESTORATION SHALL BE MNDOT SEED MIX 25-131 @ 220 LB/ACRE WITH MNDOT TYPE 1 MULCH @ 2 TONS/ACRE (DISC ANCHORED).

THE FOLLOWING SHALL BE INSTALLED WITHIN 24 HOURS OF CONNECTION TO SURFACE WATER:

- 1) STABILIZATION OF THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE SWALES WITHIN 200' OF EDGE OF SITE OR CONNECTION TO SURFACE WATER

SEDIMENT CONTROL PRACTICES:

A 50 FOOT NATURAL BUFFER IS INFEASIBLE DUE TO PROVIDING PROPER DRAINAGE. REDUNDANT SEDIMENT CONTROLS WILL BE INSTALLED WITH THIS PERMIT (REFER TO PLAN FOR LOCATIONS & TYPES).

ENTERING/EXITING THE SITE SHALL OCCUR ONLY AT ROCK CONSTRUCTION ENTRANCES TO LIMIT TRACKING OF SEDIMENT ONTO STREETS.

SEDIMENT TRACKED ONTO STREETS DURING WORKING HOURS MUST BE RECLAIMED VIA SCRAPING AND SWEEPING AT END OF EACH WORKING DAY.

TEMPORARY SOIL STOCKPILES SHALL HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS INSTALLED AT THE BASE ON THE DOWNGRAIDENT PERIMETER. NO STOCKPILE MAY BE PLACED IN ANY NATURAL BUFFERS OR SURFACE WATER.

IF DEWATERING IS NECESSARY, DISCHARGE SHALL BE TO A TEMPORARY OR PERMANENT SEDIMENT BASIN. IF INFEASIBLE, CONTRACTOR MAY DEWATER TO SURFACE WATERS IF THEY VISUALLY CHECK TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED AND NUISANCE CONDITIONS WILL NOT RESULT. NO EROSION OR SCOUR AT THE DISCHARGE POINT SHALL OCCUR AND WETLAND INUNDATION SHALL BE CHECKED THAT IT DOESN'T CAUSE ADVERSE IMPACT TO THE WETLAND.

CONSTRUCTION SEQUENCING:

- 1) PRECONSTRUCTION MEETING.
- 2) INSTALL PERIMETER SILT FENCE & ROCK CONSTRUCTION ENTRANCE.
- 3) STRIP TOPSOIL & STOCKPILE.
- 4) ROUGH GRADE SITE.
- 5) INSTALL OUTLET CONTROL STRUCTURES.
- 6) TEMPORARY STABILIZE SITE AS INDICATED ON THE PLANS.
- 7) COMPLETE STREET CONSTRUCTION.
- 8) PRIVATE UTILITY INSTALLATION.
- 9) TOPSOIL RESPREAD.
- 10) RESTORE SITE WITH PERMANENT RESTORATION.
- 11) REMOVE SEDIMENT CONTROL DEVICES & SUBMIT NOTICE OF TERMINATION (NOT) TO MPCA ONCE ALL DISTURBED AREAS HAVE 70% VEGETATIVE DENSITY.

EROSION & SEDIMENT CONTROL BMP ESTIMATED QUANTITIES:

QUANTITIES LISTED ARE APPROXIMATE. REFER TO CONTRACT DOCUMENTS FOR EXACT QUANTITIES.

BMP	EST. QUANTITY
SILT FENCE	1,690 LF
SILT FENCE W/ BIOROLL	150 LF
ROCK CONST. ENTRANCE	1 EACH
MNDOT SEED MIX 21-111, TYPE 1 MULCH	2.1 AC
MNDOT SEED MIX 25-131, TYPE 1 MULCH	2.1 AC
MNDOT 3885 CAT 3 EROSION CONTROL BLANKET	2,530 SY
BIOROLL DITCH CHECKS	4 EACH
BIOROLL INLET PROTECTION	2 EACH
CL. III RIPRAP	15.0 CY

**CONSTRUCTION NOTES**

INSPECTIONS AND MAINTENANCE:

THE CONTRACTOR MUST HAVE A TRAINED PERSON TO ROUTINELY INSPECT THE CONSTRUCTION SITE ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS OF A RAINFALL EVENT GREATER THAN 0.5 INCHES IN A 24-HR PERIOD. INSPECTION LOGS SHALL INCLUDE ANY CORRECTIVE MEASURES TO BE TAKEN. CORRECTIVE MEASURES SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY UNLESS OTHERWISE SPECIFIED DUE TO FIELD CONDITIONS THAT PREVENT ACCESS TO THE AREA.

ALL INSPECTIONS MUST BE RECORDED AND RECORDS RETAINED WITH THE SWPPP ON SITE. THE SWPPP, ALONG WITH INSPECTIONS AND MAINTENANCE RECORDS, SHALL BE RETAINED FOR THREE YEARS AFTER SUBMITTAL OF THE NOTICE OF TERMINATION (NOT).

SILT FENCE MUST BE MAINTAINED WHEN ACCUMULATED SEDIMENT REACHES 1/2 OF THE DEVICE HEIGHT. INLET PROTECTION DEVICES SHALL BE CLEANED ON A ROUTINE BASIS SUCH THAT THE DEVICES ARE FULLY FUNCTIONAL FOR THE NEXT RAINSTORM EVENT. REMOVAL AND DISPOSAL OF THE SEDIMENT SHALL BE INCIDENTAL TO THE CONTRACT.

ROCK CONSTRUCTION ENTRANCE(S) SHALL BE CLEANED AND REFRESHED AS NECESSARY TO CONFORM TO DETAIL.

STREET SWEEPING SHALL BE USED IF VEHICLE TRACKING BMP'S ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING ONTO STREETS.

POLLUTION PREVENTION:

ALL SOLID WASTE GENERATED BY/COLLECTED FROM THE CONSTRUCTION SITE MUST BE DEPOSITED IN A DUMPSTER.

BUILDING PRODUCTS AND LANDSCAPE MATERIALS SHALL BE PLACED UNDER COVER (I.E. PLASTIC SHEETING OR TEMPORARY ROOFS). THIS ALSO APPLIES TO PESTICIDES, FERTILIZER AND TREATMENT CHEMICALS.

NO CONSTRUCTION MATERIAL SHALL BE BURIED OR BURNED ONSITE.

ALL HAZARDOUS MATERIALS (OIL, GASOLINE, FUEL, HYDRAULIC FLUIDS, PAINT, ETC) MUST BE PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045. CONTRACTOR SHALL ENSURE ADEQUATE SUPPLIES ARE AVAILABLE TO CLEAN UP DISCHARGED MATERIAL AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. CONTRACTOR MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY.

ALL VEHICLES LEFT ONSITE SHALL BE MONITORED FOR LEAKS TO REDUCE THE CHANCE OF CONTAMINATION.

EXTERNAL WASHING OF TRUCKS OR OTHER CONSTRUCTION VEHICLES, ENGINE DEGREASING, NOR CONCRETE WASHOUTS ARE ALLOWED ON SITE. TRUCKS ARE TO USE SELF-CONTAINED WASHOUT SYSTEM.

PORTABLE TOILETS SHALL BE SECURED FROM BEING TIPPED OR KNOCKED OVER.

THE CONTRACTOR SHALL MONITOR AND PROVIDE DUST CONTROL CORRECTION WHEN NEEDED. THIS WORK IS CONSIDERED INCIDENTAL TO THE CONTRACT.

ALL SPILLS SHALL BE CLEANED IMMEDIATELY UPON DISCOVERY. SPILLS LARGE ENOUGH TO REACH THE STORM CONVEYANCE SYSTEM SHALL BE REPORTED TO THE MPCA STATE DUTY OFFICER AT 1-800-422-0798.

FINAL STABILIZATION:

THE CONTRACTOR MUST ENSURE FINAL STABILIZATION OF THE SITE PRIOR TO SUBMITTING NOT.

SUFFICIENT TOPSOIL (4") SHALL BE PLACED ON DISTURBED AREAS FOR RE-VEGETATION. TOPSOIL SHALL BE PLACED IN A MANNER TO MINIMIZE COMPACTION (LOW GROUND PRESSURE DOZERS, TRACKED EQUIPMENT, ETC).

VEGETATIVE COVER MUST CONSIST OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70% OF ITS EXPECTED FINAL GROWTH.

PERMANENT STORMWATER TREATMENT SYSTEMS MUST BE CLEANED OF ANY ACCUMULATED SEDIMENT PRIOR TO SUBMITTING THE NOT.

ALL TEMPORARY EROSION CONTROL MEASURES AND BMP'S MUST BE REMOVED AS PART OF THE FINAL SITE STABILIZATION.

TRAINING REQUIREMENTS:

CONTRACTOR MUST BE TRAINED FOR BOTH CONSTRUCTION INSTALLER AND SITE MANAGEMENT PER REQUIREMENTS OF THE PERMIT, PART III.F. DOCUMENTATION SHALL BE ADDED TO THE SWPPP DOCUMENTS LOCATED ONSITE.

REV. NO.	DATE	BY	DESCRIPTION

DESIGNED DRAWN  
P.E.O. T.J.B.

CHECKED  
P.E.O.

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.

Paul E. Otto  
License # 40062 Date: 4-21-20



www.ottoassociates.com  
9 West Division Street  
Buffalo, MN 55313  
(763)682-4727  
Fax: (763)682-3522  
Engineers & Land Surveyors, Inc.

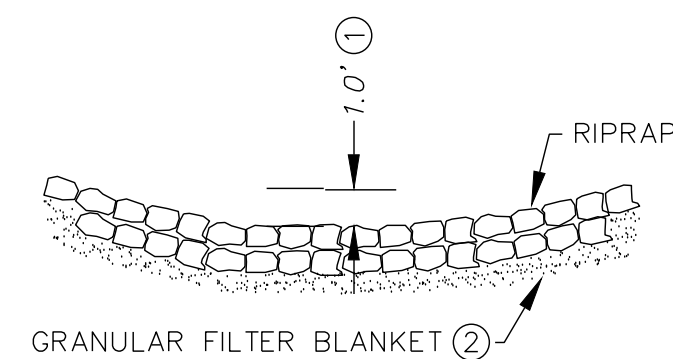
**KARINIEMI ADDITION**  
NATE KARINIEMI  
HAMEL, MN

PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN NARRATIVE

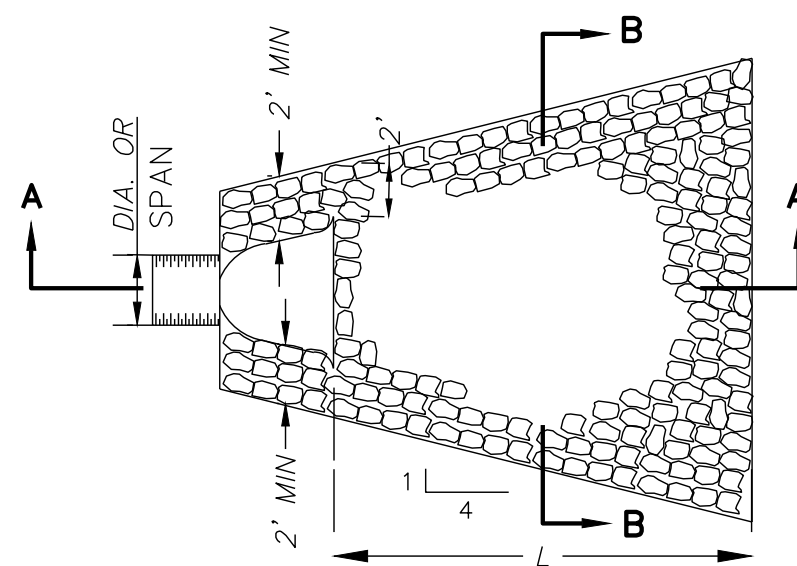
**SHEET NO. 4 OF 5 SHEETS**

PROJECT NO:  
**19-0540**

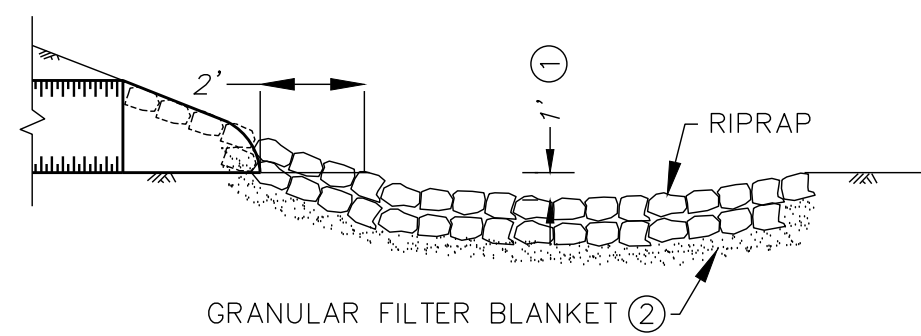
DATE: **4-21-20**



SECTION B-B



PLAN



SECTION A-A

RIPRAP AT CMP OUTLETS

TABLE OF QUANTITIES

RIPRAP AT CMP OUTLETS

DIA. OF ROUND PIPE (IN.)	L (FT.)	CLASS II d <sub>50</sub> = 6"		CLASS III d <sub>50</sub> = 9"		CLASS VI d <sub>50</sub> = 12"	
		12" DEPTH RIPRAP (CU. YD.)	6" DEPTH GRANULAR FILTER (CU. YD.)	18" DEPTH RIPRAP (CU. YD.)	9" DEPTH GRANULAR FILTER (CU. YD.)	24" DEPTH RIPRAP (CU. YD.)	12" DEPTH GRANULAR FILTER (CU. YD.)
12	8	3.2	1.6	4.7	2.4	6.3	3.2
15	8	3.5	1.8	5.2	2.6	6.9	3.5
18	10	4.7	2.4	7.0	3.5	9.4	4.7
21	10	5.5	2.8	8.2	4.1	10.9	5.5
24	12	6.5	3.3	9.8	4.9	13.0	6.5
30	14	8.6	4.3	12.8	6.4	17.1	8.6
36	16	10.9	5.5	16.3	8.2	21.8	10.9
42	18	13.5	6.8	20.3	10.2	27.0	13.5
48	20	16.0	8.0	24.0	12.0	32.0	16.0

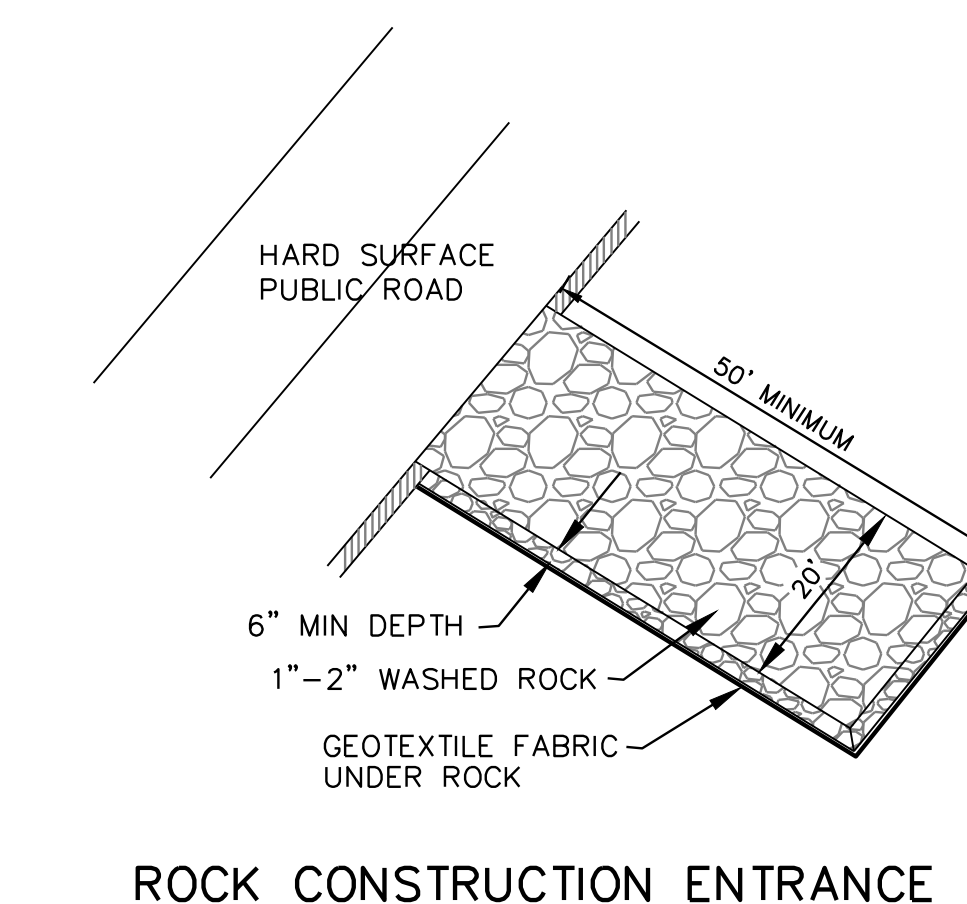
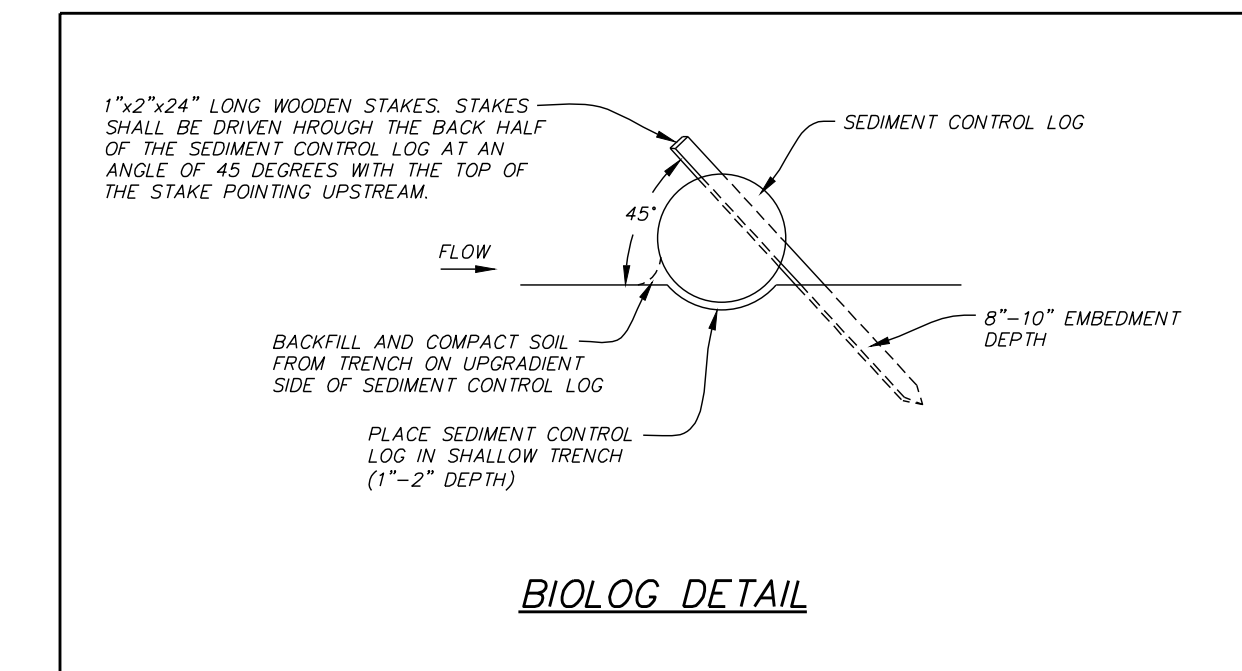
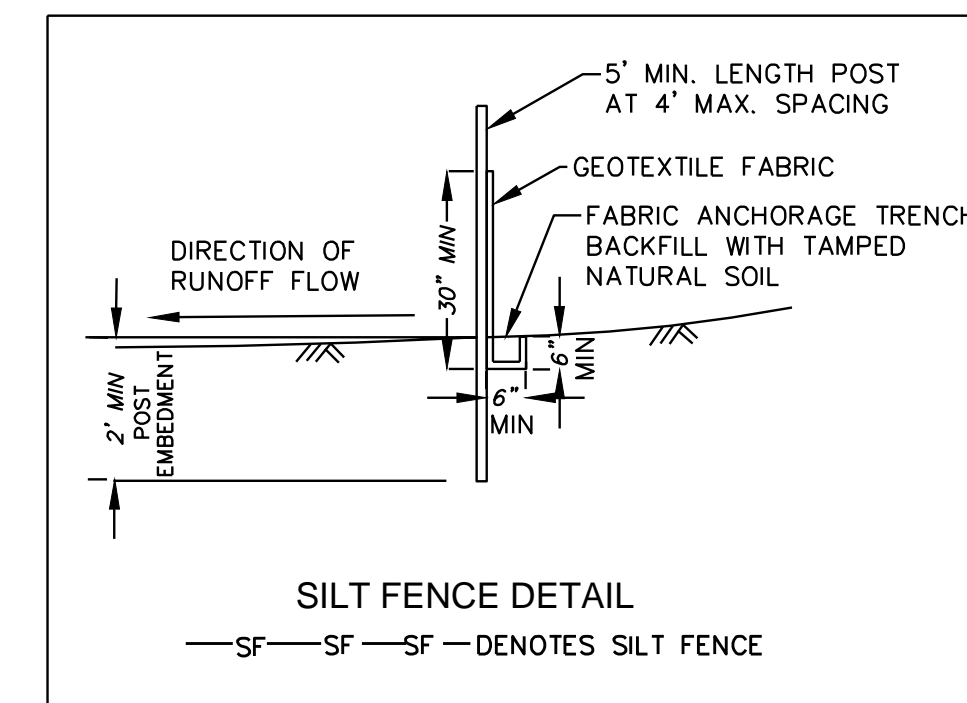
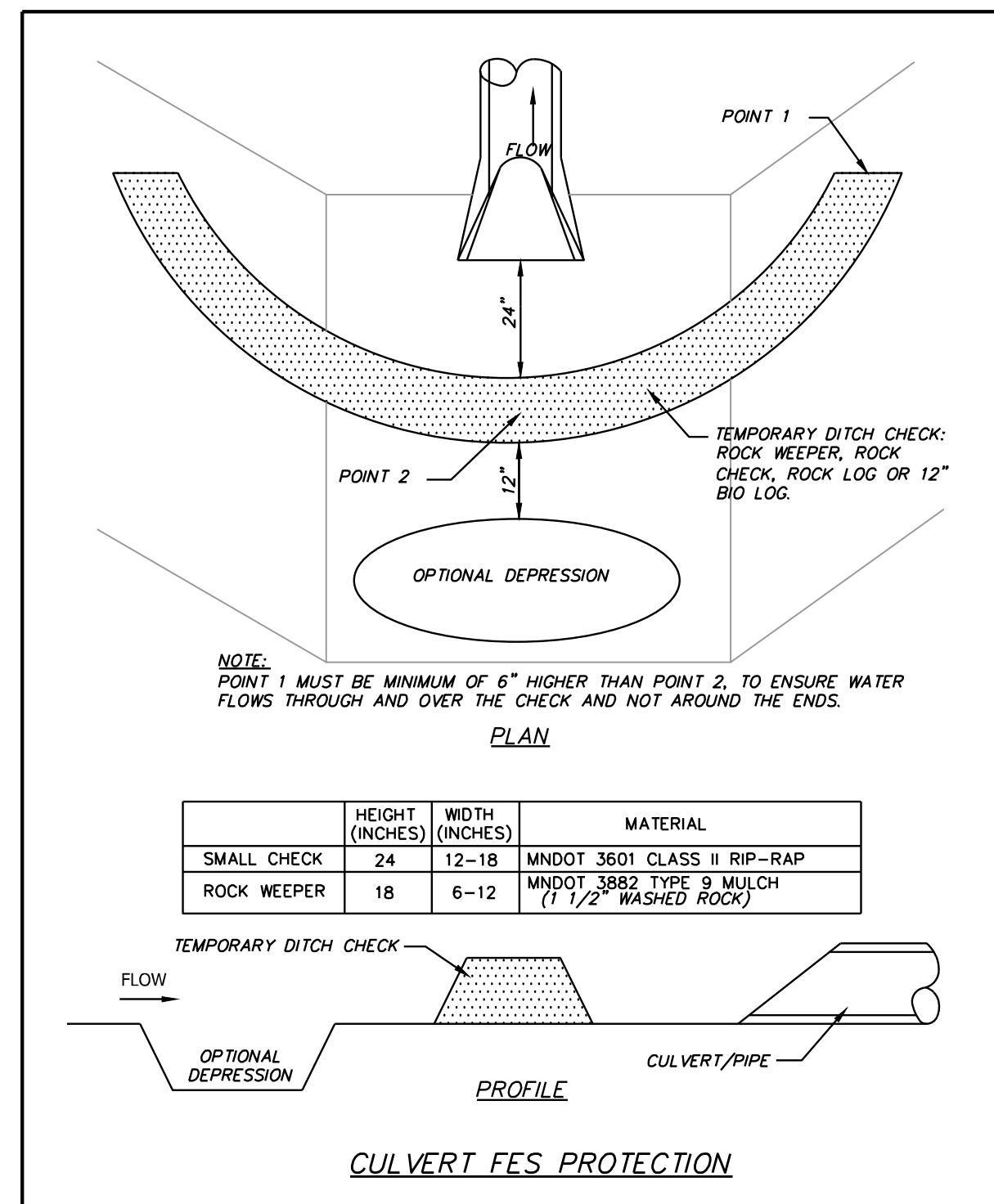
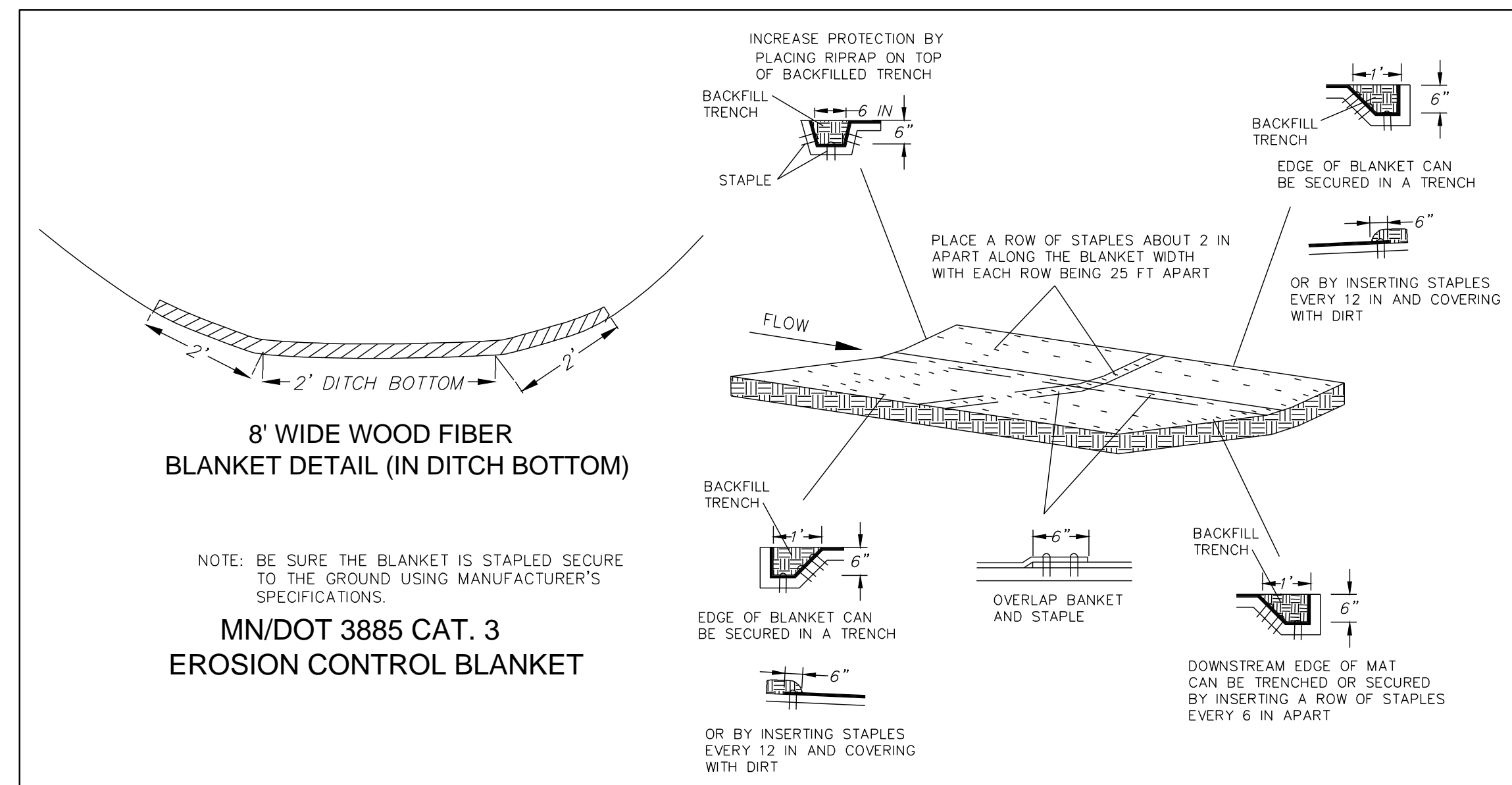
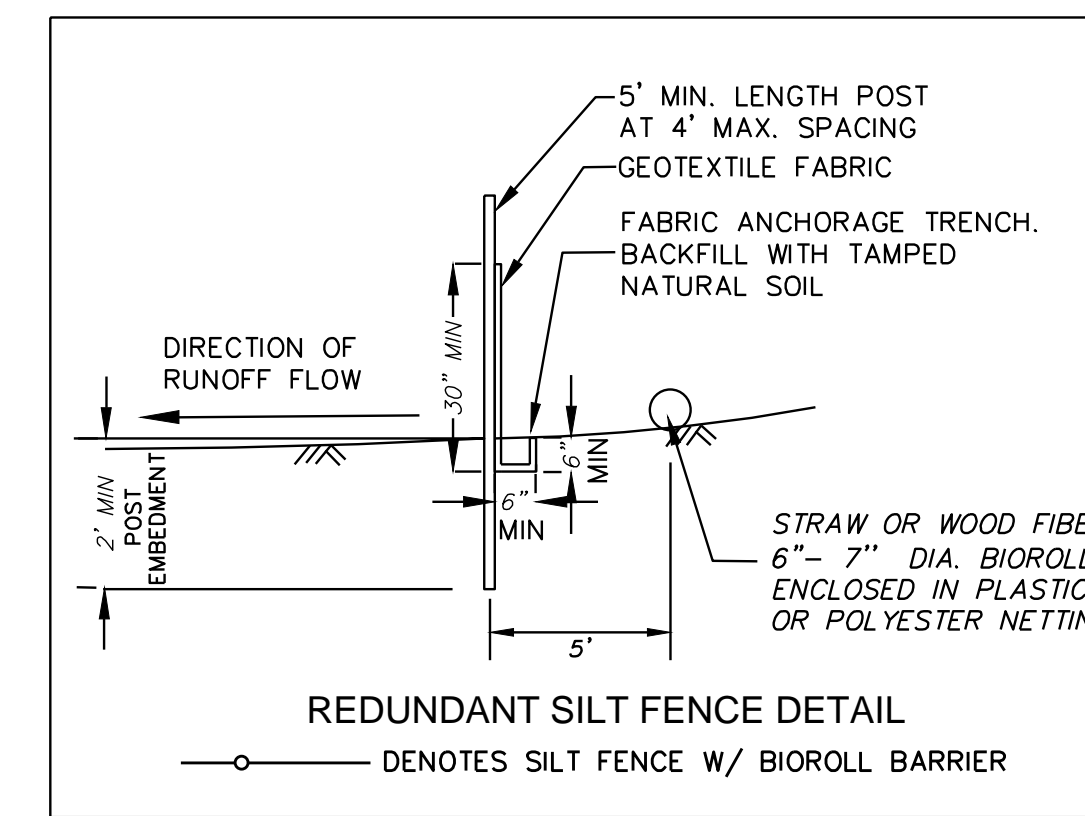
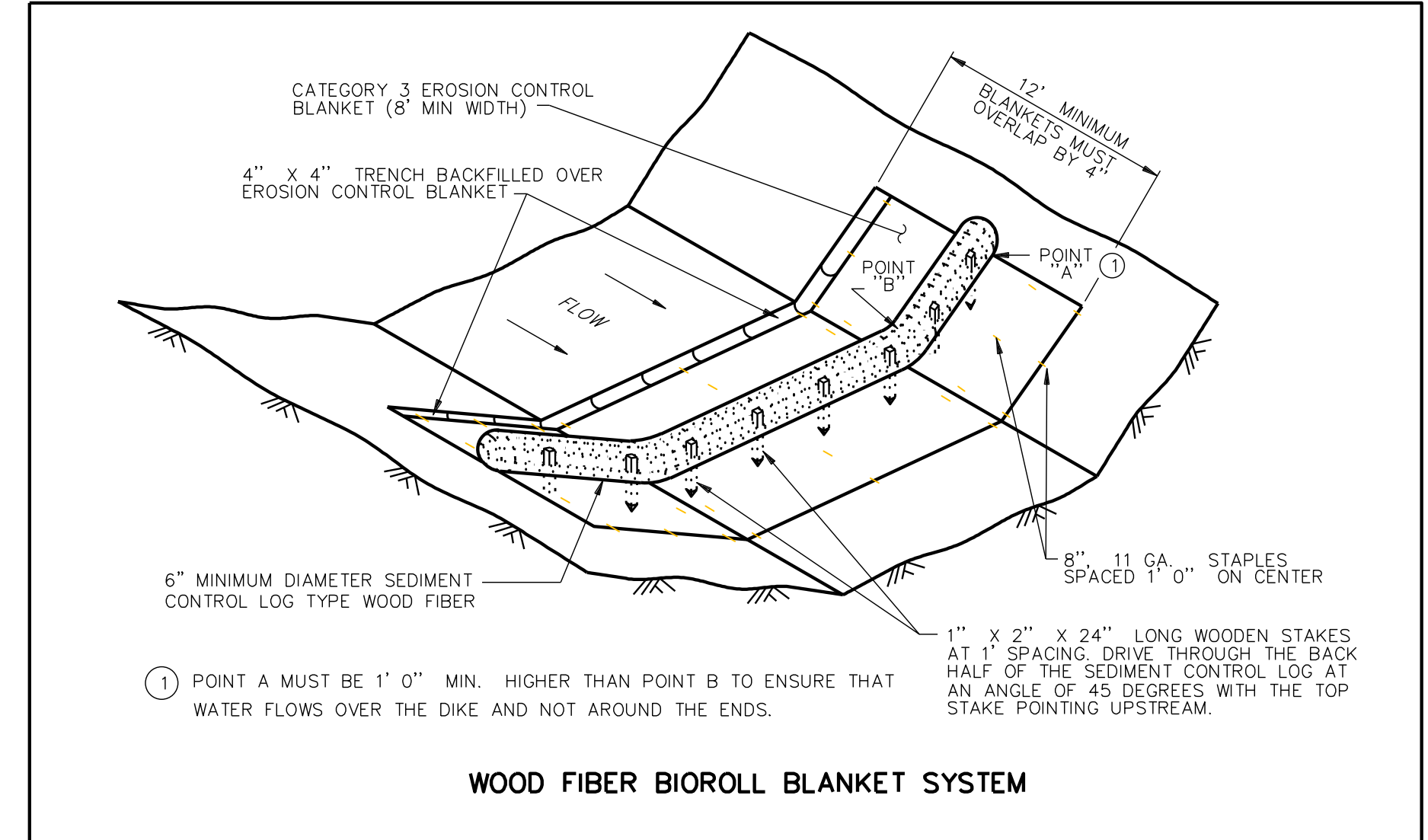
NOTES:  
REQUIREMENTS FOR RIPRAP SIZE AND THICKNESS AND FILTER BLANKET WILL BE DESIGNATED IN THE PLANS.

- ① FOR PIPES GREATER THAN OR EQUAL TO 30", USE 1.5'.
- ② THE CONTRACTOR, AT HIS OPTION, MAY SUBSTITUTE A GEOTEXTILE FABRIC, SPEC. 3601, FOR THE GRANULAR FILTER BLANKET UNLESS OTHERWISE SPECIFIED IN THE PLANS. THE FABRIC SHOULD COVER THE AREA OF THE RIPRAP AND EXTEND UNDER THE CULVERT APRON 3 FT.

NOTES:

- THE CITY RESERVES THE RIGHT TO INCREASE THE DRIVEWAY SECTION BASED ON SOIL CONDITIONS FOR A 10-TON SECTION.
- MINIMUM SLOPE = 0.5%
- MAXIMUM SLOPE = 10%
- A SINGLE DRIVEWAY IS RECOMMENDED TO FOLLOW THIS DETAIL, BUT MAY NOT BE REQUIRED.
- ROLL TEST TO BE CONDUCTED
- PAVED APRON REQUIRED WHEN PRIVATE DRIVE COMES OFF PAVED PUBLIC ROAD

REV	DWN	APP	REV DATE	DWN BY	CHK'D	APP'D	DWG DATE	PROJECT NO.	SHEET NO.	REV NO.
			JAN 2018	NPW	RWS	RWS	SCALE	2294-00	STR-3	



REV. NO.	DATE	BY	DESCRIPTION

DESIGNED DRAWN  
P.E.O. T.J.B.  
CHECKED  
P.E.O.

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.

Paul E. Otto  
License # 40062 Date: 4-21-20

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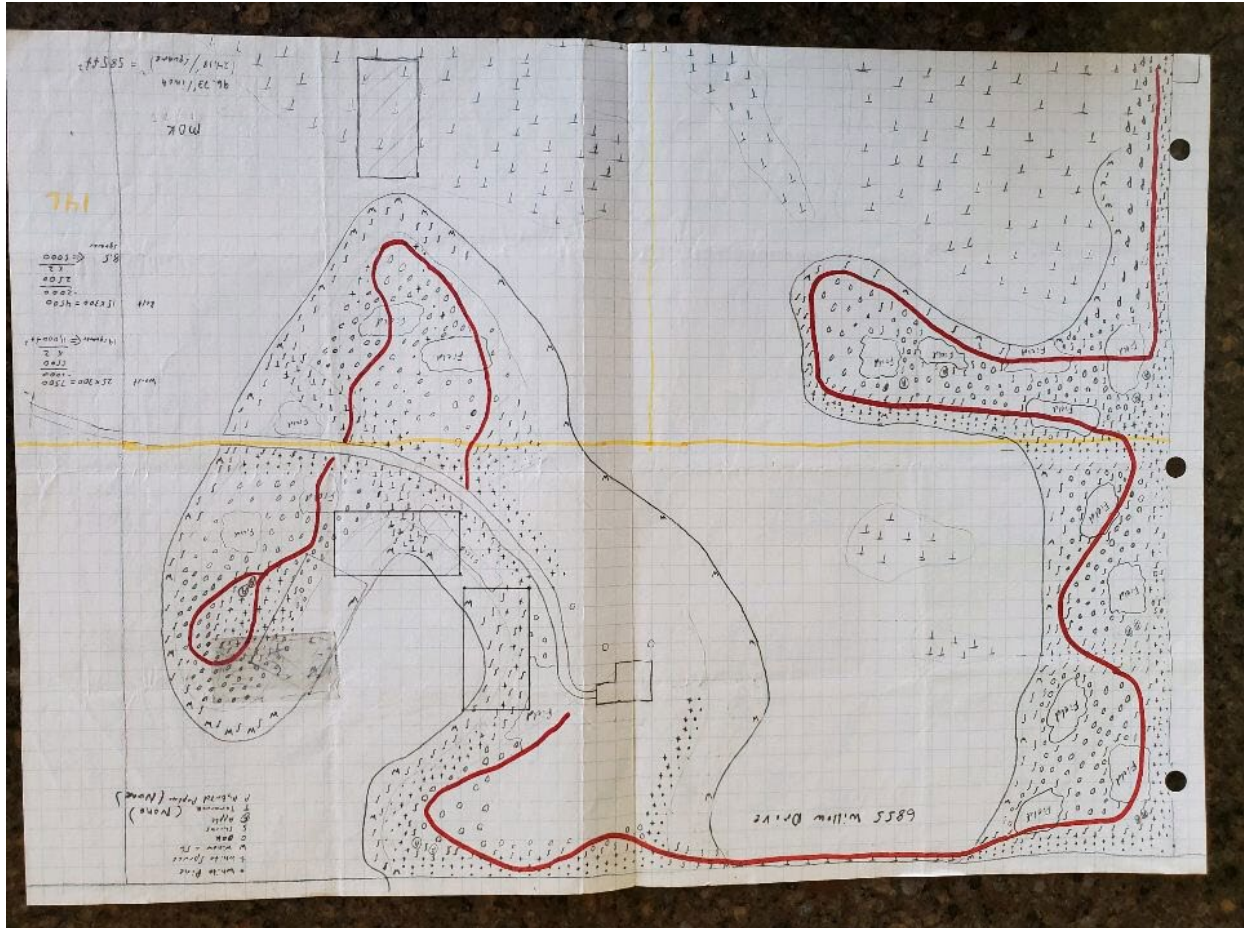
**OTTO ASSOCIATES**  
Engineers & Land Surveyors, Inc.

KARINIEMI ADDITION  
NATE KARINIEMI  
HAMEL, MN

PROJECT NO: 19-0540
DATE: 4-21-20
DETAILS
SHEET NO. 5 OF 5 SHEETS

**From:** Nate  
**To:** Kendra Lindahl, AICP; mpritchard@ci.corcoran.mn.us; Kevin Shay  
**Subject:** Tree map  
**Date:** Monday, May 11, 2020 10:31:56 AM

Here is a map of all trees on the 40 acre property and there are no trees on the 13 acre.



Sent from my iPhone





From Site to Finish

105 South Fifth Avenue  
Suite 513  
Minneapolis, MN 55401

Tel: 612-252-9070  
Fax: 612-252-9077  
www.landform.net

**TO:** Corcoran Planning Commission

**FROM:** T.J. Hofer through Kendra Lindahl, Landform

**DATE:** May 28, 2020 for the June 4, 2020 Planning Commission Meeting

**RE:** **PUBLIC HEARING.** Spanier Conditional Use Permit and Variance for the Property located at 10580 Cain Road (PID 02-119-23-23-004) (city file no. 20-019)

**120-DAY REVIEW DEADLINE:** August 21, 2020

## 1. Application Request

The applicant has requested approval of a conditional use permit to allow a 2,801-sq. ft. detached accessory building (2193-sq. ft. existing building with a 608-sq. ft. addition) building with 16.4-ft. high sidewalls where 10 ft. sidewalls are allowed.

A variance is required along with the CUP as the building was constructed only 14.9 ft. from the property line, where a 20-ft. setback is required. The building was not in compliance with the Zoning Ordinance when it was constructed and therefore is not a legal, non-conforming structure and requires an after-the-fact variance.

This project was reviewed and approved in 2015 and was never built. The approvals expired after one year on November 23, 2016. The applicant is now ready to move forward with the project and is requesting approval again with no changes.

## 2. Context

### *Zoning and Land Use*

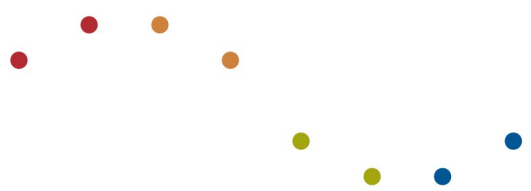
The property is in the Rural Residential (RR) District and is guided Rural/Ag Residential on the Future Land Use Map. The eastern half of the property is located within the Shoreland Overlay District. The property is located outside the Metropolitan Urban Service Area (MUSA).

### *Surrounding Properties*

The surrounding properties are also zoned Rural Residential and guided Rural/Ag Residential.

### *Natural Characteristics of the Site*

The Natural Resource Communities Quality Ranking map identifies medium quality wetlands and a potential natural resource corridor on the eastern half of the parcel. The proposed location of the accessory building is on the western half of the parcel and no impact is proposed.



### 3. Analysis of Request

#### Variance

The applicant is requesting an after-the-fact variance for the existing structure, which was not built in compliance with the Zoning Ordinance standards at the time of construction. The building does not comply with current side yard setback requirements of 20 ft. in Section 1070.040 of the Zoning Ordinance describes the variance process and standards. The burden of proof is on the applicant to show that all of the following criteria have been met:

1. *That there are practical difficulties in complying with the Zoning Ordinance.*

In 1992, the applicant hired a contractor to construct a new accessory building. The plans that were approved in 1992 conformed with the Residential District setback requirement of 20 ft. from the side lot line; however, the accessory structure was not built as shown on the building plans and building permit application. There is nothing in the City records to indicate that either the City or the homeowner were aware of the error at the time of construction. The south corner of the accessory structure (closest to Cain Road) meets the required setback of 20 ft., but the northeast corner of the building does not and is located 14.9 ft. from the side lot line. In order to correct the problem, the owner would be required to move the northeast corner of the building 5.1 ft. to the south, away from the northern property line.

2. *That the conditions upon which a petition for a variation is based are unique to the parcel of land for which the variance is sought and were not created by the landowner.*

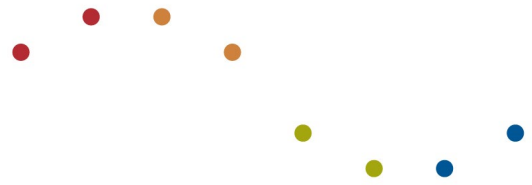
The applicant's contractor submitted a building permit and plans that were consistent with the setbacks in place at the time of construction. In 1992, the City did not require surveys with building permit applications. The landowner has indicated that he was unaware that the building is non-conforming until the survey was completed this year for the building addition. The City may find that the conditions are unique to this property because the City and landowner had no reason to believe that the structure was not built according to plan.

3. *That the granting of the variation will not alter the essential character of the locality.*

The design and size of the building is comparable to a number of the accessory buildings in the area. According to aerial maps, the applicant has provided some trees to screen the structure from the adjacent property to the north. Staff finds there are no adverse impacts to surrounding property owners and the accessory building is not out of character with the surrounding properties and structures. The building has existed at this reduced setback for more than 20 years and City staff has no record of complaint in the files.

4. *The proposed variance would be in harmony with the general purposes and intent of the Ordinance.*

The RR District is intended to provide large lots for single-family homes and hobby farms.



The existing structure was constructed to provide indoor storage rather than outdoor storage. Staff finds the accessory structure to be in compliance with the Zoning Ordinance and the standards for the RR District other than the setback. The front of the building does comply with the side yard setback requirement, which decreases the impact of the reduced setback on the rear of the building.

5. *The variance is consistent with the Comprehensive Plan.*

The Rural/Ag Residential area is intended to remain rural and will continue to be defined by natural areas, such as wetlands and floodplains, and areas that are utilized for planted fields, pasture land, hobby farms, and large residential lots. The accessory structure in this case was placed too close to the lot line, but is otherwise consistent with the Comprehensive Plan.

6. *The City may impose conditions on the variance to address the impact of the variance.*

The design and size of the building is comparable to a number of the accessory buildings in the area and staff believes there are no adverse impacts to the surrounding property owners. The Hennepin County aerial map shows that the applicant has provided some landscaping to screen the structure from the adjacent property to the north and has proposed the addition of black spruce trees on the south to minimize the impact. The Planning Commission may find it necessary for additional landscaping or the construction of a fence to further screen the structure and mitigate the encroachment on the northeast portion of the accessory structure. The Commission should provide the applicant with specific standards for the amount and location of additional landscaping to mitigate the impact of the variance.

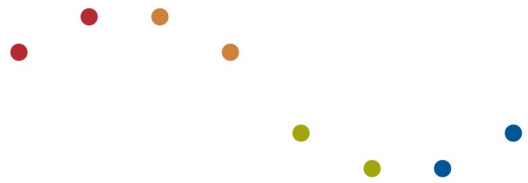
### Conditional Use Permit

The applicant is proposing an accessory building addition with 16.4-ft. sidewalls where 10-ft. sidewalls are allowed. Section 1030.020, Subd. 5(D) of the Zoning Ordinance allows the landowner to request a CUP to exceed this height limitation if the following conditions are met:

1. *The proposed use shall be in conformance with all City regulations.*

Accessory buildings like this are a permitted use, but the conditional use permit is required to address the increased sidewall height of the proposed building addition. The proposed sidewall height is 16.4 ft., and the permitted sidewall height for an accessory building in the front yard is 10 ft. in the RR District. The applicant has indicated that a larger sidewall is needed to accommodate a 14 ft. door to allow storage of his fifth wheel camper. The applicant intends to mitigate the increased height by planting mature Black Hills Spruce in front of the building to help screen the building. A plan was submitted that shows five Black Hills Spruce, five Clump Birch, and 9 Red Twig Dogwood. The five Spruce were planted and now stand approximately 12-ft. tall.

All setback requirements have been met on the addition, which is planned on the front of the existing building. The building addition is 20 ft. from the north property line and 173.7



ft. from Cain Road right-of-way. The proposed building addition is located more than 100 ft. from the Ordinary High Water Level (OHWL).

There is no wetland impact proposed.

2. *A certificate of survey shall be required that identifies all existing structures on site, including buildings, septic sites and wells. In addition, the survey shall include the proposed structure, flood plain, wetlands and any recorded easements.*

A certificate of survey has been provided with necessary information dated August 4, 2015.

3. *Applicable criteria as outlined in Section 1070.020 (Conditional Use Permits) of the Corcoran Zoning Ordinance.*

Staff has reviewed the application for compliance with the general conditional use permit standards in Section 1070.020 and found that those conditions have been met.

Staff finds that the proposed CUP meets the applicable standards. The proposed addition's footprint is 608 sq. ft., after the addition the total size of the accessory building footprint will be 2,801 sq. ft., where 3,375 sq. ft. is allowed. The color and material of the proposed building addition is compatible with the surrounding properties. The accessory building will comply with all other standards of the Zoning Ordinance.

4. *The building materials standards required by this Section have been met.*

The applicant is requesting approval to allow the building addition to be finished with metal siding and roofing. The applicant provided a color sample of the beige pro-rib steel panel that will be finished with galvanized coating.

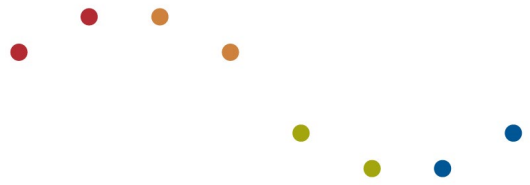
Section 1060.050 allows accessory buildings with metal siding and roof if these conditions are met:

- a. *The building meets the standards adopted by the Minnesota State Building Code.*
- b. *Metal siding and roofing is treated with a factory applied color coating system against any fading or degradation.*

The proposed metal siding and roofing material is treated with a galvanized coating and the proposed products meet MN State Building Code standards. Staff recommends approval to allow the metal building materials.

5. *The proposed building will be compatible with surrounding land uses.*

The property is located in the rural portion of the city and several of the surrounding accessory structures are constructed with metal siding. The applicant has indicated that the building is for the storage of his fifth wheel motor home and additional landscaping



will be provided to screen the building from Cain Road. The proposed building is compatible with the existing accessory building and the surrounding land uses.

#### **4. Conclusions**

Staff has reviewed the plans with the applicable standards outlined in the Comprehensive Zoning Plan and Zoning Ordinance and finds that the standards for a CUP to exceed the sidewall height and standards to allow metal siding and roofing have been met. Any outstanding issues that must be addressed have been included as conditions in the attached draft resolutions. This is the same as the request approved in 2015.

The Planning Commission must first determine if the variance standards have been met. If the Commission finds that the variance standards have been met, they may recommend approval of the CUP.

If the Planning Commission finds that the variance standards have not been met, they should recommend denial of the request. The CUP would then be denied based on the finding that it is not in compliance with City requirements.

#### **5. Recommendation**

Staff recommends approval of the resolution approving the after-the-fact variance and conditional use permit for an addition onto the existing accessory building.

#### **Attachments**

1. Draft Resolution approving Conditional Use Permit and Variance
2. Site Location Map
3. Engineer's memo dated May 22, 2020
4. Applicant's Narrative dated September 30, 2015
5. Applicant's Description dated May 27, 2018
6. Site plan received May 4, 2020
7. Site Photos received February 16, 2018
8. Landscaping Sketch Plan dated November 11, 2015

**RESOLUTION NO. 2020-XX**

**Motion By:**  
**Seconded By:**

**APPROVAL OF AN AFTER-THE-FACT VARIANCE FOR THE EXISTING ACCESSORY BUILDING AND CONDITIONAL USE PERMIT FOR THE ACCESSORY BUILDING ADDITION (PID 02-119-23-23-0004) (CITY FILE NO. 20-019)**

**WHEREAS**, Thomas Spanier is requesting approval of an after-the-fact variance for an existing accessory building and a conditional use permit to allow for the construction of an accessory building addition on property legally described as follows:

*Lot 3, Block 1, JUDY ANNS COUNTRY ACRES*

**WHEREAS**, the Planning Commission has reviewed the variance and conditional use permit at a duly called public meeting and recommends approval.

**NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF CORCORAN, MINNESOTA**, that it should and hereby does approve the request for a variance and conditional use permit approval, subject to the following findings and conditions:

1. Approval is granted to allow for the construction of a building addition as shown on application and plans received by the City on April 28, 2020 except as amended by this resolution.
2. An after-the-fact variance to allow for a 14.9-foot side yard setback where 20 feet is required, is approved subject to the following findings:
  - a. There are practical difficulties for the applicant in complying with the Zoning Ordinance. The applicant intended to comply with City standards to meet the setback requirements according to building plans and City records. There is nothing to indicate that either the City or the applicant were aware of the error at the time of construction. The building has been constructed for more than 20 years and no records of complaint are on file with the City. It is not practical for the applicant to move the accessory structure 5.1 feet to the south and meeting the standard would not enhance the appearance of the building and would not enhance the health safety and welfare of the general public.
  - b. The conditions upon which the variance request is based are unique to this parcel due to the error during construction. The City and the landowner had no reason to believe that the structure was not built according to plans.
  - c. The accessory building will not alter the essential character of the locality. The existing accessory building is consistent with other uses in the area.
  - d. The accessory building is in harmony with the general purposes and intent of the Ordinance and the standards for the RR District other than the reduced setback.

**RESOLUTION NO. 2020-XX**

- e. The accessory structure was constructed too close to the lot line, but is otherwise consistent with the Comprehensive Plan. The variance is consistent with the rural nature of the zoning district.
3. A conditional use permit is approved to allow for an accessory building addition with 16 - foot 4-inch sidewall height where 10 feet is allowed, subject to the following findings:
    - a. The proposed addition complies with the goals of the Comprehensive Plan. The project provides a unified look with the neighboring buildings.
    - b. The establishment of the conditional use will promote and enhance the general public welfare and will not be detrimental to or endanger the public health, safety, morals or comfort of the community. The increased sidewall height will allow for storage of the applicant's fifth wheel motor home and provide a unified look that is consistent with the RR District.
    - c. The conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood. The increased sidewall height is less than the principal structure and similar in nature to other accessory buildings on neighboring properties. Landscape screening will be provided to reduce the impact of the increase side wall height.
    - d. The establishment of the conditional use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district. The increased height will have no adverse impact on surrounding development or improvement of surrounding properties.
    - e. Adequate public facilities and services are available or can be reasonably provided to accommodate the proposed use. The increased sidewall height of the building addition will have no impact on public facilities and services.
    - f. The conditional use conforms to the applicable regulations of the Rural Residential District.
    - g. The conditional use and site conforms to performance standards as specified by this Chapter. Staff has analyzed the performance standards of this Chapter and finds that the building addition conforms to other standards specified in the Zoning Code.
  4. A certificate of compliance to allow metal roof and siding on this accessory building addition is also approved as part of the CUP.
  5. A building permit is required prior to beginning construction.
  6. Prior to issuance of building permits, the applicant/landowner must record the approving resolution at Hennepin County and provide proof of recording to the City.
  7. Prior to release of any remaining escrow, the landscaping as shown on the landscape plan received November 17, 2015 shall be installed.

**RESOLUTION NO. 2020-XX**

8. Approval shall expire within one year of the date of approval unless the applicant commences the authorized use and the required improvements.

**VOTING AYE**

- Thomas, Ron  
 Bottema, Jon  
 Dejewski, Brian  
 Anderson, Thomas  
 Schultz, Alan

**VOTING NAY**

- Thomas, Ron  
 Bottema, Jon  
 Dejewski, Brian  
 Anderson, Thomas  
 Schultz, Alan

Whereupon, said Resolution is hereby declared adopted on this XX<sup>rd</sup> day of June 2020.

\_\_\_\_\_  
Ron Thomas - Mayor

ATTEST:

\_\_\_\_\_  
Jessica Beise – City Clerk/ Administrative Services Coordinator

*City Seal*



# Technical Memo



Responsive partner.  
Exceptional outcomes.

## ENGINEER'S MEMO

**To:** Kendra Lindahl, AICP, City Planner

**From:** Kent Torve, P.E., City Engineer

**Date:** May 22, 2020

**Subject:** Spanier

### 1. General

The City's position is consistent with previous review that the proposed building extension is significantly away from wetlands and therefore no wetland delineation is needed for the project.

Kendra Lindahl  
Planning & Infrastructure  
C/O City of Corcoran

September 30, 2015

Regarding:  
Existing Pole Building  
10580 Cain Road  
Corcoran, MN

This existing building structure was built in 1992 by Ebert Construction. They built it to a 15' set back rather than 20'. I have 8 acres, so this building takes up a very small portion of that. It will allow me to store my 5<sup>th</sup> wheel RV inside and that will clean up the looks of the property. I also am planting mature Black Hills spruce in front of the building to help camouflage it somewhat.

Thank you,



Tom Spanier  
10580 Cain Rd  
Corcoran, MN  
612-363-4110

Revised 12/21/18

**Please attach a brief description of your project/reason for your request.**

ADDITION TO POLE BUILDING FOR RV STORAGE

BUILDING SPECIFICATIONS AND GENERAL NOTES

OWNERS INFORMATION:  
 NAME: TOM SPANIER  
 ADDRESS: 17420 113TH AVE  
 CITY: MAPLE GROVE  
 STATE: MN  
 ZIP: 55369

BUILDING REQUIREMENTS:  
 - USE OF BUILDING: RV STORAGE  
 - OCCUPANCY: U  
 - CONSTRUCTION TYPE: TYPE 5B  
 - DESIGN CODE: 2007 MN BLDG CODE  
 - OCCUPANCY CATEGORY: I

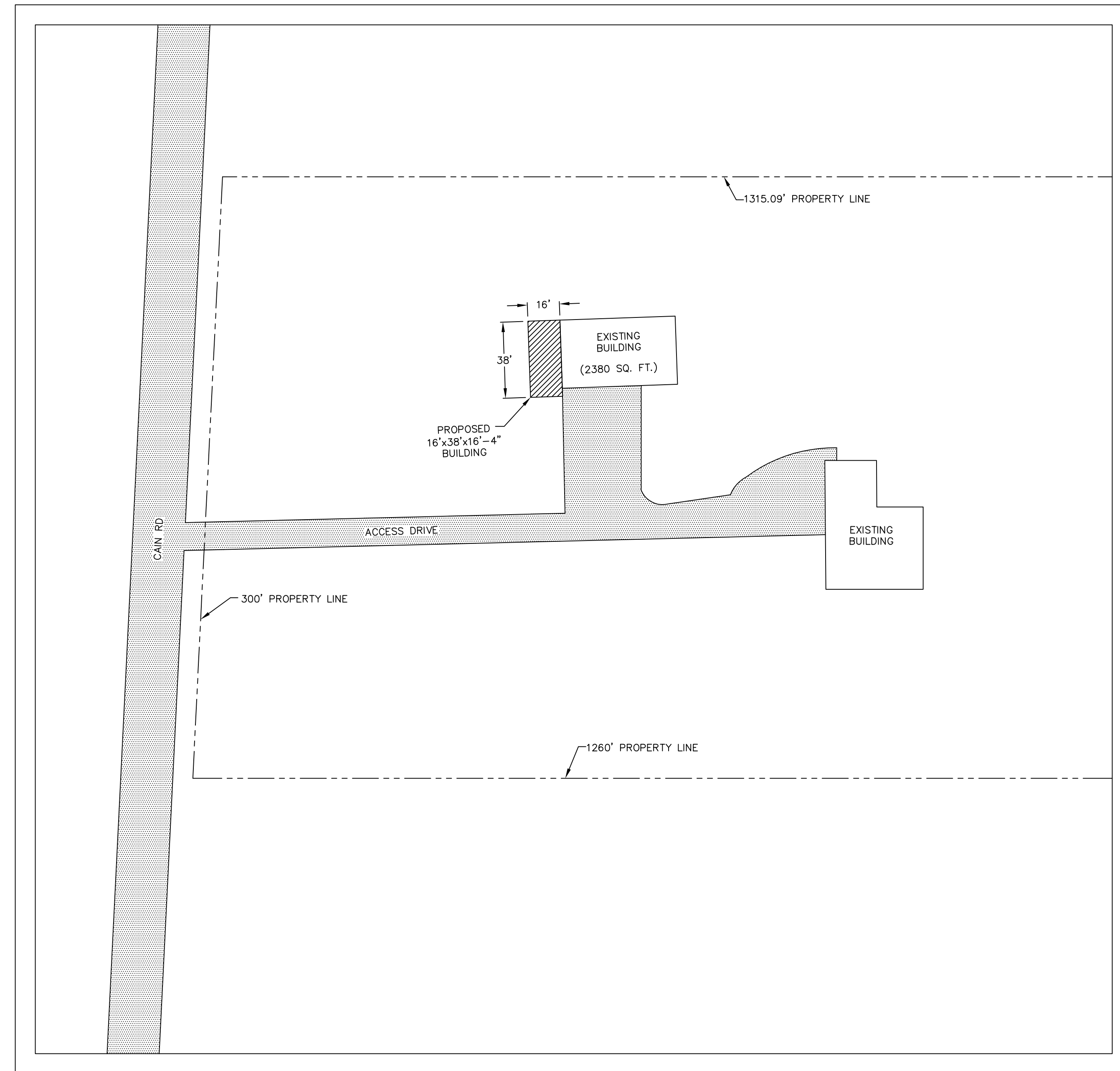
SNOW		WIND		SEISMIC		TRUSS DEAD LOADS	
(Pg) = 50.0 PSF	B.W.S. = 90 MPH	- SEISMIC IMPORTANCE FACTOR: 1.00	DLTC = 4 PSF				
(Ce) = 0.90	(Iw) = 0.87	- SPECTRA RESPONSE COEFFICIENT SDS: 0.073	DLBC = 5 PSF				
(Is) = 0.80	EXPOSURE = C	- SPECTRA RESPONSE COEFFICIENT SD1: 0.045					
(Cl) = 1.20		- SITE CLASSIFICATION: D					
(Pf) = 30.24 PSF		- SEISMIC DESIGN CATEGORY: A					
(Cs) = 0.94							
(Ps) = 28.35 PSF							
(Lr) = 35.00 PSF							

\*WITH UNBALANCED LOADS AS REQUIRED

- PLEASE NOTE:
- DESIGNER LIABILITY LIMITED TO THE PREPARATION OF THE DRAWINGS WITH THE PARAMETER CONTRACTED AND ASCERTAINING TO CODE COMPLIANCE.
  - THESE DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. ADDITIONAL DATA SHALL BE RECEIVED FROM THE ENGINEER THROUGH WRITTEN CLARIFICATION ONLY. VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, & DIMENSIONS BEFORE PROCEEDING WITH ANY PORTION OF ANY WORK.
  - NO CHANGES, MODIFICATIONS, OR DEVIATIONS SHALL BE MADE FROM THESE DRAWINGS OR SPECIFICATIONS WITHOUT FIRST SECURING WRITTEN PERMISSION FROM THE ENGINEER.
  - WHERE LACK OF INFORMATION, OR ANY DISCREPANCY SHOULD APPEAR IN THE DRAWINGS OR SPECIFICATIONS, REQUEST WRITTEN INTERPRETATION FROM THE ENGINEER BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
- SOIL:
- SOIL CLASSIFICATION #4 FIRM BASED ON ASABE EP486.1 (CLASS OF MATERIAL: SW, SP, SM, SC, GM, AND GC.)
  - A SOIL BEARING VALUE ASSUMED AT 2000 PSF. ALL FOOTINGS AND SLAB TO BEAR ON UNDISTURBED INORGANIC SOIL OR SOIL COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
  - ALL SOILS BELOW CONCRETE SHALL BE A NON-FROST SUSCEPTIBLE SOIL AS REQUIRED IN ASCE 32.
- CONCRETE:
- OWNER RESPONSIBLE FOR VERIFYING SITE SOIL CONDITIONS. ALL SOILS TO MEET OR EXCEED REQUIREMENTS AS REFERENCED IN THE GENERAL NOTES. CONSULT GEOTECHNICAL ENGINEER IF NECESSARY.
  - CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-05. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
  - ALL REBAR SHALL MEET A615 GRADE 40 OR BETTER.
- LUMBER:
- ALL WOOD CONSTRUCTION SHALL BE OF MATERIALS SHOWN AND WORKMANSHIP SHALL BE IN ACCORDANCE TO THE NATIONAL FOREST PRODUCTS ASSOCIATION SPECIFICATIONS FOR WOOD CONSTRUCTION.
  - ALL LUMBER IN CONTACT WITH CONCRETE ABOVE GRADE SHALL BE TREATED IN ACCORDANCE TO AWPA U1-10 UC3B OR BETTER REQUIREMENTS.
  - ALL LUMBER BELOW GRADE SHALL BE TREATED IN ACCORDANCE TO AWPA U1-10 UC4B OR BETTER REQUIREMENTS.
- COLUMNS:
- ALL LAMINATED COLUMNS SHALL BE MIDWEST MANUFACTURING'S, RIVET CLINCHED, WITH STEEL REINFORCED JOINTS UNLESS SPECIFIED OTHERWISE.
- TRUSSES:
- DESIGNED IN ACCORDANCE TO 2006 IBC TPI APPROVED THIRD PARTY INSPECTED
  - LATERAL BRACING IS REQUIRED. SEE TRUSS SPECIFICATION SHEET(S) FOR LATERAL BRACE LOCATIONS.
- STEEL PANEL:
- PRO-RIB STEEL PANEL
  - .0142" MINIMUM THICKNESS BEFORE PAINTING
  - .0165" NOMINAL THICKNESS AFTER PAINTING
  - G60 GALVANIZED COATING PLUS ZINC PHOSPHATE
  - 40 YEAR PAINT WARRANTY
  - STRUCTURAL STRENGTH ASTM-A653 GRADE 80 (FULL HARD STEEL)
  - 82000 PSI MINIMUM TENSILE STRENGTH
- SOFFIT PANELS:
- COLOR MATCHED VENTED STEEL SOFFIT PANELS
  - CERAM-A-STAR 1050 PAINT SYSTEM
- FRAMING FASTENERS:
- GALVANIZED THREADED HARDENED STEEL RINGSHANK NAILS.
- PANEL FASTENERS:
- COLOR MATCHED GALVANIZED WOODGRIP SCREWS, #9 DIAMETER, 1/4" HEX HEAD.
- GRADE:
- ALL GRADES TO SLOPE AWAY FROM BUILDING AT A MIN. 2% GRADE FOR PROPER DRAINAGE.
- CONSTRUCTION BRACING:
- TEMPORARY BRACING DURING CONSTRUCTION SHALL BE CONTRACTORS' RESPONSIBILITY. REFER TO BC51-B1 AND/OR B10 SUMMARY SHEET "GUIDE FOR HANDLING, INSTALLING, RESTRAINING AND BRACING OF TRUSSES", BY THE TRUSS PLATE INSTITUTE (TPI) AND THE WOOD TRUSS COUNCIL OF AMERICA (WTCA).
- HVAC:
- HEATING, VENTING, AND AIR CONDITIONING REQUIREMENTS WERE NOT ADDRESSED ON THE DRAWING AND SHOULD BE APPROVED BY LOCAL OFFICIALS.
- PLUMBING:
- PLUMBING REQUIREMENTS WERE NOT ADDRESSED ON THE DRAWING AND SHOULD BE INSTALLED IN ACCORDANCE WITH REQUIRED BUILDING CODES.
- ELECTRICAL:
- ELECTRICAL REQUIREMENTS WERE NOT ADDRESSED ON THE DRAWING AND SHOULD BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ANY LOCAL CODES.
- FIRE EXTINGUISHERS:
- SHALL BE INSTALLED, PROVIDED, AND MAINTAINED AS SPECIFIED IN NFPA NO. 10 (BY OTHERS).

# RV STORAGE

## CORCORAN, MN



SHEET INDEX	
SHEET #	SHEET DESCRIPTION
S1	GENERAL NOTES AND SITE PLAN
S2	ELEVATIONS
S3	FLOOR PLAN, COLUMN SCHEDULE AND ROOF FRAMING PLAN
S4	SIDEWALL SECTION AND SECTION DETAILS
S5	ENDWALL SECTION, SECTION DETAILS AND OVERHEAD DOOR DETAILS
S6	SERVICE DOOR FRAMING AND MISC. TRIM DETAILS
S7	STEEL APPLICATION DETAILS
S8	WALL STEEL LAYOUTS

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.  
 Print Name: Nathan D. Peleschak  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_ License #: 50824

BUILDING INFORMATION:  
 NAME: RV STORAGE  
 ADDRESS: 10580 CAIN RD  
 CITY: CORCORAN  
 STATE: MN  
 ZIP: 55334  
 COUNTY: HENNEPIN

SITE PLAN  
 SCALE: 1" = 40'-0"

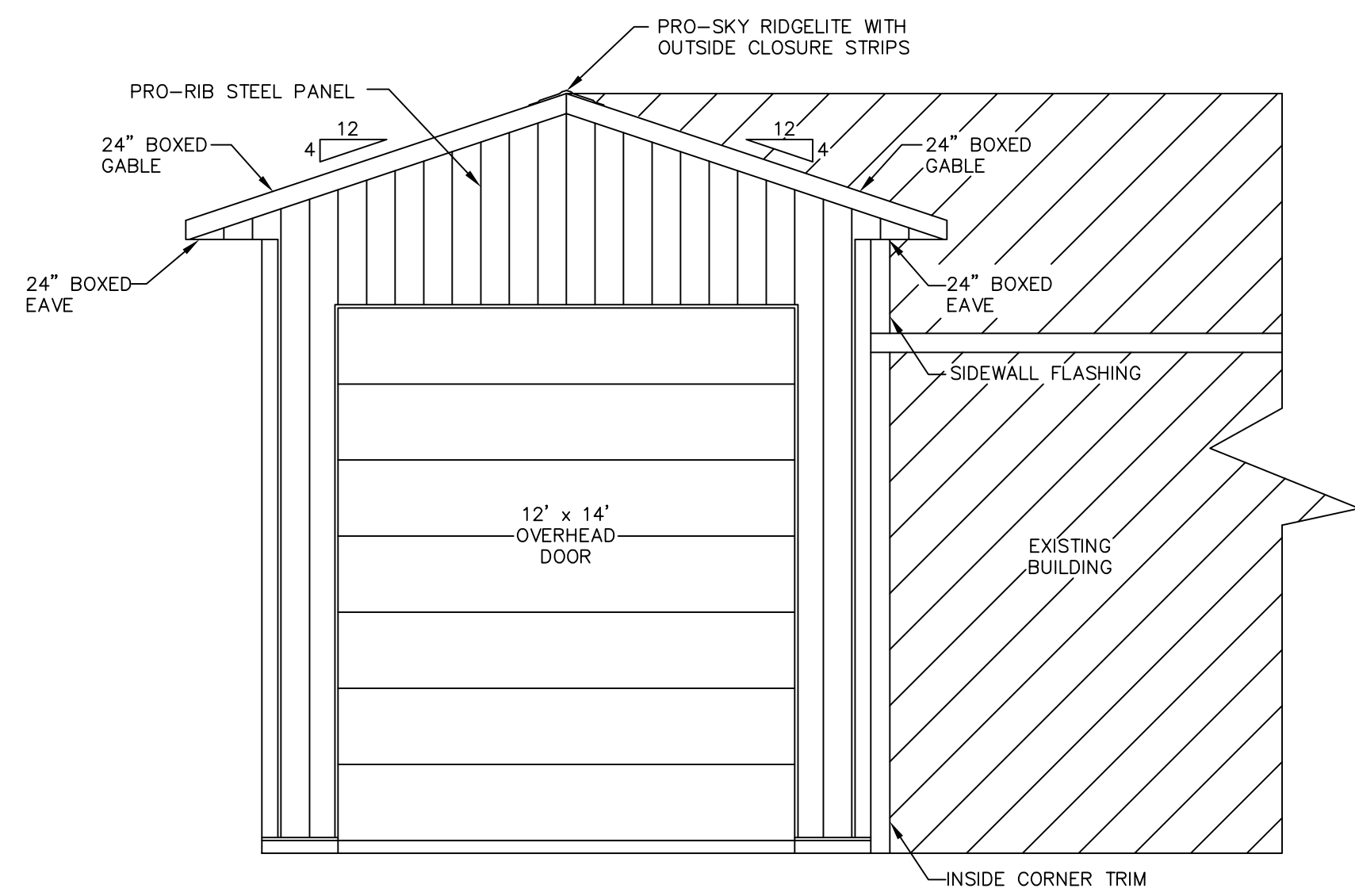
NOTE: OWNER/CONTRACTOR SHALL VERIFY ALL SETBACKS WITH LOCAL BUILDING OFFICIAL AT TIME OF CONSTRUCTION.

NOTE: ALL GRADES SLOPE AWAY FROM THE BUILDING @ A MIN. 2% SLOPE

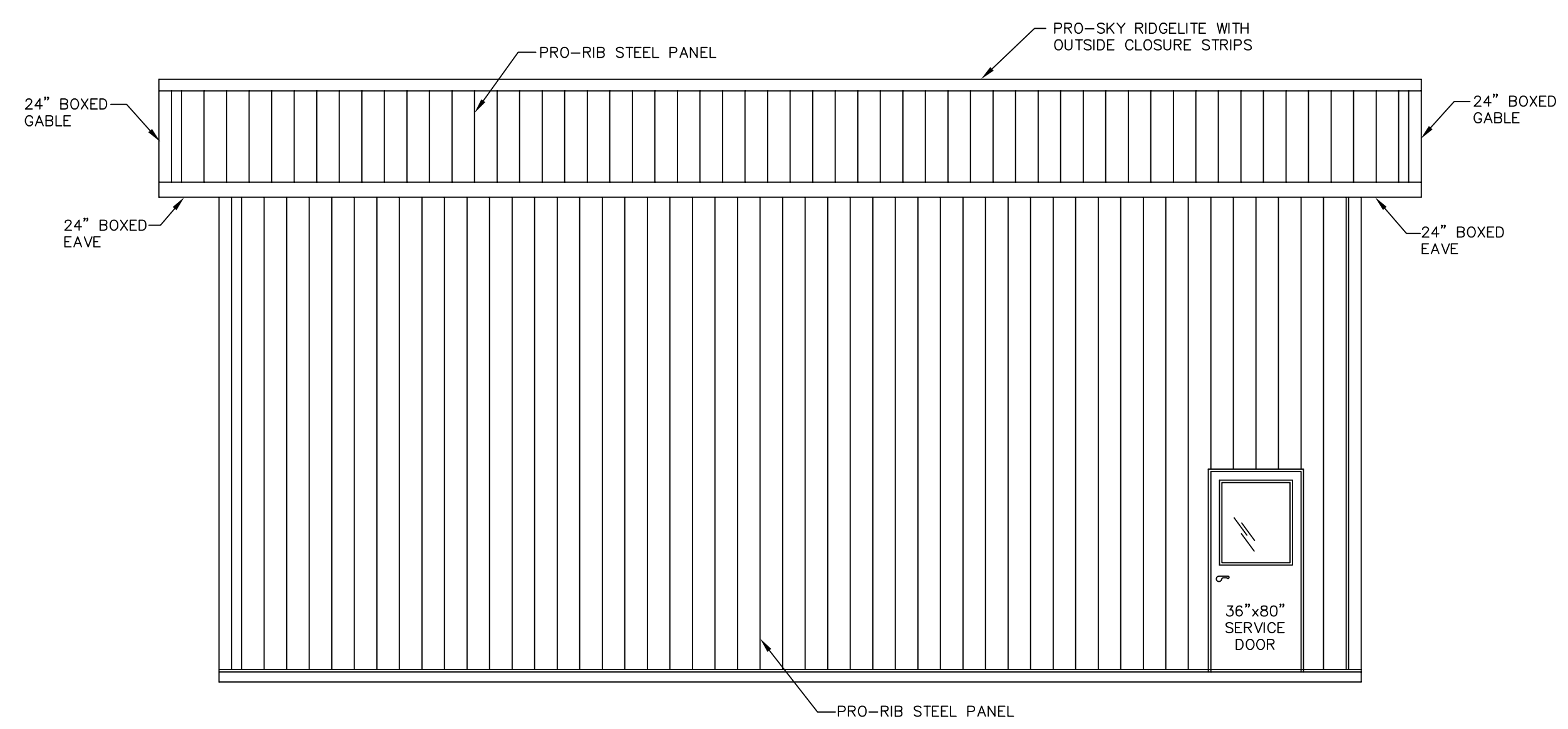


PROJECT TITLE: RV STORAGE  
 CORCORAN, MN  
 SHEET TITLE: GENERAL NOTES AND SITE PLAN

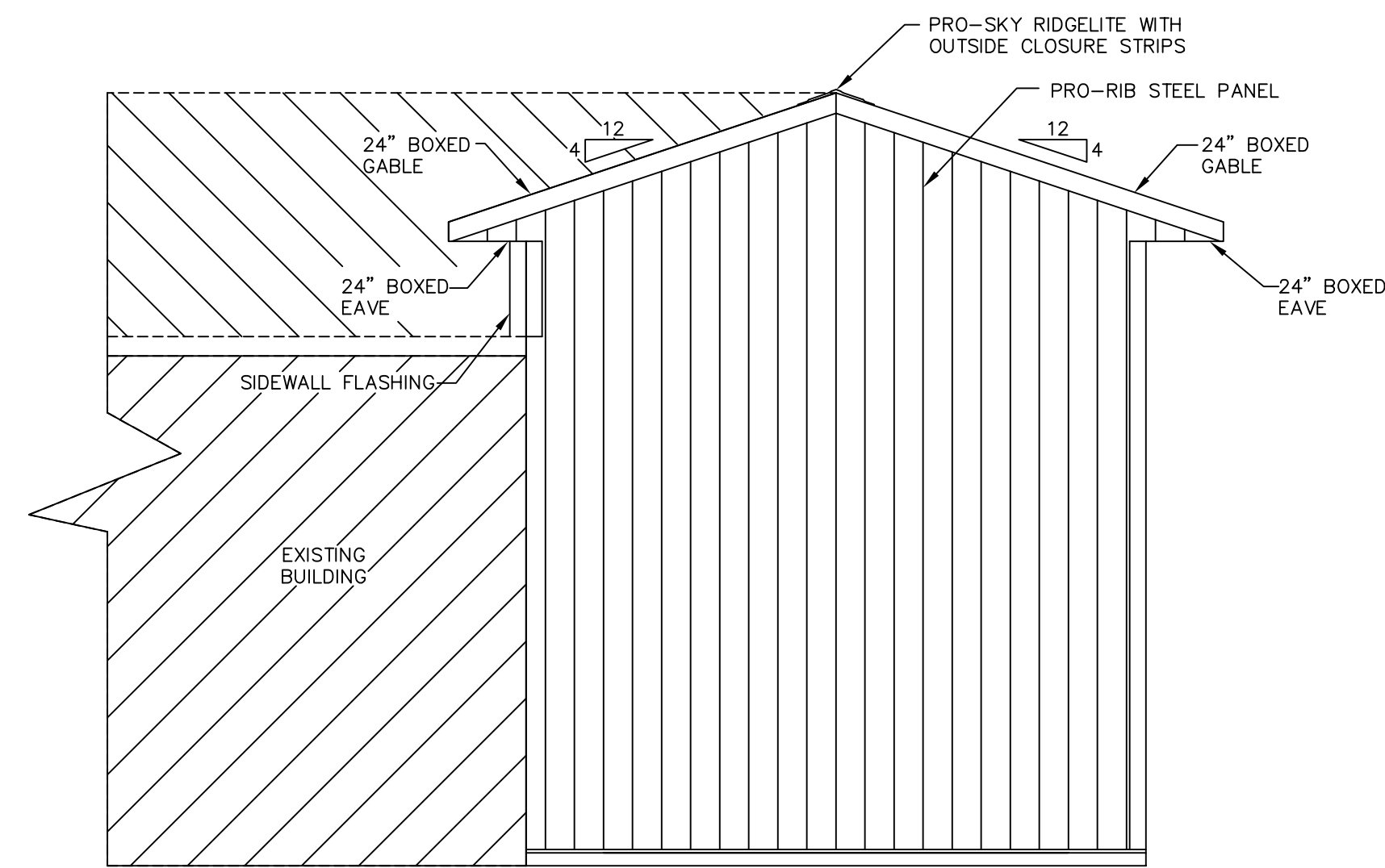
REVISIONS				PROFESSIONAL ENGINEER:	FILE NAME:	SHEET NO.
NO.	DATE	DESCRIPTION	BY	NATE PELESCHAK	U44014MN01	
1				PLAN DESIGNER:	DATE:	S1
2				LOUISE EWALD	12-15-14	
3				DRAWN BY:	SCALE:	
4				TIM GEORGE	AS NOTED	



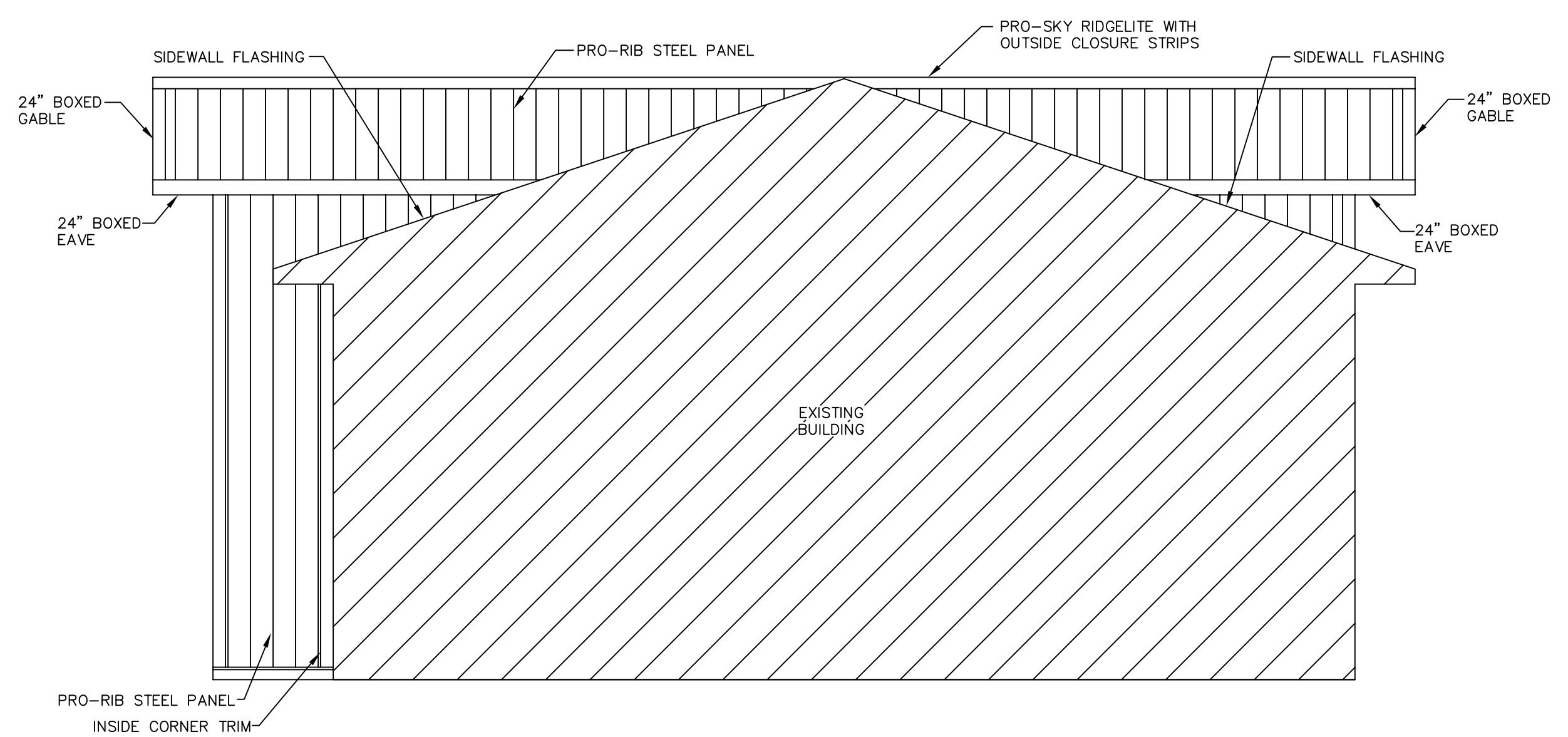
16'-0" SOUTH ENDWALL



38'-0" WEST SIDEWALL



16'-0" NORTH ENDWALL



38'-0" EAST SIDEWALL

**ELEVATIONS**  
SCALE: 1/4"=1'-0"

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.  
Print Name: Nathan D. Peleschak  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_ License #: 50824

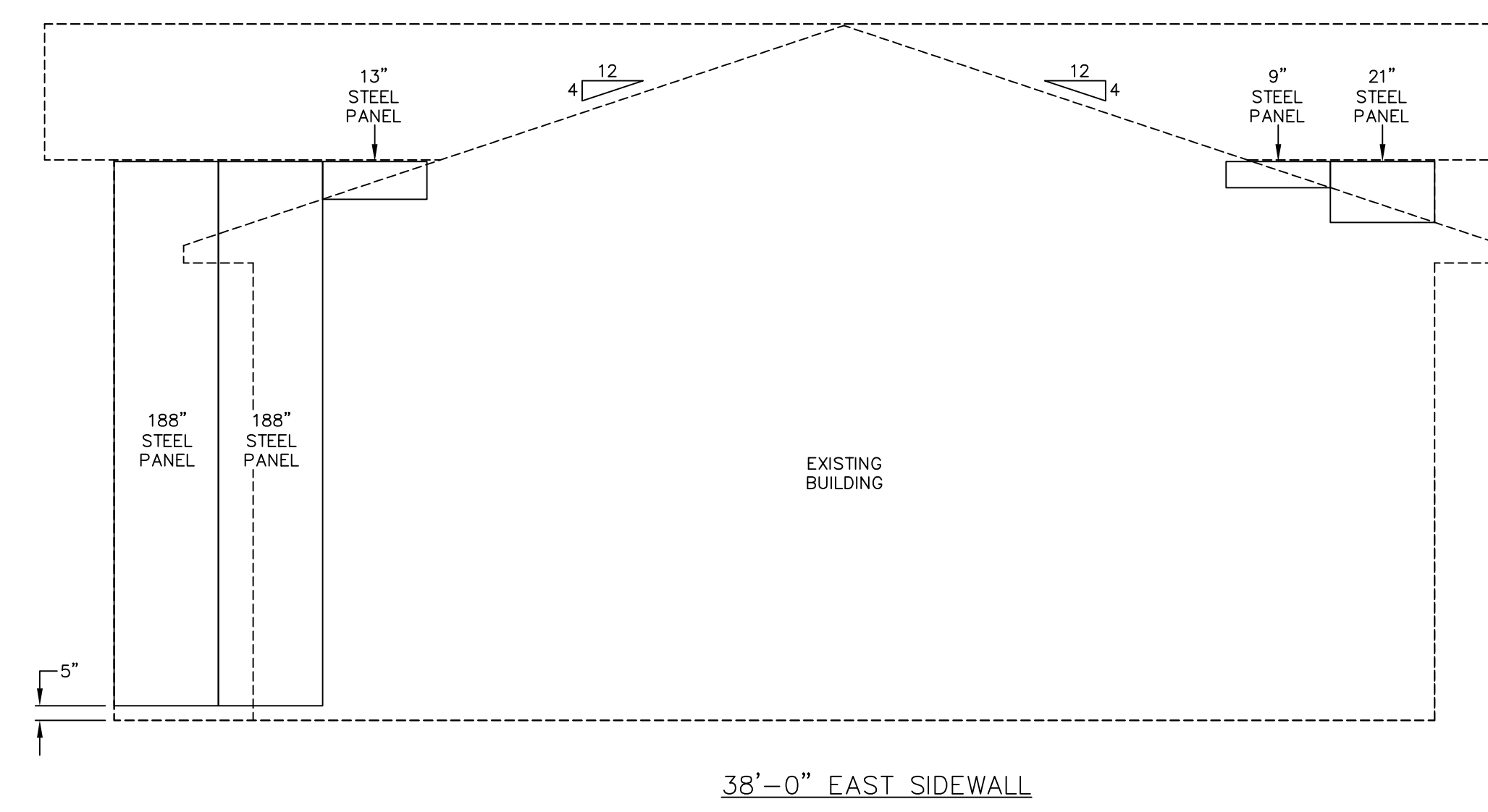
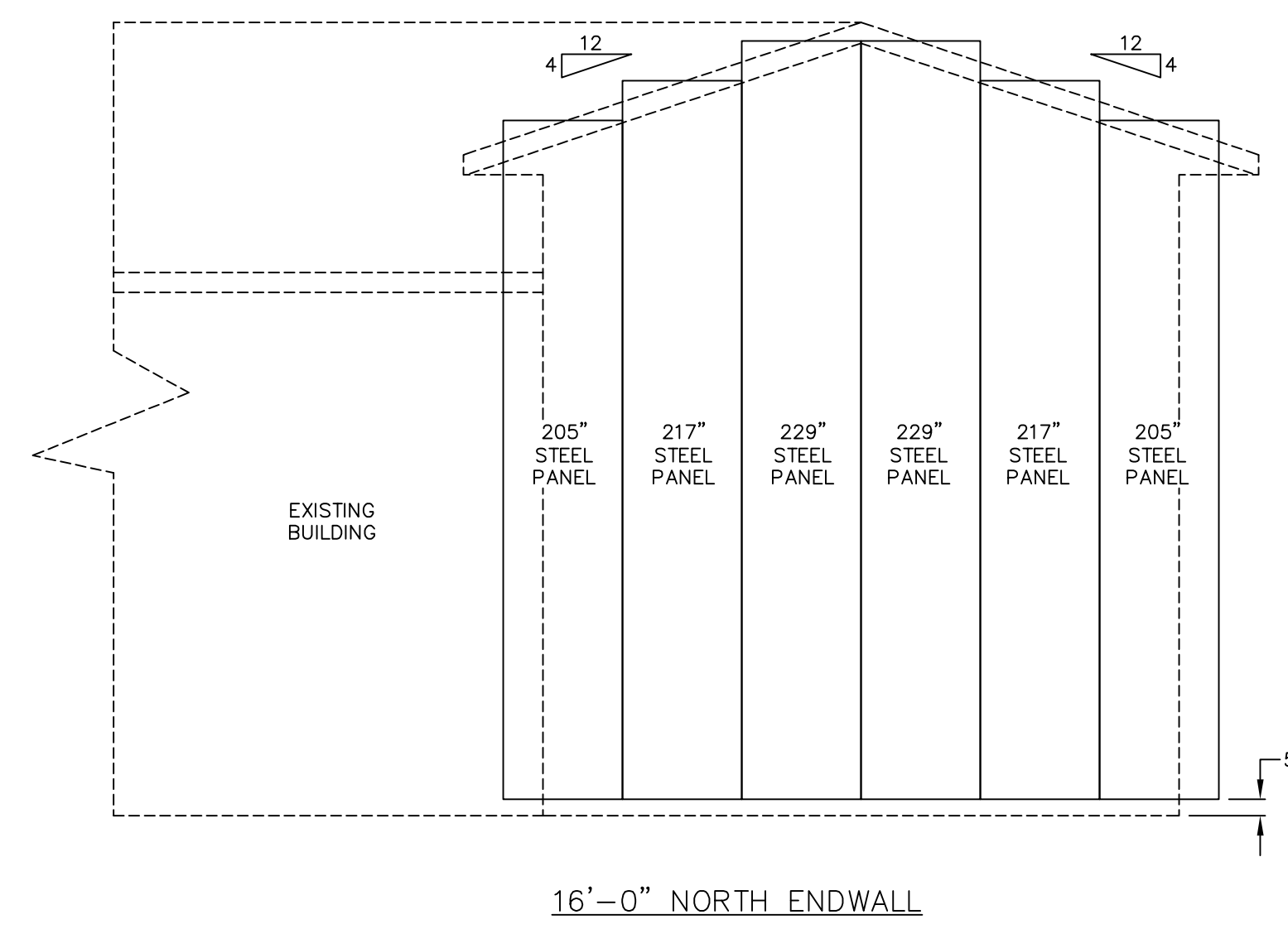
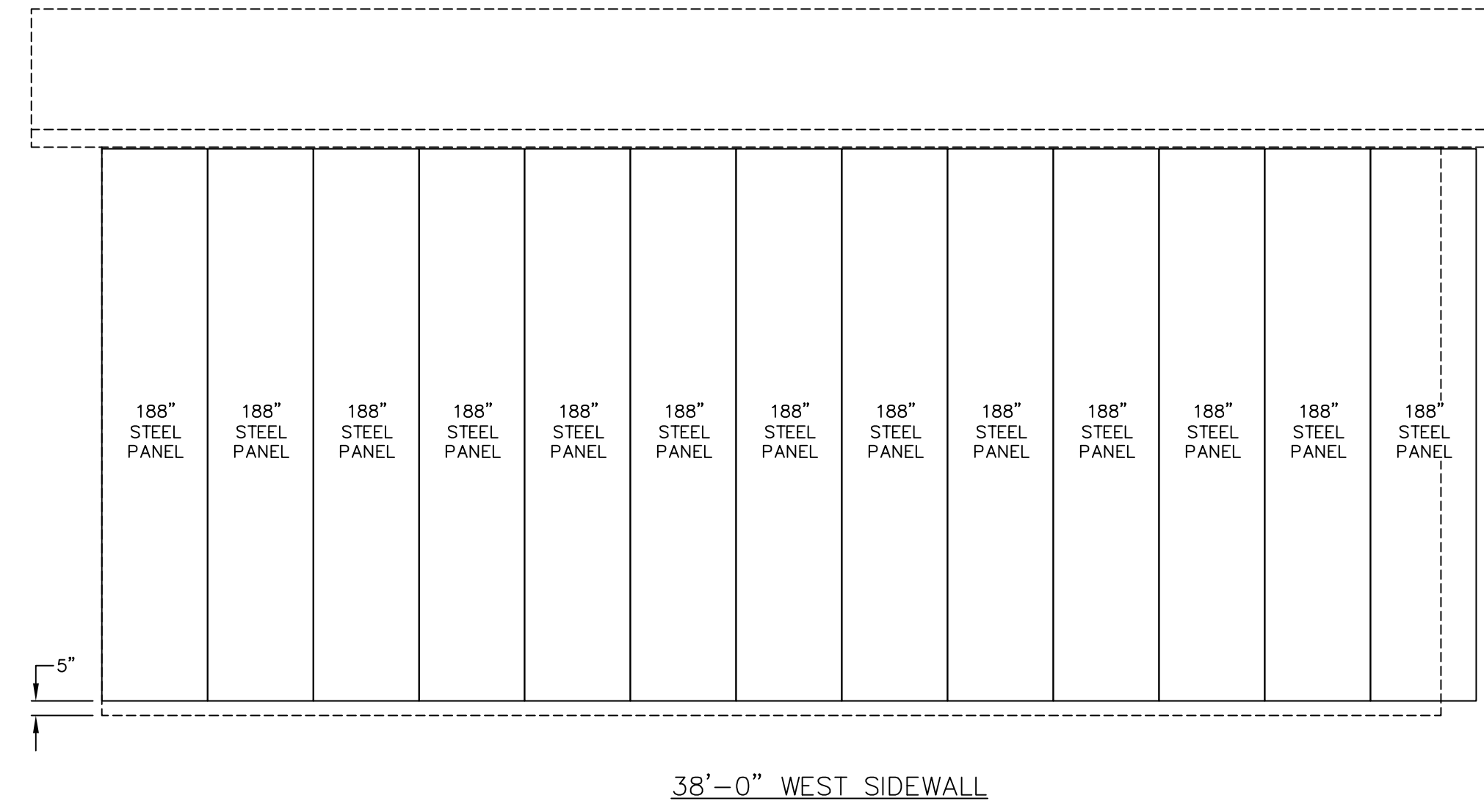
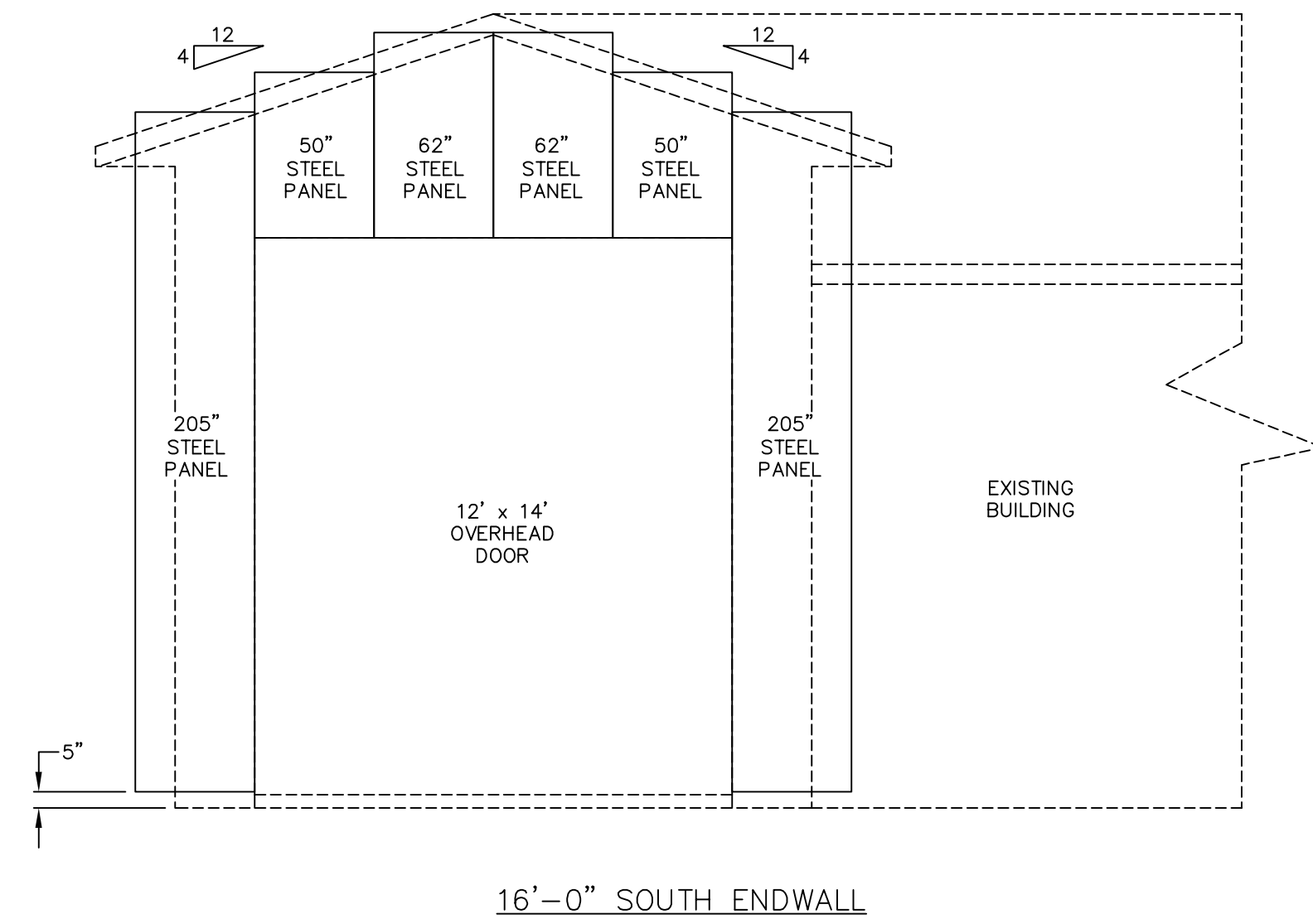


PROJECT TITLE:	RV STORAGE
	CORCORAN, MN
SHEET TITLE:	ELEVATIONS

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			

PROFESSIONAL ENGINEER:	NATE PELESCHAK	FILE NAME:	U44014MNO2
PLAN DESIGNER:	LOUISE EWALD	DATE:	12-15-14
DRAWN BY:	TIM GEORGE	SCALE:	AS NOTED

SHEET NO.  
**S2**



NOTE:  
OWNER/CONTRACTOR TO VERIFY  
STEEL LENGTHS ABOVE EXISTING  
BUILDING.

WALL STEEL LAYOUTS  
SCALE: 1/4"=1'-0"

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.  
Print Name: Nathan D. Peleschak  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_ License #: 50824



PROJECT TITLE:	RV STORAGE CORCORAN, MN
SHEET TITLE:	WALL STEEL LAYOUTS

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			

PROFESSIONAL ENGINEER:	NATE PELESCHAK	FILE NAME:	U44014MN08
PLAN DESIGNER:	LOUISE EWALD	DATE:	12-15-14
DRAWN BY:	TIM GEORGE	SCALE:	AS NOTED

SHEET NO.  
**S8**





10/27/2015 13:47



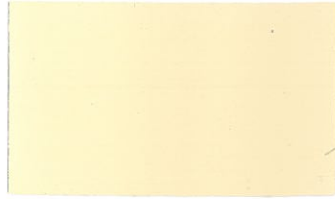


# POST FRAME BUILDINGS

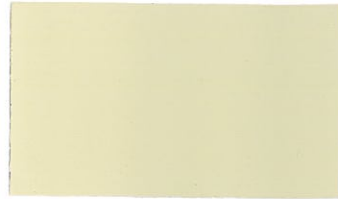
Commercial Suburban Agricultural



WHITE



PRAIRIE WHEAT



IVORY



TAN



BRITE WHITE



PINEWOOD



ASH GRAY



PATINA GREEN



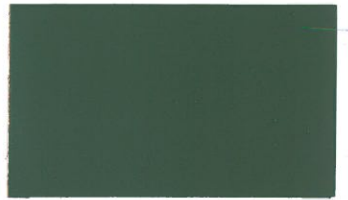
SLATE BLUE



OCEAN BLUE



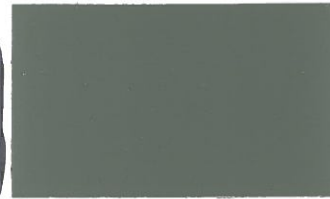
FOREST GREEN



EMERALD GREEN



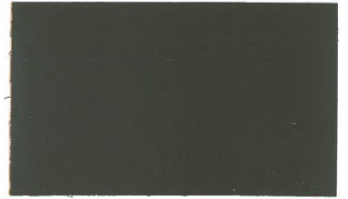
BEIGE



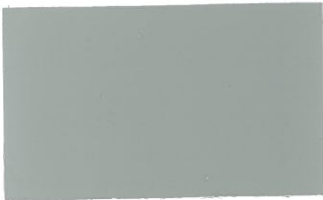
BRONZE



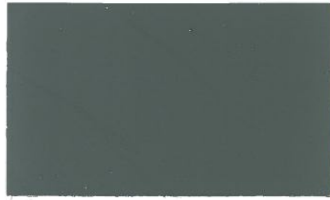
BURNISHED SLATE



BROWN



LIGHT GRAY



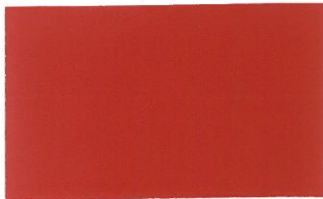
CHARCOAL GRAY



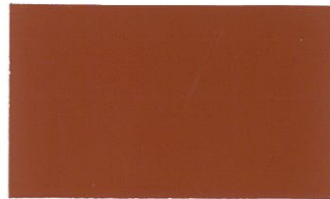
MIDNIGHT GRAY



BLACK



BRITE RED



RED



COLONIAL RED



BURGUNDY

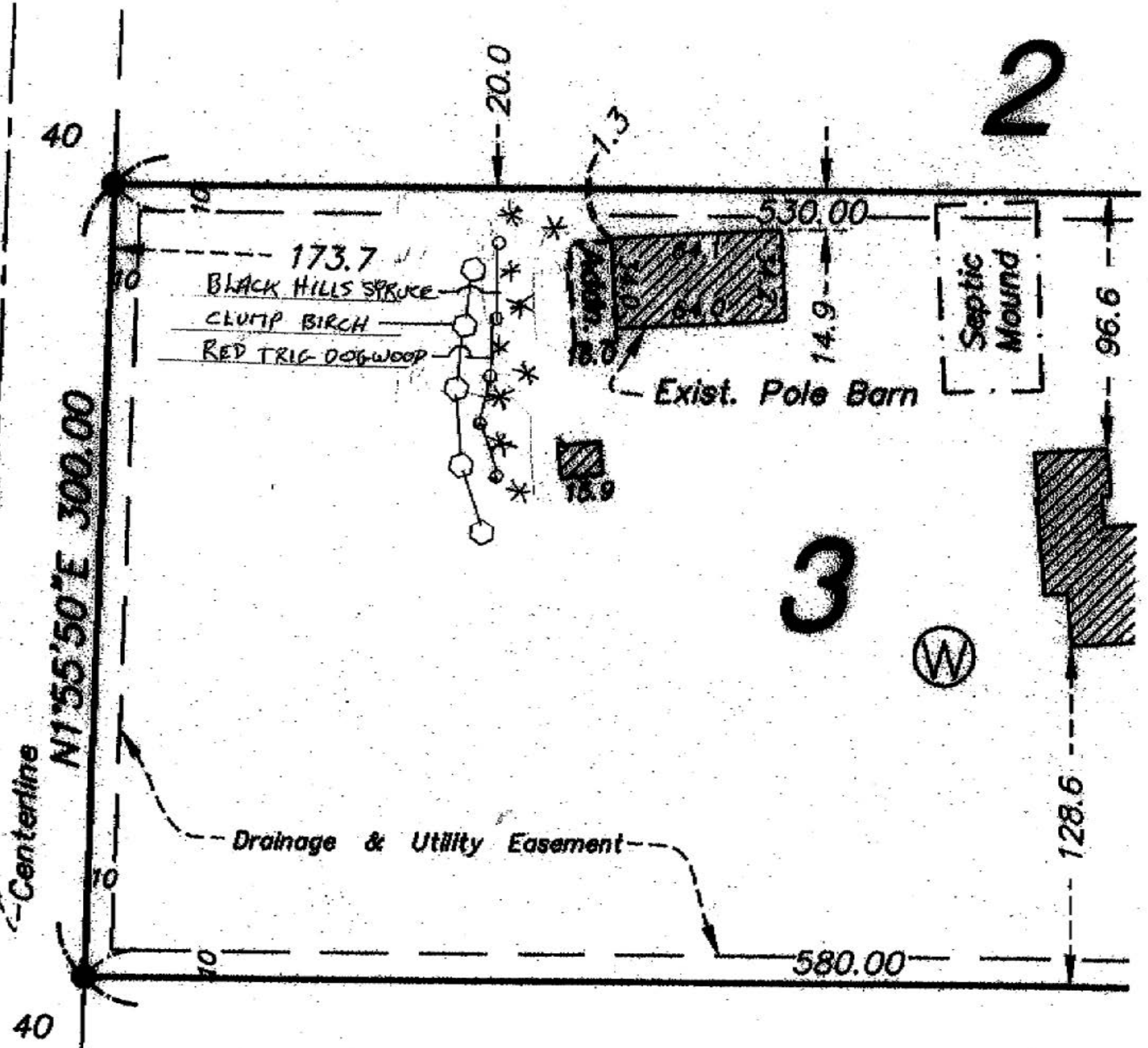


\* COPPER COLORED  
\* Only Available in Premium Products

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**Note:** Color chips show approximate tone. Color of actual product may vary. Final color approval should be made with actual material.

# Cain Road





From Site to Finish

105 South Fifth Avenue  
Suite 513  
Minneapolis, MN 55401

Tel: 612-252-9070  
Fax: 612-252-9077  
www.landform.net

**TO:** Corcoran Planning Commission

**FROM:** Kevin Shay through Kendra Lindahl, Landform

**DATE:** May 28, 2020 for the June 4, 2020 Planning Commission Meeting

**RE:** Sign Variance for the Property located at 9350 County Road 19 (PID 07-119-23-43-0004) (city file no. 20-020)

**60-DAY REVIEW DEADLINE:** July 18, 2020

## 1. Application Request

The applicant has requested approval of a variance to allow three freestanding signs, where one is allowed.

The property at 9350 County Road 19 currently has three freestanding signs on the site. Staff finds no record of these sign permits at City Hall, but it is an older site and we are proceeding under the assumption that they are legal, non-conforming signs. The applicant is proposing to modify these signs in the following manner:

1. The first sign is located along County Road 10 on the east side of the site and is an 81-square foot freestanding sign that is approximately 16 feet tall. The applicant is proposing to leave the sign in the existing location and reface a portion of the sign. This modification is allowed as maintenance of a non-conforming sign.
2. The second sign is located on the corner of County Road 10 and 19. The applicant is proposing to remove the 102-square foot existing sign that is partially located outside the property line and does not meet setback standards. The applicant is proposing to replace this sign with a new freestanding sign. The proposed sign will meet the 10-foot setback, will have 56.8 square feet of signage (includes 11.7 square feet of dynamic display) and will be 16 feet tall. The new sign complies with city code requirements.
3. The third sign is located along County Road 19. The applicant is not proposing any work on this sign.
4. They are also proposing new canopy signage. The applicant is proposing to remove the two 30 square foot existing canopy signs attached to the gas station canopy to install a single 12 square foot sign on the front of the gas canopy.

## 2. Context

### *Zoning and Land Use*

The property is in the Rural Commercial (CR) District and is guided Rural Service/Commercial on the Future Land Use Map.



### *Surrounding Properties*

The surrounding properties are also zoned Rural Commercial (CR) and guided Rural Service/Commercial.

### *Natural Characteristics of the Site*

The site is a developed site with no wetlands or major natural characteristics.

## **3. Analysis of Request**

### Variance

The applicant is requesting a variance to allow three freestanding signs. The site does not comply with Section 84.05 of the Zoning Ordinance which allows one freestanding sign on the property. The burden of proof is on the applicant to show that all of the following criteria have been met:

1. *That there are practical difficulties in complying with the Zoning Ordinance.*

In order to comply with the zoning ordinance, the applicant would be required to remove two existing signs to replace any of the existing signs. This would remove needed signage for the multi-tenant commercial site.

2. *That the conditions upon which a petition for a variation is based are unique to the parcel of land for which the variance is sought and were not created by the landowner.*

The property is unique with multiple tenants located on one parcel creating the need for greater than usual signage to advertise the businesses. The three freestanding signs exist today and the applicant is requesting to improve upon those signs while complying with city code standards for all new signage. If the variance is approved the total square footage of the freestanding signs will be reduced by 45 square feet.

3. *That the granting of the variation will not alter the essential character of the locality.*

The area is characterized by commercial businesses and the proposed signage will not alter the essential character of the area. The new signage will reflect the new tenant in the gas/convenience store and will provide a refresh the look of the multi-tenant business area.

4. *The proposed variance would be in harmony with the general purposes and intent of the Ordinance.*

The proposed sign variance is in harmony with the general purposes and intent of the Ordinance. The new freestanding sign complies with the ordinance requirements while removing a sign that does not comply with ordinance standards.



5. *The variance is consistent with the Comprehensive Plan.*

In the Comprehensive Plan it is identified that a goal is to enhance the City's commercial development and facilitate expansion of existing businesses. The variance is consistent with the Comprehensive Plan goals for commercial businesses

6. *The City may impose conditions on the variance to address the impact of the variance.*

The design, size and height of the new freestanding sign meet the city code standards for a freestanding sign in the Rural Commercial zoning district.

#### **4. Conclusions**

Staff has reviewed the signage plans against the applicable standards outlined in the Comprehensive Plan and Zoning Ordinance and finds that the standards for a variance have been met.

The Planning Commission must determine if the variance standards have been met. If the Commission finds that the variance standards have been met, they may recommend approval of the variance.

#### **5. Recommendation**

Staff recommends approval of the resolution approving the sign variance to allow 3 freestanding signs.

#### **Attachments**

1. Draft Resolution 2020-xx approving Variance
2. Site Location Map
3. Applicant's Narrative dated May 7, 2020
4. Survey received May 13, 2020
5. Sign Plans received May 7, 2020

**RESOLUTION NO. 2020-XX**

**Motion By:**  
**Seconded By:**

**APPROVAL OF A VARIANCE ALLOWING THREE FREESTANDING SIGNS AT 9350  
COUNTY ROAD 19 (PID 07-119-23-43-0004) (CITY FILE NO. 20-020)**

**WHEREAS**, Rose City Inc. is requesting approval of a variance to allow three freestanding signs on property legally described as follows:

*All that part of the South 629.00 feet of the Southeast Quarter of Section 7, Township 119, Range 23, Hennepin County, Minnesota, which lies West of the following described line and its extension:*

*Commencing at the Southwest corner of said Southeast Quarter; thence on an assumed bearing of North 89 degrees 50 minutes 29 seconds East along the South line thereof, a distance of 709.5 feet to the actual point of beginning of the line to be described; thence North 00 degrees 09 minutes 31 seconds West to the North line of said South 629.00 feet of the Southeast Quarter and there terminating except the South 22 rods of the East 16 rods of the West 43 rods of said Southeast Quarter.*

**WHEREAS**, the Planning Commission has reviewed the variance and recommends approval.

**NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF CORCORAN, MINNESOTA**, that it should and hereby does approve the request for a variance, subject to the following findings and conditions:

1. Approval is granted to allow three freestanding signs and new canopy signage as shown on application and plans received by the City on May 7, 2020 and revised materials received on May 13, 2020, except as amended by this resolution.
2. A variance to allow three freestanding signs where one is allowed, is approved subject to the following findings:
  - a. In order to comply with the zoning ordinance, the applicant would be required to remove two existing signs to replace any of the existing signs. This would remove needed signage for the multi-tenant commercial site.
  - b. The property is unique with multiple tenants located on one parcel creating the need for greater than usual signage to advertise the businesses. The three freestanding signs exist today and the applicant is requesting to improve upon those signs while complying with city code standards for all new signage. If the variance is approved the total square footage of the freestanding signs will be reduced by 45 square feet
  - c. The area is characterized by commercial businesses and the proposed signage will not alter the essential character of the area. The new signage will provide a refresh the look of the multi-tenant business area.

**RESOLUTION NO. 2020-XX**

- d. The proposed sign variance is in harmony with the general purposes and intent of the Ordinance. The new freestanding sign complies with the ordinance requirements while removing a sign that does not comply with ordinance standards.
  - e. In the Comprehensive Plan it is identified that a goal is to enhance the City's commercial development and facilitate expansion of existing businesses. The variance is consistent with the Comprehensive Plan goals for commercial businesses.
- 3. The signage shall comply with all ordinance requirements, except as specifically approved by this resolution.
  - 4. A sign permit is required prior to beginning construction.
  - 5. Approval shall expire within one year of the date of approval unless the applicant commences the authorized use and the required improvements.

**VOTING AYE**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

**VOTING NAY**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

Whereupon, said Resolution is hereby declared adopted on this xx day of June 2020.

\_\_\_\_\_  
Ron Thomas - Mayor

ATTEST:

\_\_\_\_\_  
Jessica Beise – Administrative Services Director

*City Seal*



Corcoran City Hall  
Kendra Lindahl  
8200 County Road 116  
Corcoran, MN 55340

Re: PID# 0711923430004  
Marathon/Tom Thumb  
9350 Co Rd No 19  
Loretto, MN 55374

Hearing Date: June 4, 2020

With the above site we have proposed within the city the following signage that the Marathon standards:

- 1) Canopy signage proposed is 3 sides of illuminated fascia on the gas canopy with 3 sets of Marathon decals (12.3sq ft ea).
- 2) Sign #2 we are proposing that we reface the one existing sign cabinet only.
- 3) Sign #1 We have proposed a 24' Sign with 71.9sq ft of signage and 20.7 sq ft of Electronic Message Center and have a blue lit bar on the side of the sign.

To comply with the city's ordinances and comply with Marathon standards we have reduced our signage proposed to

- 1) Canopy signage to have non-illuminated fascia & only (1) set of illuminated channel letters that comply with Section 84.05 Subd 3-f.
- 2) Sign #2 we are compliant.
- 3) Sign #1 new sign with 45.1 sq ft and 11.7 sq ft Electronic Message Center. This will conform with the city's ordinances Section 84.04 Subd 7, 8 and 9. Section 84.05, Section 84.10, and 84.11.

The variance that is being proposed for the above business is as follows. Remove the existing main sign and install new footings and a new Marathon sign in the same area as the old sign on the property.

(TOLL FREE)

1-800-594-9451

[www.rosecityinc.com](http://www.rosecityinc.com)

31208 County RD 71, Eagle Bend MN 56446

(FAX)

1-218-738-3187





CANOPY. ELECTRIC. SIGN. VINYL GRAPHICS.

- A) We are installing a new sign that is 56.8 sq ft total and the existing sign is 102 sq ft. that is older and in need of upgrading. It also has a metal catwalk around the sign to change out the manual reader board. With the proposed sign this will be eliminated. The existing sign is also closer to the intersection and with the new sign it will be closer in the property line and comply with 84.04 subd 2-a.
- B) This is unique to this parcel within the city. This is a multi-tenant property. The signage proposed would be incorporating a new image with the gas station and re-fresh the look of the sign and canopy.
- C) Granting a variation will clean up the image of the business's façade. And have a sign that is compliant with the city's ordinances. And the sign will be moved back from obstructing the intersection with less things to look around.
- D) With an approved variance, the site would be within the city's ordinance and have a new sign to enlighten the business front & curb appeal which is good for the business and the community. The new sign lighting inside and out will also comply with the city ordinance of Section 84.04 subd 8 a-h.

If you have any questions please feel free to call

Sincerely,

Tammy Westerberg  
218-738-3188

Customer agrees to order according to the above quote.

Date \_\_\_ / \_\_\_ / \_\_\_ Authorization \_\_\_\_\_

(TOLL FREE)

1-800-594-9451

[www.rosecityinc.com](http://www.rosecityinc.com)

31208 County RD 71, Eagle Bend MN 56446

(FAX)

1-218-738-3187

# Certificate of Survey and Topographic Survey

Right of Way  
 Curbs & Gutter

COUNTY ROAD NO. 19

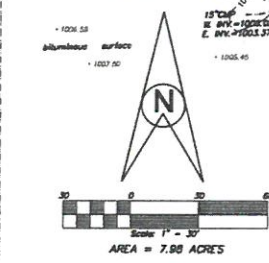
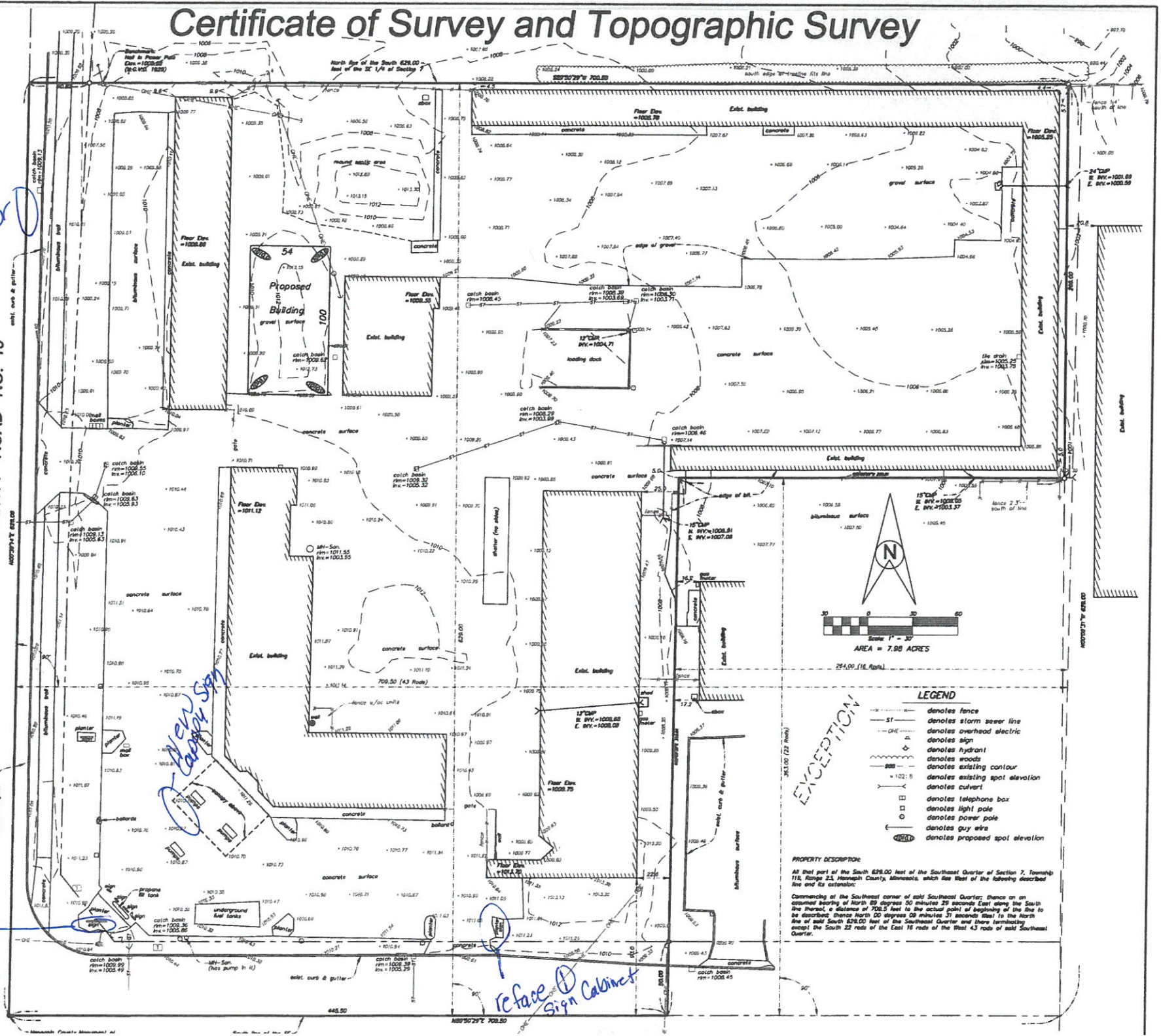
Existing Signs  
 is 63' off  
 Center line of  
 NO 19 & 63' off  
 Centerline NO 10

Proposed Sign  
 Will be 65' off  
 OF NO 19 & 65'  
 OF NO 10  
 Center Lines

Move Sign  
 in 24" same  
 Direction as  
 old Sign.

New Sign  
 Cabinet

re face  
 Sign Cabinet



**LEGEND**

- denotes fence
- ST- denotes storm sewer line
- OHE- denotes overhead electric
- denotes sign
- denotes hydant
- denotes woods
- denotes existing contour
- 102.15 denotes existing spot elevation
- denotes culvert
- denotes telephone box
- denotes light pole
- denotes power pole
- denotes guy wire
- denotes proposed spot elevation

**PROPERTY DESCRIPTION:**  
 All that part of the South 828.00 feet of the Southeast Quarter of Section 7, Township 118, Range 23, Hasbrough County, Minnesota, which lies West of the following described line and its extension:  
 Commencing at the Southeast corner of said Southeast Quarter; thence on an assumed bearing of North 89 degrees 29 minutes 29 seconds East along the South line thereof, a distance of 706.5 feet to the actual point of beginning of the line to be described; thence North 20 degrees 29 minutes 31 seconds East to the North line of said South 828.00 feet of the Southeast Quarter and there terminating except the South 22 rods of the East 18 rods of the West 43 rods of said Southeast Quarter.

EXCEPTION



**Clear results**  
 PID: 0711923430004  
 9350 Co Rd No 19  
 Corcoran, MN 55374

Owner/Taxpayer

Owner:	Ess Real Estate Lic
Taxpayer:	ESS REAL ESTATE LLC 9350 CO RD NO 19 LORETTO MN 55374
Tax Parcel	
Parcel Area:	7 acres 304,815 sq ft
Torrens/Abstract:	Torrens
Addition:	Unplatted 07 119 23
Lot:	
Block:	
Metes & Bounds:	All That Part Of The S 629 Ft Of Se 1/4 Which Lies W Of Fof Desc Line And Its Ext Com At Sw Cor Or Said Se 1/4 Th On An Assumed Brg Of N 89 Deg Note: This is A Partial Metes & Bounds Description.
Tax Data (Assessed 2018, Payable 2019)	
Market Value:	\$1,784,000
Total Tax:	\$62,593.32
Property Type:	Commercial-Preferred
Homestead:	Non-Homestead
Year Built:	1987
Tax Data (Assessed 2019, Payable 2020)	
Market Value:	\$1,873,000

Go to... +

The colors shown in this drawing are conceptual only and DO NOT represent actual paint, print/cut vinyl, neon or acrylic colors. Actual samples are available for your viewing upon request. Sample rendering photographs are not exact replica but a very close representation.

CUSTOMER RESPONSIBLE FOR CORRECT SPELLING

DRAWING #1

EXISTING



24" x 97"  
16.2#

24" x 97"  
16.2#

36" x 97"  
24.3#

36" x 97"  
24.3#

72"

reface only



PROPOSED



53' to Center of Road

Sign #2



phone: 218.738.3188 toll free: 800.594.9451 fax: 218.738.3187

www.rosecityinc.com

Copyright © 2015 All Rights Reserved

CLIENT **Tom Thumb**

LOCATION **Corcoran, MN**

ACCT. MGR. **Corey G.**

ARTIST **Corey S.**

DATE **02/21/20**

CUSTOMER SIGNATURE: **X**

DATE:

ART REQUIRED

ART TO BE CLEANED UP

ART ON FILE

FOYS REQUIRED

SHOP DRAW. REQUIRED

SURVEY REQUIRED

THIS DOCUMENT IS A CONCEPTUAL REPRESENTATION OF SERVICES PROVIDED BY ROSE CITY VINYL GRAPHICS, CANOPY, SIGN, ELECTRIC, BBQ & RC GLOBAL COMPANY. BY SIGNING THIS DOCUMENT YOU ARE AGREEING TO THE SPECIFICATIONS LISTED ON THIS DESIGN. THIS DOCUMENT IS OWNED BY ROSE CITY VINYL GRAPHICS, CANOPY, SIGN, ELECTRIC, BBQ & RC GLOBAL COMPANY & PROTECTED UNDER TITLE 17 OF THE COPYRIGHT CODE. CLIENT AGREES, BY RECEIPT OF THIS DOCUMENT, NOT TO SHARE DESIGN OR INFORMATION WITH A THIRD PARTY WITHOUT WRITTEN CONSENT OF ROSE CITY VINYL GRAPHICS, CANOPY, SIGN, ELECTRIC, BBQ & RC GLOBAL COMPANY OR UNLESS PURCHASED BY PAYMENT. ANY VIOLATION WILL CONSTITUTE A CHARGE OF CONCEPTUAL PRODUCTION CHARGES.



Sign #1

102  $\frac{\$}{\text{Total}}$

30" x 144"  
30  $\frac{\$}{\text{ft}}$

144"

Storman's  
FOOD & FUEL

Existing  
Remove &  
Destroyed

123"

UNLEADED DIESEL  
249  $\frac{9}{10}$  289  $\frac{9}{10}$   
WE HAVE PREMIUM CLEAR

48" x 108"  
36  $\frac{\$}{\text{ft}}$

26  $\frac{\$}{\text{ft}}$   
40" x 96"

116" x 84" 93  $\frac{\$}{\text{ft}}$

SMOKING  
PROPANE



PROPANE TANKS

FILLED  
HERE

NORMAN SEZ  
GOPHERS

GOPHERS

BY 3

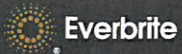
422074-5  
6' V10 14" LD4

OAH 16'



~123.5"

73.125"



**DISCLAIMER:** Renderings are for graphic purposes only and not intended for actual construction dimensions. For windload requirements, actual dimensions, and mounting detail, please refer to engineering specifications and install drawings. These drawings and designs are the exclusive property of Everbrite LLC. Use of, or duplication in any manner without express written permission of Everbrite LLC, is prohibited.

Customer: MARATHON

Project No: 422074-5

Date: 05/01/2020

Location & Site No.:  
# MA9350ADR

Scale:

Drawn By: J.Goldsmith

Description:

Revised:

Revised:

Customer Approval: Graphics and colors on file will be used unless otherwise specified by customer. Please review drawing carefully. By signing below, you agree to graphics as shown above, and to location of sign as shown. Please return signed copy back to Everbrite.

CUSTOMER SIGNATURE

DATE

LANDLORD SIGNATURE

DATE

Canopy Signage Existing

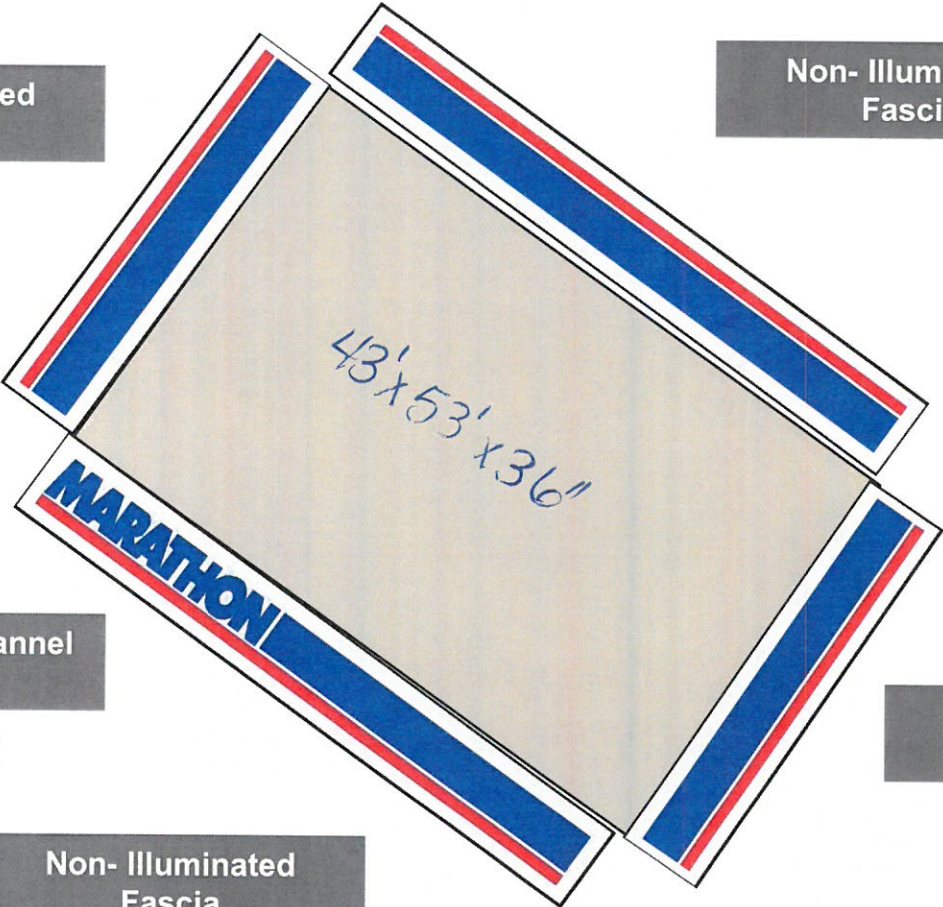
2 Signs @ 30" x 144" 30¢ ea





Non- Illuminated  
Fascia

Non- Illuminated  
Fascia



Marathon Lit Channel  
Letters

15" x 118" = 12 #

Non- Illuminated  
Fascia

Non- Illuminated  
Fascia

Long Side : 159 # @ 10% = 15.9 #  
Short Side : 129 # @ 10% = 12.9 #

8350 County Rd 19  
Corcoran, MN

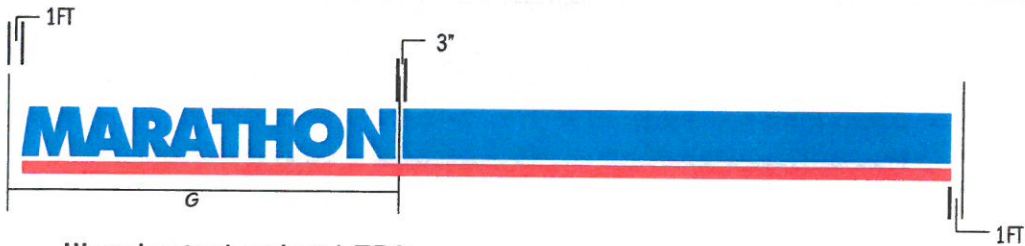




# MARATHON



Letter Size	Part #	Fascia Height	Total "Marathon" Length (G)
12"	MA4013LD.OID	30" - 32"	98 1/2"
15"	MA4015LD.OID	34" - 38"	118 1/8"
18"	MA4018LD.OID	40" - 44"	137 7/8"
20"	MA4021LD.OID	46" - 48"	157 5/8"



- Illuminated using LED's.
- Low voltage wiring.
- Ships and installs in two sections, "MARA" & "THON".
- Not to be installed over "MARATHON" letter graphic.



*Decal & Channel Letters same size*

See page 47 for vendor contact information.  
All image materials are subject to Marathon approval.



# Everbrite

Date: March 25th, 2020

Re: LumiDigit Price and EMC Sign Illumination

To Whom It May Concern:

In compliance with the various sign regulations adopted throughout the United States, the following information pertains to **Everbrite LumiDigit Electronic Gas Price Changers and EMC Signs**:

All LumiDigit gas price and EMC signs are equipped with light sensors that automatically adjust the LED digit light intensity of the sign in direct correlation with ambient light conditions and are factory configured not to exceed 0.3 foot-candles above ambient light levels.

The luminance of Everbrite's LED signs is between 3000 to 4000 nits (280 to 372 foot-candles) during the brightest time of the day and between 300 to 400 nits (28 to 37 foot-candles) at night depending on the size of the digit or panel configuration.

The daytime brightness setting is at its highest level and can only be adjusted to a lower setting. The nighttime brightness setting is preset at the factory and is password protected to prevent changes from end-user manipulation.

Sincerely,

Mark Erickson  
Product Development Manager  
608-429-1670  
[merickson@everbrite.com](mailto:merickson@everbrite.com)



105 South Fifth Avenue  
Suite 513  
Minneapolis, MN 55401

Tel: 612-252-9070  
Web: landform.net

**TO:** Corcoran Planning Commission

**FROM:** Kendra Lindahl, Landform

**DATE:** May 28, 2020 for the June 4, 2020 Planning Commission Meeting

**RE:** **PUBLIC HEARING.** Comprehensive Plan Amendment, Rezoning, Preliminary Plat and Preliminary PUD Development Plan for “Tavera” at the northwest corner of Hackamore Road and County Road 116 (PID 35-119-23-44-0001, 35-119-23-11-0001, 35-119-23-12-0002, 35-119-23-41-0001 and 35-119-23-43-0001) (City File 20-017)

**REVIEW DEADLINE:** August 19, 2020

**1. Description of Request**

The applicant is requesting approval of “Tavera”, a 549-unit residential development at the northwest corner of County Road 116 and Hackamore Road. The project includes a mix of single-family, villa, twinhome and townhome units. The phasing plan shows development in eight phases.

*\*Key plan application materials are attached as part of this packet; however, due to size limitations not every item is included. The complete application is available at city hall.*

**2. Parks and Trails Commission Review**

The Parks and Trails Commission reviewed the item on May 21, 2020 and voted 6-0 to recommended approval with the conditions as outlined in the staff report.

**3. Context**

*Zoning and Land Use*

The properties are guided Low Density Residential and zoned Urban Reserve. The Dempsey property is guided Agricultural Preserve, the designation expired on April 27, 2020 and was reclassified as Low Density Residential because the Comprehensive Plan states “When land is removed from the Metropolitan Agricultural Preserve program, the land use will revert to its underlying land use: Rural/Ag Residential outside of the MUSA and Low Density Residential in the MUSA.”

All but the Dempsey property are in the 2020-2025 phase of the 2040 Staging Plan. The Dempsey property is in the 2035-2040 phase and a Comprehensive Plan amendment is required to bring it into phase I.





### *Surrounding Properties*

The surrounding properties are guided Existing Residential and Low Density Residential and zoned Urban Reserve. The property to the south, across Hackamore Road, is located in the City of Medina and developed with single family homes in Foxberry Farms subdivision.

### *Natural Characteristics of the Site*

There are a number of wetlands on site, including a public waters basin on the south side of the McKown property. The Natural Resource Inventory map identifies a number of natural plant communities scattered throughout the project area. The Ecologically Significant Natural Areas map shows Maple-basswood forest, lowland hardwood forest and oak forest on the site. The Water Resources map shows a creek in the northwest portion of the site and this creek is in the Shoreland Overlay District and a ditch in the eastern portion of the side that is subject to the 16.5-foot buffer requirement. There are three areas of FEMA floodplain in the northern portion of the site.

### *School Districts*

The Wessel and McKown properties are in the Wayzata School District and the Theis and Dempsey properties are in the Wayzata School District.

## **4. Analysis of Request**

### **A. Level of Discretion in Decision Making**

The City has a relatively high level of discretion in approving or denying a comprehensive plan amendment. The comprehensive use plan is the city's long-range planning tool that indicates what type of development should occur on all land within the City. In other words, it is the City's plan for how it wants to direct future development and growth. The City Council may guide property as it deems necessary to protect and promote the general health, safety and welfare of the community.

The City has a relatively high level of discretion in approving or denying a rezoning application. The proposed zoning for a property must be consistent with the City's Comprehensive Plan. If the proposed zoning is not consistent with the Comprehensive Plan, the City must deny the rezoning application. The Zoning Ordinance and Map are the enforcement tools used to implement the goals and standards set in the Comprehensive Plan.

The City has a relatively high level of discretion in approving PUDs. A PUD must be consistent with the City's Comprehensive Plan. The City may impose reasonable requirements in a PUD not otherwise required if the City deems it necessary to promote the general health, safety and welfare of the community and surrounding area.

The City's discretion in approving a preliminary plat is limited to whether the proposed plat meets the standards outlined in the City's subdivision and zoning ordinance and the conditions of preliminary plat approval. If it meets these standards, the City must approve the final plat.



## B. Consistency with Ordinance Standards

Staff has reviewed the application for consistency with Comprehensive Plan, Zoning Ordinance, Subdivision Ordinance and City Code requirements, as well as City policies. The City Engineer's comments are incorporated into this staff report, the detailed comments are included in the attached engineering memo and the approval conditions require compliance with the memo.

### Comprehensive Plan Amendment

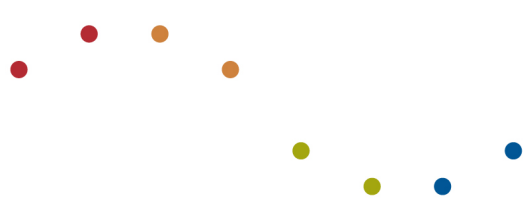
As part of the application, Lennar is requesting a Comprehensive Plan Amendment to amend the Sanitary Sewer Staging plan to bring all of the affected parcels into the initial stage (2020-2025) from the final phase (2035-2040).

Staff recommends that the amendment include the addition of this new 4-acre park parcel as the neighborhood park is not shown on the current Parks and Trail Plan map.

As noted earlier, the Dempsey property is guided Agricultural Preserve, the designation expired on April 27, 2020 and was reclassified as Low Density Residential because the Comprehensive Plan states "When land is removed from the Metropolitan Agricultural Preserve program, the land use will revert to its underlying land use: Rural/Ag Residential outside of the MUSA and Low Density Residential in the MUSA." No Comprehensive Plan amendment is required, but we will note it in our Metropolitan Council amendment.

The Comprehensive Plan is a living document and when the City finds evidence to support a change to the plan, the City Council has the discretion to make a change. The City should consider the following issues when reviewing a comprehensive plan amendment request:

- Evidence submitted by the applicant demonstrating the reason(s) that the plan should be changed, including, but not limited to, whether new information has become available since the Comprehensive Plan was adopted that supports re-examination of the plan, or that existing or proposed development offers new opportunities or constraints that were not previously considered by the plan.
- Whether or not the change is needed to allow reasonable development of the site.
- The relationship of the proposed amendment to the supply and demand for particular land uses within the city and the immediate vicinity of the site.
- A demonstration by the applicant that the proposed amendment has merit beyond the interests of the proponent.
- The possible impacts of the amendment on all specific elements of the Comprehensive Plan as may be applicable, including, but not limited to:
  - Transportation
  - Sanitary sewer, including existing and proposed sanitary sewer flows as compared to the adopted plan;
  - Housing, including the extent to which the proposal contributes to the City's adopted housing goals;
  - Surface water, including compliance with the City's goals for water quality as well as water quantity management;
  - Water supply;

- 
- Parks and open space; and
  - Consideration of the impact of the proposed amendment upon current and future special assessments and utility area charges, future property tax assessments or other fiscal impacts upon the City.

This is a policy decision for the City Council. The City should evaluate all of these issues when considering the decision. Staff recommends approval of the staging plan change as it will allow the property to be developed as a whole and provide looping of infrastructure with the addition of the Dempsey property to the project.

### Rezoning

The properties in this proposed development are all zoned Urban Reserve (UR), which is a holding zone until development is proposed and municipal sewer and water are available. The applicant is requesting that the properties be rezoned to Planned Unit Development (PUD). The rezoning would be consistent with the underlying Low Density Residential land use designation, which requires development at 3-5 units per net acre.

The Zoning Ordinance has established a PUD zoning district with the purpose of promoting a creative and efficient use of land by providing design flexibility in the development of residential neighborhoods and/or nonresidential areas that would not be possible under a conventional zoning district. In this case, the developer is requesting PUD flexibility primarily for lot size and setbacks and architectural standards.

The project is requesting PUD flexibility for:

1. Lot area and lot width reductions for villas, single family homes on 55-foot lots and twinhomes
2. Rear yard setback of 20 feet for decks/patios where 30 feet is required for single family, villas and twinhomes
3. Garage size standards
  - a. Single family homes and villas are proposed at 63% for two-car garages, 75% for 3-car garages and 68% for 4-car garages where 55% is the maximum allowed.
  - b. Twinhomes will comply with the 55% maximum
  - c. A 420 sq. ft. garage where 440 sq. ft. is required for townhome units with basements and 540 sq. ft. for those without basements.
  - d. Townhome garage width of 19 feet where a minimum width of 20 feet is required
4. Townhome architecture – minimum stone/brick requirements.
5. Townhomes setback flexibility
  - a. 15 feet between building where 20 feet is required
  - b. Setback (to curb of private street) 20 feet where 25 feet is required
  - c. Setback to public street 20 feet where 25 feet required

In exchange for this flexibility, the applicant will:

- a. Provide additional landscaping beyond the ordinance requirements
  - a. The plans show 944 trees where 665 are required
- b. Preserve environmental features
  - a. Preservation of 96% of the wetlands on site



- b. Preservation of 30 acres of wooded areas
- c. Provide an opportunity for construction of the planned regional trail
  - a. The off-road trail is planned by both the City and Three Rivers Park District and can be shifted east into this site and constructed by the developer
- d. Construct at their cost the parking lot in the park
- e. Provide off-site infrastructure improvement at their cost to benefit this site and surrounding properties.
- f. Provide an entrance monument to welcome travelers to Corcoran
  - a. No details have been provided for the sign planned at the NW corner of County Road 116 and Hackamore.
- g. A well designed neighborhood providing new housing options with some improved architecture in compliance with the Comprehensive goals and general architecture standards

The PUD flexibility is discussed more detail in the PUD Development Plan section of this report.

The City must review this request for compliance with the PUD standards as follows:

1. *The planned development is not in conflict with the Comprehensive Plan.*

The planned unit development is not in conflict with the Comprehensive Plan. The proposed pre-development net density is 2.85 units per acre, when the post-development area is calculated we expect it will be within the 3-5 units per acre expected in the Low Density Residential land use classification. The plan incorporates the trail, park and street connections anticipated within the site and preserves significant portions of the existing natural resources on site.

2. *The planned development is not in conflict with the intent of the underlying zoning district.*

The planned development of 549 homes is consistent with the intent of the RSF-3 and RMF-1 districts and the Comprehensive Plan goals to provide a variety of housing options.. The applicant is requesting approval of PUD zoning for design flexibility to allow for modification to the architectural standards, provide a mix of lot sizes and reduced setbacks for this neighborhood at a density consistent with the Comprehensive Plan.

3. *The planned development is not in conflict with other applicable provisions of the City's Zoning Ordinance.*

The development is not in conflict with other applicable provisions of the zoning ordinance, except that PUD flexibility is requested as noted in the staff report. In exchange for this flexibility, the developer will provide both internal infrastructure needed to support their development and off-site street improvements, a new neighborhood park and trunk infrastructure improvements that will serve a larger development area.

4. *The planned development or unit thereof is of sufficient size, composition, and arrangement that its construction, marketing, and/or operation is feasible as a complete unit without dependence upon any other subsequent unit or phase.*



The planned development is feasible without dependence upon any other subsequent phase. The project has an 8-year phasing plan and development is contingent upon completion of trunk infrastructure improvements and water service. The initial phase will include the construction of the primary project infrastructure, roadway improvements on County Road 116 at the main entrance and other key public infrastructure improvements.

- 5. The planned development will not create an excessive burden on parks, schools, streets and other public facilities and utilities which serve or are proposed to serve the planned development.*

The planned development will not create an excessive burden on parks, schools, streets and other public facilities and utilities which serve or are proposed to serve the planned development. The developer is providing public trails consistent with the City's Comprehensive Plan and a new City park. The development includes the construction of all public infrastructure needed to serve this site at the developer's expense.

- 6. The planned development will not have an undue and adverse impact on the reasonable enjoyment of the neighborhood property.*

The planned development is a residential neighborhood developed consistent with the Comprehensive Plan and, therefore, will not have an undue and adverse impact on the reasonable enjoyment of the neighborhood property.

- 7. The quality of the building and site design proposed by the PUD plan shall substantially enhance the aesthetics of the site, shall demonstrate higher standards, more efficient and effective uses of streets, utilities and public facilities, it shall maintain and enhance any natural resources within the development, and create a public benefit that is greater than what would be achieved through the strict application of the primary zoning regulations*

The quality of the site design proposed by the PUD shall enhance the aesthetics of the site, install and provide streets, utilities and public facilities that may not otherwise be installed and create public benefit that is greater than would otherwise be achieved due to the construction and financing of all related infrastructure improvements. The development will meet the City's density goals while preserving high quality natural resources, providing trails, a park and quality architecture.

The Zoning Ordinance states that "the rezoning of the property defined in the development plan shall not become effective until such time as the City Council approves an ordinance reflecting said amendment, which shall take place at the time that the City Council approves the final development plan." The Council should approve the rezoning to be effective at such time as the final PUD development plan is adopted.

#### Preliminary PUD Development Plan

The neighborhood will be built over eight years and we can expect that house plans offered by Lennar today may be modified with different options by the time the project is built out. Therefore, it is important to establish basic standards that will carry through development of the PUD rather than





approve specific models. The developer has provided example products for discussion, but other house plans could be approved by staff over time.

The plan includes:

- 265 single family homes (55-, 65- and 75-foot wide lots)
- 70 villas (55- and 65-foot wide lots)
- 80 twinhomes
- 134 townhomes

### *Lot Dimensions and Setbacks*

The single family and twinhomes are being reviewed against the RSF-3 district standards. The applicant is requesting some flexibility from the lot size and width standards and rear yard setbacks for decks and patios as follows (shown in *red*):

	RSF-3 District Standards		Proposed PUD Standards				
	Single Family	Two-Family dwellings	75-foot lots (58 homes)	65-foot lots (165 homes)	55-foot lots (51 homes)	Villa lots (70 homes)	Twin homes (80 homes)
<b>Minimum Lot Area</b>	7,500 sq.ft	15,000 sq.ft	9,000 sq. ft.	7,800 sq. ft.	<i>6,600 sq. ft.</i>	<i>7,000 sq.ft.</i>	<i>8,918 sq. ft. (est.)</i>
<b>Minimum lot width</b>	65 feet	100 feet	75 feet	65 feet	<i>55 feet</i>	<i>55 feet</i>	<i>39 feet</i>
<b>Minimum Principal Structure Setbacks:</b>							
<b>Front, From Major Roadways*</b>	100 feet	100 feet	100 feet (60 feet with landscaping)	100 feet (60 feet with landscaping)	100 feet (60 feet with landscaping)	100 feet (60 feet with landscaping)	n/a
<b>Front, From all other streets</b>	20 feet	25 feet	25 feet /20 feet side street	25 feet /20 feet side street	25 feet /20 feet side street	25 feet /20 feet side street	25 feet (25 feet from private drive curb)
<b>Front Porch (≤ 120 square feet)</b>	15 feet	N/A	15 feet	15 feet	15 feet	15 feet	n/a
<b>Side (living)</b>	10 feet	10 feet	7.5 feet	7.5 feet	7.5 feet	7.5 feet	7.5 feet
<b>Side (garage)**</b>	5 feet	5 feet	7.5 feet	7.5 feet	7.5 feet	7.5 feet	7.5 feet
<b>Rear</b>	30 feet	25 feet	30 feet / <i>20 feet for decks/patios</i>	30 feet / <i>20 feet for decks/patios</i>	30 feet / <i>20 feet for decks/patios</i>	30 feet / <i>20 feet for decks/patios</i>	30 feet
<b>Maximum Principal Building Height</b>	35 feet	35 feet	35 feet	35 feet	35 feet	35 feet	35 feet



*\*Major Roadways are Principal Arterial, A Minor Reliever, A Minor Expander and A Minor Connector Roadways as shown on the 2030 Roadway Functional Classification map in the 2030 Comprehensive Plan.*

*\*\*Minimum separation between structures on adjacent parcels shall be 15 feet.*

Staff notes that the smaller lots are consistent with the lot area/width is consistent with other developments in the City. However, the developer did take the July 25, 2019 Council work session comments under advisement and did retain the 15-foot separation between buildings. At that meeting, the Council indicated that the 15 feet between residential buildings was a priority and that the architectural standards in the ordinance (particularly related to the garages was important). There was some willingness to support more garage frontage with a higher level of architectural design in exchange. For these reasons, staff supports this flexibility but has included a condition requiring the developer to update the lot tab to reference the product type on each lot and provide a base lot calculation for the twinhomes.

The applicant is requesting that the rear yard setback be reduced from 30 feet to 20 feet for decks and patios. This does reduce the useable rear yard for homeowners. The City did approve a similar setback reduction in Bellwether.

- The Commission should discuss and make a recommendation on this request.

The townhomes were reviewed against the RMF-1 district standards. The applicant is requesting some flexibility from the side yard setbacks as follows:

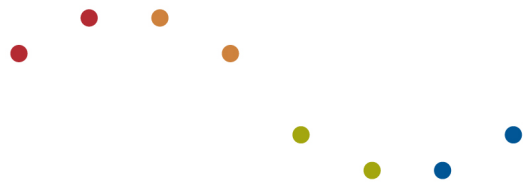
	<b>RMF-1 District Standards</b>	<b>Proposed PUD Standards</b>
<b>Minimum Lot Area</b>	5,400 sq. ft. per unit	<i>2,100 sq. ft.</i>
<b>Minimum lot width</b>	n/a	n/a
<b>Front, From Major Roadways*</b>	100 feet	100 feet (60 feet with landscaping)
<b>Front, From all other streets</b>	25 feet	25 feet (25 feet from private drive curb) 20 feet from secondary street
<b>Side (living)</b>	10 feet	<i>7.5 feet / 15 feet between buildings</i>
<b>Rear</b>	25 feet	25 feet
<b>Maximum Principal Building Height</b>	35 feet	35 feet

Staff believes that the intent of the per unit sq. ft. requirement as intended to be an average based on the townhome area (a sum of the unit footprints + plus the common areas divided by the number unit). The developer should provide the calculation using this formula.

The developer is requesting side yard setback flexibility to allow a minimum of 15 feet between buildings. Staff supports this request but recommends that the setback from all streets (except CR 116) and the perimeter setback be a minimum of 25 feet from streets and other housing product types.

### *Design Standards*

The applicant has provided some product examples but is not requesting approval of specific products in order to have flexibility to modify product types in response to market demand. If the



City can establish clear development standards and expectations, staff supports this approach. The City has adopted design standards as part of the Zoning Ordinance and guidelines as part of the *Southeast District Plan and Design Guidelines*. The developer will be required to show compliance with these standards or request PUD flexibility.

All single family and twinhomes are subject to the following standards listed in Section 1040.040, Subd 8:

**A. Front Elevation:**

**1. Definition:**

*i. For the purpose of this Section, front elevation shall be the elevation facing the front lot line on the street of the mailing address for the property when the property has more than one front lot line.*

**2. Materials used:**

*i. The front elevation shall have material consisting of brick, stone, stucco, fiber cement board, redwood, cedar or other similar materials. A minimum of two different materials is required, except that brick may be used on the entire elevation.*

*ii. Vinyl siding is permitted when combined with the materials listed in Subd. 8.A.2.i of this Section. A minimum of 3 different variations in color, style and/or material is required. For example, if vinyl siding is used, the home shall have combination of each lap, shake or board and batten plus brick or stone. The percentage of each used material/style of materials used shall be shown on the plans.*

*iii. Except for brick, stucco and/or natural or artificial stone, the front elevation shall have no more than 75% of one type of exterior finish. The percentage of materials used shall be shown on the plans.*

**3. Architectural Elements:**

*i. The front elevation façade shall consist of doors, windows and variations of the wall face with the use of pilasters or columns, wainscots, canopies or other architectural elements.*

**4. Design:**

*i. Front elevations shall be varied with a minimum of five different styles provided in the development.*

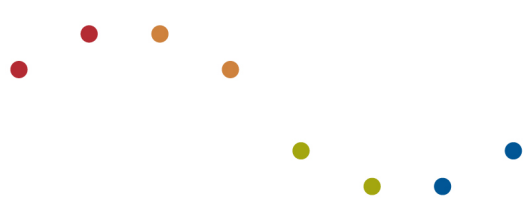
*ii. Homes in proximity to each other shall not look alike in terms of the combination of color of siding, accent and roofing materials. The home under consideration will be compared to the two homes on each side and to the three homes directly facing it.*

**B. Garages:**

*1. The garage shall not comprise more than 55 percent of the viewable ground floor street-facing linear building frontage. This standard is based on the measurement of the entire garage structure and not on a measurement of the garage door or doors only. Corner lots are exempt from this requirement on one street elevation.*

*2. Garage doors shall be architecturally styled (this includes details such as raised panels, accent color, windows, etc.) to match the exterior design of the home.*

**C. Roof:**



1. *Roofing materials including asphalt shingles, wood shingles (including shake), concrete, clay, ceramic tile roofs or residential steel roofing material (with hidden fasteners) are required on all roofs.*

2. *Overhangs must be a minimum of 12 inches.*

**D. Other Elevations:**

1. *Equal architectural treatment on all sides of the building (materials, articulation, etc.) shall be used for all new residential construction when located on or visible from a street or public park. Each elevation facing a street or public park should use a minimum of 2 different materials and/or styles compatible with the front elevation as described in this Section. All other elevations shall make a good faith effort to demonstrate that elements of the front elevation have been considered for incorporation on these elevations.*

2. *Each side elevation shall have at least one window or door opening.* 3. *A maximum of 18 inches of the foundation wall may be exposed on any elevation.*

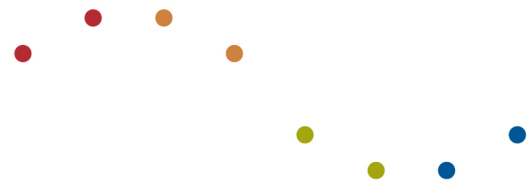
These standards apply to the single family homes, villas and twinhomes. The applicant indicates that they are only requesting flexibility from the garage frontage requirements in Section 1040.040, Subd 8 (B) and will comply with all other design standards. In exchange for the flexibility to allow up to 75% of the building front to be garage, they have proposed to provide “decorative garage doors with windows, brackets, handles, etc.”. It is unclear how this is an improvement over the code requirement that “Garage doors shall be architecturally styled (this includes details such as raised panels, accent color, windows, etc.) to match the exterior design of the home.”

They have also indicated that they will provide:

1. A color or texture change on all sides of the homes such as but not limited to lap siding changes, band boards, board and batten, or shake or scale textures. Variations to exterior siding textures or colors may be horizontal or vertical.
2. 4” LP trim on all windows
3. Optional window grids or optional shutters on some homes. (However, they don’t want to commit to doing this on every home in order to avoid monotony. It is unclear to staff how this could be included as a PUD benefit if it cannot be defined and measured for compliance.)
4. They will comply with the requirement that “*Each elevation facing a street or public park should use a minimum of 2 different materials and/or styles compatible with the front elevation as described in this Section*”, but do commit to providing building articulation in these areas like they are in Ravinia (which is not required). They would provide window grids or shutters (where appropriate with the, in addition to the color or texture change and 4-inch LP trim on all sides.

The submittal included elevations/floor plans for:

- Magnolia twinhome (434-474 sq. ft. garages. 56% garage face, not garage forward)
- Aspen twinhome (434-474 sq. ft. garages. 56% garage face, not garage forward)
- Salerno villa (460-690, 53% 2-car, 79% est. 3-car, option c appears to be garage forward)
- Florence villa (483-713, 55% 2-car, 82% est. 3-car, appears to be garage forward)



- Unnamed single family home samples (no details provided, but expected 63-75% garage face and several are garage forward)

At the July 16, 2019 Council work session on residential design standards with the Planning Commission, the City discussed making changes to the ordinance standards, but ultimately felt they should stay as written. While it was not unanimous, there was consensus that the 15-foot building separation and garage requirements were important to maintain. However, they would consider flexibility if there is a higher quality architecture without garage forward design.

The applicant states that the garage forward home styles are desired in the marketplace and would like to keep them as an option. However, they are proposing significantly more garage face than the ordinance allow with limited architectural improvements not required by code.

- The Planning Commission should discuss the recommended garage flexibility in the context of the project as a whole and make a recommendation. The Commission could recommend approval as requested or could recommend approval of the flexibility requested and add a condition that garage forward design is not allowed on homes that exceed the 55% frontage standard.

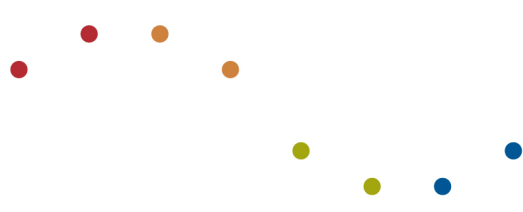
While they have not requested flexibility from this requirement, it seems unlikely that the twinhomes can comply:

- i. Front elevations shall be varied with a minimum of five different styles provided in the development.*
- ii. Homes in proximity to each other shall not look alike in terms of the combination of color of siding, accent and roofing materials. The home under consideration will be compared to the two homes on each side and to the three homes directly facing it.*

We have included a condition requiring the applicant to provide a color palette and material sample board to ensure compliance.

The standards for townhomes are as follows listed in Section 1040.060, Subd. 9:

- A. *Unit Size: The following unit size shall apply:*
  1. *Floor Area: Five hundred (500) square foot minimum floor area for efficiency apartment units. Minimum eight hundred (800) square feet for a one-bedroom unit plus one hundred (100) square feet for each additional bedroom. Seven hundred (700) square foot minimum floor area for one-bedroom apartment dwelling units in retirement housing developments, plus one hundred (100) square feet for each additional bedroom. Garages, breezeways and porch floor spaces shall not be credited in determining the required floor area of units.*
- B. *Unit Construction:*
  1. *Subdivision Requests: Building elevations and floor plans shall be furnished with subdivision requests illustrating exterior building material and colors to demonstrate compliance of this title. Building floor plans shall identify the interior storage space within each unit.*

- 
2. *Decks or Porches: Provision shall be made for possible decks, porches or additions as part of the initial dwelling unit building plans. The unit lot shall be configured and sized to include decks or porches.*
  3. *Exterior Building Finish: The exterior of attached/townhome dwelling units shall include a variation in building materials which are to be distributed throughout the building facades and coordinated into the architectural design of the structure to create an architecturally balanced appearance. In addition, attached/townhome dwelling structures shall comply with the following requirements:*
    - a. *A minimum of twenty five percent (25%) of the combined area of all building facades of a structure shall have an exterior finish of brick, stucco and/or natural or artificial stone.*
    - b. *Except for brick, stucco, and/or natural or artificial stone, no single building facade shall have more than seventy five percent (75%) of one type of exterior finish.*
    - c. *Except for brick, stucco, and/or natural or artificial stone, no townhome dwelling structure shall have more than sixty percent (60%) of all building facades of one type of exterior finish.*
    - d. *For the purpose of this Section and material calculations:*
      - i. *The area of the building facade shall not include area devoted to windows, entrance doors, garage doors, or roof areas.*
      - ii. *Variations in texture or style (i.e., lap siding versus shake shingle siding) shall be considered as different materials meeting the requirements of this Section.*
      - iii. *Integral colored split face (rock face) concrete block or plain concrete block shall not qualify for meeting the brick, stucco and/or natural or artificial stone material requirements.*
  4. *Color. Each attached/townhome building shall feature a broad array of colors, including earth tones, muted natural colors found in surrounding landscape or other colors consistent with the adjacent neighborhood. Buildings in proximity to each other shall not look alike in terms of the combination of color siding, accent and roofing materials. The home or townhome building under consideration will be compared to two homes or townhome buildings on each side of it and to the three homes or town home buildings directly facing it.*
  5. *Facades and walls: Each attached/townhome dwelling unit shall be articulated with projections, recesses, covered doorways, balconies, covered box or bay windows or other similar features, dividing large facades and walls into human scaled proportions similar to adjacent single-family dwellings.*
  6. *Roofs. Each attached/townhome building shall feature a combination of primary and secondary roofs. Primary roofs shall be articulated by at least one of the following elements:*
    - a. *Changes in place and elevation*
    - b. *Dormers or gables*
    - c. *Transitions to secondary roofs over entrances, garages, porches, bay windows.*
  7. *Garages:*
    - a. *Each dwelling unit shall include an attached garage.*



- b. *Garages shall comply with the following minimum size standards:*
- i. *For dwellings with basements: Four hundred forty (440) square feet.*
  - ii. *For dwellings without basements: Five hundred forty (540) square feet.*
  - iii. *Garages shall be a minimum of twenty feet (20') in width.*

The applicant is requesting flexibility from the minimum garage standards to allow:

- 437 sq. ft. garage where a minimum of 440 sq. ft. is required.
- 19 foot wide garages where a minimum of 20 feet of width is required

This is the first townhome project and the first time the city is applying these standards. These smaller garages are common in the market today and staff supports the flexibility.

The applicant is also requesting flexibility from the townhome architecture standards. They propose to provide a minimum of 6% stone/brick on the front of the building where *A minimum of twenty five percent (25%) of the combined area of all building facades of a structure shall have an exterior finish of brick, stucco and/or natural or artificial stone.* However, they are proposing to increase the stone/brick on the end units to 26.2% of that face. The challenge is that the front elevation is 80% garage face, which makes it difficult to add stone to the front. This standard applies to townhomes and apartments and it is difficult to envision townhomes that could comply. If the stone wainscoting is wrapped around both end units as proposed, staff supports the PUD flexibility based on the finding that the intent of the standard is being met.

The applicant did not provide a color palette to ensure compliance with the requirement of B(4) or elevations to ensure compliance with B(5), but we have included a condition to ensure compliance and avoid monotony.

### *Utilities*

The City Engineer's memo provides detailed utility comments. This project will extend municipal sewer and water to the site from the Ravinia development to serve this site. Off-site sewer construction is expected to begin this fall and be completed in Spring 2021.

The City ordinance requires developers to stub sanitary sewer, water and streets to the property line, which means development of this infrastructure makes development possible for adjacent properties. This utility extension would likely be one of the primary benefits of the PUD.

### *Transportation*

A number of road improvements are required for this project, including:

- Construction of all internal streets
- Improvements to County Road 116
- Paving of existing gravel streets
  - Old Settlers Road from Butterworth Lane to Horseshoe Trail
  - Horseshoe Trail from Old Settler's to the east lot line of the Dempsey property



- Hackamore improvements, including turn lanes
- An emergency vehicle access and future connection to Blue Bonnet
- Stub streets to adjacent properties on the west for future connections.

As discussed during the EAW for this project, the Comprehensive Plan shows a minor collector street looping through the site to connect County Road 116 to Old Settlers Road. The City Code does not allow homeowners to access directly onto a minor collector street and the location of the existing wetlands limit other access points, which would render much of the site currently owned by Dempsey undevelopable. At its August 22, 2019 meeting, the Corcoran City Council approved a concept plan to shift the minor collector from the location currently shown and plan for a future straight connection along the Horseshoe Trail alignment. This would be a long-term connection as it would require acquisition from existing landowners that are not part of this development. The City would allow Lennar to make the local street connection as shown on the plan and prepare for a future collector street in the modified location. No direct connection from County Road 116 from the new Horseshoe Trail to the existing Horseshoe Trail is planned with this project.

The plan shows an 80-foot right-of-way for Horseshoe Trail but all other public streets are shown with a 50-foot right-of-way. A 60-foot right-of-way will be needed for Street L (from Blue Bonnet to Horseshoe Trail on the west side of the site) which has trunk infrastructure that requires a wider right-of-way. Widening of this street will likely affect the lot layout.

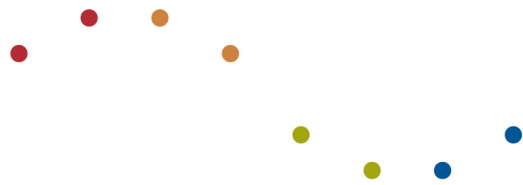
An additional 50-foot /right-of-way will be dedicated for Hackamore (there is an existing 33 feet in Medina) and is adequate for the planned improvements, including the planned on-road trail.

Private drives are proposed for the twinhome area near Outlot H north of the park and the townhome area. The drives are shown as 24 feet wide and would not allow on-street parking. The City Code only allows private drives in the Rural Residential zoning district under certain conditions. When that ordinance was adopted in 2015 staff noted that townhome developments (like those approved in Sawgrass in 2014) often have private drives and we would want to address that in our ordinance. Staff does recommend that we adopt standards for private drives, however, as part of the PUD the City can approve them.

As noted during the previous private drive discussion, staff believes it is critical to design the streets to look different than a public street and be clearly identified as private streets, so that homeowners do not request that the City take over ownership at a later date. We believe many of the private drive standards for the RR district an apply to these private drives and we recommend the following standards:

- Individual unit driveways that gain access from any such private drive shall be a minimum of 22 feet in length.
- A decorative sign stating “Private Drive” shall be located near each entrance to a private drive. Such sign shall also provide the range of addresses served by the private drive.
- The private drive must include 20-foot deep concrete apron to distinguish it from the public street. The remainder of the drive may be bituminous or concrete.
- No parking may be allowed on the private drive but guest parking will be required adjacent to the private drive.





- The HOA documents shall provide a mechanism for maintenance of the private drive in perpetuity.
- The private drive shall not be placed on a separate lot or outlot.
- The private drive maximum width shall be 24 feet.
- Snow storage locations must be shown on the plans.

The developer is proposing cul de sac islands in only two locations on the east side of the site. All other cul de sacs will be bituminous only. Where islands are proposed, the HOA shall be responsible for maintenance of these landscape islands. The City Code does not require cul de sac islands but these landscape features were offered as an amenity in Ravinia.

- The Planning Commission could discuss the cul de sac design and provide direction.

The City Engineer's memo provides more detailed transportation comments. The draft resolutions require compliance with the engineer's memo.

### *Parking*

The Zoning Ordinance requires two parking spaces per unit plus one space for each of the townhome units. The single family homes can meet their parking requirements with the attached garage and driveway. All driveways in front of garages must be a minimum of 22 feet long to allow a vehicle to park in front of the garage without conflicting with sidewalks and streets. Additionally, on-street parking will be allowed on one side of the 28-foot wide public street.

The applicant indicates that garages for twinhomes are 434 – 474 sq. ft. Standard garage doors are 16-foot or 18-foot wide; therefore, we typically see 20-foot x 22-foot (440 sq. ft.) standard garages. The twinhome garage sizes should accommodate two vehicles in the garage and an additional one or two in the driveway. The twinhomes in the NW part of the site are accessed via a public street, which allows on-street parking on one side of the street. However, because the twinhomes in Outlot H are on a private drive, which does not allow on street parking, the developer is proposing 19 parking stalls. This exceeds the townhome guest parking standards, which would only require eight parking stalls.

The 134 townhomes in the southeast corner of the site shows 38 guest parking stalls where 27 are required. This complies with the ordinance requirements, but staff recommends that the developer look at driveway 3, which has 18 units but only two guest stalls. At least four guest stalls should be provided to serve 18 units.

The number of parking stalls complies with ordinance requirements.

### *Public Safety*

The public safety committee reviewed this request and provided comments related to public safety access. The memo is attached to this report and compliance is included as a condition of approval in the draft resolution.

### *Existing Easements*



There is a large electrical Transmission line easement that runs east west through the southern portion of the site. It appears that this easement affects Lots 36, 235 and 236. Elsewhere in the City, staff has seen significant restrictions under the transmission line easement that prohibit permanent structures and limit landscaping. Staff has included a condition that the applicant provide details of this easement and any restrictions to ensure there are no conflicts with the proposed plans.

There is another overhead powerline that extends across Horseshoe trail. Section 945.060, Subd. 1 of the City Code requires all utilities within a project to be located underground and where existing facilities exist they must be moved underground.

There is a drainage easement near County Road 116 near the Theis property. This easement is shown to remain.

New standard drainage and utility easements will be provided with the plat around the perimeter of the lots, over stormwater management ponds and over the wetlands (over the wetland and buffer areas).

In the northwest corner of the site, there is a driveway encroachment from the Mattson property over this property up to Blue Bonnet. It appears that this may exist without a formal easement. As part of this plat, the developer must provide an access to the Mattson property west of this site.

### *Stormwater*

The plans show a number of stormwater ponds on site to comply with City, Watershed and State requirements. Additional details are needed from the applicant to ensure compliance with regulations and manage drainage near adjacent properties during construction.

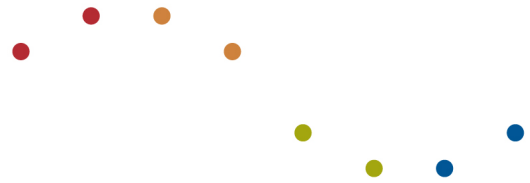
The City Engineer has indicated that offsite improvements will be needed to manage additional drainage and allow the City to implement the compliance with the City's TMDL. The City Engineer recommends a \$100,000 fee for these future improvements.

### *Wetlands*

The wetland delineation for 25 wetlands was approved in 2019. However, since approval the Theis property was added to the project and the wetland delineation approvals must be amended.

The applicant is proposing nearly 3 acres of wetland impact on the site and intends to purchase off-site wetland credits to mitigate for the impact. The mitigation plan must be submitted to the City, the LGU for the Wetland Conservation for review and approval.

Section 1050.010 establishes standards for the wetland overlay district. This includes establishment of wetland buffer strips with an average buffer width of 25 feet plus a 15-foot structure setback from the buffer. Wetland buffer signs are required to be installed at each lot line where it crosses a wetland buffer, and where needed to indicate the contour of the buffer, with a maximum spacing of 200 feet of wetland edge. The wetland buffer planting and maintenance plan must be submitted for



review and approval by the City. The plans must be revised to show compliance with these requirements.

It appears that several of the building pads overlap the structure setback requirements; however, they are pad sites not floorplans. Staff has provided the redlined version of the plans to the applicant showing where the constrained lots are and where consideration must be given the home style planned for those lots. PUD flexibility from these standards are not requested or recommended.

The codes states that "Patios and decks may encroach up to a maximum of 6 feet into required structure setback areas. Porches may not encroach into required setback areas. Buffer and wetland areas must be kept free of all structures, including fences and play equipment." This must be included in the HOA documents.

The 15-foot structure setback is reduced to 5 feet for roads and parking lots. Trails that serve an interpretive function are exempt from the setback requirement but must be located outside of the buffer. It appears that there are several areas where the trail is in the wetland buffer and must be shifted. The applicant could also use wetland buffer averaging to reduce the wetland buffer in those areas and make it up in others to allow the trail to remain.

### *Floodplain*

Section 1050.030 of the City Code establishes the floodplain standards and the Comprehensive Plan shows three floodplain areas in the northern portion of the site generally in the area of the large wetlands. The FEMA floodplain boundary must be shown on the preliminary plat.

It appears that there are impacts to the floodplain. A mitigation plan must be prepared for review and approval and FEMA letter of map revision (LOMR) must be coordinated with the City Engineer.

### *Shoreland/Ditch Buffers*

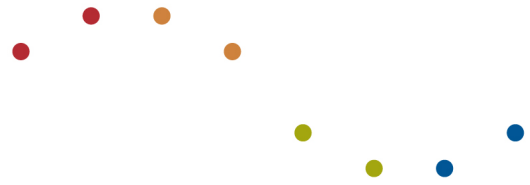
The property includes shoreland overlay district areas in the northwest portion of the site related to a creek and a portion of property that includes a ditch not defined as shoreland. Both of these areas require a buffer – the shoreland requires a 25-foot average buffer and the ditch requires a 16.5-foot minimum buffer. Additionally, there is a 50-foot structure setback from the OHWL of the creek.

The buffer areas must be planted with native buffers are required by Section 1050.020 of the Zoning Ordinance. Buffer monument signs must be installed and the HOA must submit a maintenance plan for the buffer areas for review and approval by the City.

The plans must be revised to show the shoreland overlay district, the ditch and all required buffers on preliminary plat. The buffers must be protected by a drainage and utility easement.

### *Natural Resources*

The Comprehensive Plan includes a Natural Resource Inventory Areas map (Map 1-7) that shows wetlands and woodland areas and an Ecologically Significant Natural Areas map (Map 1-12) that



shows Oak Forest, Maple-basswood forest and lowland hardwood forest scattered throughout the site.

The City does not have a tree preservation ordinance. However, the applicant has indicated that preservation of a significant portion of these areas is one of the PUD benefits. The plans show preservation of 44% of the ecologically significant areas and 70% of the woodland areas outside of those boundaries, resulting in 52% of the woodland areas on site being preserved. The applicant has generally been able to preserve the woodland areas on the perimeter of the site which will provide a buffer to adjacent properties. The plans must be revised to provide tree protection fencing on the grading plans.

### *Landscaping*

The developer has provided a robust landscape plan that provides 994 trees where 665 are required and preserves approximately 30 areas of woodland area.

The applicant is required to provide one tree for each dwelling unit. These trees are generally proposed to be evenly spaced in the front yard along the street to create a tree lined street canopy. Trees should be planted in the right-of-way for the 80-foot and the 60-foot streets (where there is room for the public infrastructure and the trees) but be placed outside of the right-of-way in the 50-foot wide streets. Staff recommends all trees be planted when the street is completed, but these must be planted prior to issuance of a certificate of occupancy for the adjacent home.

A setback reduction from 100 feet to 60 feet is requested as allowed by Section 1060 of the Zoning ordinance, which allows the reduction by right if additional landscaping is required. The ordinance requires 1 overstory deciduous tree, 1 overstory coniferous tree, 2 ornamental trees, and 10 understory shrubs per 100 ft. of the project site where the reduction is requested. This would require an additional 29 overstory deciduous trees, 29 overstory coniferous trees, 58 ornamental trees and 290 shrubs for this site. The applicant is proposing instead to provide 49 overstory deciduous trees, 98 conifer trees and 48 ornamental trees.

The applicant is proposing to add 20 extra overstory deciduous trees and 69 overstory coniferous trees, but 10 fewer ornamental trees and no shrubs. The deciduous trees are a mix of White Pine, Norway Spruce and Black Hills Spruce. The primary benefit of the shrubs is to provide screening below the tree canopy. However, the additional conifers will provide more year-round screening.

- The Planning Commission should discuss whether planting plan for the reduced setbacks is consistent with the intent of the ordinance and provide a recommendation.

There is a potential for a conflict with the utilities and landscaping along County Road 116. The applicant and staff will need to work to avoid conflicts and the plans will be revised as required.

As noted earlier, the applicant did preserve significant trees along the perimeter of the site. They also added significant landscaping on the north to buffer from the existing homes. Staff recommends additional landscaping be added on the west to buffer from those properties, specifically,

- The area behind Lots 376-388 on the west



- West of Lot 266
- West of Lots 240-244
- West of Lots 226-228

### Lighting

No lighting details were provided by the applicant. Street lighting will be provided by Wright Hennepin Electric. Cut sheets for the proposed street lighting shall be provided to the City to ensure compliance with City standards. Streetlights are generally located on the sidewalk side of the street.

Lighting will be required on the private streets for safety. Lighting must comply with the lighting requirements of Section 1060.040 of the Zoning Ordinance.

The applicant must provide lighting details for the townhomes to demonstrate compliance with section 1060.040 of the Zoning Ordinance.

### Signage

Chapter 84 of the City Code regulates signage. The applicant is showing signage in the following locations:

- At the NW corner of Hackamore and County Road 116. This indicated as a Corcoran gateway sign
- One monument sign at the entrance off Hackamore
- Two monument signs at Horseshoe Trail and Street A near the park
- One monument sign at the entrance off County Road 116



Figure 1 - entrance sign concept 1



Figure 2 - entrance sign concept 2

Section 84.05 of the City Code allows two 32-square-foot signs at the primary entrance of a subdivision and one 16 square-foot sign at a secondary entrance. No details about the signs have been proposed by the applicant as of the date of the report and no PUD flexibility is requested.

Staff recommends approval of the project signs at the two entrances (32 sq. ft. at County Road 116 and 16 sq. ft. at Hackamore) and the gateway sign at the corner (size TBD), but not the additional signs at the park entrance. PUD flexibility would be required for the gateway sign depending on the ultimate design and could be approved with the PUD final development plan.



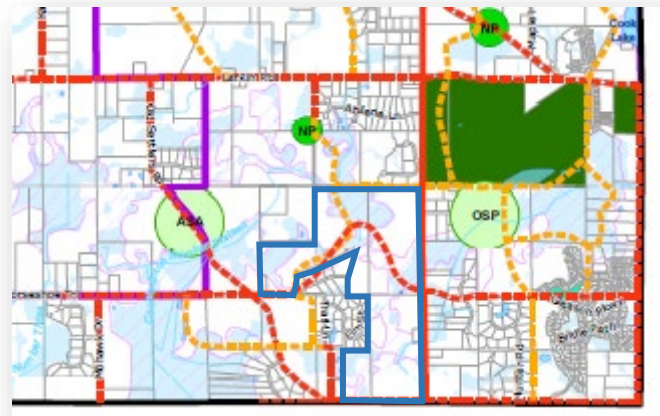
Figure 3 - gateway sign concept

The ordinance requires signs to be set back 10 feet from the property line and outside the sight visibility triangle. The applicant must show compliance with these setback requirements when the building permit is requested.

**Parks and Trails**

The 2040 Parks and Trails Plan map shows On Road trails on County Road 116, Hackamore Road and Horseshoe Trail (66<sup>th</sup> Avenue/Gleason Parkway), which can be accommodated in the right-of-way. There is an Off Road trail running north to south in this area and this trail coincides with the regional trail planned by Three Rivers Park District.

The Comprehensive Plan does not indicate any parks in the area, but staff supports the addition of the park within this large development. Neighborhood parks are the most local unit of the park system, providing for the passive and active recreational needs of neighborhood residents. These parks should be accessible to a wide variety of user groups living in the neighborhood. These parks typically do not provide organized athletic programs



The developer has proposed to include a 4.06 acre park (Outlot J) and 1.8-miles of trails. Additionally, Outlot K will be deeded to the City to provide access to the park. This will also preserve options for a future extension of Horseshoe Trail should the properties to the west redevelop in the future.

**Trails and Sidewalks**

City policy is to require an 8-foot wide trail in a 20-foot easement and give credit for the area of off road trails shown on the Comprehensive Plan. Three Rivers Park District requires a 10-foot trail in a 20-foot easement and that is what will be provided in Tavera. The Comprehensive Plan shows the



north/south off road trail west of this site, but staff has worked with the developer to shift the trail into this development and take advantage of the opportunity to build this section of trail with Tavera.

Staff recommends the following changes to the trail and sidewalk plan:

- Staff recommends that the sidewalk be shifted to the east side of Street A to avoid the trail conflicts. This would require additional driveway street crossings but results in a clearer distinction between the regional trail corridor and neighborhood sidewalks.
- Staff recommends that the sidewalk be shifted to the north side of Street K to avoid the trail conflicts. This would result in additional driveway crossings, but would eliminate one street crossing.
- Rather than the mid-block crossing in Outlot K south of the planned park, staff recommends that the trail move through the northeast corner of Outlot N and cross at the intersection.
- Where the mid-block trail crossing is unavoidable at Street K near Lot 448, staff recommends that the developer work with the City to develop appropriate crossing improvements. The City will coordinate with Three Rivers Park District for precedents.
- Staff recommends that the plans be revised to add additional sidewalk connections from the development to the planned CR 116 trail. The connections should be made generally from the townhome area and a second connection near lot 507.
- Additional trail connections should be stubbed to the west at Street G/Trail Lane and at the west side of Outlot K.
- Add a sidewalk connection from Street D to Horseshoe Trail (between Lots 162 and 163).
- The developer is responsible “for making certain improvements to the developments for park, playground, trail and public open space purposes, including, but not limited to, *finished grading and ground cover for all park, playground, trail and public open spaces* within their developments. No credit toward the required dedication shall be given for this work. The City reserves the right to pave the trails or require the developer to pave these off-road trails. Should the City require the developer to pave the trails, the City shall reimburse the Developer for the costs for paving of the trail.” Staff recommends that the developer pave the trails within the development and be reimbursed by the City following acceptance of the trails.

Trails will be maintained by the City according to City trail policy and sidewalks will be maintained by the HOA or homeowners. The HOA documents will need to clearly define this responsibility.

### *Park Dedication*

The applicant is showing dedication of a 4.06-acre park. Staff notes Wildflower Park in Ravinia is 5.13 acres, but due to the odd shape, wetland and ponding has only about one acre of usable park land. The Comprehensive Plan says that neighborhood parks are generally 5-20 acres in size, but staff would support acceptance of the proposed park to serve the needs of the neighborhood.

Staff recommends that:

- the plans be revised to show general park area on the east with a 6-8 stall parking lot on the west
- the trail wind through the site rather than along Outlot K
- provide a trail or sidewalk connection to the park between lots 256 and 257



- As one of the benefits of the PUD, the developer should provide access to the parking lot with driveway in Outlot K, pave the parking lot in addition to the required grading of the park site

The developer is showing signage at the intersection of Horseshoe/Street A. There will be a city park sign in the northwest corner but a development sign will not be allowed in those locations.

### *Park Dedication Calculation*

The City should accept park dedication in the form of land where shown on the maps. The City may accept cash-in-lieu of land if park dedication requirements are not met by the land dedication.

The plans show a gross land area of 273.57 acres and 192.53 pre-development net acres. The park dedication ordinance requires 15% of the land area (or the market value of that land). In this case, the developer would be required to dedicate:

- 15% of 192.53 acres = 28.88 acres

If the developer's calculations are correct, they are proposing to dedicate 5.86 acres (4.06 acres of park and 1.8 acres of trail). Additional information is required from the developer to confirm the gross and net acres. Credit is given for net acreage only. This would provide 20.29% of the required park dedication. Therefore, the remaining 79.71% of the park dedication would be cash. The current park dedication fee is proposed to be amended at June 11<sup>th</sup> Council meeting to reflect the 2040 Comprehensive Plan. The proposed fees are \$4,628 per single family unit and \$3,141 per multi-family unit. Park dedication will be based on the park dedication fee in place at the time the plat is released for filing, but for discussion purposes the formula would be:

335 single family/villas x \$4,628 = \$1,550,380  
80 twinhomes x \$4,628 = \$370,240  
134 townhomes x \$3,141 = \$420,897  
TOTAL = \$2,341,514  
Less 20.29% = \$475,093.19  
**Remaining Cash Due: \$1,886,420.81**

The final park dedication calculation will be based on final land area calculations and the fee schedule in place at the time of release of the final plat.

### Preliminary Plat

The preliminary plat is for 549 lot and 22 outlots. The applicant has requested PUD flexibility from the minimum lot size requirements as noted earlier in the PUD section of the staff report. The approval conditions recommended in this staff report and draft resolutions will likely result in changes to the lot layout and may also affect the unit count.

The phasing plan shows 8 project phases generally moving west to east and south to north. The developer's phasing plan may change based on market conditions, but staff notes that infrastructure improvements are tied to the timing of infrastructure needs.





The concept plan review asked for a ghost plat of the Mattson property located to the west to ensure that the proposed street stub will allow for a future extension. This ghost plat must be submitted for City review and approval.

It is City policy to allow grading to begin after approval of the final plat for each phase. The applicant has expressed a desire to allow grading after preliminary plat for an area larger than the initial phase. However, they have not yet provided a specific request with rationale for modifying the City policy. Therefore, at this time staff continues to recommend compliance with current policies.

### Conclusion

There are a number of issues that must be addressed and many of those will result in changes to the development lot layout. Staff is comfortable that the draft resolutions include conditions necessary to bring the project into compliance with City standards (as amended by the PUD). The applicant will need to work closely with staff to resolve the outstanding issues prior to submitting a final plat and final PUD development plan. When those plans are received they will be reviewed by the Planning Commission and City Council to ensure compliance with the conditions in the preliminary approvals.

### **5. Recommendation**

Move to recommend approval of the following:

- a. Resolution approving comprehensive plan amendment
- b. Ordinance rezoning to PUD
- c. Resolution approving findings of fact for rezoning
- d. Resolution approving preliminary PUD development plan
- e. Resolution approving preliminary plat

### Attachments

1. Resolution approving comprehensive plan amendment
2. Ordinance rezoning to PUD
3. Resolution approving findings of fact for rezoning
4. Resolution approving preliminary PUD development plan
5. Resolution approving preliminary plat
6. Site Location Map
7. Engineer's Memo dated May 28, 2020
8. Public Safety memo dated May 7, 2020
9. Hennepin County memo dated May 6, 2020
10. Applicant's Narrative dated May 11, 2020
11. Plan drawings dated April 21, 2020
12. Tree preservation plan dated May 20, 2020
13. Woodland Assessment dated October 28, 2019

**RESOLUTION NO. 2020-\_\_\_**

**Motion By:**  
**Seconded By:**

**APPROVING A COMPREHENSIVE PLAN AMENDMENT FOR “TAVERA” AT THE NORTHWEST CORNER OF HACKAMORE ROAD AND COUNTY ROAD 116 (PID 35-119-23-44-0001, 35-119-23-11-0001, 35-119-23-12-0002, 35-119-23-41-0001 AND 35-119-23-43-0001) (CITY FILE 20-017)**

WHEREAS, U.S. Home Corporation dba Lennar has requested a Sanitary Sewer Staging plan amendment to move approximately 96 acres of land from the 2035-2040 stage up to the 2020-2025 stage on land legally described as follows:

Lot 10, Block 1, Meadow Trails, Hennepin County, Minnesota.

WHEREAS, the Planning Commission has reviewed the requested amendments at a duly called Public Hearing and recommends approval;

WHEREAS, the property’s Agricultural Preserve land use designation expired on April 27, 2020 and was reclassified as Low Density Residential as described in the 2040 Comprehensive Plan making the land available for development;

WHEREAS, the development project includes the addition of a new neighborhood park and the City will amend the Parks and Trails plan to reflect this additional park after dedication of the land;

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF CORCORAN, MINNESOTA, that it should and hereby does approve the request for a comprehensive plan amendment for the above referenced parcel, based on the following findings and subject to the following conditions:

1. The property is located in an area where municipal sewer and water can be made available as part of this development.
2. Reclassifying this site is needed to allow reasonable development of the site that responds to current market conditions.
3. Development of the site as part the larger development would facilitate other planned infrastructure improvements, including stormwater improvements, sanitary sewer extension, municipal water extension and transportation improvements that will have regional benefits.
4. With the planned infrastructure improvements developed with this project, there is adequate public infrastructure planned to serve the site.

**RESOLUTION NO. 2020-\_\_\_\_**

**VOTING AYE**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

**VOTING NAY**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

Whereupon, said Resolution is hereby declared adopted on this XX<sup>th</sup> day of June 2020.

\_\_\_\_\_  
Ron Thomas - Mayor

**ATTEST:**

\_\_\_\_\_  
Jessica Beise – Administrative Services Director

*City Seal*

**ORDINANCE NO. 2020-\_\_**

**Motion By:**  
**Seconded By:**

**AN ORDINANCE AMENDING TITLE X (ZONING ORDINANCE) OF THE CITY CODE TO CLASSIFY CERTAIN LAND LOCATED AT THE NORTHWEST CORNER OF HACKAMORE ROAD AND COUNTY ROAD 116 (PID 35-119-23-44-0001, 35-119-23-11-0001, 35-119-23-12-0002, 35-119-23-41-0001 AND 35-119-23-43-0001) (CITY FILE 20-017)**

THE CITY OF CORCORAN ORDAINS:

**Section 1. Amendment of the City Code.** Title X of the City Code of the City of Corcoran, Minnesota, is hereby amended by changing the classification on the City of Corcoran Zoning Map from Urban Reserve (UR) to Planned Unit Development (PUD), legally described as follows:

*See Attachment A*

**Section 2. Effective Date.** This amendment shall take effect upon adoption of the resolution approving the final PUD development plan for this project.

**VOTING AYE**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

**VOTING NAY**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

Whereupon, said Resolution is hereby declared adopted on this XX<sup>th</sup> day of June 2020.

\_\_\_\_\_  
Ron Thomas - Mayor

**ATTEST:**

\_\_\_\_\_  
Jessica Beise – Administrative Services Director

*City Seal*

**ORDINANCE NO. 2020-\_\_**

**ATTACHMENT A**

East 1/2 of the Southwest Quarter of the Southeast Quarter, Section 35, Township 119, Range 23, Hennepin County, Minnesota.

Together with:

Lot 10, Block 1, Meadow Trails, Hennepin County, Minnesota.

Together with:

The East 1/2 of the Northeast Quarter except that part which lies East of a line parallel with and distant 40 feet West of the East line, Section 35, Township 119, Range 23, Hennepin County, Minnesota.

Together with:

The East 1/2 of the Southeast 1/4 of Section 35, Township 119, Range 23, Hennepin County, Minnesota.

EXCEPT: The East Sixteen (16) rods of the North Twenty (20) rods of the South Twenty-nine and eight tenths (29.8) rods of the Northeast Quarter (NE 1/4) of the Southeast Quarter (SE 1/4) of Section Thirty-five (35), Township One Hundred Nineteen (119), Range Twenty-three (23).

AND FURTHER EXCEPT:

All that part of the following described tract:

Southeast 1/4 of the Southeast 1/4 and the South 9 8/10 rods of Northeast 1/4 of Southeast 1/4 also that part of North 20 rods of South 29 8/10 rods of the Northeast 1/4 of Southeast 1/4 lying West of East 16 rods thereof and that part of the Northeast 1/4 of Southeast 1/4 lying North of South 29 8/10 rods thereof, all lying in Section 35, Township 119 North, Range 23 West, except roads; which lies East of a line parallel with and distant 40 feet West of the East line of said section.

Together with:

The East 16 Rods of North 20 Rods of South 29.8 Rods of Northeast 1/4 of Southeast 1/4, Section 35, Township 119 North, Range 23 West, except that part which lies East of a line parallel with and distant 40 feet West of the East line of said section, Hennepin County, Minnesota.

**RESOLUTION NO. 2020-\_\_**

**Motion By:**  
**Seconded By:**

**APPROVING FINDINGS OF FACT FOR REZONING FOR PROPERTY LOCATED AT THE NORTHWEST CORNER OF HACKAMORE ROAD AND COUNTY ROAD 116 (PID 35-119-23-44-0001, 35-119-23-11-0001, 35-119-23-12-0002, 35-119-23-41-0001 AND 35-119-23-43-0001) (CITY FILE 20-017)**

WHEREAS, U.S. Home Corporation (dba Lennar) (“the applicant”) has requested approval to rezone 273.57 acres legally described as follows:

*See Attachment A*

WHEREAS, the Planning Commission has reviewed the request at a duly called Public Hearing and recommends approval, and;

WHEREAS, the City Council has adopted an ordinance rezoning the affected parcels from Urban Reserve (UR) to Planned Unit Development (PUD);

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF CORCORAN, MINNESOTA, that it should and hereby does support the request of U.S. Home Corporation for the reclassification of the property, based on the following findings and conditions:

1. The planned unit development is not in conflict with the Comprehensive Plan. The proposed pre-development net density is 2.85 units per acre, when the post-development area is calculated we expect it will be within the 3-5 units per acre expected in the Low Density Residential land use classification. The plan incorporates the trail, park and street connections anticipated within the site and preserves significant portions of the existing natural resources on site.
2. The planned development of 549 homes is consistent with the intent of the RSF-3 and RMF-1 districts and the Comprehensive Plan goals to provide a variety of housing options.. The applicant is requesting approval of PUD zoning for design flexibility to allow for modification to the architectural standards, provide a mix of lot sizes and reduced setbacks for this neighborhood at a density consistent with the Comprehensive Plan.
3. The development is not in conflict with other applicable provisions of the zoning ordinance, except that PUD flexibility is requested as noted in the staff report. In exchange for this flexibility, the developer will provide both internal infrastructure needed to support their development and off-site street improvements, a new neighborhood park and trunk infrastructure improvements that will serve a larger development area.
4. The planned development is feasible without dependence upon any other subsequent phase. The project has an 8-year phasing plan and development is contingent upon completion of trunk infrastructure improvements and water service. The initial phase will include the construction of the primary project infrastructure, roadway improvements on

**RESOLUTION NO. 2020-\_\_**

County Road 116 at the main entrance and other key public infrastructure improvements.

5. The planned development will not create an excessive burden on parks, schools, streets and other public facilities and utilities which serve or are proposed to serve the planned development. The developer is providing public trails consistent with the City's Comprehensive Plan and a new City park. The development includes the construction of all public infrastructure needed to serve this site at the developer's expense.
6. The planned development is a residential neighborhood developed consistent with the Comprehensive Plan and, therefore, will not have an undue and adverse impact on the reasonable enjoyment of the neighborhood property.
7. The quality of the site design proposed by the PUD shall enhance the aesthetics of the site, install and provide streets, utilities and public facilities that may not otherwise be installed and create public benefit that is greater than would otherwise be achieved due to the construction and financing of all related infrastructure improvements. The development will meet the City's density goals while preserving high quality natural resources, providing trails, a park and quality architecture.

**VOTING AYE**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

**VOTING NAY**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

Whereupon, said Resolution is hereby declared adopted on this XX<sup>th</sup> day of June 2020.

\_\_\_\_\_  
Ron Thomas - Mayor

ATTEST:

\_\_\_\_\_  
Jessica Beise – Administrative Services Director

*City Seal*

**RESOLUTION NO. 2020-\_\_**

**ATTACHMENT A**

East 1/2 of the Southwest Quarter of the Southeast Quarter, Section 35, Township 119, Range 23, Hennepin County, Minnesota.

Together with:

Lot 10, Block 1, Meadow Trails, Hennepin County, Minnesota.

Together with:

The East 1/2 of the Northeast Quarter except that part which lies East of a line parallel with and distant 40 feet West of the East line, Section 35, Township 119, Range 23, Hennepin County, Minnesota.

Together with:

The East 1/2 of the Southeast 1/4 of Section 35, Township 119, Range 23, Hennepin County, Minnesota.

EXCEPT: The East Sixteen (16) rods of the North Twenty (20) rods of the South Twenty-nine and eight tenths (29.8) rods of the Northeast Quarter (NE 1/4) of the Southeast Quarter (SE 1/4) of Section Thirty-five (35), Township One Hundred Nineteen (119), Range Twenty-three (23).

AND FURTHER EXCEPT:

All that part of the following described tract:

Southeast 1/4 of the Southeast 1/4 and the South 9 8/10 rods of Northeast 1/4 of Southeast 1/4 also that part of North 20 rods of South 29 8/10 rods of the Northeast 1/4 of Southeast 1/4 lying West of East 16 rods thereof and that part of the Northeast 1/4 of Southeast 1/4 lying North of South 29 8/10 rods thereof, all lying in Section 35, Township 119 North, Range 23 West, except roads; which lies East of a line parallel with and distant 40 feet West of the East line of said section.

Together with:

The East 16 Rods of North 20 Rods of South 29.8 Rods of Northeast 1/4 of Southeast 1/4, Section 35, Township 119 North, Range 23 West, except that part which lies East of a line parallel with and distant 40 feet West of the East line of said section, Hennepin County, Minnesota.



**RESOLUTION NO. 2020-\_\_**

**Motion By:**  
**Seconded By:**

**APPROVING PRELIMINARY PUD DEVELOPMENT PLAN FOR “TAVERA” ON PROPERTY LOCATED AT THE NORTHWEST CORNER OF HACKAMORE ROAD AND COUNTY ROAD 116 (PID 35-119-23-44-0001, 35-119-23-11-0001, 35-119-23-12-0002, 35-119-23-41-0001 AND 35-119-23-43-0001) (CITY FILE 20-017)**

WHEREAS, U.S. Home Corporation (dba Lennar) (“the applicant”) has requested approval of “Tavera” a residential subdivision on property legally described as follows:

*See Attachment A*

WHEREAS, the Planning Commission has reviewed the plan at a duly called Public Hearing and recommends approval, and;

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF CORCORAN, MINNESOTA, that the Corcoran City Council approves the request, subject to the following conditions:

1. A preliminary PUD development plan is approved to create 549 lots and 22 outlots for “Tavera”, in accordance with the plans and application received by the City on April 21, 2020 and revision received on May 19, 2020, May 20, 2020 and May 26, 2020, except as amended by this resolution.
2. Approval is contingent upon City Council approval of the requested rezoning and preliminary plat.
3. Approval is subject to compliance with the mitigation strategies outlined in the EAW and identified in the record of decision.
4. The applicant shall comply with all requirements of the Public Safety memo, dated May 7, 2020.
5. The applicant shall comply with all requirements of the City Engineer’s memo, dated May 28, 2020.
6. The application is subject to review and approval by Hennepin County. The applicant is required to obtain permits and approvals from the County as needed.
7. The preliminary PUD development plan is approved based on the finding that the proposed project is consistent with the City’s Comprehensive Plan.
8. The shoreland overlay district boundary must be clearly shown on the site plans.
9. The required buffers for the shoreland district and the ditch must be clearly shown on the site plan.

**RESOLUTION NO. 2020-\_\_**

- a. The shoreland requires a 25-foot average buffer
- b. The ditch requires a 16.5-foot minimum buffer
- c. There is a 50-foot structure setback from the OHWL of the creek in the shoreland district
- d. Required buffers must be planted with native buffers as required by Section 1050.020
- e. Buffer monument signs must be installed in accordance with Section 1050.020.

10. PUD flexibility is granted to establish the following lot standards for this development:

	<b>75-foot lots (58 homes)</b>	<b>65-foot lots (165 homes)</b>	<b>55-foot lots (51 homes)</b>	<b>Villa lots (70 homes)</b>	<b>Twin homes (80 homes)</b>	<b>Townhomes</b>
<b>Minimum Lot Area</b>	9,000 sq. ft.	7,800 sq. ft.	6,600 sq. ft.	7,000 sq. ft.	TBD - 8,918 sq. ft. (est.)	TBD
<b>Minimum lot width</b>	75 feet	65 feet	55 feet	55 feet	39 feet	n/a
<b>Front, From Major Roadways*</b>	60 feet	60 feet	60 feet	60 feet	60 feet	60 feet
<b>Front, From all other streets</b>	25 feet /20 feet side street	25 feet /20 feet side street	25 feet /20 feet side street	25 feet /20 feet side street	25 feet (25 feet from private drive curb)	25 feet from public ROW (25 feet from private drive curb)
<b>Front Porch (≤ 120 square feet)</b>	15 feet	15 feet	15 feet	15 feet	n/a	
<b>Side (living)</b>	7.5 feet	7.5 feet	7.5 feet	7.5 feet	7.5 feet	7.5 feet
<b>Side (garage)**</b>	7.5 feet	7.5 feet	7.5 feet	7.5 feet	7.5 feet	7.5 feet
<b>Rear</b>	30 feet / 20 feet for deck/patios	30 feet / 20 feet for deck/patios	30 feet / 20 feet for deck/patios	30 feet / 20 feet for deck/patios	30 feet / 20 feet for deck/patios	25 feet
<b>Maximum Principal Building Height</b>	35 feet	35 feet	35 feet	35 feet	35 feet	35 feet

\*Major Roadways are Principal Arterial, A Minor Reliever, A Minor Expander and A Minor Connector Roadways as shown on the 2030 Roadway Functional Classification map in the 2030 Comprehensive Plan. (reduction from 100 feet to 60 feet per Section 1060.070, Subd.K)

\*\*Minimum separation between structures on adjacent parcels shall be 15 feet.

11. All garages must have a minimum 22-foot wide parking area between the garage and right-of-way that does not overlap into sidewalks, drives or streets.

12. Mechanical equipment (including air conditioning units) must be located in the side or rear yard.

**RESOLUTION NO. 2020-\_\_**

13. Driveways may not encroach in the drainage and utility easements on the side yards.
14. The applicant shall provide details of the driveway, house pads, and setbacks as part of their final PUD Plan application that demonstrate compliance with the approved PUD standards.
15. The developer must update the lot tabulation to reference product type for each lot and provide a base lot calculation for the twinhomes and townhomes.

**Architectural and Design standards**

16. The single family, villa and twinhomes must comply with the standards in Section 1040.040, Subd. 8, except as specifically modified by this resolution.
17. The townhomes must comply with the standards in Section 1040.060, Subd. 9, except as specifically modified by this resolution.
18. PUD flexibility is provided to allow the face of the garage to exceed 55% of the building face for the single family, villa and twinhome units. In exchange for this flexibility:
  - a. Garage door colors shall be compatible with the building colors.
  - b. Garage doors shall be architecturally styled (this includes details such as raised panels, accent color, windows, etc.) to match the exterior of the home.
  - c. The garage must not extend in front of the home (including the front porch) on homes that exceed 55% garage face.
19. PUD flexibility is provided to allow minimum garage size of less than 440 sq. ft. and a garage width of less than 20 feet for the townhomes.
  - a. The garages shall be a minimum of 420 sq. ft. each
  - b. The garage width shall be a minimum of 19 feet.
20. PUD flexibility is provided to allow less than twenty five percent (25%) of the combined area of all building facades of a structure shall have an exterior finish of brick, stucco and/or natural or artificial stone for the townhomes.
  - a. The applicant shall provide stone/brick wainscoting along the entire front and sides, which will result in 6-9% stone/brick on the front and 26.2% on the sides
  - b. No stone/brick will be provided on the rear elevation.
  - c. The applicant must provide elevations ensure the rear elevation provides "projections, recesses, covered doorways, balconies, covered box or bay windows or other similar features, dividing large facades and walls into human scaled proportions similar to adjacent single-family dwellings" as required by ordinance.
21. In exchange for the PUD flexibility for the single family, villa and twinhome units:
  - a. A color or texture change shall be provided on all sides of the homes such as but not limited to lap siding changes, band boards, board and batten, or shake or scale textures. Variations to exterior siding textures or colors may be horizontal or vertical.
  - b. A 4" LP trim on all windows on all elevations.
  - c. Optional window grids or optional shutters on some homes. The developer shall work with staff to better define this application prior to final PUD application.

**RESOLUTION NO. 2020-\_\_**

22. The applicant must submit a color palette and material sample board to ensure compliance with Section 1040.040, Subd. 8 (A)4 for the single family, villa and twinhome units and with Section 1040.060, Subd. 9(B) 4 and 5 for the townhomes.
23. Building plans must provide elevations with colors, material details and percentages on the elevations to confirm compliance with ordinance standards.
24. The plans show centralized mailbox locations. These mailbox locations shall be approved by the US Postal Service and proof of the approved locations provided to the City, prior to release of the final plat.

**Landscaping and Lighting**

25. Plans shall be revised to show proposed street lighting.
26. The applicant shall finalize the fixtures proposed in the submittal and provide detailed specifications that demonstrate compliance with 1060.040 (Lighting) of the Zoning Ordinance for the project.
27. Lawn sprinklers/irrigation systems (if provided) shall all have rain sensors to limit unnecessary watering.
28. The HOA shall be responsible for maintenance of:
  - a. Landscaping and any irrigation in the cul de sac islands
  - b. Landscaping and any irrigation in the common areas
  - c. Wetland/pond buffer areas
  - d. Sidewalks
  - e. All common areas, including signage, lighting and landscaping in those areas.
29. PUD flexibility to allow the reduced setback along County Road 101 as allowed by City Code Section 1060.070, Subd. K is approved with the landscaping as proposed.
30. The applicant shall work with staff to ensure that the landscaping proposed in the northeast portion of the site does not conflict with utilities.
31. Trees should be planted in the right-of-way for the 80-foot and the 60-foot streets (where there is room for the public infrastructure and the trees) but be placed outside of the right-of-way in the 50-foot wide streets.
  - a. Trees must be planted prior to issuance of a certificate of occupancy for the adjacent home.
32. Any request to for the City to inspect the required landscaping in order to reduce financial guarantees must be accompanied by recertification/verification of field inspection by the project Landscape Architect. A letter signed by the project Landscape Architect verifying plantings (including wetland and pond buffers) have been correctly installed in compliance with the plans and specifications will suffice.
33. Signage is approved for the following:
  - a. A 32 sq. ft. project sign at the County Road 116 entrance
  - b. A 16 sq. ft. project sign at the Hackamore Road entrance

**RESOLUTION NO. 2020-\_\_**

- c. A Corcoran Gateway sign at the corner of Hackamore/CR 116 with a final design and size to be determined by the City Council.
  - d. Sign permits will be required prior to construction of any signs.
34. Woodland areas shown as preserved on the plans must be protected. Tree preservation fencing must be shown on the plans and installed on site.
35. Additional landscaping should be added on the west to buffer from those properties, specifically,
- a. West of Lots 376-388
  - b. West of Lot 266
  - c. West of Lots 240-244
  - d. West of Lots 226-228.

**Wetlands**

36. The wetland delineation approvals must be updated to include the Theis property.
37. The wetland mitigation plan must be approved prior to submittal of the final PUD application.
38. A wetland buffer planting plan and maintenance plan must be submitted for review and approval by the City.
39. The site plan must show the wetland buffers and setbacks with the house pads.
40. Trails shall not be located in wetland buffer areas. Trails are required to comply with the 5-foot buffer setback.
41. Section 1050.010 requires a 15-foot structure setback, but allows patios and decks to encroach a maximum of 6 feet into required structure setback.
42. All permanent wetland buffer monument signs must be erected along the wetland buffer line as required by Section 1050.010, Subd. 7 of the Zoning Ordinance.
- a. Wetland signs shall be purchased from the City.
  - b. The final locations must be inspected and approved by City staff.
  - c. Monuments and signs shall be installed prior to approval of the building permit.

**Streets, Parking and Utilities**

43. The development shall comply with the City's requirements regarding fire access, fire protection and fire flow calculations, the location of fire hydrants, fire department connections and fire lane signage.
44. Street names shall be revised to comply with the city naming policy.
45. Parking shall be permitted on one side of the local streets and shall be signed in accordance with city standards.

**RESOLUTION NO. 2020-\_\_**

46. The guest parking for the townhomes should be revised to provide at least 4 guest parking stalls on driveway 3.
47. Private drives shall be allowed for the two townhome and twinhome neighborhoods shown on the plans. Plans must be revised to comply with the following standards:
  - a. Individual unit driveways that gain access from any such private drive shall be a minimum of 22 feet in length.
  - b. A decorative sign stating "Private Drive" shall be located near each entrance to a private drive. Such sign shall also provide the range of addresses served by the private drive.
  - c. The private drive must include 20-foot deep concrete apron to distinguish it from the public street. The remainder of the drive may be bituminous or concrete.
  - d. No parking may be allowed on the private drive but guest parking will be required adjacent to the private drive.
  - e. The HOA documents shall provide a mechanism for maintenance of the private drive in perpetuity.
  - f. The private drive shall not be placed on a separate lot or outlot.
  - g. The private drive maximum width shall be 24 feet.
  - h. Snow storage locations must be shown on the plans.
48. There are several areas where townhome private drives appear to overlap when they reach the street. Plans should ensure separation to eliminate these conflicts.
49. Utilities shall be stubbed to the property lines for future extension to adjacent properties. The stubs shall be at the developer's expense.
50. All utility facilities shall be located underground.
51. Barricades and signage indicating future extension shall be installed, consistent with Section 945.010, Subd. 19 of the Subdivision Ordinance.
52. The developer must provide easement or other tool to retain access to Blue Bonnet from the Mattson property.
53. Access to Blue Bonnet shall be an emergency vehicle access/trail until Blue Bonnet is improved to the north and the streets will connect at that time.

**Park Dedication**

54. Park Dedication will be satisfied by dedication of neighborhood park land, off road trail and cash-in-lieu of land, subject to the following conditions:
  - a. The applicant shall provide a final calculation of the net and gross acreage of project, park and trail easement to staff prior to final plan and final PUD plan submittal.
  - b. The developer shall dedicate the Outlots J and K to the City. Park dedication credit shall be granted for the net area of Outlot J.
  - c. The developer shall dedicate 20-foot easements for all off-road trails and shall be given land dedication credit for the net area of these easements

**RESOLUTION NO. 2020-\_\_**

- d. The developer shall construct all trails and sidewalks shown on the plan, except the on-road trails on County Road 101 and Hackamore Road.
- e. The developer shall adjust trail and sidewalk alignment and provide connections as recommended by staff in the June 25, 2020 staff report.
- f. The developer shall construct a 6-8 stall parking area on the west side of the proposed park.
- g. The developer shall provide a concept plan for a neighborhood park planned for Outlot J.
- h. The trail shall be revised to wind through the site rather than along Outlot K
- i. The developer shall provide a trail or sidewalk connection to the park between lots 256 and 257
- j. The developer should provide access to the parking lot with driveway in Outlot K, pave the parking lot in addition to the required grading of the park site
- k. Park dedication shall be subject to park dedication fees in place when the final plat is released for recording.

**Miscellaneous**

- 55. The developer shall provide a ghost plat for the Mattson property to the west.
- 56. The final plat and final PUD plan application shall be consistent with the conditions of this resolution.
- 57. Assessments are due for the property (PID 35-119-23-44-0001) and must be paid prior to release of the final plat.
- 58. The transmission line easement documents must be submitted to the City for review. The plans must comply with any easement restrictions.
- 59. The applicant shall provide copies of the final HOA documents/covenants for City review as part of the final PUD application.

**VOTING AYE**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

**VOTING NAY**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

Whereupon, said Resolution is hereby declared adopted on this XX<sup>th</sup> day of June 2020.

\_\_\_\_\_  
Ron Thomas - Mayor

**ATTEST:**

\_\_\_\_\_  
Jessica Beise – Administrative Services Director

*City Seal*

**RESOLUTION NO. 2020-\_\_**

**ATTACHMENT A**

East 1/2 of the Southwest Quarter of the Southeast Quarter, Section 35, Township 119, Range 23, Hennepin County, Minnesota.

Together with:

Lot 10, Block 1, Meadow Trails, Hennepin County, Minnesota.

Together with:

The East 1/2 of the Northeast Quarter except that part which lies East of a line parallel with and distant 40 feet West of the East line, Section 35, Township 119, Range 23, Hennepin County, Minnesota.

Together with:

The East 1/2 of the Southeast 1/4 of Section 35, Township 119, Range 23, Hennepin County, Minnesota.

EXCEPT: The East Sixteen (16) rods of the North Twenty (20) rods of the South Twenty-nine and eight tenths (29.8) rods of the Northeast Quarter (NE 1/4) of the Southeast Quarter (SE 1/4) of Section Thirty-five (35), Township One Hundred Nineteen (119), Range Twenty-three (23).

AND FURTHER EXCEPT:

All that part of the following described tract:

Southeast 1/4 of the Southeast 1/4 and the South 9 8/10 rods of Northeast 1/4 of Southeast 1/4 also that part of North 20 rods of South 29 8/10 rods of the Northeast 1/4 of Southeast 1/4 lying West of East 16 rods thereof and that part of the Northeast 1/4 of Southeast 1/4 lying North of South 29 8/10 rods thereof, all lying in Section 35, Township 119 North, Range 23 West, except roads; which lies East of a line parallel with and distant 40 feet West of the East line of said section.

Together with:

The East 16 Rods of North 20 Rods of South 29.8 Rods of Northeast 1/4 of Southeast 1/4, Section 35, Township 119 North, Range 23 West, except that part which lies East of a line parallel with and distant 40 feet West of the East line of said section, Hennepin County, Minnesota.



**RESOLUTION NO. 2020-\_\_\_\_**

**Motion By:**  
**Seconded By:**

**APPROVING PRELIMINARY PLAT FOR "TAVERA" ON PROPERTY LOCATED AT THE NORTHWEST CORNER OF HACKAMORE ROAD AND COUNTY ROAD 116 (PID 35-119-23-44-0001, 35-119-23-11-0001, 35-119-23-12-0002, 35-119-23-41-0001 AND 35-119-23-43-0001) (CITY FILE 20-017)**

WHEREAS, U.S. Home Corporation (dba Lennar) ("the applicant") has requested approval of "Tavera" a residential subdivision on property legally described as follows:

*See Attachment A*

WHEREAS, the Planning Commission has reviewed the plan at a duly called Public Hearing and recommends approval, and;

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF CORCORAN, MINNESOTA, that the Corcoran City Council approves the request for a preliminary plat, subject to the following conditions:

1. A preliminary plat is approved to create 549 lots and 22 outlots for "Tavera", in accordance with the plans and application received by the City on April 21, 2020 and revision received on May 19, 2020, May 20, 2020 and May 26, 2020, except as amended by this resolution.
2. Approval is contingent upon City Council approval of the preliminary PUD development plan for Tavera. The developer shall comply with all conditions of preliminary PUD development plan approval (Resolution 2020-\_\_).
3. Park dedication is due as required by the PUD approvals, prior to release of the final plat for recording.
4. The applicant shall comply with all requirements of the City Engineer's memo, dated May 28, 2020.
5. Approval shall expire within one year of the date of approval unless the applicant has filed a complete application for approval of a final plat.

**VOTING AYE**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

**VOTING NAY**

- Thomas, Ron
- Bottema, Jon
- Dejewski, Brian
- Anderson, Thomas
- Schultz, Alan

**Whereupon, said Resolution is hereby declared adopted on this XX<sup>th</sup> day of June 2020.**

**RESOLUTION NO. 2020-\_\_\_\_**

\_\_\_\_\_  
**Ron Thomas - Mayor**

**ATTEST:**

\_\_\_\_\_  
**Jessica Beise – Administrative Services Director**

**City Seal**

**RESOLUTION NO. 2020-\_\_\_**

**ATTACHMENT A**

East 1/2 of the Southwest Quarter of the Southeast Quarter, Section 35, Township 119, Range 23, Hennepin County, Minnesota.

Together with:

Lot 10, Block 1, Meadow Trails, Hennepin County, Minnesota.

Together with:

The East 1/2 of the Northeast Quarter except that part which lies East of a line parallel with and distant 40 feet West of the East line, Section 35, Township 119, Range 23, Hennepin County, Minnesota.

Together with:

The East 1/2 of the Southeast 1/4 of Section 35, Township 119, Range 23, Hennepin County, Minnesota.

EXCEPT: The East Sixteen (16) rods of the North Twenty (20) rods of the South Twenty-nine and eight tenths (29.8) rods of the Northeast Quarter (NE 1/4) of the Southeast Quarter (SE 1/4) of Section Thirty-five (35), Township One Hundred Nineteen (119), Range Twenty-three (23).

AND FURTHER EXCEPT:

All that part of the following described tract:

Southeast 1/4 of the Southeast 1/4 and the South 9 8/10 rods of Northeast 1/4 of Southeast 1/4 also that part of North 20 rods of South 29 8/10 rods of the Northeast 1/4 of Southeast 1/4 lying West of East 16 rods thereof and that part of the Northeast 1/4 of Southeast 1/4 lying North of South 29 8/10 rods thereof, all lying in Section 35, Township 119 North, Range 23 West, except roads; which lies East of a line parallel with and distant 40 feet West of the East line of said section.

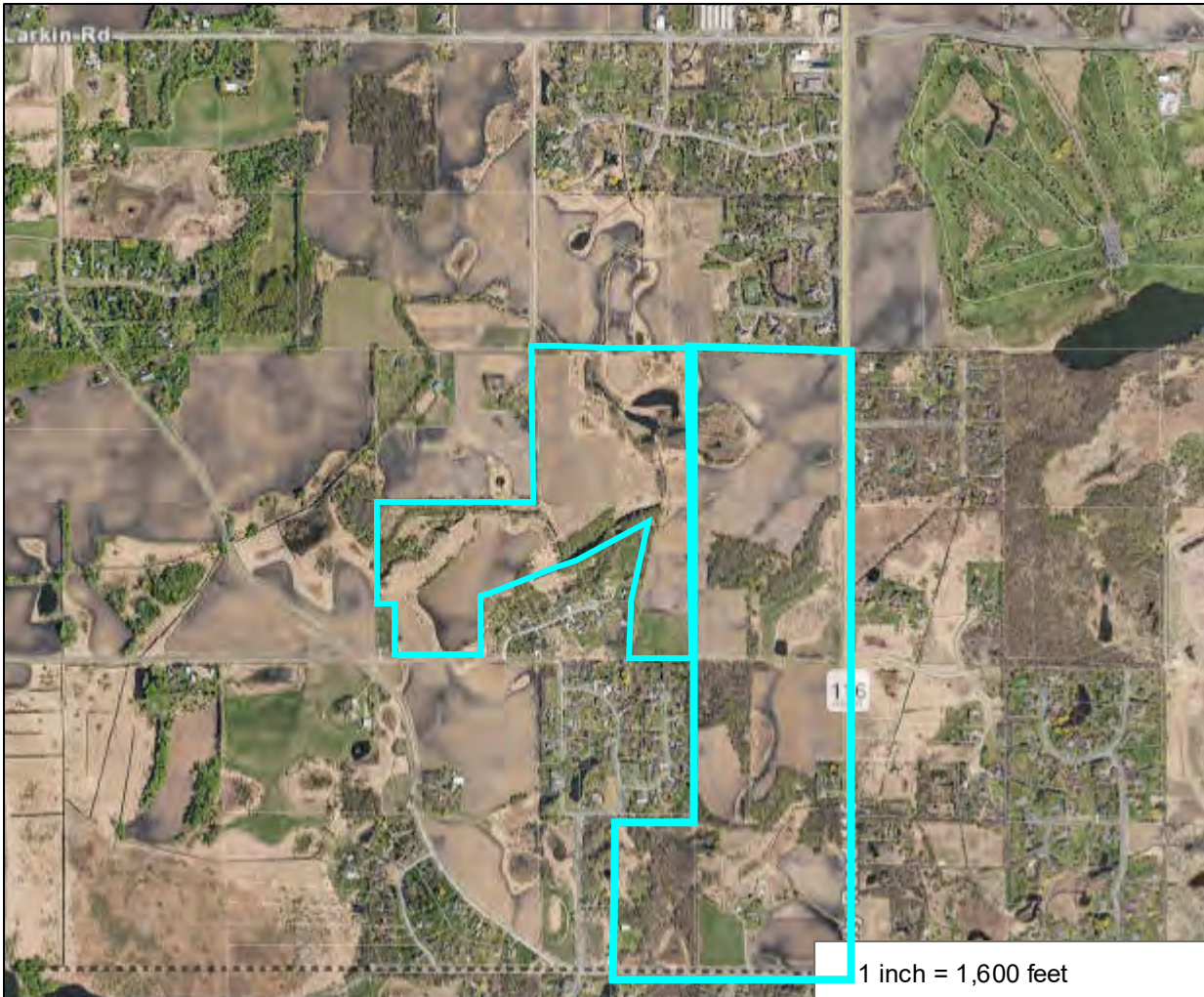
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The East 16 Rods of North 20 Rods of South 29.8 Rods of Northeast 1/4 of Southeast 1/4, Section 35, Township 119 North, Range 23 West, except that part which lies East of a line parallel with and distant 40 feet West of the East line of said section, Hennepin County, Minnesota.



# Hennepin County Property Map

Date: 5/11/2020



PARCEL ID: 3511923120002

OWNER NAME: Richard L Dempsey Et Al Trst

PARCEL ADDRESS: 52 Address Unassigned,  
Corcoran MN 00000

PARCEL AREA: 96.01 acres, 4,182,374 sq ft

A-T-B: Abstract

SALE PRICE: \$750,001

SALE DATA: 08/2008

SALE CODE: Vacant Land

ASSESSED 2019, PAYABLE 2020  
PROPERTY TYPE: Ag Preserve  
HOMESTEAD: Non-Homestead  
MARKET VALUE: \$440,700  
TAX TOTAL: \$3,032.10

ASSESSED 2020, PAYABLE 2021  
PROPERTY TYPE: Ag Preserve  
HOMESTEAD: Non-homestead  
MARKET VALUE: \$452,700

## Comments:

This data (i) is furnished 'AS IS' with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this data.

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COUNTY 2020

# Engineer's Report for Preliminary Plat of Tavera Development

*Prepared for:*  
City of Corcoran, MN

8200 County Road 116  
Corcoran, MN 55340



*Prepared by:*

WENCK Associates, Inc.  
1800 Pioneer Creek Center  
Maple Plain, MN 55359  
Phone: 763-479-4200  
Fax: 763-479-4242

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## APPENDICES

- A Feasibility Study
- B Engineering Plan Markups by Area
- C Floodplain, Drainage Areas, Initial Review, and Model Schematics

# 1.0 Introduction

---

This Engineer's Review of the Preliminary Plat plans for Tavera development in Corcoran reviews the development's layout of infrastructure, ROW, lot lines, easements, access points and general compliance with City practices, policies and guidelines. The Feasibility Study and Environmental Assessment Worksheet were reviewed for development requirements.

The report is divided into sections regarding Transportation, Sewer, Water, Stormwater and projects in support of the development.

## General Findings

- Ghost platting of adjacent parcels will be reviewed to allow for accurate identification of street and utility connections.
- Existing neighborhoods will also be reviewed for location of utility stubs at the Tavera limits.
- The Exception parcel along CR 116 has been incorporated into the development.
- Stormwater modeling shall be revised since the complex stormwater interconnections require a more technically advanced model. This is typical of large developments with ponds, wetlands and adjacent floodplains.
- County review and approval will determine County access and road improvement requirements.
- Developer's phases may change, however the infrastructure improvements are connected to the timing of infrastructure needs.
- Sidewalks and Trails are not covered extensively in this review. Several connections and modifications are necessary.
- Easements need modification which will affect lot layouts or the overall lot count due to deep pipes or alignment. Deeper pipes require wider easements.
- Trunk sewer systems influence the ROW required for streets or utility easement widths.

## Infrastructure Improvements Necessary

The following is a summary of necessary infrastructure improvements (also in Feasibility Study) to manage the impact of the development:

- County Road 116 improvements (See transportation section)
- Investigate potential of traffic control signal at main entrance
- Hackamore Improvements and turn lane
- Paving of existing gravel roads
- Trunk Sewer offsite construction
- Trunk Sewer onsite construction
- Temporary lift station and forcemain
- Trunk water installation and easement for City trunk water project
- Floodplain (FEMA) process
- Participate in funding of a water quality project for City regulatory commitments

## 2.0 Transportation

---

### 2.1 GENERAL

The plan set dated 4-21-20 was reviewed for Preliminary Plat broader issues such as right of way (ROW), street alignment, utilities and drainage but also included some review of design and construction details typical of City practices. Markups for the engineering plans are in Appendix B and organized by location in the development. The review items are provided with an emphasis towards platting information. Additional review comments will be made during subsequent revisions and some more detailed review categories are identified as "To Be Determined" or TBD.

Improvements that apply from the Feasibility Study include:

#### 66<sup>th</sup> Avenue Collector Street

- Dedicate 80 foot ROW to preserve future road corridor options.

#### Main development access/CR 116

- County is expected to require a right turn lane on southbound approach and a left turn lane on northbound approach for the development.
- Construct west leg of intersection (66<sup>th</sup> Ave. extended) at CR 116 with a left turn lane and a right/through lane.
- Construction of east leg of CR 116 intersection is planned as part of Ravinia development.
- Future signal was planned with Ravinia and City will pursue County process involving warrants and County policy for installation of a signal at developer cost.

#### County Road 116/Hackamore Road

- Improve Hackamore Road to collector standard to west development property boundary (west of the development's local street connection).
- On Hackamore, construct left turn and right turn lanes on both the east leg and west leg of intersection. This will require coordination with the County and City of Medina regarding right-of-way acquisition, impacts and design details.
- Install updated traffic signal control and mitigate trail and any ponding/wetland impacts.
- County approval is required and that process may require additional turn lanes on CR 116.

#### Old Settlers Road north of Butterworth Lane

- Based on the expected traffic volume increase, pave existing gravel road from north of Butterworth Lane to Horseshoe Trail.

#### Horseshoe Trail

- Based on the expected traffic volume increase, pave existing gravel road from Old Settlers Road to the development's east property boundary.

#### Blue Bonnet Drive

- Provide ROW and a turnaround meeting City standards at connection to Bluebonnet.

#### Local access to adjacent parcels



- Ghost plat and provide ROW for access points to the adjacent properties.

#### Trail Lane ROW

- ROW should be extended towards cul-de-sac on Trail Lane with street or trail improvements to be considered during plan review process.

#### Local Street Spacing

- Plan review process may modify local street intersection spacing.

## 2.2 STREETS/ROW

The plans were reviewed and comments are made during initial plan reviews.

#### Streets / Right of Way / Private Drives

- 80 feet at the main entrance
  - ROW provided as required, however the major utilities may be modified and initiate other easement needs.
  - Center median is TBD (east of CR 116 has median and so does Ravinia/101).
- 50 feet ROW on other City streets
  - Is sufficient unless containing trunk sewer
- 60 feet ROW is necessary for trunk sewer streets
- Private drives are 24 feet face to face,
  - Amount of spaces in parking stall areas is TBD.
- Blue Bonnet connection ROW is sufficient as shown
  - Additional review for alignment and improvements are TBD.
- Street K length of stub towards property line is TBD.
- Street G length of stub towards property line is TBD.
- CR 116 emergency access locations may be additionally reviewed by Public Safety. North cul de sac along CR 116 may need second access.
- Flat streets (0.5%) should be avoided and minimum slope of 1% should be used. Any slope below 2% requires additional CBs and stormsewer.

## 2.3 HACKAMORE ROW

- ROW dedicated along Hackamore is sufficient at 50 feet and combined with existing Medina ROW (33 feet) totals 83 feet.

## 2.4 CR 116

The County regulates CR 116 improvements at the main entrance and Hackamore/CR 116 intersection. These designs will be implemented per the Feasibility Study and for CR 116 requires coordination with Medina for the ongoing Hackamore Improvement project extending to CSAH 101. A traffic control signal will be investigated at developer cost for main entrance.

## 3.0 Sewer

---

### 3.1 GENERAL

Phases 1 and 2 (south of Horseshoe Trail) are serviced through the Ravinia system and to the MCES lift station L-80 at the Maple Grove border along CR 10. The ultimate service point or Phases 3 through 8 of Tavera is to the north (Blue Bonnet) which connects to the MCES system at the northeast corner of Corcoran.

General conditions for the Preliminary Plat are as follows:

- Construct trunk system as required by City, with overdepth and oversize being credited from Trunk Line Area Charge (TLAC) fees
- Trunk sewer requires 60-foot street ROW
- Lateral sewer greater than 25 feet requires 60-foot ROW
- Extend service stubs to adjacent properties and neighborhoods

### 3.2 OFF SITE SERVICE AND TRUNK SYSTEM SUMMARY

The City's trunk plan requires sewer service as follows:

- Offsite sewer construction to connect to Ravinia is expected to begin Fall 2020 with completion in the Winter/Spring 2021.
- Trunk system will be extended with 15-inch westerly towards Horseshoe Trail with 12-inch branches south and west (location TBD) near Horseshoe Trail. Upsize and overdepth costs are credited.

### 3.3 ON SITE SEWER TEMPORARY LIFT STATION AND FORCEMAIN

- Lift station construction timing is shown as being required for Phase 3 with the final forcemain route TBD. Costs are not eligible for credit since the system is considered temporary.
  - From the lift station plans should be modified to extend the 15-inch stub north from the lift station to Tavera property line.
  - Inflow invert is 955 (not sump invert) which affects pipe depth shown on plans.
  - Lift station will be required to be built similar to City lift stations with standby generator (natural gas), control building, etc.

### 3.4 STUBS TO ADJACENT PROPERTIES

Stubs to service adjacent neighborhoods and properties shall be installed as directed by City. A few items were observed:

- Ghost platting will be reviewed to allow for correct location.
- The neighborhood of Elm Street / Valley View and Trail Lane can be serviced (in the future) at the north end of Snyder Road, which can connect west/northwest to the Horseshoe Trail Trunk line (extended).

## 4.0 Water

---

### 4.1 GENERAL

The water supply for the Tavera development is the SE Corcoran connection to Maple Grove at the city border (north of Lions Park along CR 10). A City 2020 project will install trunk water main from 75<sup>th</sup> Avenue (downtown Corcoran) along CR 116 to the main entrance of Tavera. This line was planned for Ravinia looping and Tavera will also benefit.

Important coordination items for this development include:

- CR 116 trunk easement is shown as required.
  - Due to timing of filing the final plat for recording of the easement, the Developer is responsible to obtain a Right of Entry to construct the system prior to final plat being recorded.
- Any system “up size” for trunk is credited from TLAC fees.
- Looping of internal dead ends is required at City direction.
- Trunk water extended to west,
- Stubs to neighboring parcels are required,
- Hackamore 8-inch connecting to Steeple Chase will loop the Hackamore connection point (Phase 2). This is a developer cost.
- Connection may be required to Medina at Medina Lake Road. This is a City cost.

### 4.2 IDENTIFIED ISSUES

- Landscape plan appears to be in conflict with CR 116 trunk watermain. The amount and type of landscaping (if any) in an easement is TBD since it interferes with future access.
- Hackamore water main connection to Steeple Chase (Ravinia) will require easements along Hackamore. Road and trail improvement planning is in progress with Medina.
- Several cul de sacs and dead ends will be required to be looped. The locations and number of loops are TBD.
- Townhome service points, metering, etc. is TBD.
- Hydrants are to be located opposite sidewalks and stubs typically have hydrant/blowoff as directed by City.

## 5.0 Water Resources

---

### 5.1 GENERAL

In this section, the review of stormwater modeling and engineering plans is discussed in accordance with City Guidelines and also refers to the Elm Creek Watershed requirements. Modeling schematics and subwatersheds are shown in Appendix C.

#### Stormwater Modeling

- A SWMM model shall be used to analyze existing and proposed conditions due to the complicated interconnection of the system, equalization flow between the numerous ponds and wetlands, and discharging to a FEMA mapped floodplain
- FEMA process will be followed for modifying the floodplain within the property boundaries. Basically, this involves a Letter of Map Revision (LOMR) process and final documentation after all structures are built.
  - LOMR-F (Fill) can be executed prior to FEMA LOMR verification of floodplain so the individual houses are not affected, however this is based on a robust and detailed model to set the 100-year floodplain. This is the same process as used in Ravinia.

### 5.2 DRAINAGE PATTERNS

- Stormwater from the proposed development drains to the north towards Blue Bonnet (220 acres), east across CR 116 (57 acres), and also a southeast portion that drains beneath CR 116 (315 acres). The southeast subwatershed receives drainage from east of CR 116 near Hackamore, and from Medina south of Hackamore. Subwatershed maps are in Appendix A.

### 5.3 IDENTIFIED ISSUES

- Additional detail of existing rural culverts, field crossings, etc. are required.
- Verify rate control and drainage patterns are maintained.
- Identify change in wetland bounce due to flood storage
- Backyard low areas shall be explicitly modeled for inundated areas on CBs.
- Rear yard grading on the west boundary will be further reviewed
- All overflows and cross-connects need to be modeled as exist in the field. Several junctions are modeled where wetland EOFs may drain to a separate storm sewer system and end up in ponds, rather than the intended/modeled downstream pond/wetland.
- Secondary pipes are utilized as EOFs

### 5.4 GUIDANCE

Some general City guidance for plan revisions (in addition to the Stormwater Guidelines) include:

### Water Quality BMPs

- Water quality requirements are reviewed and approved by WMO, however if applicable the City prefers a pond “shelf” filtration as compared to stand-alone filtration basins.

### Offsite Project

- Large developments in Corcoran contribute for funding of a larger water resource project, typically off site. This development drains to same wetland as Ravinia and combined Tavera funds can be utilized to increase project scope, or alternatively a project to the northwest watershed. In lieu of stormwater fees, Corcoran has committed to implement water resource projects with development for progress towards regulatory compliance such as TMDLs. Tavera is similar scope as Ravinia and contribution of \$100,000 will be combined with Ravinia contribution. Specific project(s) will be decided as the development builds out.

### EOFs

- Provide at least one foot of freeboard from high water levels to EOF.
- Structure low openings will be 2 feet above the EOF and 2 feet above HWL.
- Overland EOFs shown on plans generally appear to function as intended.
- Several wetlands/ponds have the EOF identified as a secondary pipe. These require additional modeling that includes pipe failure (no flow) from the main outlet which creates a secondary HWL.
- EOFs for CR 116 EOFs need review, it appears south of the main entrance the wetland does not have an EOF and secondary structure under CR 116 may be required.
- Complete analysis of all EOFs will be completed.

### Model Inputs and Flood Storage

- CN for pervious areas shall be raised from existing conditions.
- Several wetlands are being modified to provide retention. Review comments and compliance with WCA are TBD.

### Side Yard Slopes, Depth and Easements

- Maximum pipe flow velocity is 10 ft/sec per Ten States Standards. Some of the steeper pipe velocities currently calculate above 20 ft/sec.
- Due to deep pipes, some easement widths will need to be revised to accommodate replacement and maintenance.
  - Easement “half” width shall be measured as 1:1 slopes from pipe invert to easement line at ground level (a 10 foot deep pipe requires a total 20 foot wide easement)
  - This is challenging for design with narrow side yards and deep stormsewer.
  - This may affect lot count or lot layout.

### Rear Yard Catch Basins

- Inundation areas need to be calculated for rear yard catch basins to ensure HWLs stay within a drainage easement.
- Concrete structures are required.

Toll Free: 800-472-2232    Email: [wenckmp@wenck.com](mailto:wenckmp@wenck.com)    Web: [wenck.com](http://wenck.com)

#### MINNESOTA

Maple Plain  
763-479-4200

Golden Valley  
763-252-6800  
Windom  
507-831-2703

New Hope  
800-368-8831  
Woodbury  
651-294-4580

#### COLORADO

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602-370-7420  
Fort Collins  
970-223-4705

#### GEORGIA

Roswell  
678-987-5840

#### NORTH DAKOTA

Fargo  
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Mandan  
701-751-3370  
Williston  
800-472-2232

#### SOUTH DAKOTA

Pierre  
605-222-1826

#### WYOMING

Cheyenne  
307-634-7848  
Sheridan  
307-675-1148

### Adjacent Properties

- Grading at property boundaries will need to be managed. Both “run on” and “run off” are of concern for the perimeter.
- Point source discharges will need energy dissipation
- Diversions of areas will be reviewed
- Stub streets shall capture the street runoff and manage the stormwater within the development.

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#### MINNESOTA

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605-222-1826

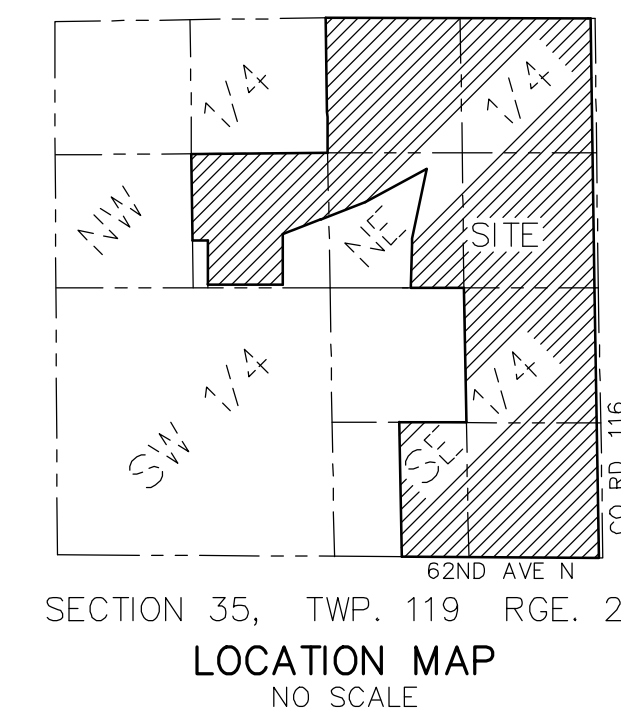
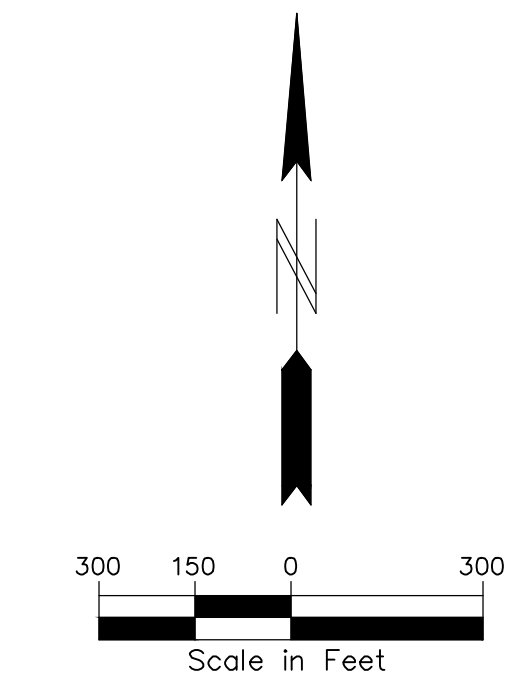
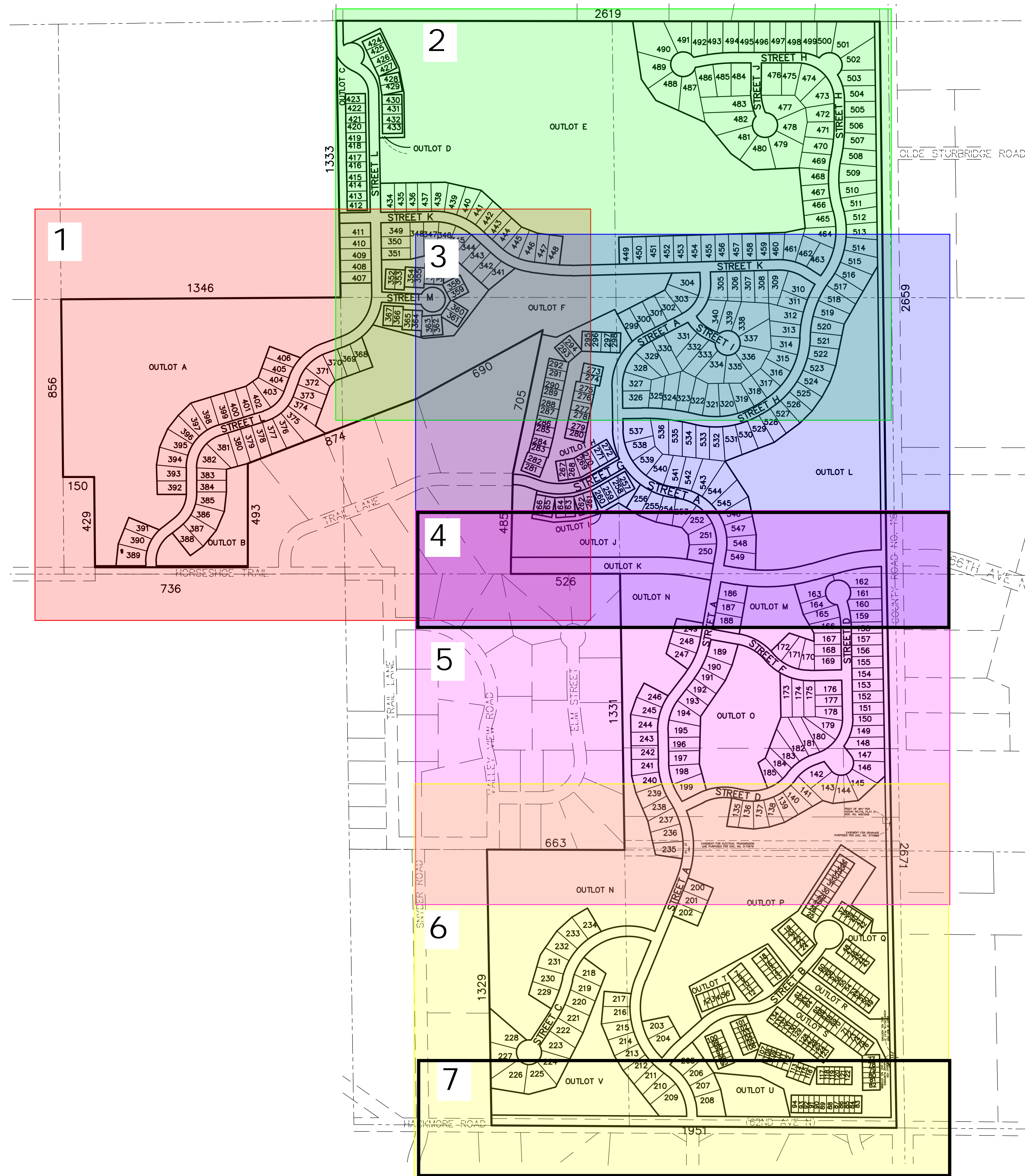
#### WYOMING

[Cheyenne](#)  
307-634-7848  
[Sheridan](#)  
307-675-1148

Feasibility Study

Engineering Plan Markups by Area





PROPOSED LEGAL FOR PRELIMINARY PLAT PURPOSES ONLY:

East 1/2 of the Southwest Quarter of the Southeast Quarter, Section 35, Township 119, Range 23, Hennepin County, Minnesota.

Together with:

Lot 10, Block 1, Meadow Trails, Hennepin County, Minnesota.

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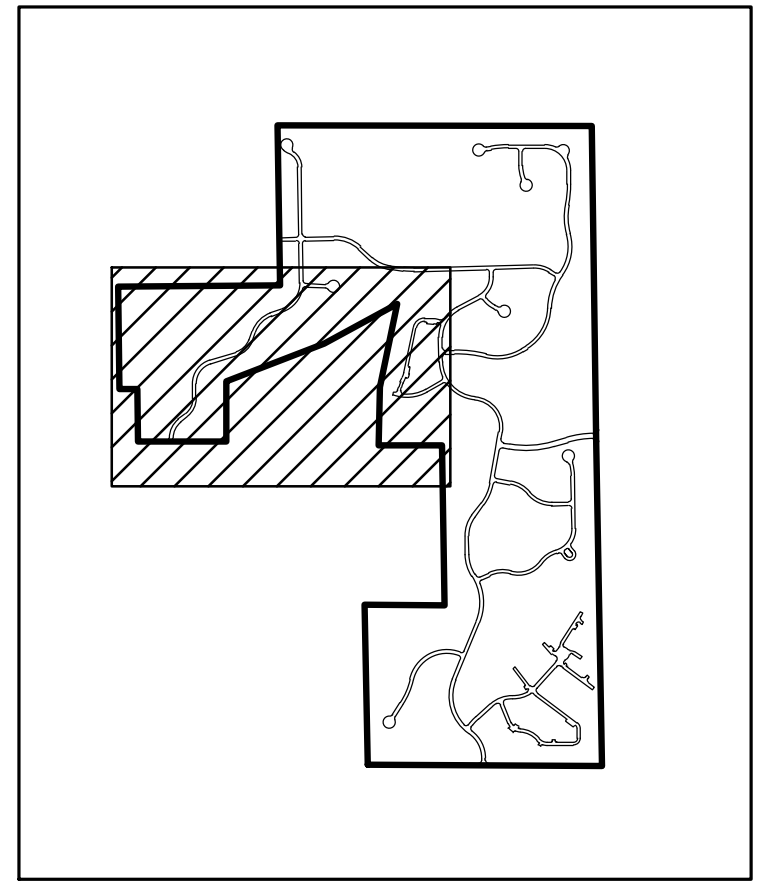
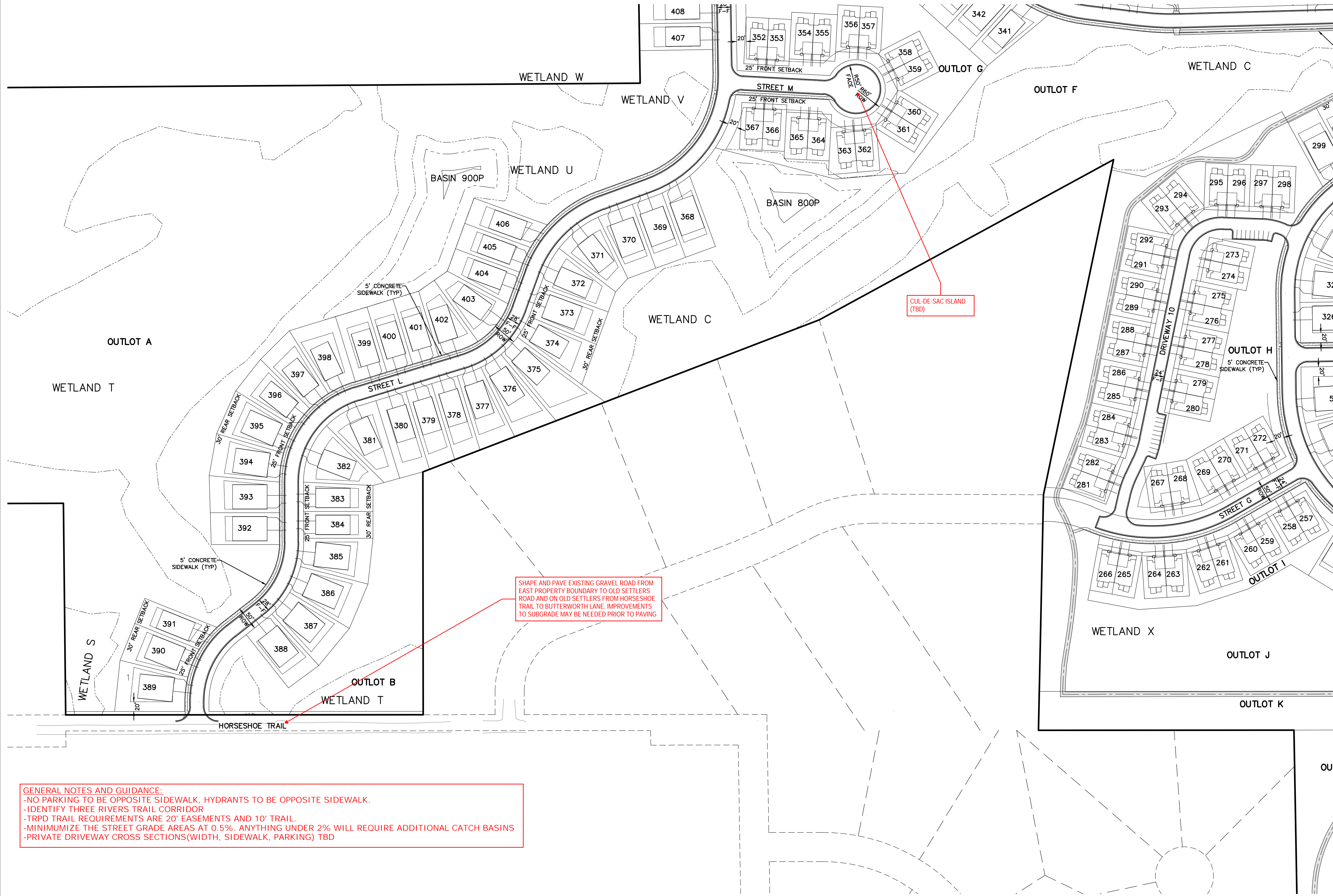
TOTAL GROSS AREA	273.57	ACRES
TOTAL LOT AREA	98.32	ACRES
NUMBER OF LOTS	549	
NUMBER OF OUTLOTS	12	
TOTAL OUTLOT AREA	142.83	ACRES
TOTAL RIGHT OF WAY AREA	32.42	ACRES
GROSS DENSITY	2.01	LOTS/ACRE
NET DENSITY (EXCLUDES WETLANDS AND COUNTY ROW)	2.72	LOTS/ACRE

BENCH MARK  
XXXXXXXX  
(X' X. OF XXX)  
ELEV=XXX.XX

00-SURV-119128-PREPLAT.DWG

## Area 1

---



INDEX

PROPOSED UNITS: 549  
 55-65' VILLAS: 70 (44-55', 29-65')  
 55' SF: 51  
 65' SF: 156  
 75' SF: 58  
 TWIN UNITS: 80  
 ROW TOWNHOME UNITS: 134

PROPOSED SETBACKS:  
 VILLAS:  
 AREA: 7,000 SF  
 WIDTH: 55' TO 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

75' WIDE SINGLE FAMILY LOTS:  
 AREA: 9,000 SF  
 WIDTH: 75'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

65' WIDE SINGLE FAMILY LOTS:  
 AREA: 7,800 SF  
 WIDTH: 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

55' WIDE SINGLE FAMILY LOTS:  
 AREA: 6,600 SF  
 WIDTH: 55'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

TOWNHOME LOTS:  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING

TOWNHOME LOTS:  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING  
 SIDE STREET: 20' TO CURB(PRIVATE STREET)  
 SIDE STREET: 20' TO RIGHT OF WAY(PUBLIC STREET)

WETLAND REQUIREMENTS (AVERAGING ALLOWED):

HIGH:  
 AVERAGE WIDTH: 50'  
 MINIMUM WIDTH: 40'  
 MAXIMUM WIDTH: 60'  
 SETBACK FROM BUFFER: 15'

MEDIUM:  
 AVERAGE WIDTH: 25'  
 MINIMUM WIDTH: 20'  
 MAXIMUM WIDTH: 40'  
 SETBACK FROM BUFFER: 15'

LOW:  
 AVERAGE WIDTH: 25' (WATERSHED STANDARD)  
 MINIMUM WIDTH: 10'  
 MAXIMUM WIDTH: 20'  
 SETBACK FROM BUFFER: 15'

SHAPE AND PAVE EXISTING GRAVEL ROAD FROM EAST PROPERTY BOUNDARY TO OLD SETTLERS ROAD AND ON OLD SETTLERS FROM HORSESHOE TRAIL TO BUTTERWORTH LANE. IMPROVEMENTS TO SUBGRADE MAY BE NEEDED PRIOR TO PAVING.

GENERAL NOTES AND GUIDANCE:  
 -NO PARKING TO BE OPPOSITE SIDEWALK, HYDRANTS TO BE OPPOSITE SIDEWALK.  
 -IDENTIFY THREE RIVERS TRAIL CORRIDOR  
 -TRPD TRAIL REQUIREMENTS ARE 20' EASEMENTS AND 10' TRAIL.  
 -MINIMIZE THE STREET GRADE AREAS AT 0.5%. ANYTHING UNDER 2% WILL REQUIRE ADDITIONAL CATCH BASINS  
 -PRIVATE DRIVEWAY CROSS SECTIONS(WIDTH, SIDEWALK, PARKING) TBD



2422 Enterprise Drive  
 Mendota Heights, MN 55120  
 (651) 681-1914  
 Fax: 681-9488  
 www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
 Name: Paul J. Cherm  
 Reg. No.: 19860  
 Date: 4-21-2020

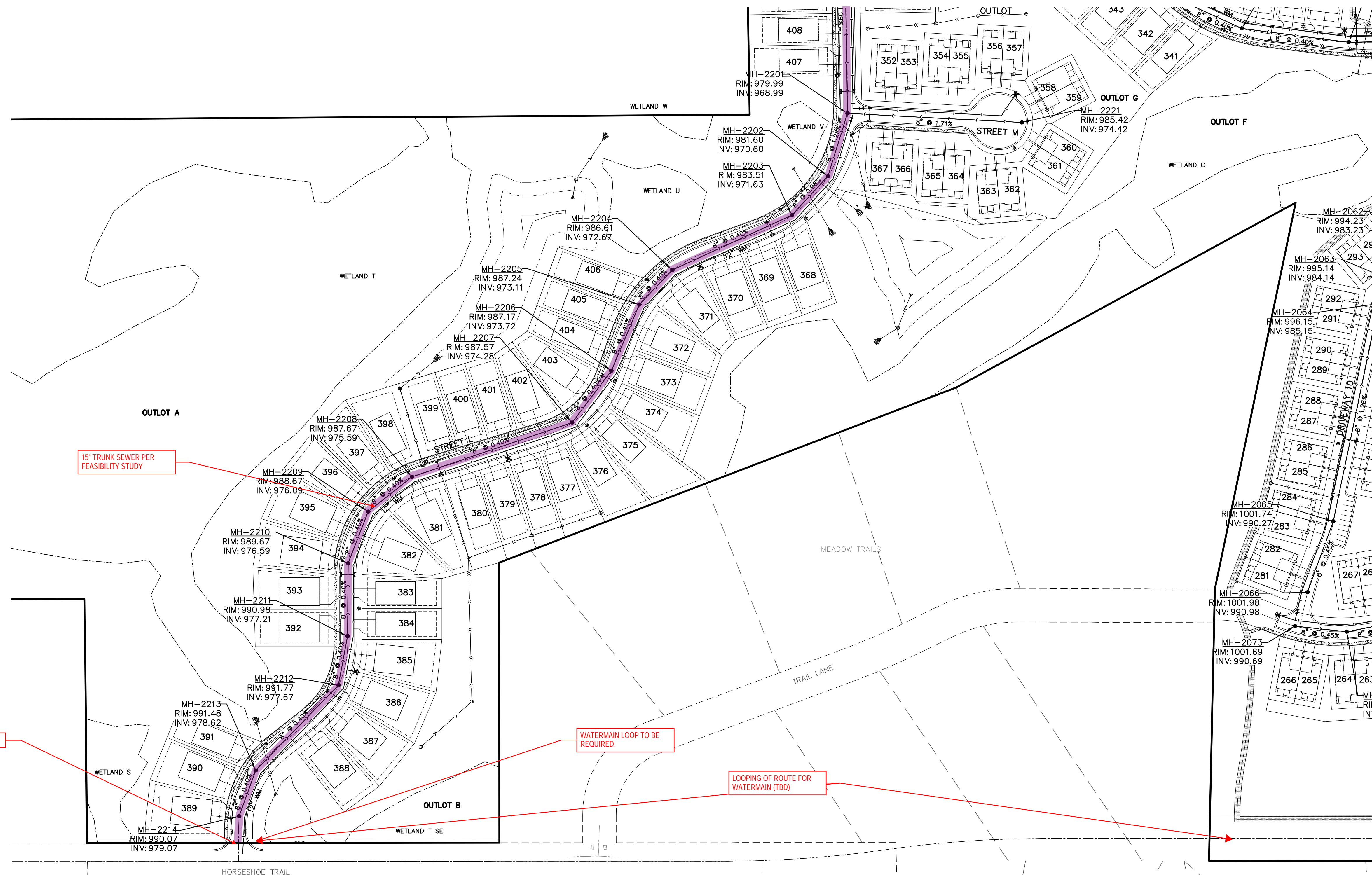
Revisions  
 Date: 4-21-20  
 Designed: PIC/BNM  
 Drawn: MPC/MSN

PRELIMINARY SITE PLAN

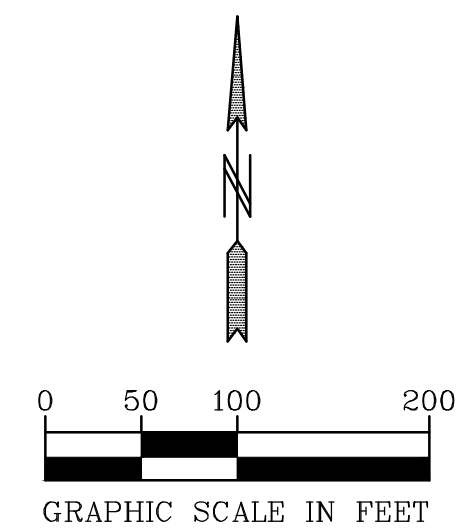
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 16305 36TH AVENUE NORTH  
 PLYMOUTH, MINNESOTA 55446

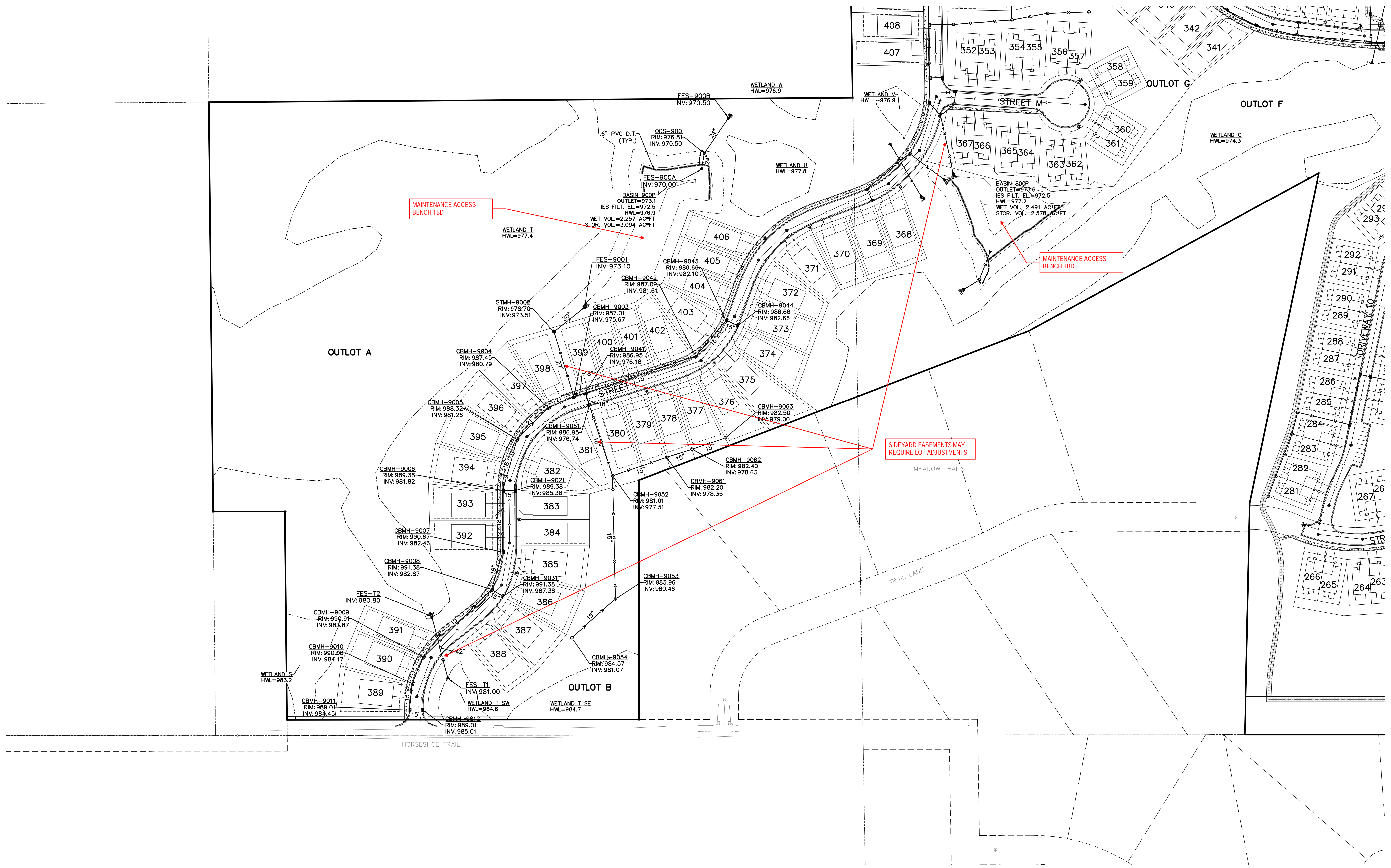
TAVERA  
 CORCORAN, MINNESOTA

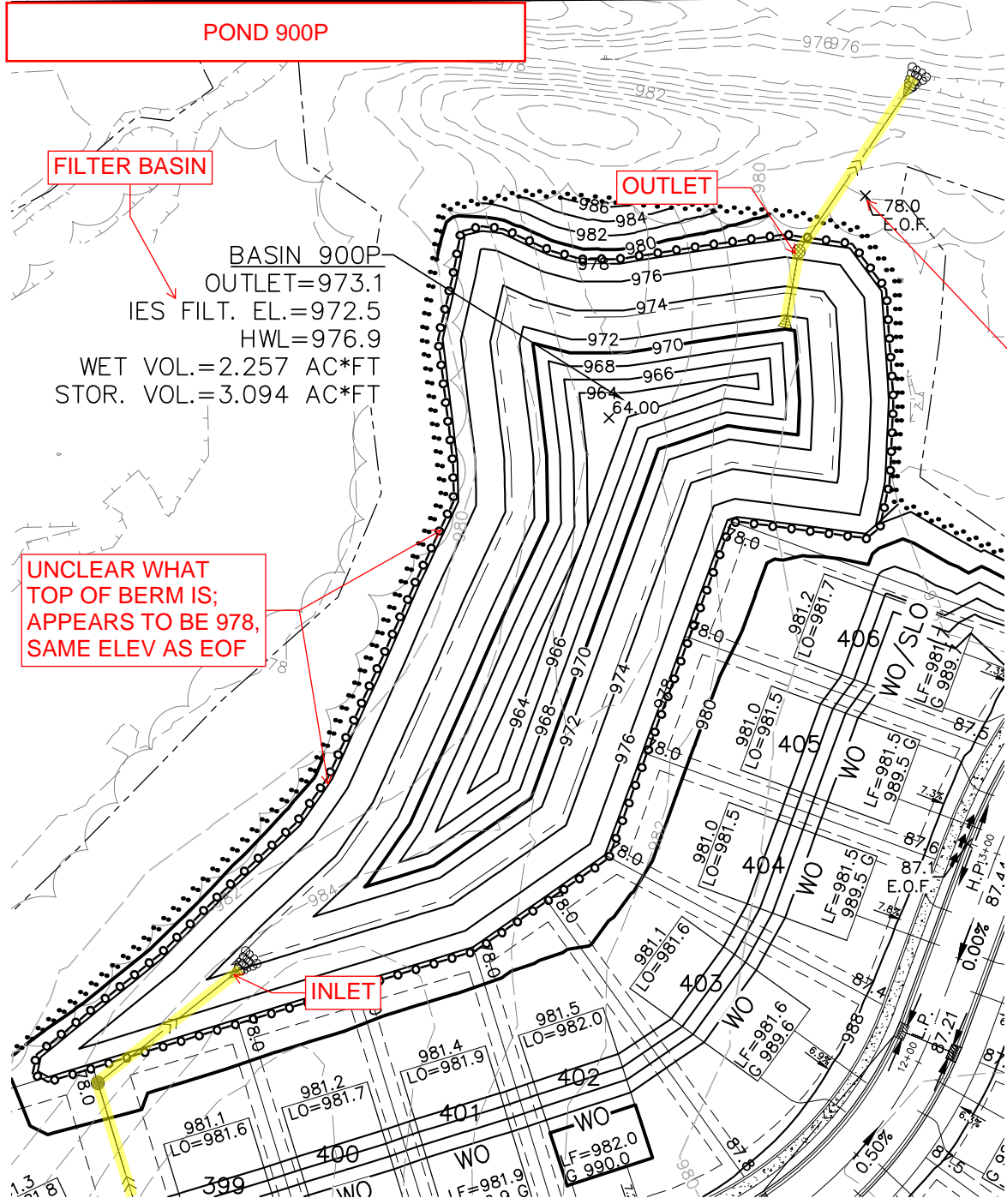
3.01 OF 67



**UTILITY GENERAL NOTES AND GUIDELINES:**  
 -HYDRANTS TO BE INSTALLED OPPOSITE SIDE OF SIDEWALK/TRAIL  
 -SEWER AND WATER STUBS REQUIRED TO ADJACENT PARCELS  
 -STUBS NEED HYDRANT AT PROPERTY LINE  
 -TRUNK SEWER REQUIRES 60' ROW  
 -SEWER DEPTHS 25' OR GREATER WILL REQUIRE EXPANDED ROW  
 -12" WATERMAIN ALIGNMENT TBD







POND 900P

FILTER BASIN

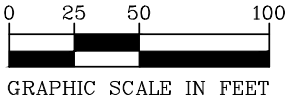
OUTLET

UNCLEAR WHAT TOP OF BERM IS; APPEARS TO BE 978, SAME ELEV AS EOF

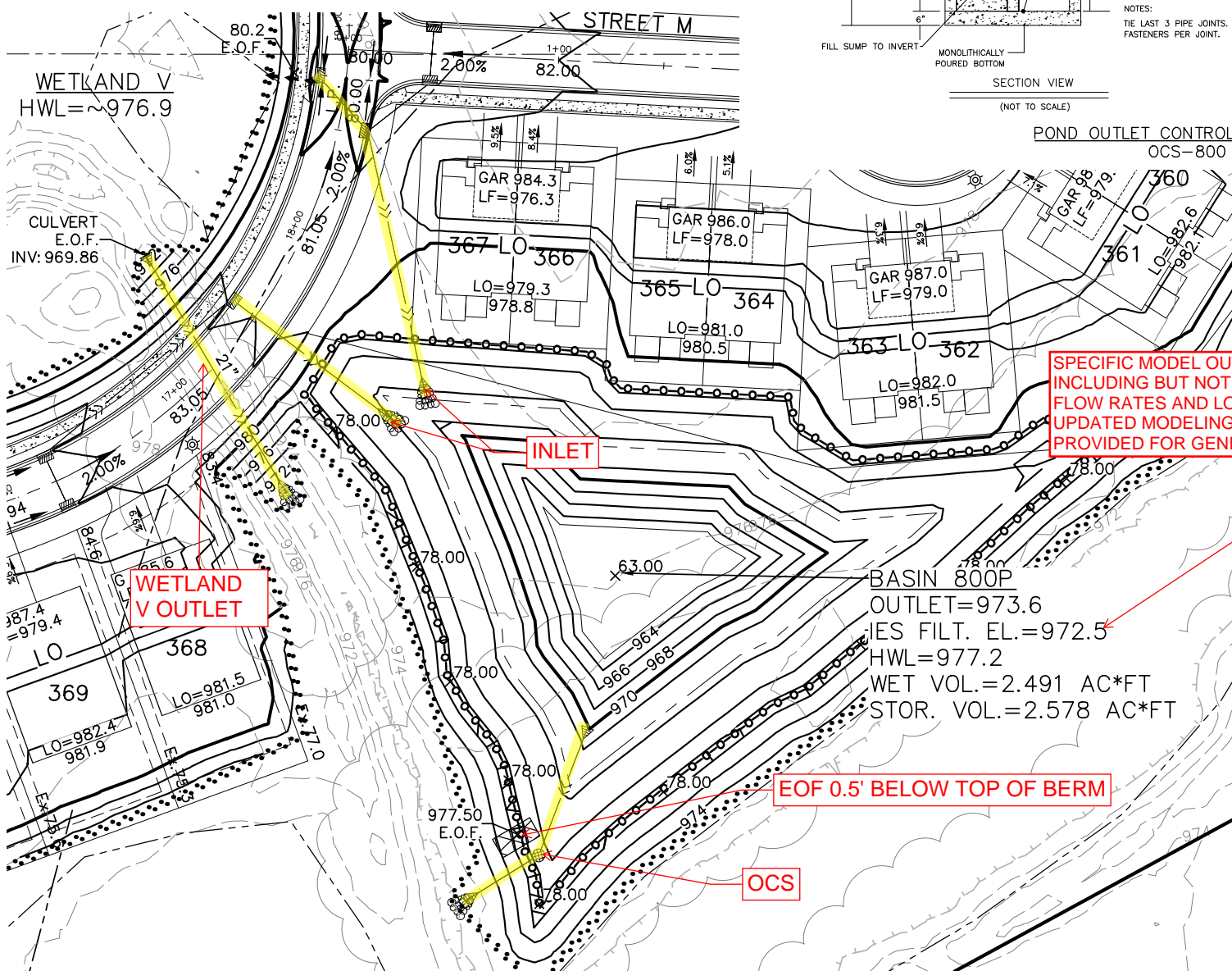
BASIN 900P  
 OUTLET=973.1  
 IES FILT. EL.=972.5  
 HWL=976.9  
 WET VOL.=2.257 AC\*FT  
 STOR. VOL.=3.094 AC\*FT

SPECIFIC MODEL OUTPUT VALUES NOTED HEREIN, INCLUDING BUT NOT LIMITED TO HIGH WATER LEVELS, FLOW RATES AND LOW OPENINGS, MAY CHANGE WITH UPDATED MODELING. NUMBERS AND COMMENTS PROVIDED FOR GENERAL DISCUSSION PURPOSES ONLY.

NATURAL EOF; DEFINE BETTER IN PLANS



POND 800P



WETLAND V  
 HWL=~976.9

INLET

WETLAND V OUTLET

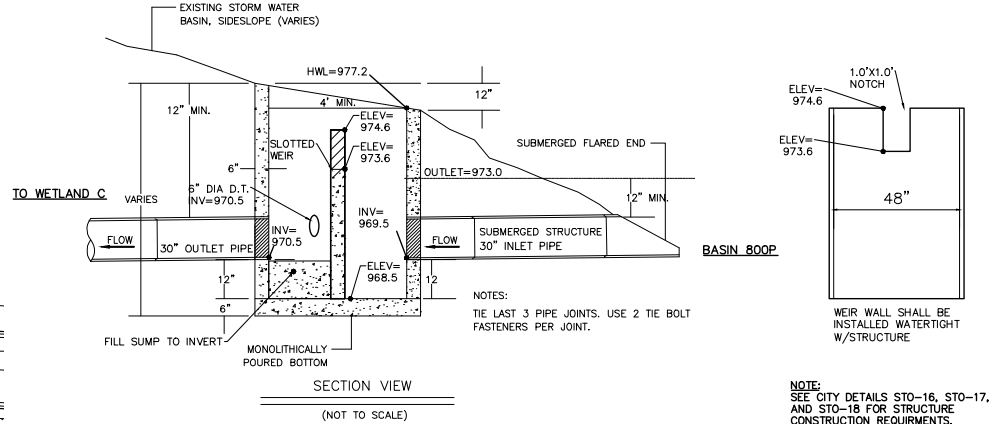
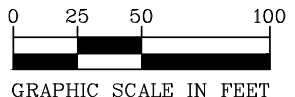
FILTER BASIN

BASIN 800P  
 OUTLET=973.6  
 IES FILT. EL.=972.5  
 HWL=977.2  
 WET VOL.=2.491 AC\*FT  
 STOR. VOL.=2.578 AC\*FT

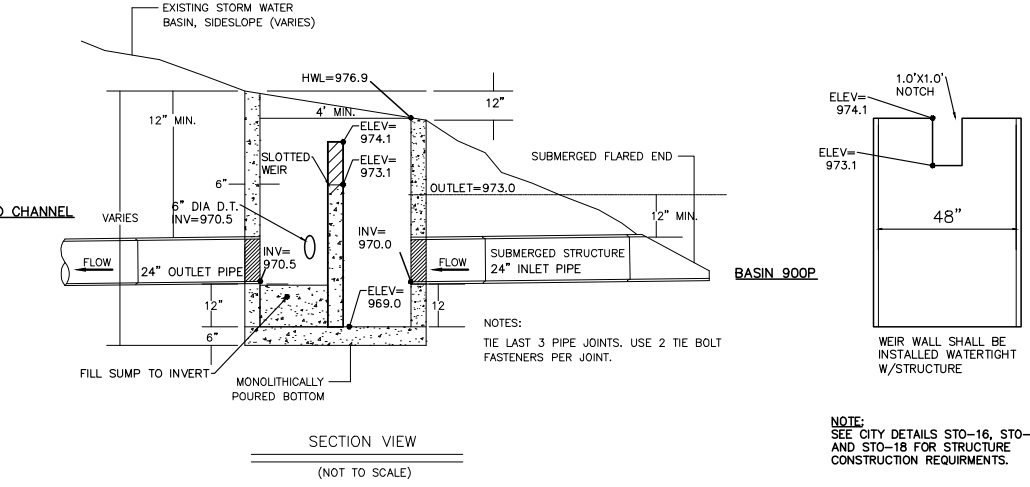
EOF 0.5' BELOW TOP OF BERM

OCS

SPECIFIC MODEL OUTPUT VALUES NOTED HEREIN, INCLUDING BUT NOT LIMITED TO HIGH WATER LEVELS, FLOW RATES AND LOW OPENINGS, MAY CHANGE WITH UPDATED MODELING. NUMBERS AND COMMENTS PROVIDED FOR GENERAL DISCUSSION PURPOSES ONLY.



POND OUTLET CONTROL STRUCTURE OCS-800



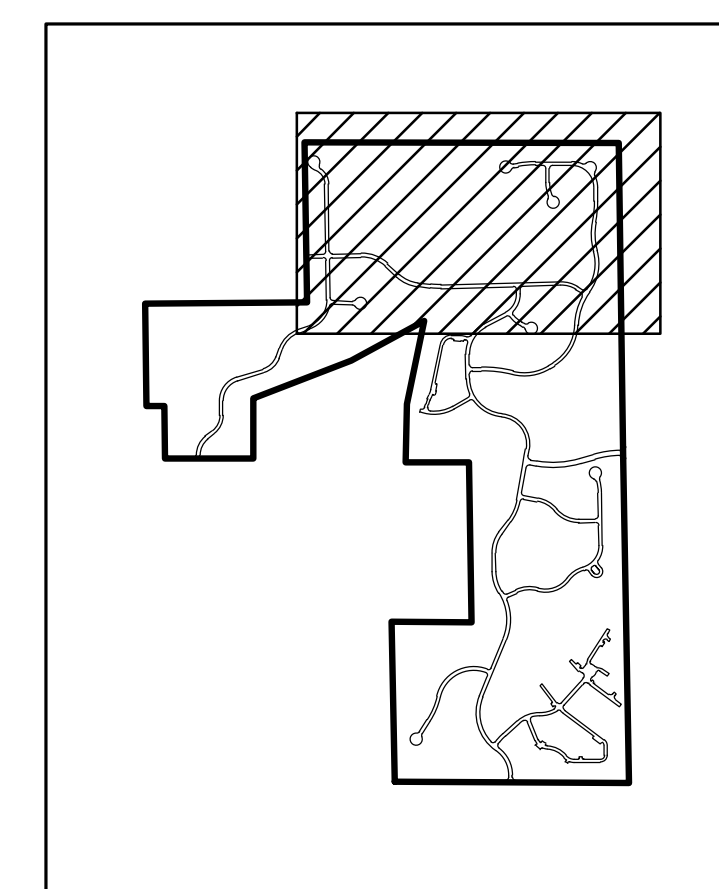
POND OUTLET CONTROL STRUCTURE OCS-900

NOTE: SEE CITY DETAILS STO-16, STO-17, AND STO-18 FOR STRUCTURE CONSTRUCTION REQUIREMENTS.

NOTE: SEE CITY DETAILS STO-16, STO-17, AND STO-18 FOR STRUCTURE CONSTRUCTION REQUIREMENTS.

## Area 2

---



**INDEX**

UNITS: 549  
 VILLAS: 70 (44-55', 29-65')  
 55' SF: 51  
 65' SF: 156  
 75' SF: 58  
 TWIN UNITS: 80  
 ROW TOWNHOME UNITS: 134

**PROPOSED SETBACKS:**  
**VILLAS:**  
 AREA: 7,000 SF  
 WIDTH: 55' TO 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECKS)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

**75' WIDE SINGLE FAMILY LOTS:**  
 AREA: 9,000 SF  
 WIDTH: 75'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECKS)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

**65' WIDE SINGLE FAMILY LOTS:**  
 AREA: 7,800 SF  
 WIDTH: 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECKS)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

**55' WIDE SINGLE FAMILY LOTS:**  
 AREA: 6,600 SF  
 WIDTH: 55'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECKS)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

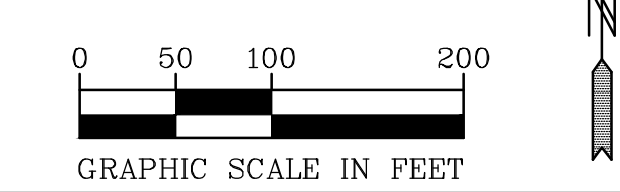
**TWINHOME LOTS:**  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING

**TOWNHOME LOTS:**  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING  
 SIDE STREET: 20' TO CURB(PRIVATE STREET)  
 SIDE STREET: 20' TO RIGHT OF WAY(PUBLIC STREET)

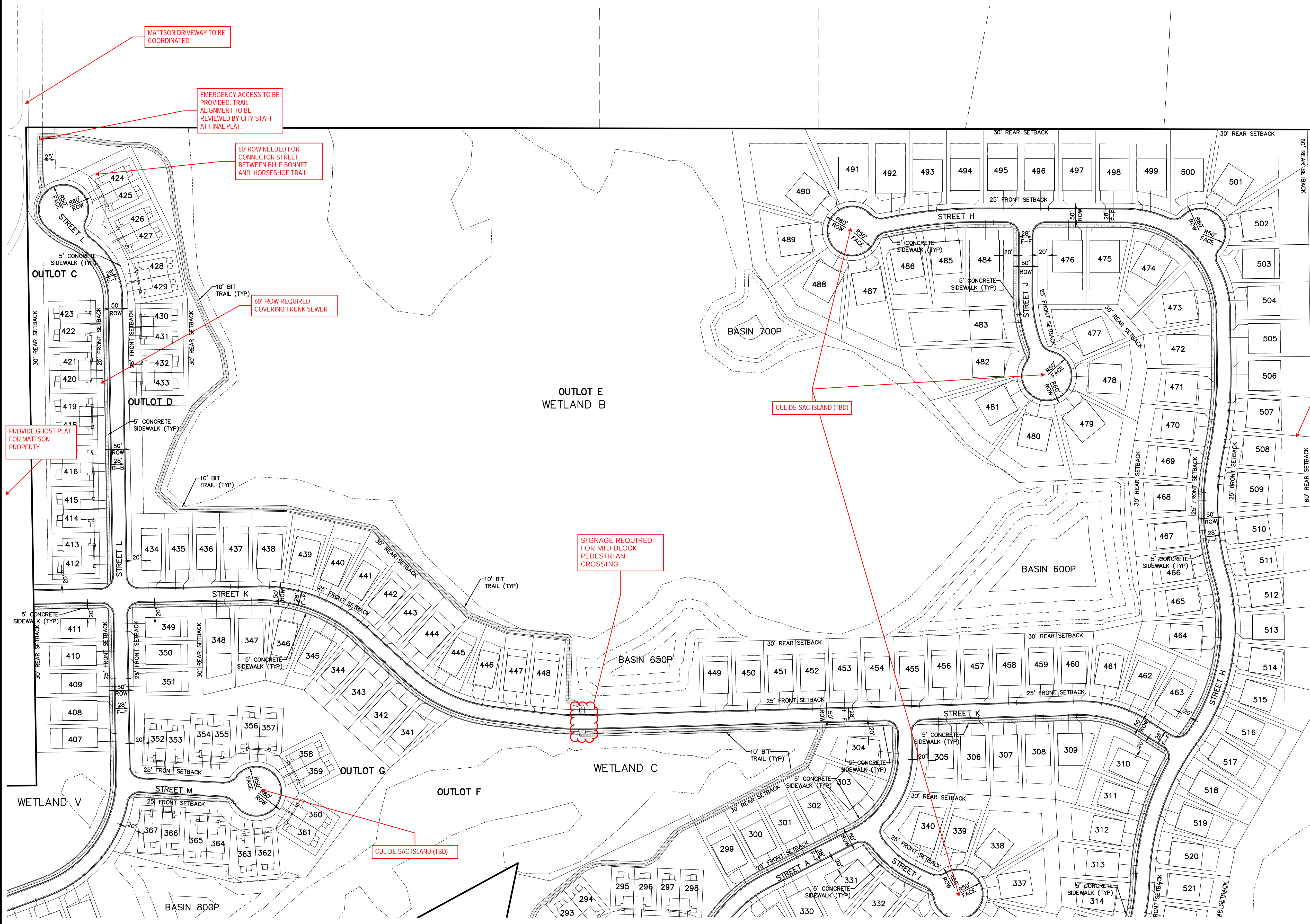
**WETLAND REQUIREMENTS (AVERAGING ALLOWED):**  
**HIGH:**  
 AVERAGE WIDTH: 50'  
 MINIMUM WIDTH: 40'  
 MAXIMUM WIDTH: 60'  
 SETBACK FROM BUFFER: 15'

**MEDIUM:**  
 AVERAGE WIDTH: 25'  
 MINIMUM WIDTH: 20'  
 MAXIMUM WIDTH: 40'  
 SETBACK FROM BUFFER: 15'

**LOW:**  
 AVERAGE WIDTH: 25' (WATERSHED STANDARD)  
 MINIMUM WIDTH: 10'  
 MAXIMUM WIDTH: 20'  
 SETBACK FROM BUFFER: 15'



00-ENG-119128-SHEET-SITE



MATTSON DRIVEWAY TO BE COORDINATED

EMERGENCY ACCESS TO BE PROVIDED. TRAIL ALIGNMENT TO BE REVIEWED BY CITY STAFF AT FINAL PLAT.

60' ROW NEEDED FOR CONNECTOR STREET BETWEEN BLUE BONNET AND HORSESHOE TRAIL

60' ROW REQUIRED COVERING TRUNK SEWER

PROVIDE GHOST PLAT FOR MATTSON PROPERTY

SIGNAGE REQUIRED FOR MID BLOCK PEDESTRIAN CROSSING

CUL-DE-SAC ISLAND (TBD)

CUL-DE-SAC ISLAND (TBD)



CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS  
 2422 Enterprise Drive  
 Mendota Heights, MN 55120  
 (651) 681-1914  
 Fax: 681-9488  
 www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
 Name: Paul J. Cherm  
 Paul J. Cherm  
 Reg. No. 19860 Date: 4-21-2020

Revisions  
 Date: 4-21-20  
 Designed: PIC/BNM  
 Drawn: MPC/MSN

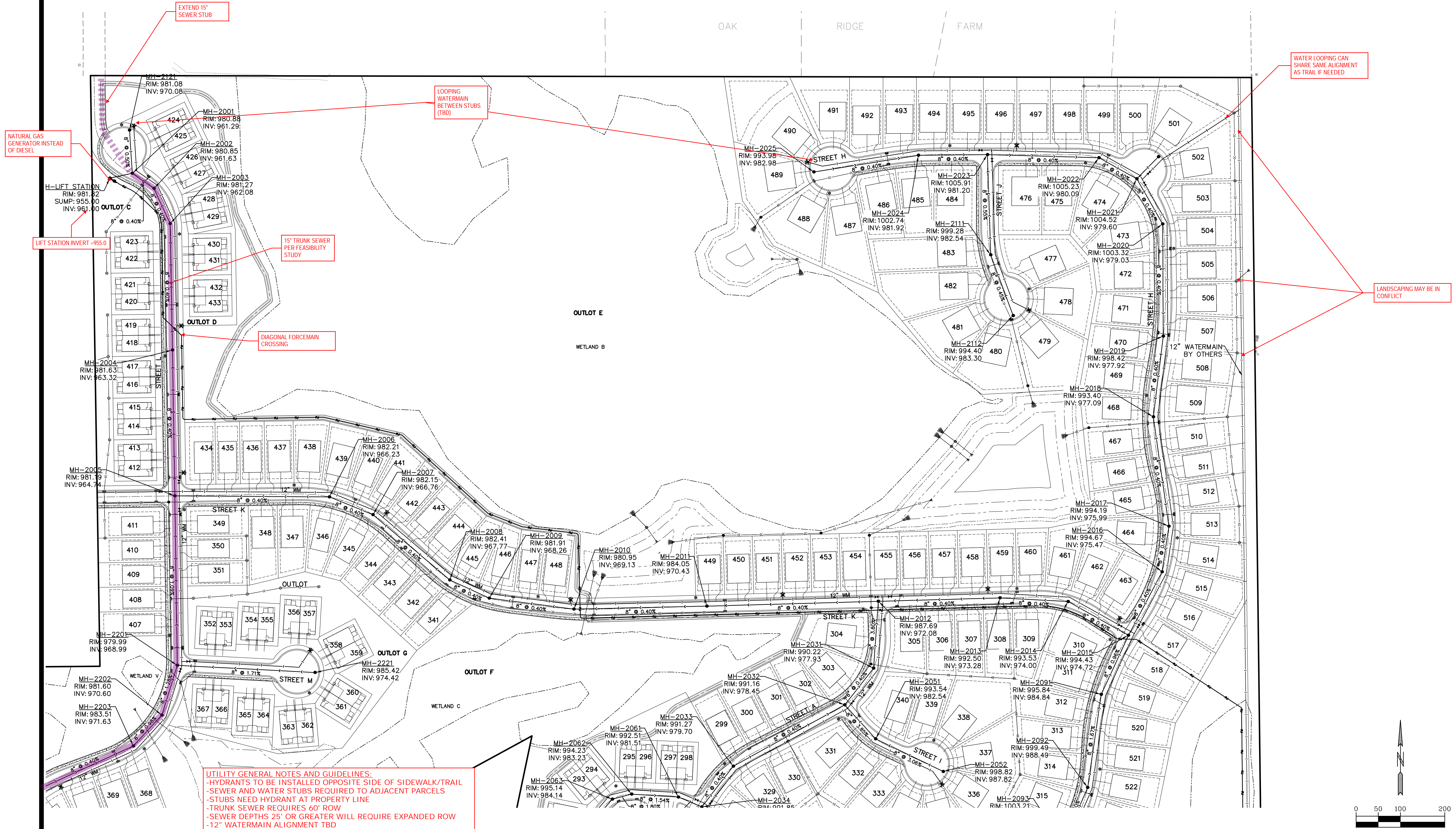
**PRELIMINARY SITE PLAN**

**LENNAR**  
 16305 36TH AVENUE NORTH  
 PLYMOUTH, MINNESOTA 55446

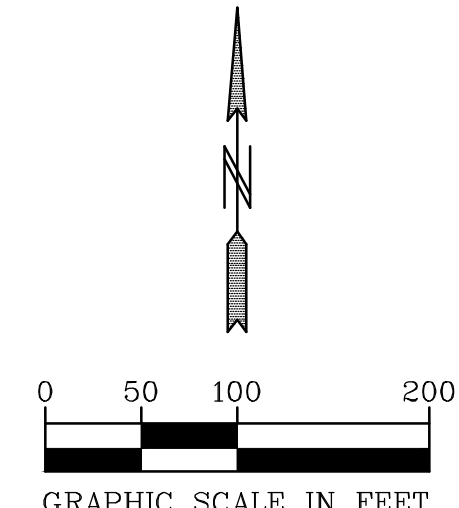
**TAVERA**  
 CORCORAN, MINNESOTA

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**UTILITY GENERAL NOTES AND GUIDELINES:**  
 -HYDRANTS TO BE INSTALLED OPPOSITE SIDE OF SIDEWALK/TRAIL  
 -SEWER AND WATER STUBS REQUIRED TO ADJACENT PARCELS  
 -STUBS NEED HYDRANT AT PROPERTY LINE  
 -TRUNK SEWER REQUIRES 60' ROW  
 -SEWER DEPTHS 25' OR GREATER WILL REQUIRE EXPANDED ROW  
 -12" WATERMAIN ALIGNMENT TBD



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 Mendota Heights, MN 55120  
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I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
 Name: *Paul J. Cherm*  
 Paul J. Cherm  
 Reg. No. 19860 Date: 4-21-2020

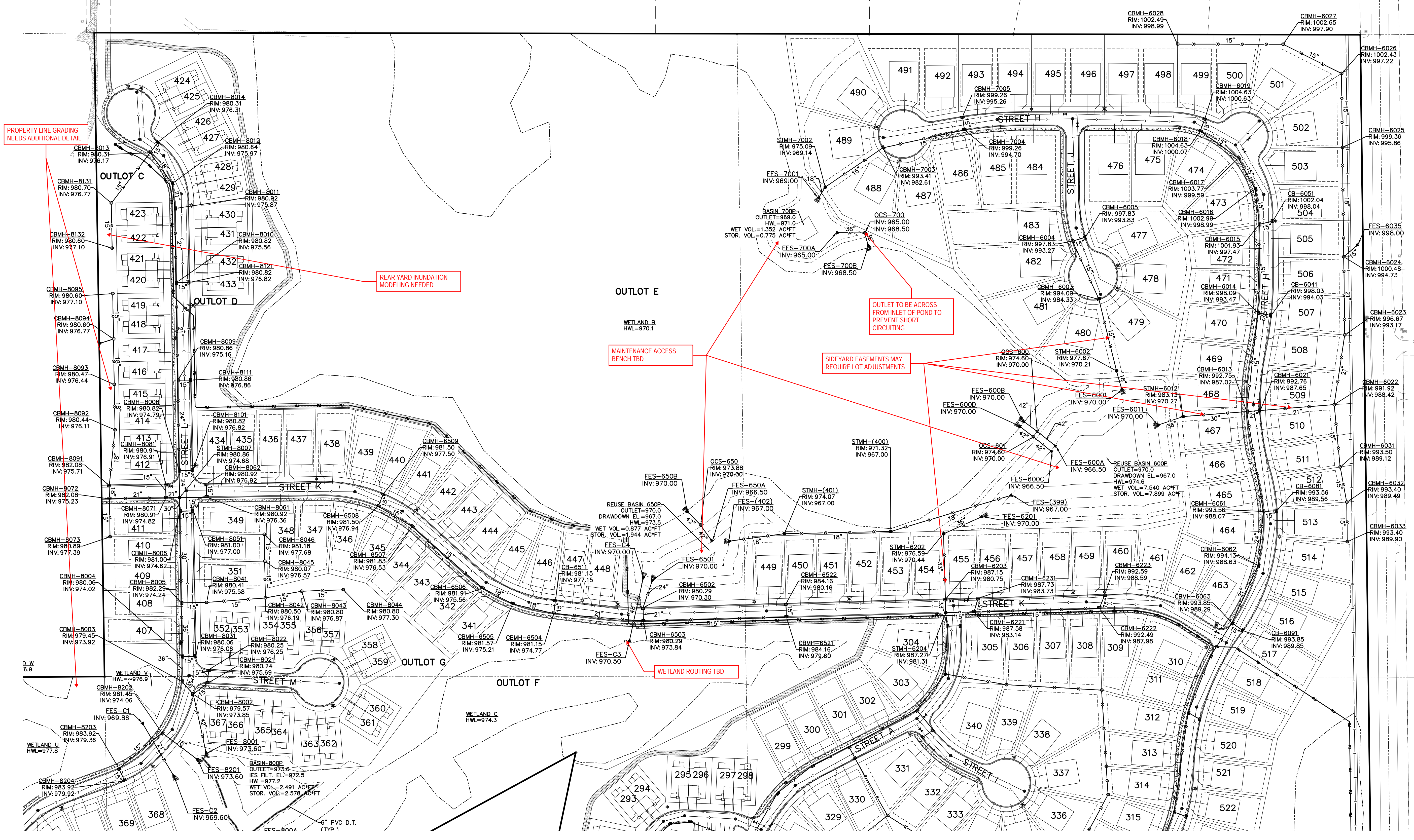
Revisions	Date	4-21-20
Designed	PIC/BNM	
Drawn	MPC/MSN	

**PRELIMINARY SANITARY SEWER & WATERMAIN**

**LENNAR**  
 16305 36TH AVENUE NORTH  
 PLYMOUTH, MINNESOTA 55446

**TAVERA**  
 CORCORAN, MINNESOTA

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PROPERTY LINE GRADING NEEDS ADDITIONAL DETAIL

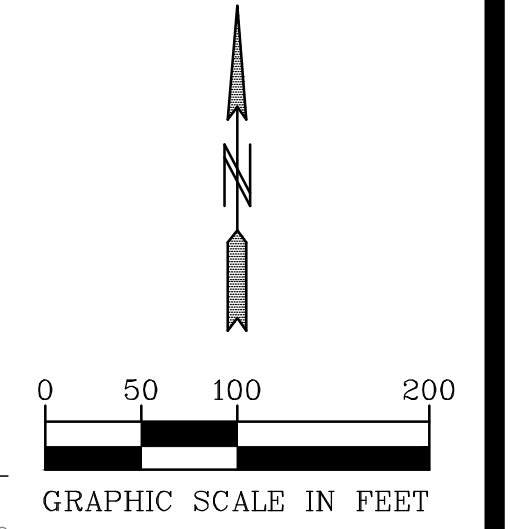
REAR YARD FLOODING MODELING NEEDED

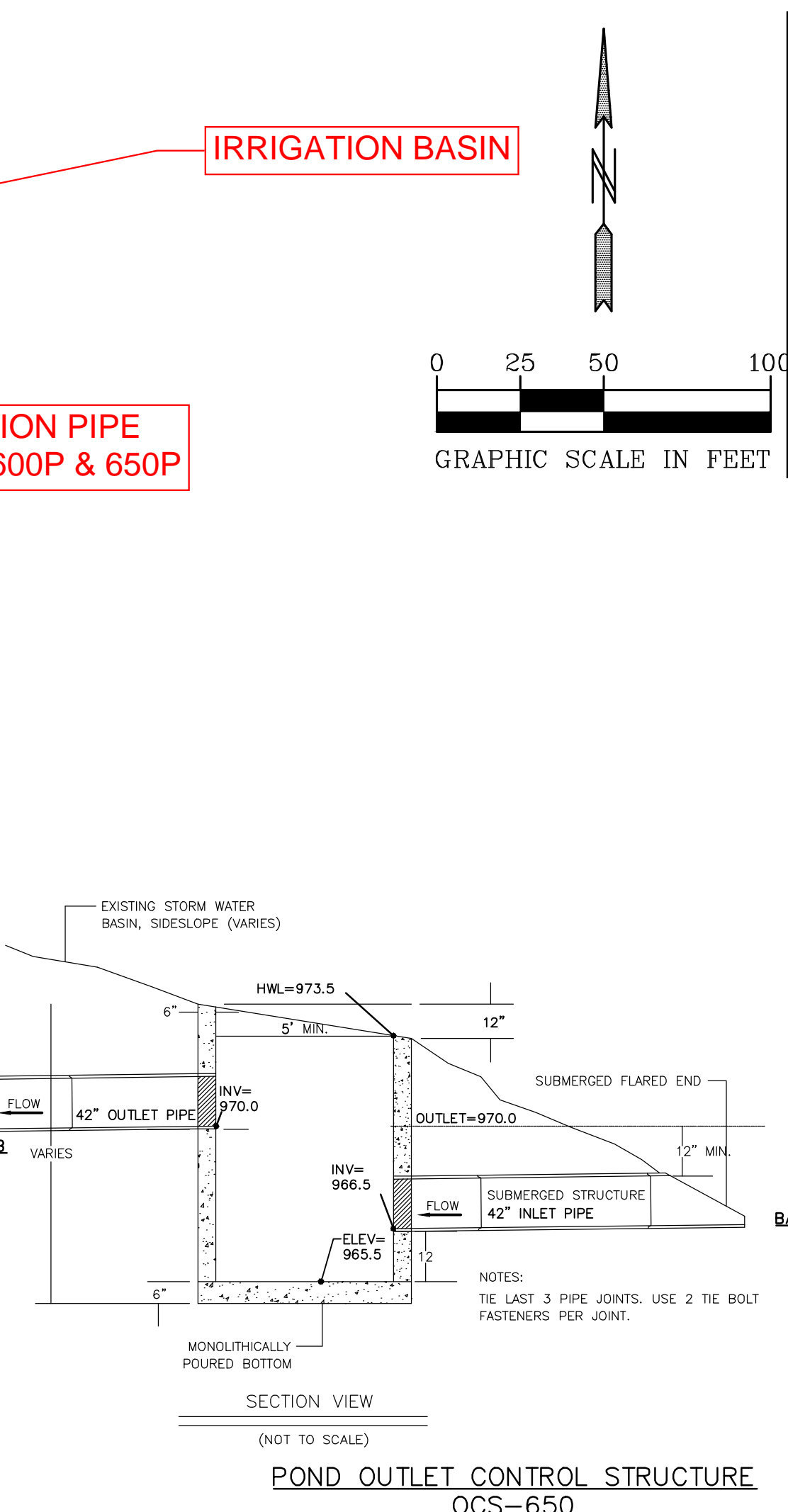
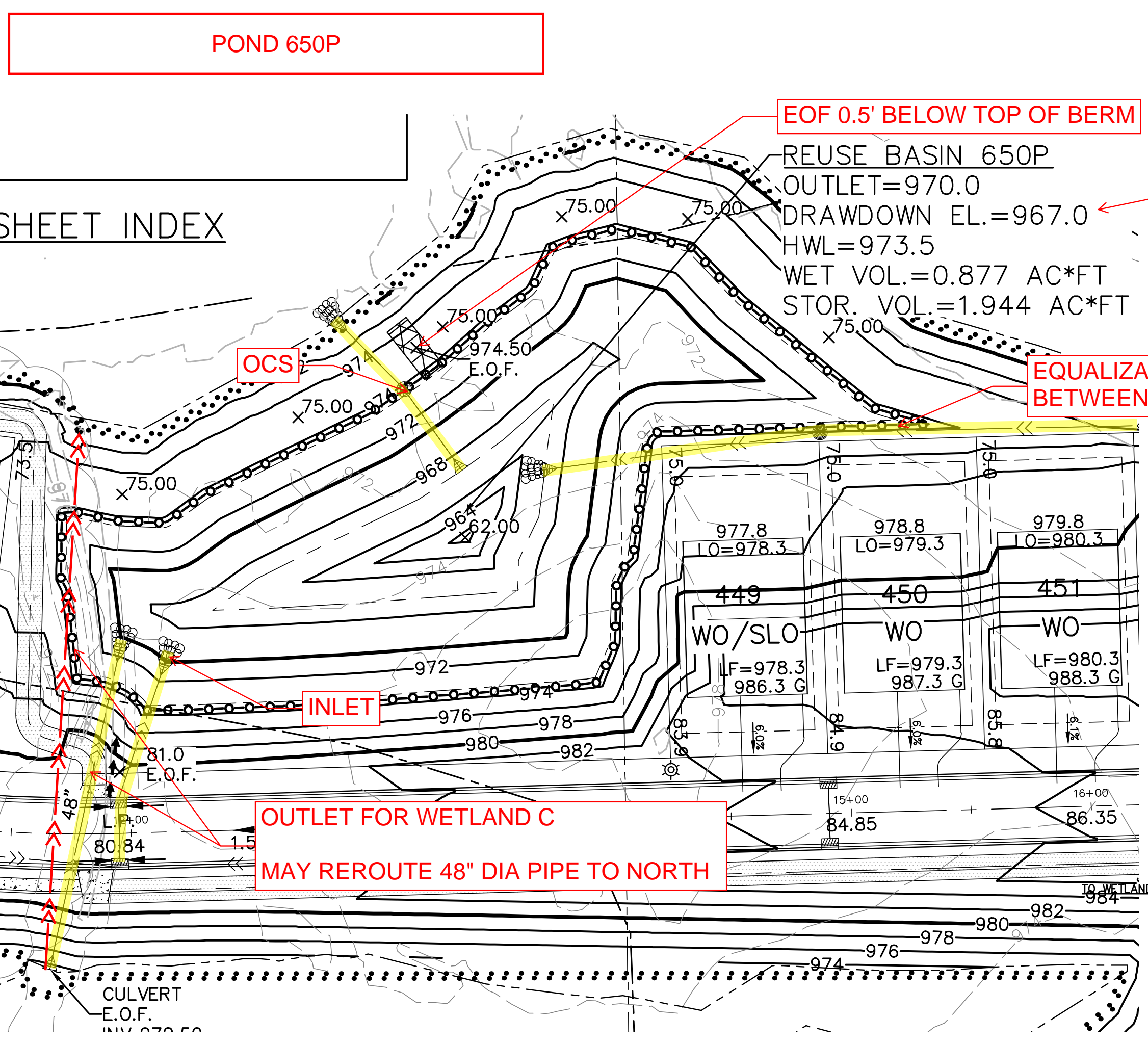
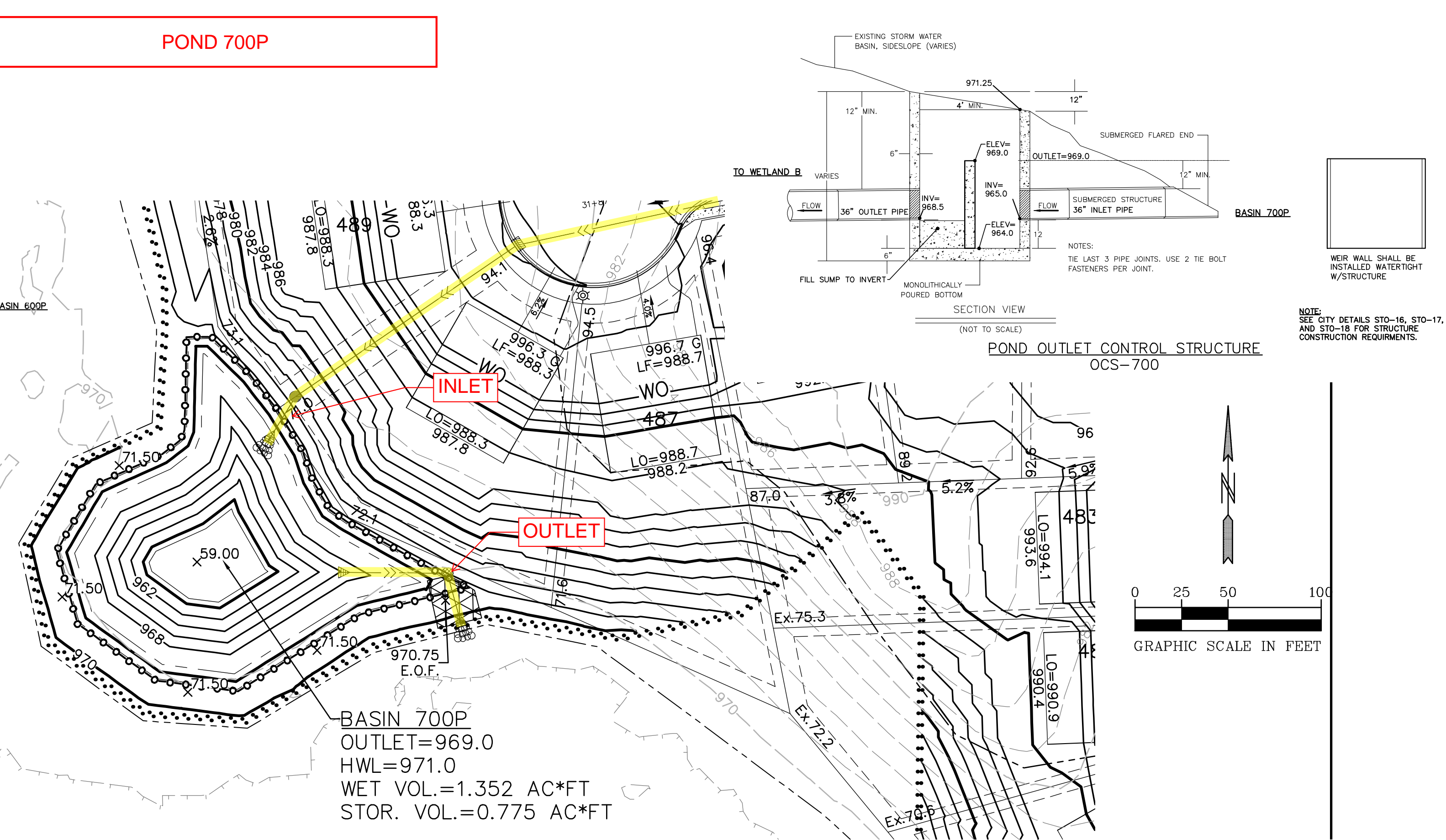
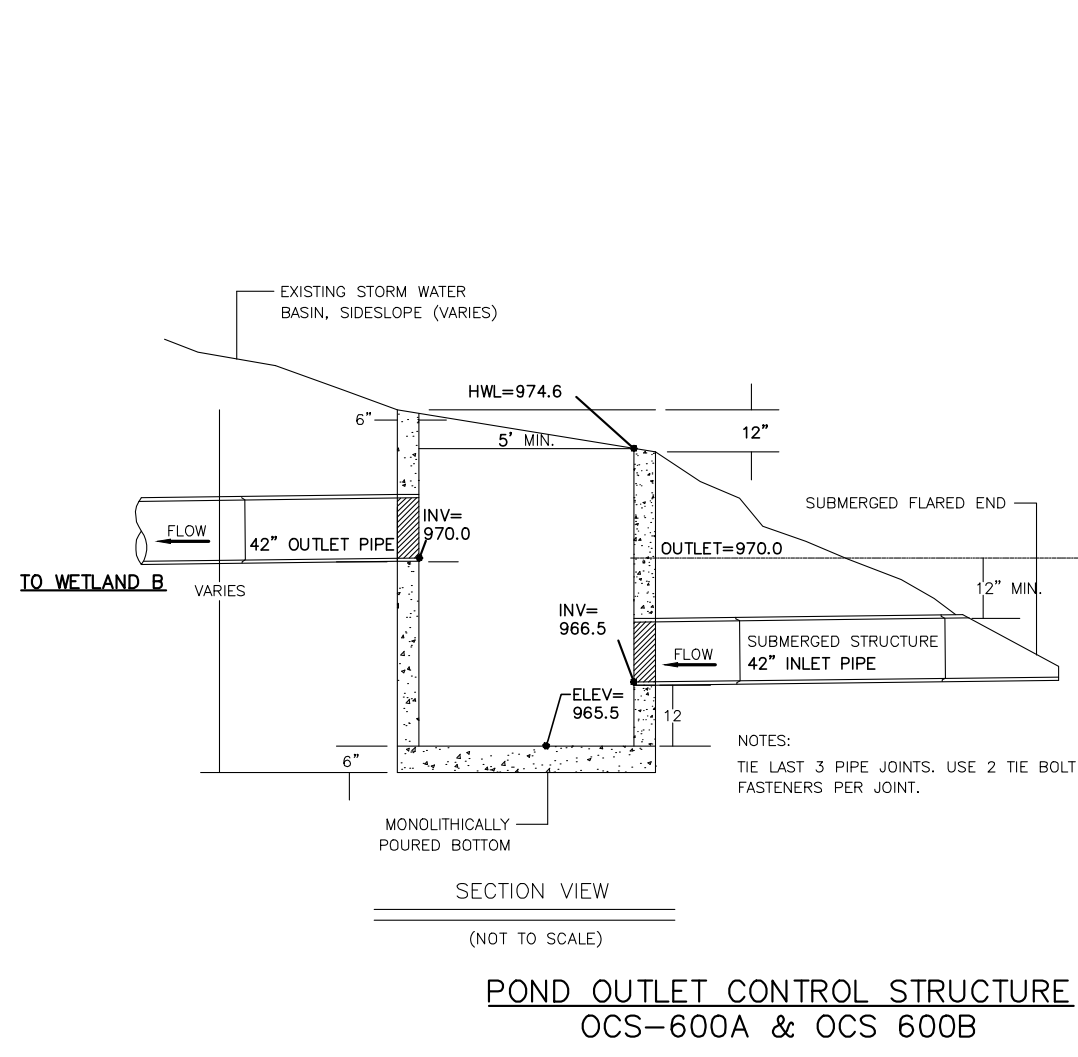
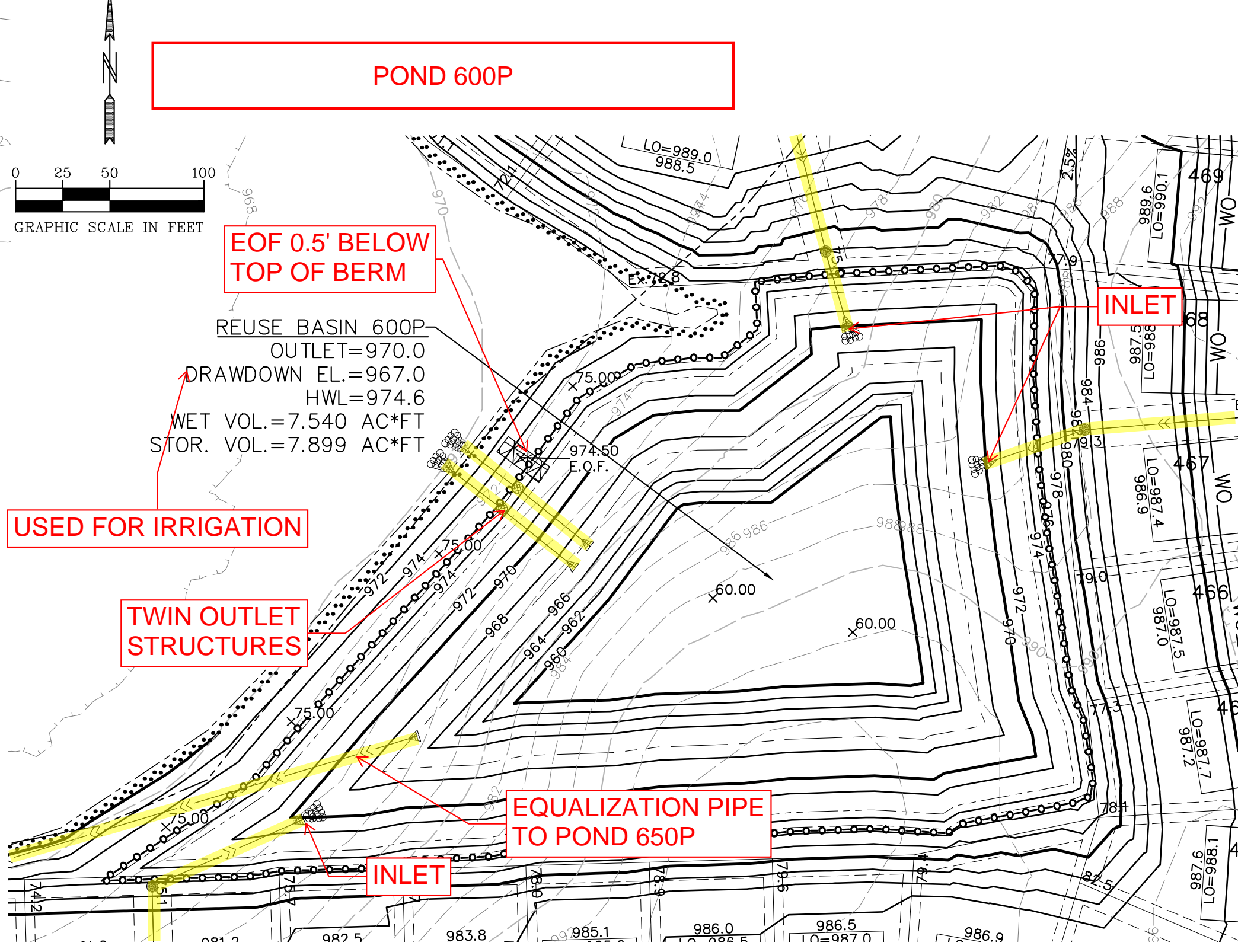
MAINTENANCE ACCESS BENCH TBD

OUTLET TO BE ACROSS FROM INLET OF POND TO PREVENT SHORT CIRCUITING

SIDEYARD EASEMENTS MAY REQUIRE LOT ADJUSTMENTS

WETLAND ROUTING TBD



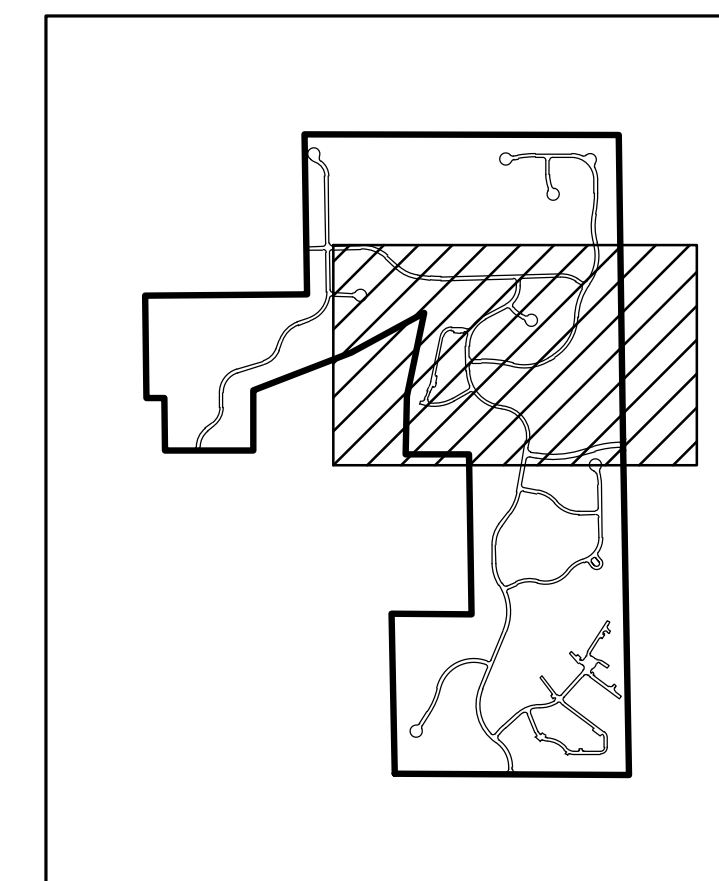
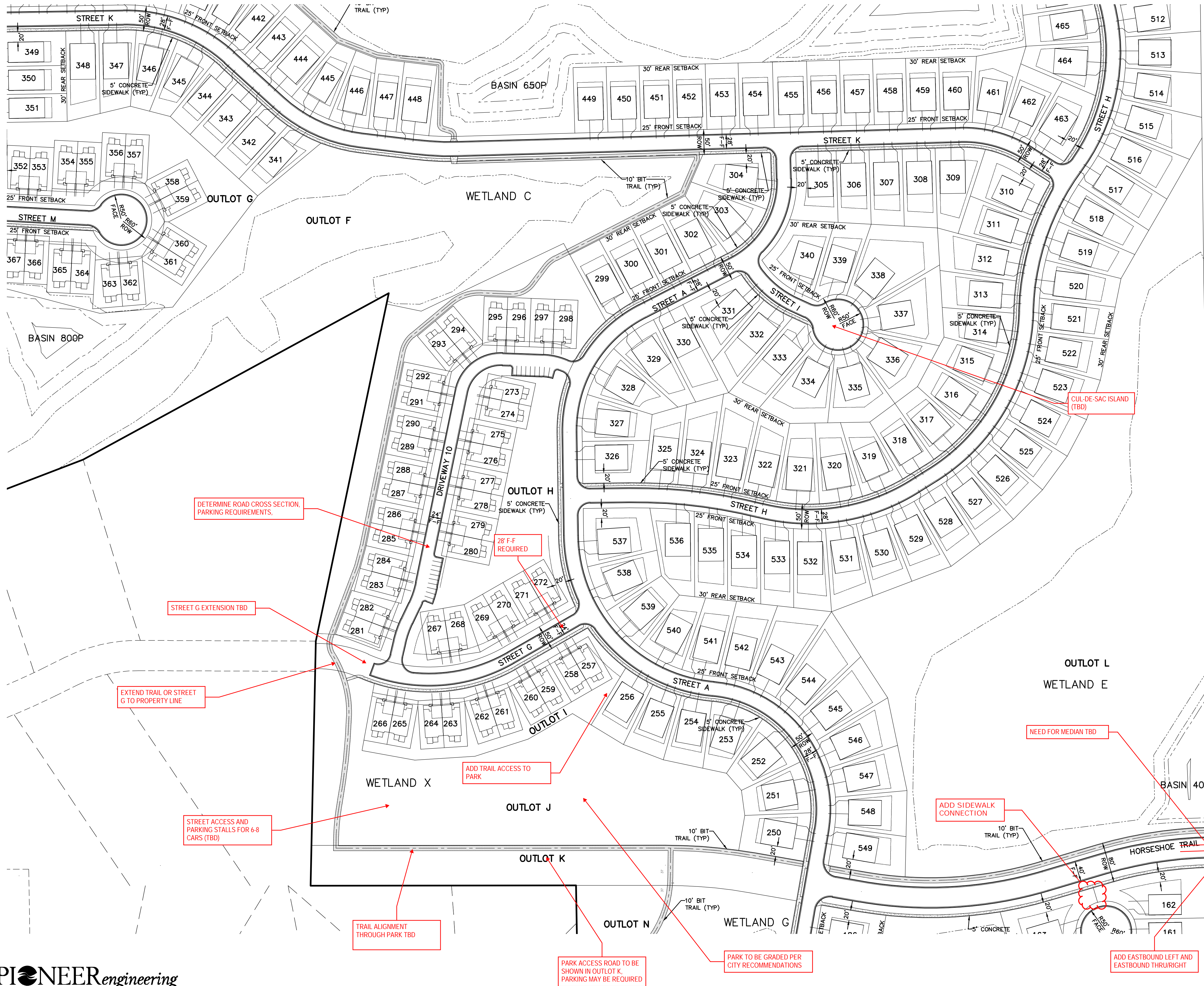


SPECIFIC MODEL OUTPUT VALUES NOTED HEREIN, INCLUDING BUT NOT LIMITED TO HIGH WATER LEVELS, FLOW RATES AND LOW OPENINGS, MAY CHANGE WITH UPDATED MODELING. NUMBERS AND COMMENTS PROVIDED FOR GENERAL DISCUSSION PURPOSES ONLY.

SHEET INDEX

## Area 3

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**INDEX**

PROPOSED UNITS: 549

55-65' VILLAS: 70 (44-55', 29-65')

55' SF: 51

65' SF: 156

75' SF: 58

TWIN UNITS: 80

ROW TOWNHOME UNITS: 134

**PROPOSED SETBACKS:**

**VILLAS:**

- AREA: 7,000 SF
- WIDTH: 55' TO 65'
- FRONT: 25'
- REAR: 30'(BUILDING)
- REAR: 20'(PATIO, DECK)
- SIDE: 7.5'
- SIDE STREET: 20'
- CO. RD. 116: 60'

**75' WIDE SINGLE FAMILY LOTS:**

- AREA: 9,000 SF
- WIDTH: 75'
- FRONT: 25'
- REAR: 30'(BUILDING)
- REAR: 20'(PATIO, DECK)
- SIDE: 7.5'
- SIDE STREET: 20'
- CO. RD. 116: 60'

**65' WIDE SINGLE FAMILY LOTS:**

- AREA: 7,800 SF
- WIDTH: 65'
- FRONT: 25'
- REAR: 30'(BUILDING)
- REAR: 20'(PATIO, DECK)
- SIDE: 7.5'
- SIDE STREET: 20'
- CO. RD. 116: 60'

**55' WIDE SINGLE FAMILY LOTS:**

- AREA: 6,600 SF
- WIDTH: 55'
- FRONT: 25'
- REAR: 30'(BUILDING)
- REAR: 20'(PATIO, DECK)
- SIDE: 7.5'
- SIDE STREET: 20'
- CO. RD. 116: 60'

**TWYNHOME LOTS:**

- FRONT: 25' TO CURB(PRIVATE STREET)
- FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)
- SIDE: 15' BUILDING TO BUILDING

**TOWNHOME LOTS:**

- FRONT: 25' TO CURB(PRIVATE STREET)
- FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)
- SIDE: 15' BUILDING TO BUILDING
- SIDE STREET: 20' TO CURB(PRIVATE STREET)
- SIDE STREET: 20' TO RIGHT OF WAY(PUBLIC STREET)

**WETLAND REQUIREMENTS (AVERAGING ALLOWED):**

**HIGH:**

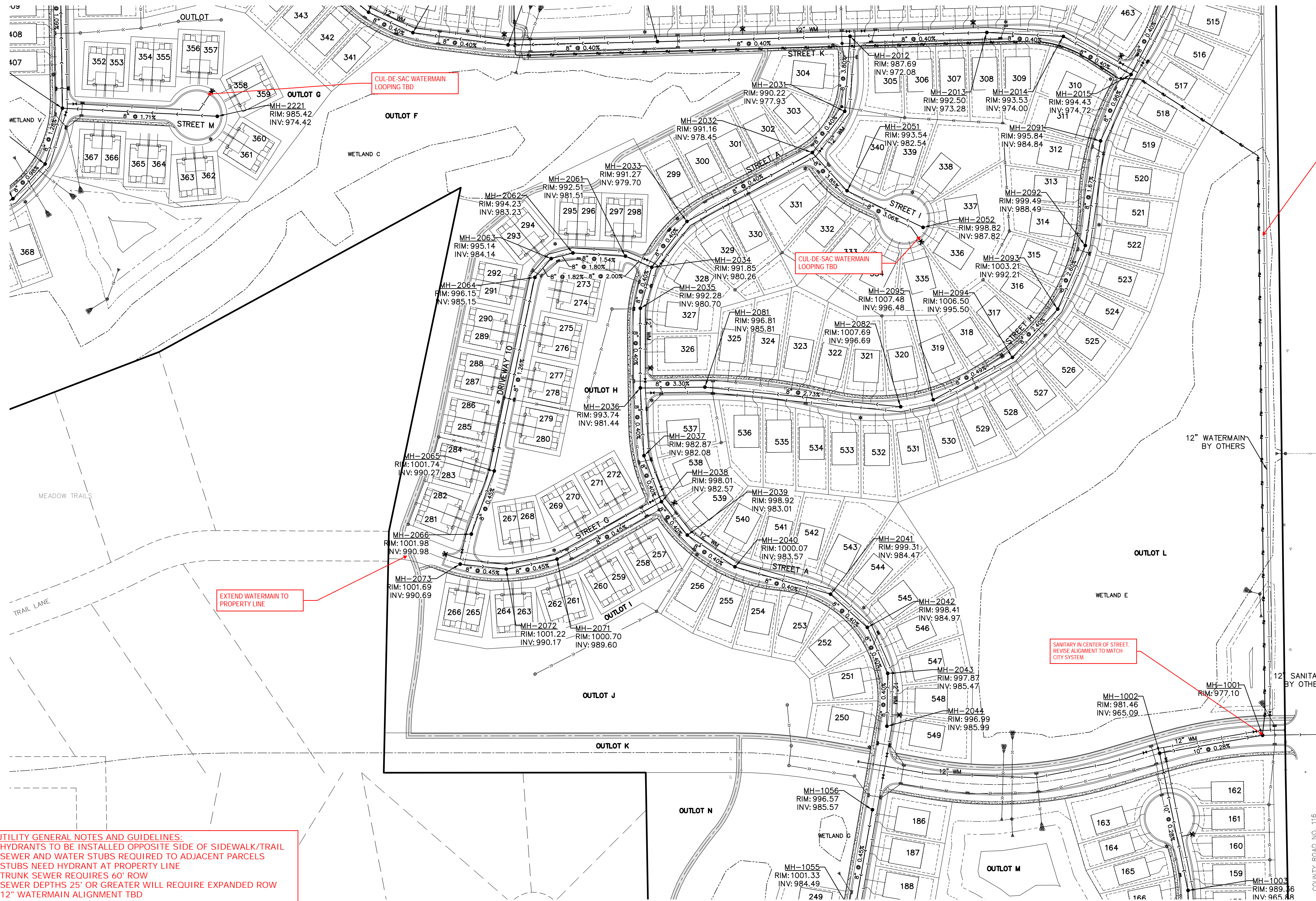
- AVERAGE WIDTH: 50'
- MINIMUM WIDTH: 40'
- MAXIMUM WIDTH: 60'
- SETBACK FROM BUFFER: 15'

**MEDIUM:**

- AVERAGE WIDTH: 25'
- MINIMUM WIDTH: 20'
- MAXIMUM WIDTH: 40'
- SETBACK FROM BUFFER: 15'

**LOW:**

- AVERAGE WIDTH: 25' (WATERSHED STANDARD)
- MINIMUM WIDTH: 10'
- MAXIMUM WIDTH: 20'
- SETBACK FROM BUFFER: 15'



**UTILITY GENERAL NOTES AND GUIDELINES:**  
 -HYDRANTS TO BE INSTALLED OPPOSITE SIDE OF SIDEWALK/TRAIL  
 -SEWER AND WATER STUBS REQUIRED TO ADJACENT PARCELS  
 -STUBS NEED HYDRANT AT PROPERTY LINE  
 -TRUNK SEWER REQUIRES 60' ROW  
 -SEWER DEPTHS 25' OR GREATER WILL REQUIRE EXPANDED ROW  
 -12" WATERMAIN ALIGNMENT TBD

SANITARY IN CENTER OF STREET.  
 REVISE ALIGNMENT TO MATCH  
 CITY SYSTEM.



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 www.pioneereng.com

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

Name: *Paul J. Cherm*  
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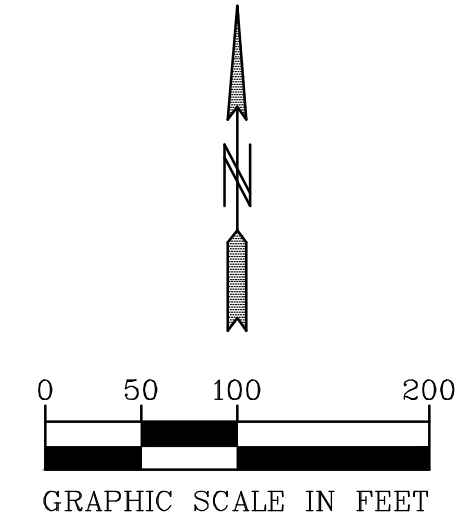
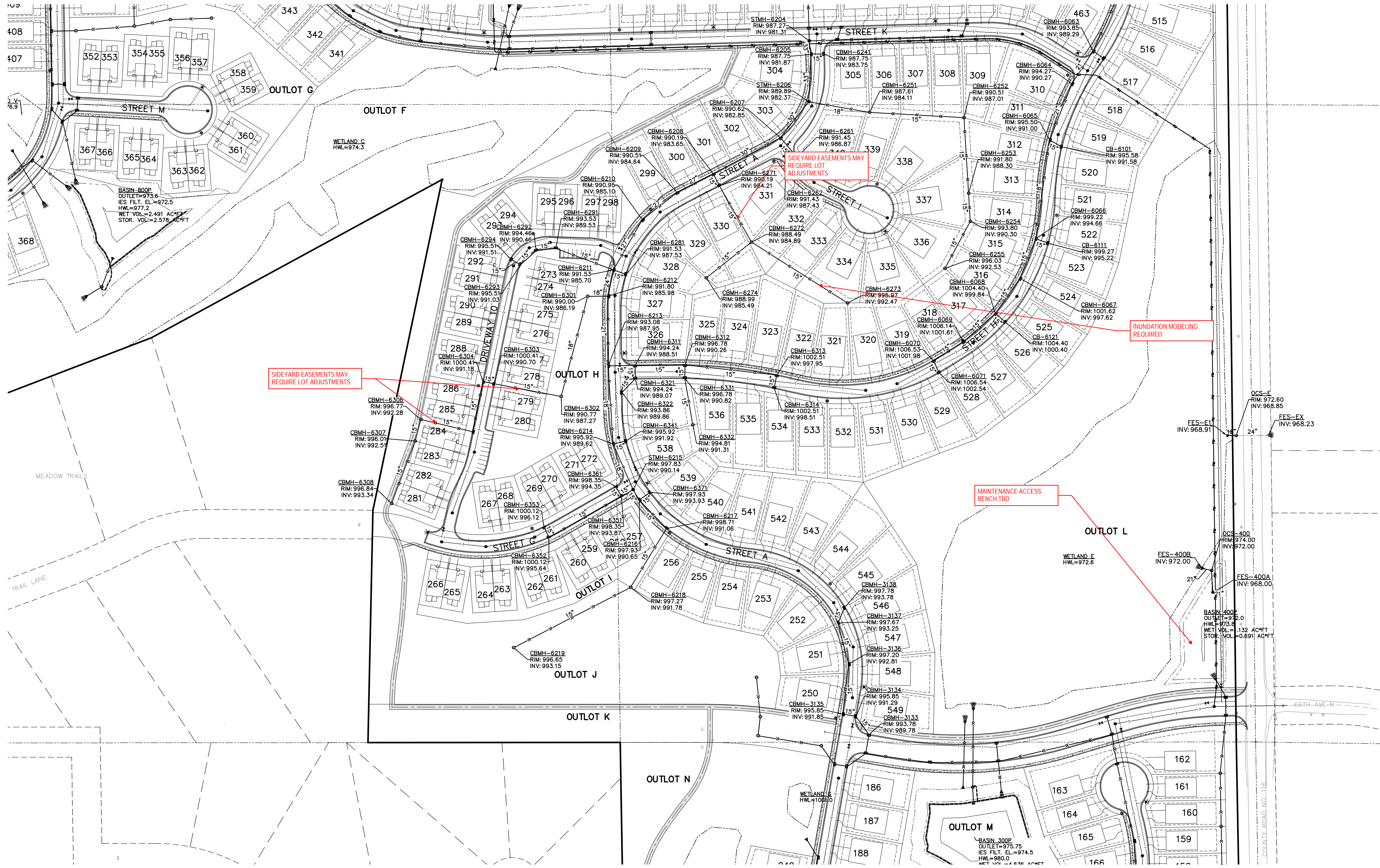
Revisions

Date: 4-21-20  
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PRELIMINARY SANITARY SEWER & WATERMAIN

LENNAR  
 16305 36TH AVENUE NORTH  
 PLYMOUTH, MINNESOTA 55446

TAVERA  
 CORCORAN, MINNESOTA







## Area 4

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# HORSESHOE TRAIL



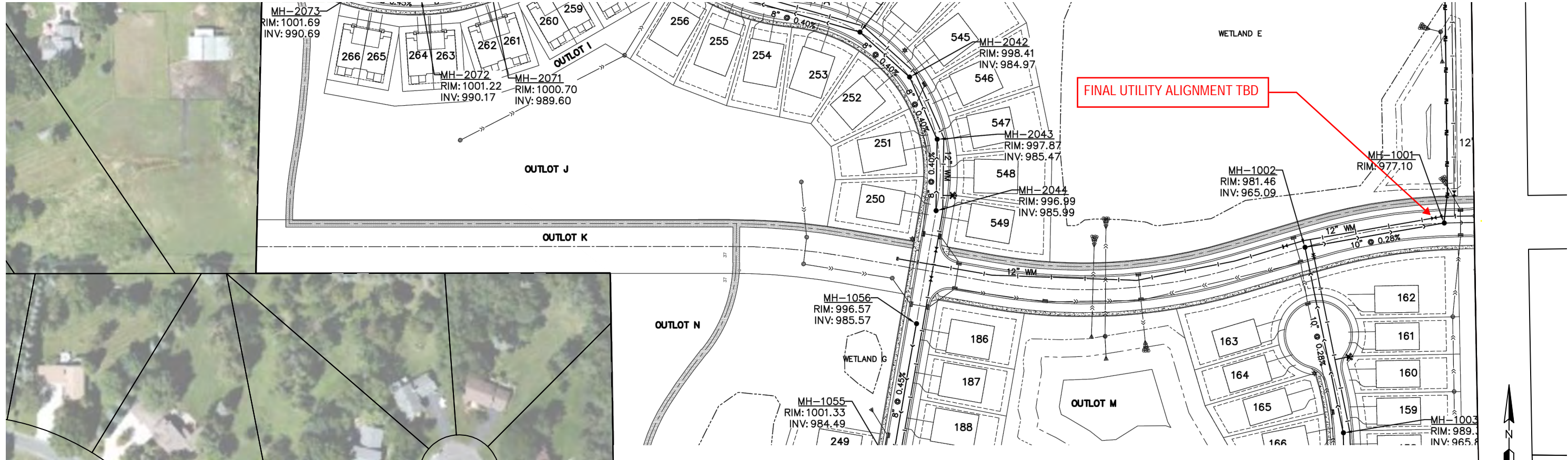
EASTBOUND LANE TO BE 16' TO PROVIDE ADDITIONAL SPACE FOR EMERGENCY VEHICLES (ONLY IF MEDIAN IS INSTALLED)

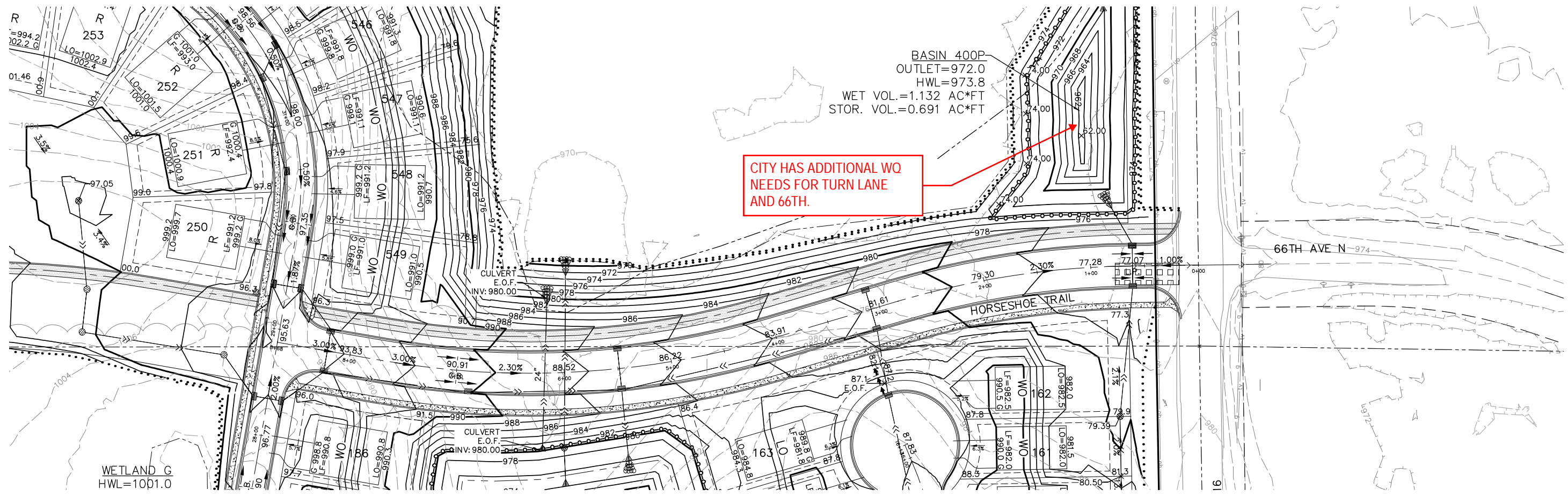
80' ROW IS SUFFICIENT, MEDIAN TBD.  
WESTBOUND LEFT AND THROUGH/RIGHT TO BE INSTALLED PER FEASIBILITY STUDY.

CITY HAS MEDIAN

PEDESTRIAN CROSSING AND ADDITIONAL SAFETY MEASURES (MEDIAN, RRFB, ETC) MAY BE REQUIRED BY COUNTY.

# HORSESHOE TRAIL

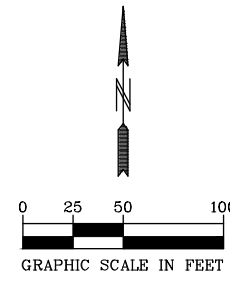


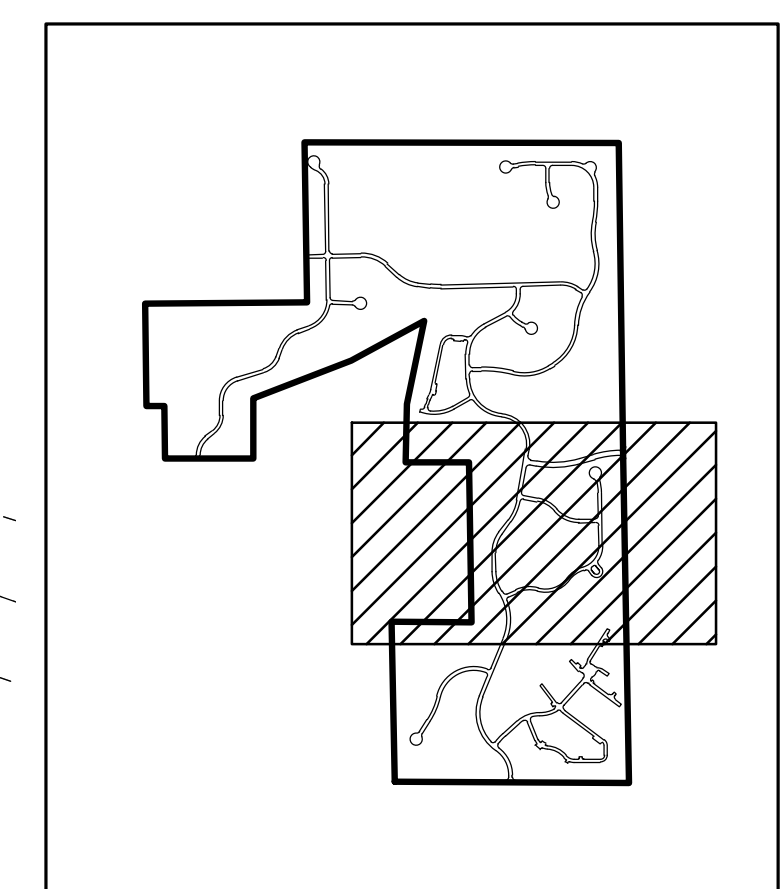
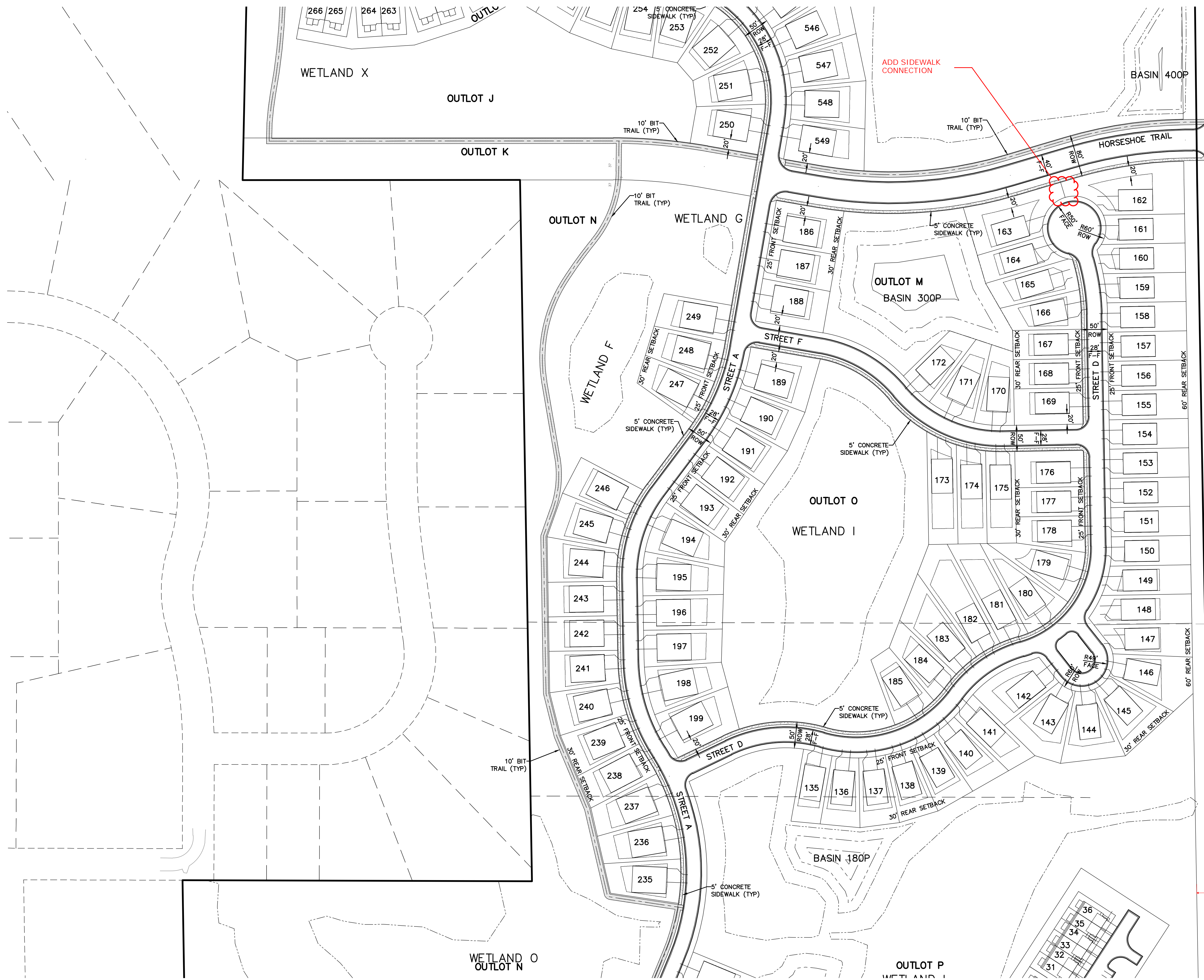


CITY HAS ADDITIONAL WQ NEEDS FOR TURN LANE AND 66TH.

BASIN 400P  
OUTLET=972.0  
HWL=973.8  
WET VOL.=1.132 AC\*FT  
STOR. VOL.=0.691 AC\*FT

WETLAND G  
HWL=1001.0

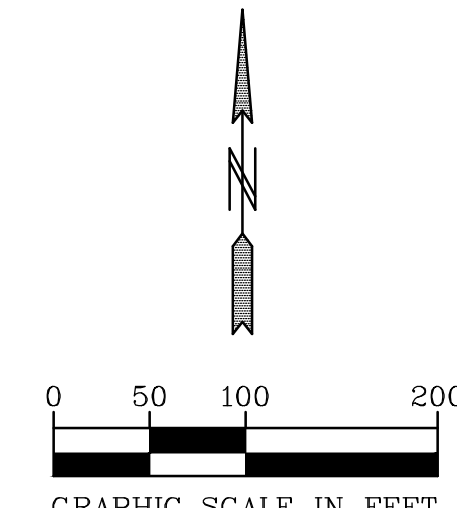




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 WIDTH: 55' TO 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'
- 75' WIDE SINGLE FAMILY LOTS:**  
 AREA: 9,000 SF  
 WIDTH: 75'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'
- 65' WIDE SINGLE FAMILY LOTS:**  
 AREA: 7,800 SF  
 WIDTH: 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'
- 55' WIDE SINGLE FAMILY LOTS:**  
 AREA: 6,600 SF  
 WIDTH: 55'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'
- TWINHOME LOTS:**  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING
- TOWNHOME LOTS:**  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING  
 SIDE STREET: 20' TO CURB(PRIVATE STREET)  
 SIDE STREET: 20' TO RIGHT OF WAY(PUBLIC STREET)
- WETLAND REQUIREMENTS (AVERAGING ALLOWED):**
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 AVERAGE WIDTH: 50'  
 MINIMUM WIDTH: 40'  
 MAXIMUM WIDTH: 60'  
 SETBACK FROM BUFFER: 15'
- MEDIUM:**  
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 MINIMUM WIDTH: 20'  
 MAXIMUM WIDTH: 40'  
 SETBACK FROM BUFFER: 15'
- LOW:**  
 AVERAGE WIDTH: 25' (WATERSHED STANDARD)  
 MINIMUM WIDTH: 10'  
 MAXIMUM WIDTH: 20'  
 SETBACK FROM BUFFER: 15'

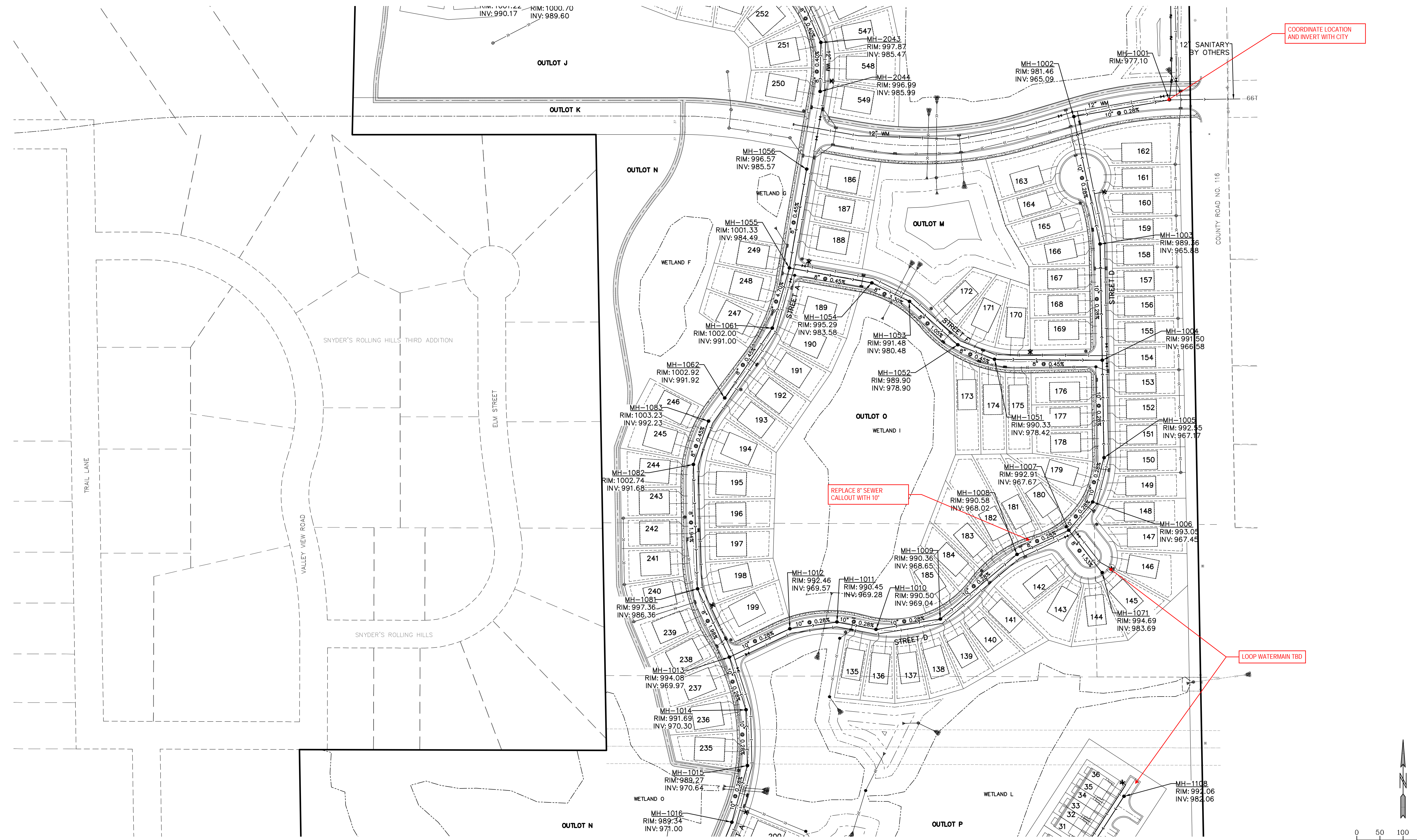
65' HALF ROW SHOWN IS IN COMPLIANCE WITH TYPICAL HENN CO STANDARDS



## Area 5

---

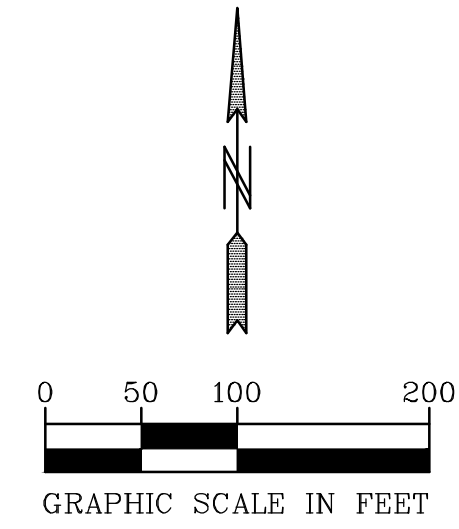
SANITARY SEWER & WATERMAIN NOTES:  
 1. ALL WATERMAIN IS 8" PVC UNLESS OTHERWISE NOTED



COORDINATE LOCATION AND INVERT WITH CITY

REPLACE 8" SEWER CALLOUT WITH 10"

LOOP WATERMAIN TBD



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 www.pioneereng.com

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

Name: *Paul J. Cherno*  
 Paul J. Cherno  
 Reg. No. 19860 Date 4-21-2020

Revisions

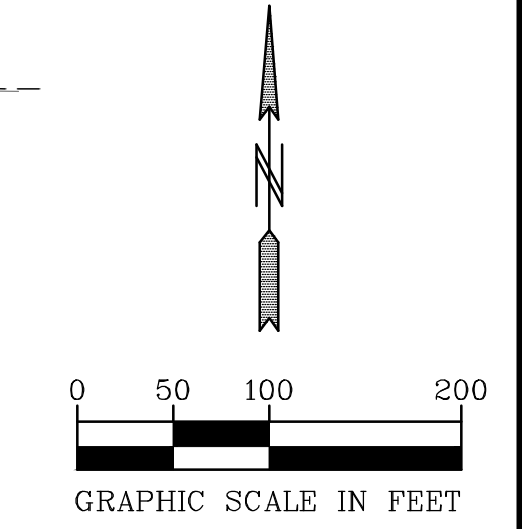
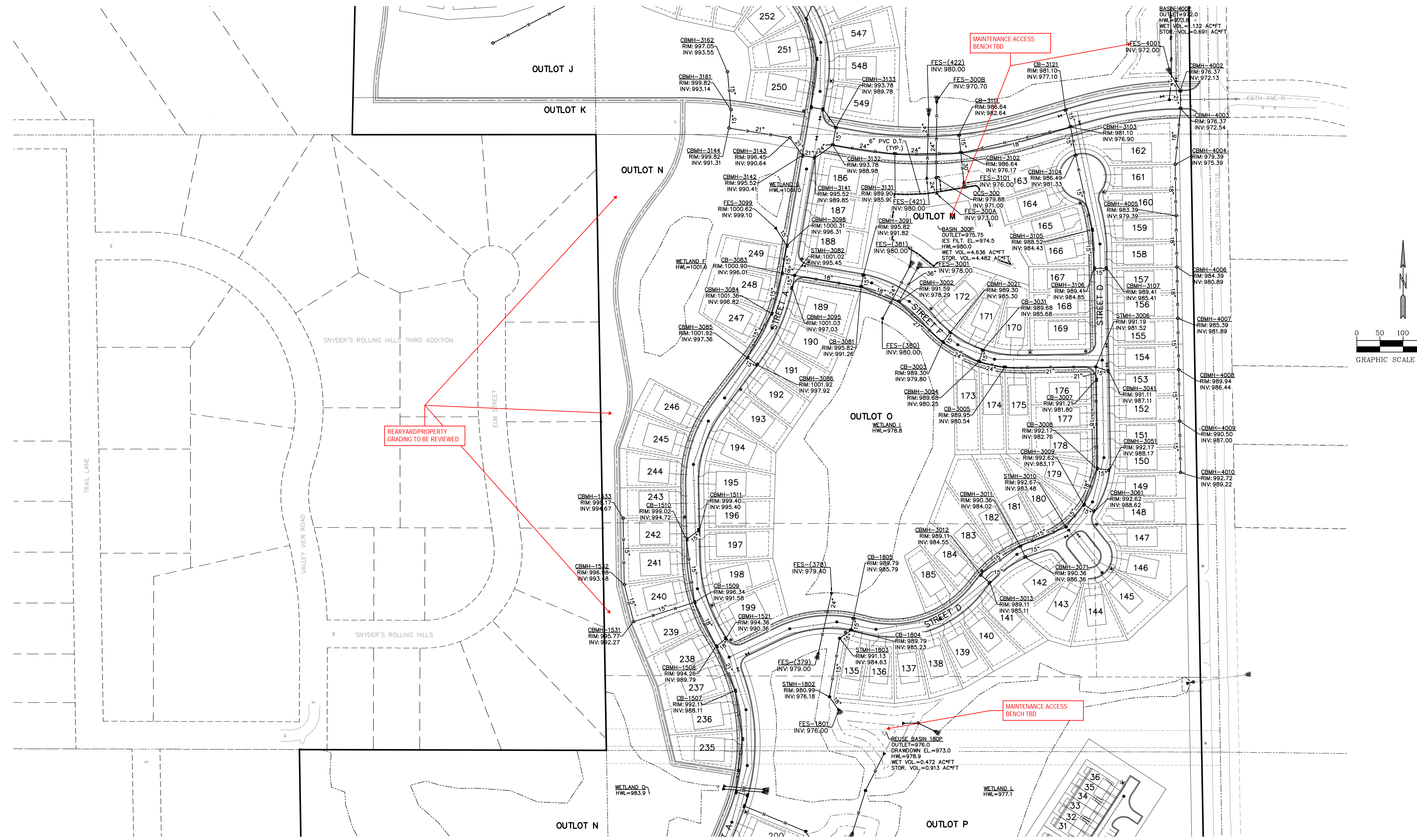
Date: 4-21-20  
 Designed: PIC/BNM  
 Drawn: MPC/MSN

**PRELIMINARY SANITARY SEWER & WATERMAIN**

**LENNAR**  
 16305 36TH AVENUE NORTH  
 PLYMOUTH, MINNESOTA 55446

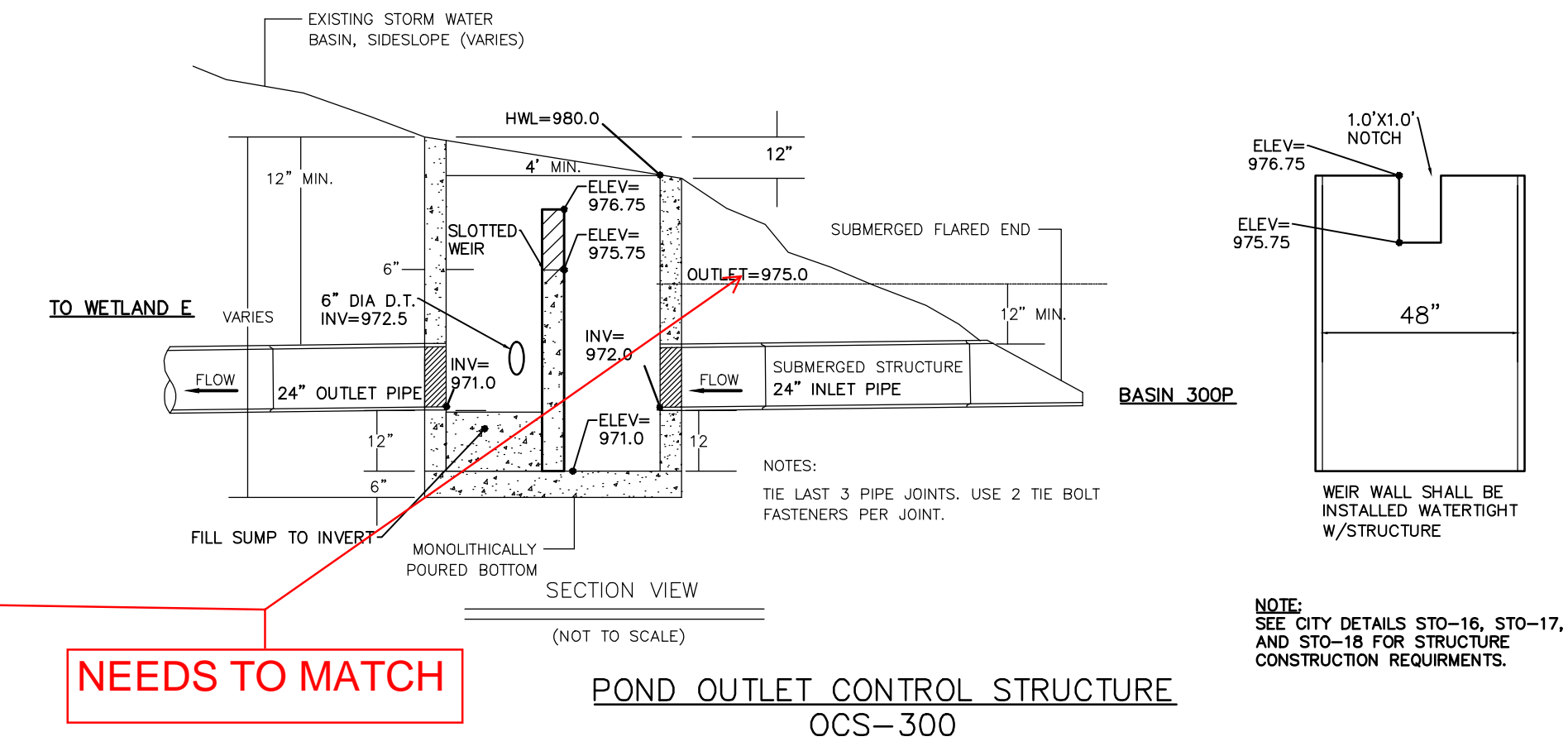
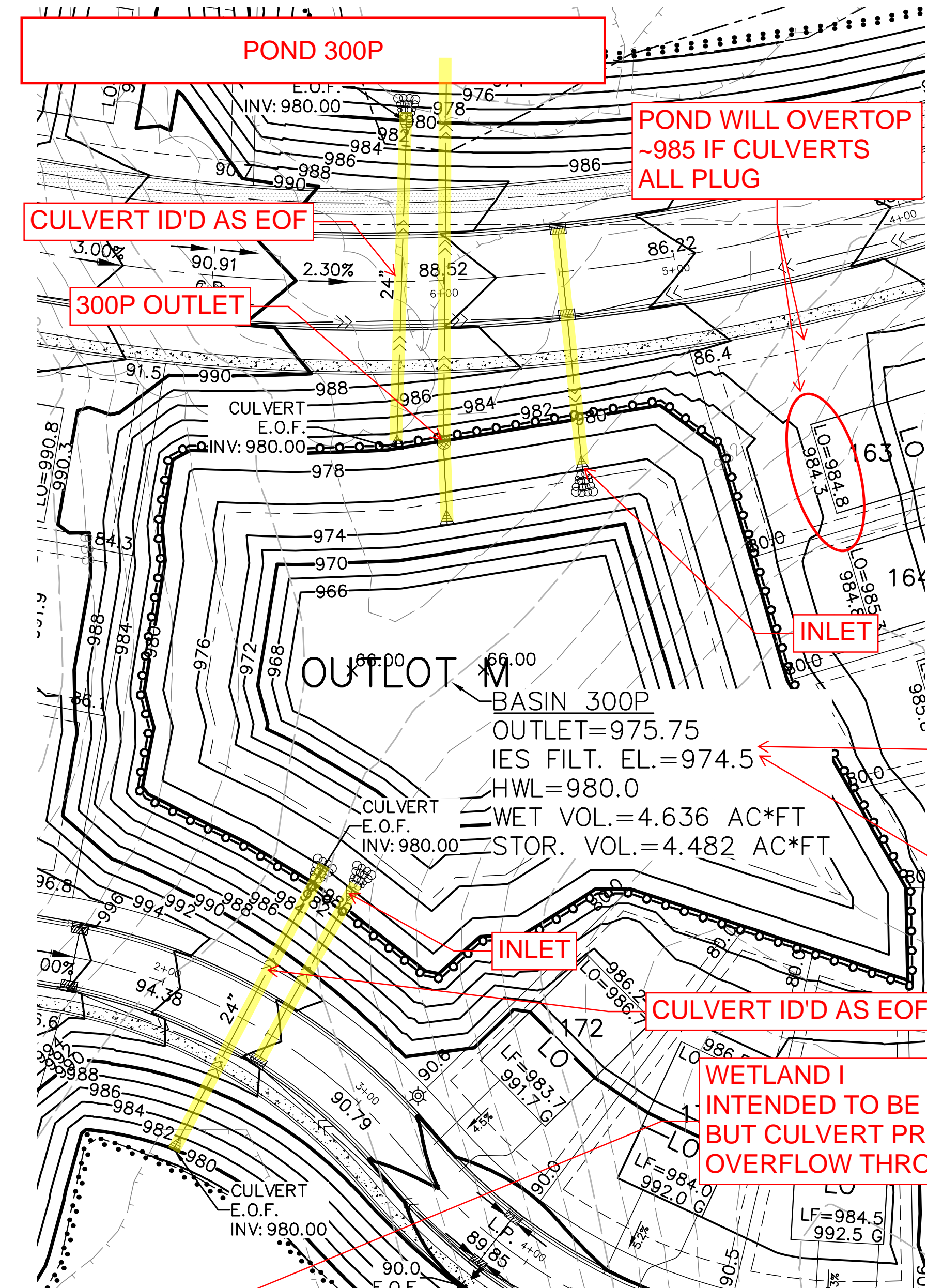
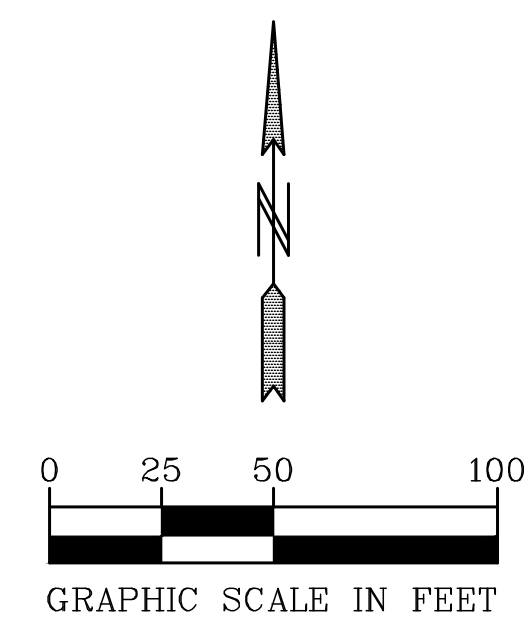
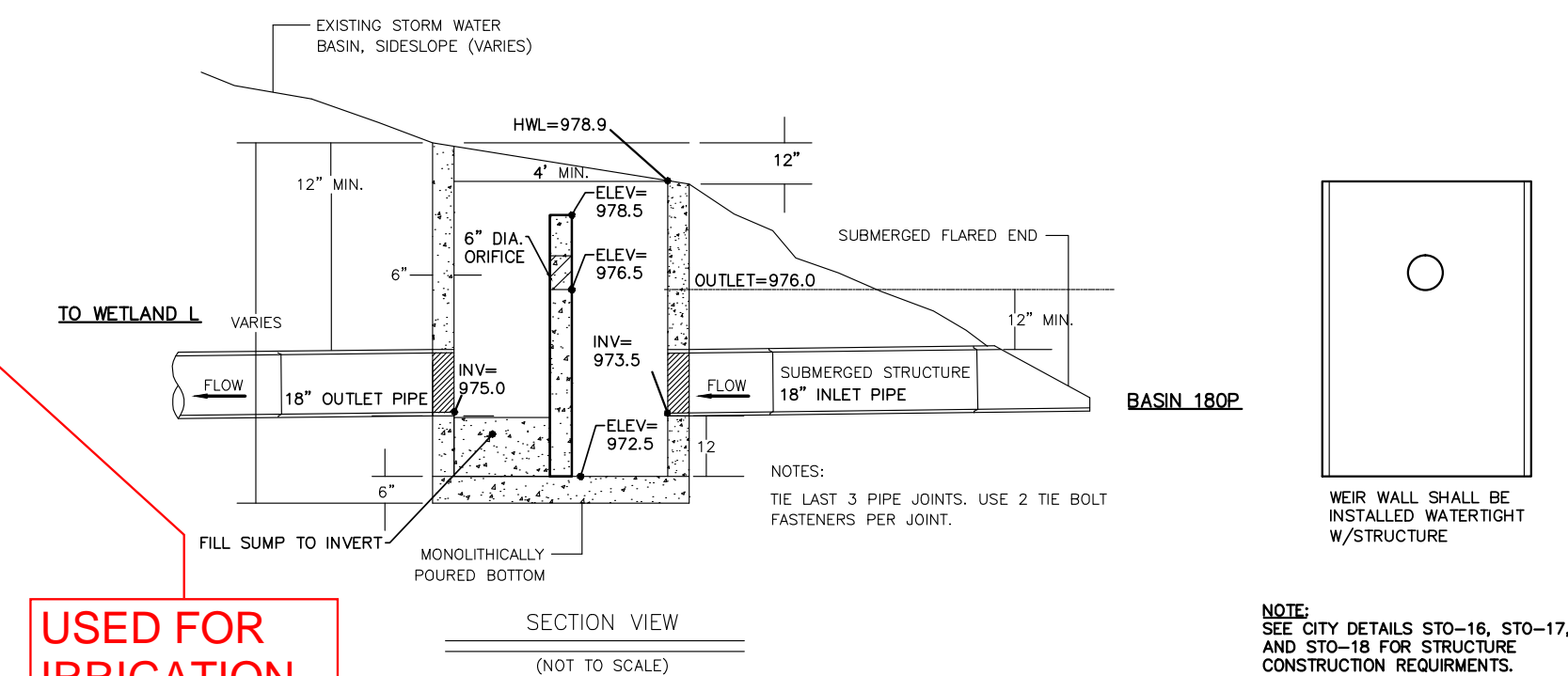
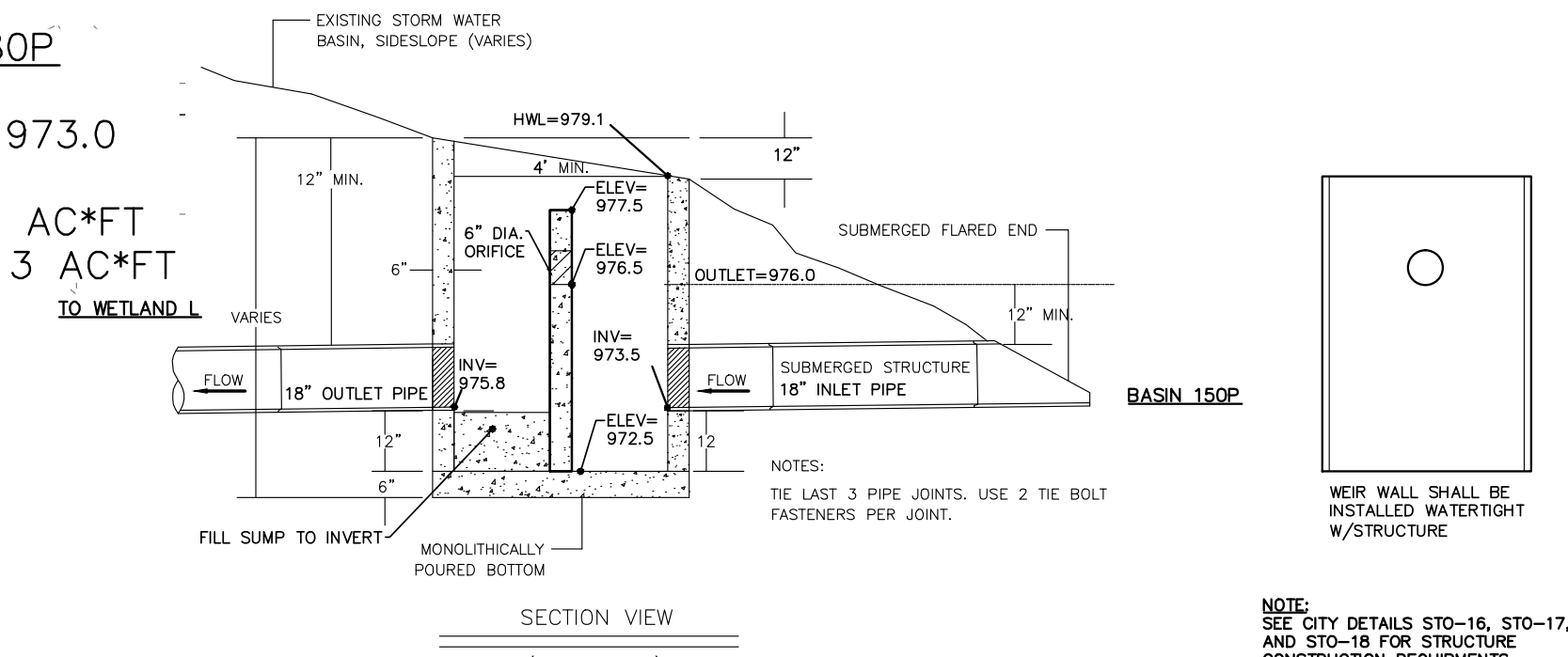
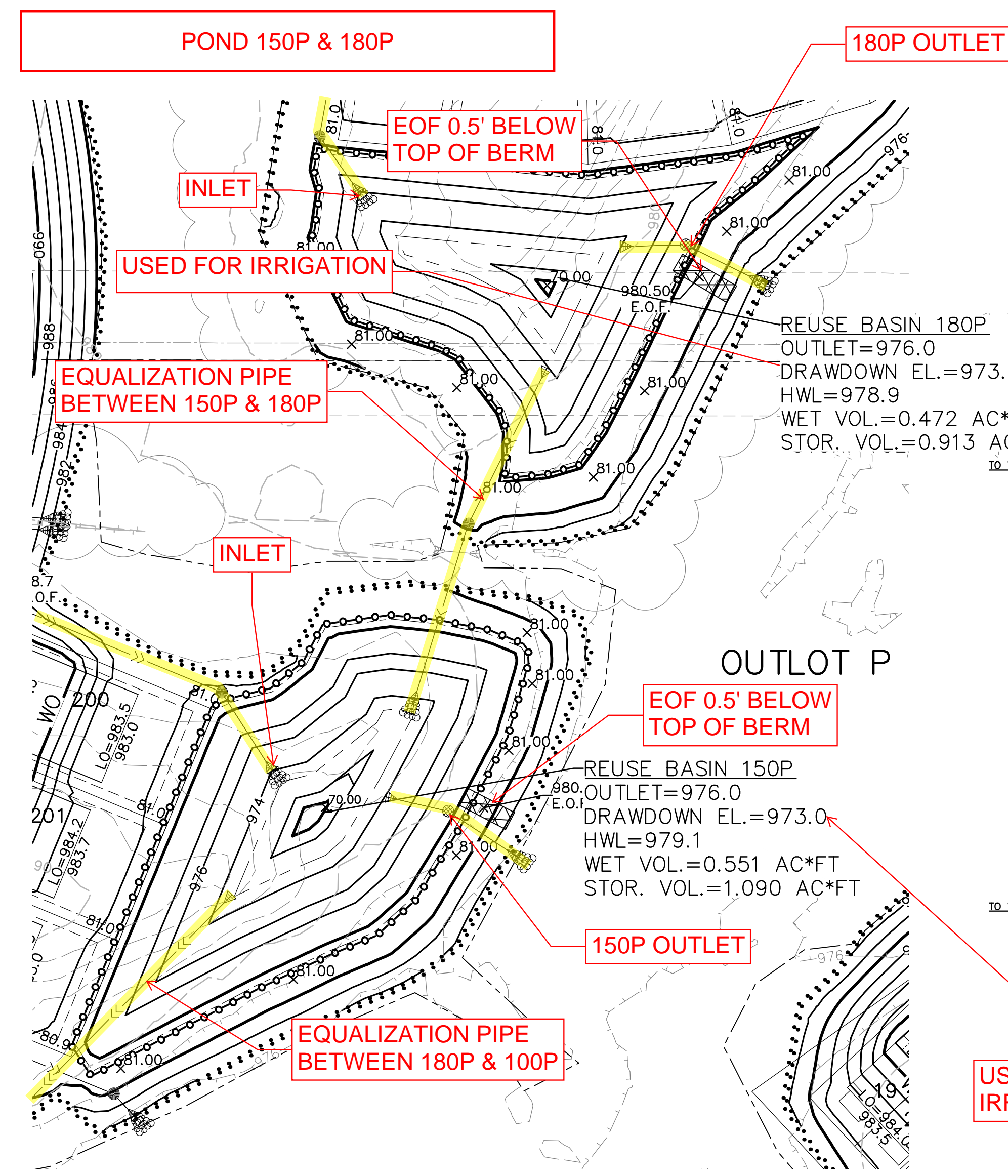
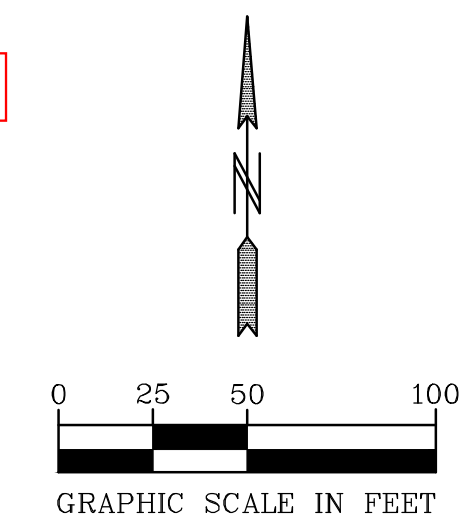
**TAVERA**  
 CORCORAN, MINNESOTA

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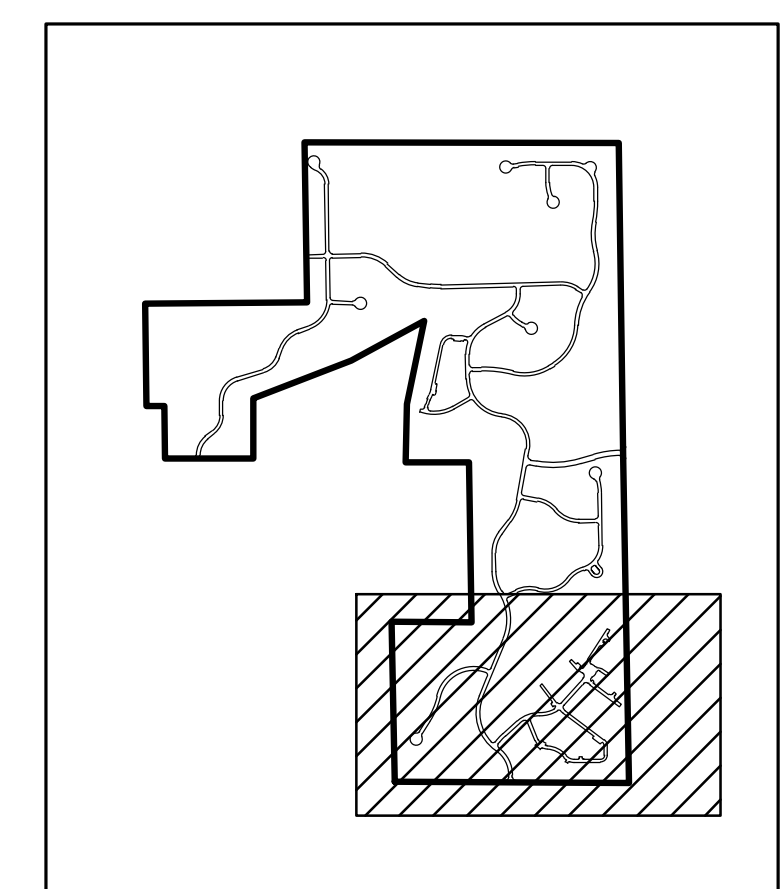
**NEEDS TO MATCH**

**FILTRATION BASIN; UNCLEAR WHERE BENCH IS LOCATED**

SPECIFIC MODEL OUTPUT VALUES NOTED HEREIN, INCLUDING BUT NOT LIMITED TO HIGH WATER LEVELS, FLOW RATES AND LOW OPENINGS, MAY CHANGE WITH UPDATED MODELING. NUMBERS AND COMMENTS PROVIDED FOR GENERAL DISCUSSION PURPOSES ONLY.

## Area 6

---

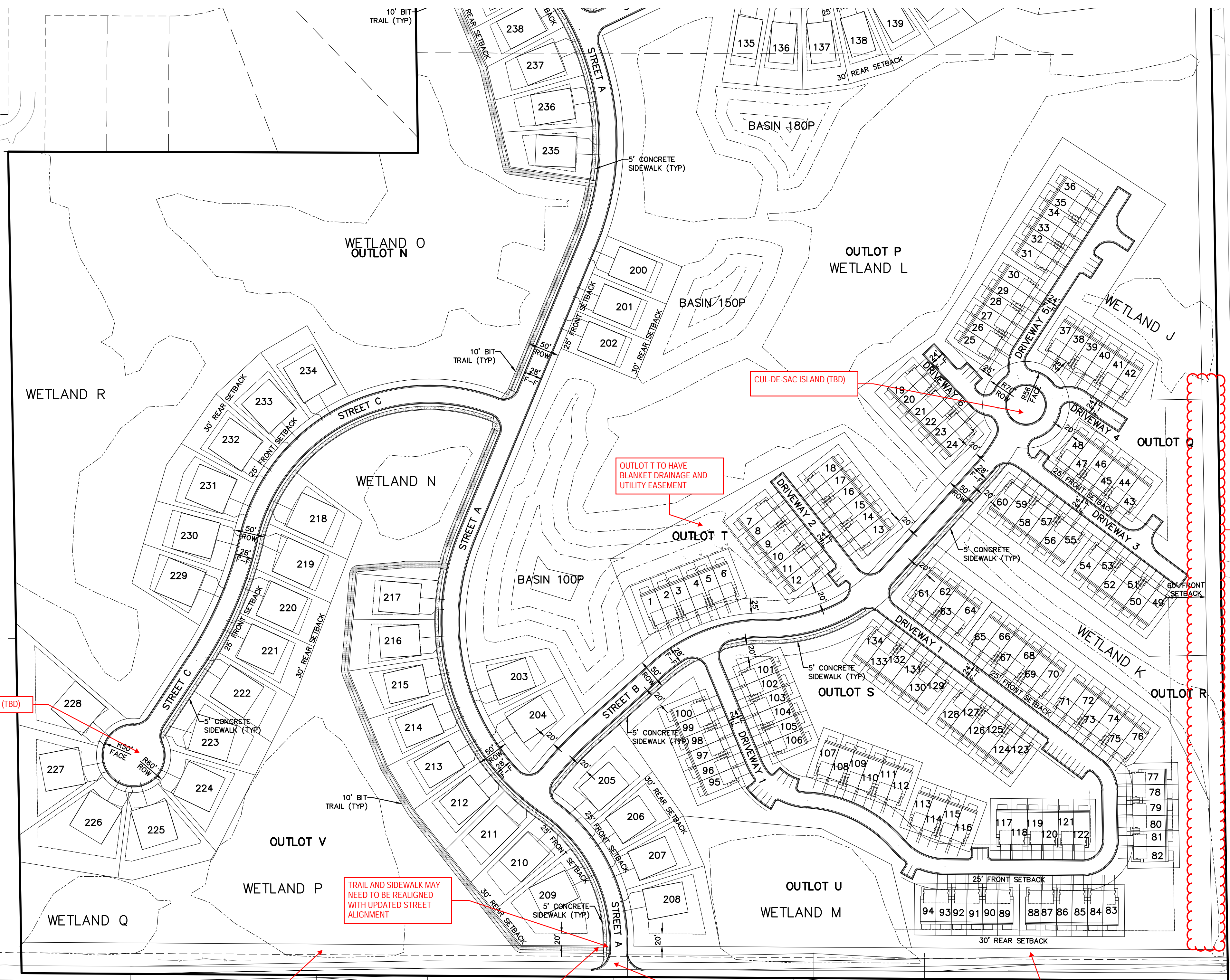


INDEX

PROPOSED UNITS: 549  
 55-65' VILLAS: 70 (44-55', 29-65')  
 55' SF: 51  
 65' SF: 156  
 75' SF: 58  
 TWIN UNITS: 80  
 ROW TOWNHOME UNITS: 134

PROPOSED SETBACKS:  
 VILLAS:  
 AREA: 7,000 SF  
 WIDTH: 55' TO 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'  
 75' WIDE SINGLE FAMILY LOTS:  
 AREA: 9,000 SF  
 WIDTH: 75'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'  
 65' WIDE SINGLE FAMILY LOTS:  
 AREA: 7,800 SF  
 WIDTH: 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'  
 55' WIDE SINGLE FAMILY LOTS:  
 AREA: 6,600 SF  
 WIDTH: 55'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'  
 TOWNHOME LOTS:  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING  
 TOWNHOME LOTS:  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING  
 SIDE STREET: 20' TO CURB(PRIVATE STREET)  
 SIDE STREET: 20' TO RIGHT OF WAY(PUBLIC STREET)

WETLAND REQUIREMENTS (AVERAGING ALLOWED):  
 HIGH:  
 AVERAGE WIDTH: 50'  
 MINIMUM WIDTH: 40'  
 MAXIMUM WIDTH: 60'  
 SETBACK FROM BUFFER: 15'  
 MEDIUM:  
 AVERAGE WIDTH: 25'  
 MINIMUM WIDTH: 20'  
 MAXIMUM WIDTH: 40'  
 SETBACK FROM BUFFER: 15'  
 LOW:  
 AVERAGE WIDTH: 25' (WATERSHED STANDARD)  
 MINIMUM WIDTH: 10'  
 MAXIMUM WIDTH: 20'  
 SETBACK FROM BUFFER: 15'



CUL-DE-SAC ISLAND (TBD)

OUTLOT T TO HAVE BLANKET DRAINAGE AND UTILITY EASEMENT

CUL-DE-SAC ISLAND (TBD)

PROVIDE TRAIL ACCESS TO 116 (TBD)

TRAIL AND SIDEWALK MAY NEED TO BE REALIGNED WITH UPDATED STREET ALIGNMENT

TRAIL TO BE ON NORTH SIDE OF HACKMORE ROAD TO WEST PROPERTY EDGE

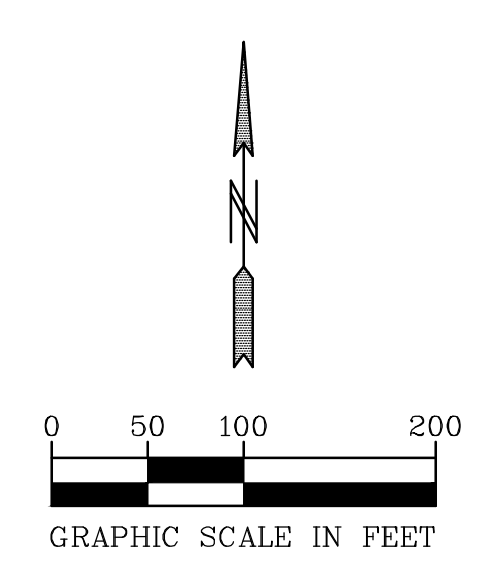
COORDINATE TRAIL CONNECTION WITH HACKMORE IMPROVEMENTS

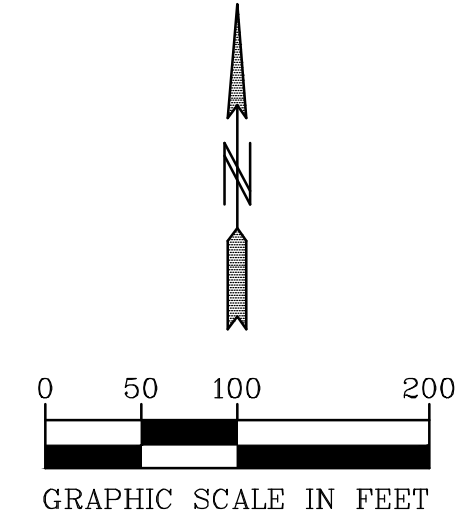
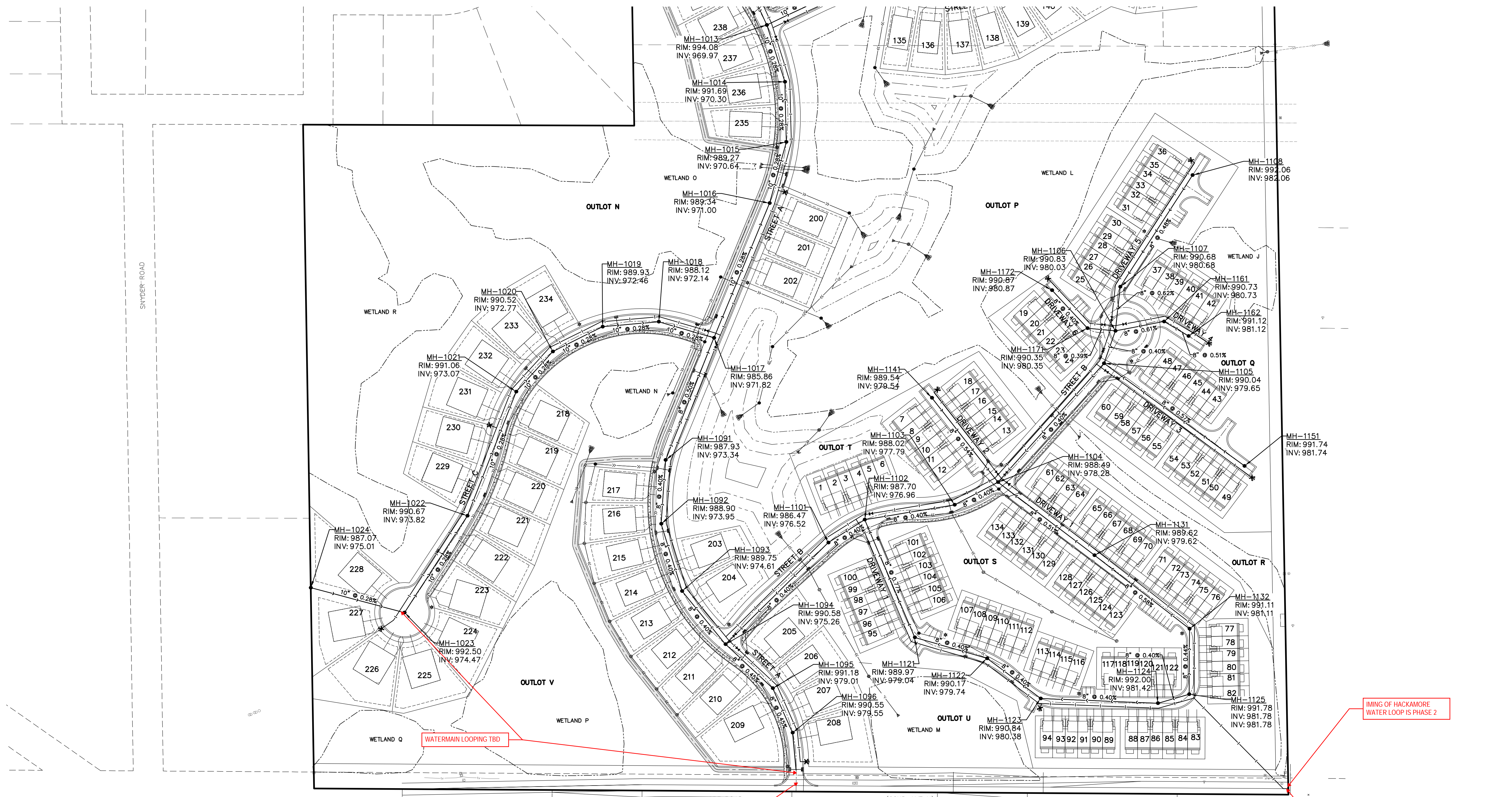
COORDINATE WITH HACKMORE IMPROVEMENTS

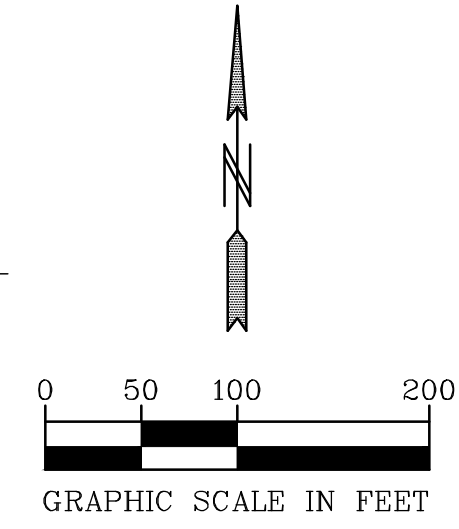
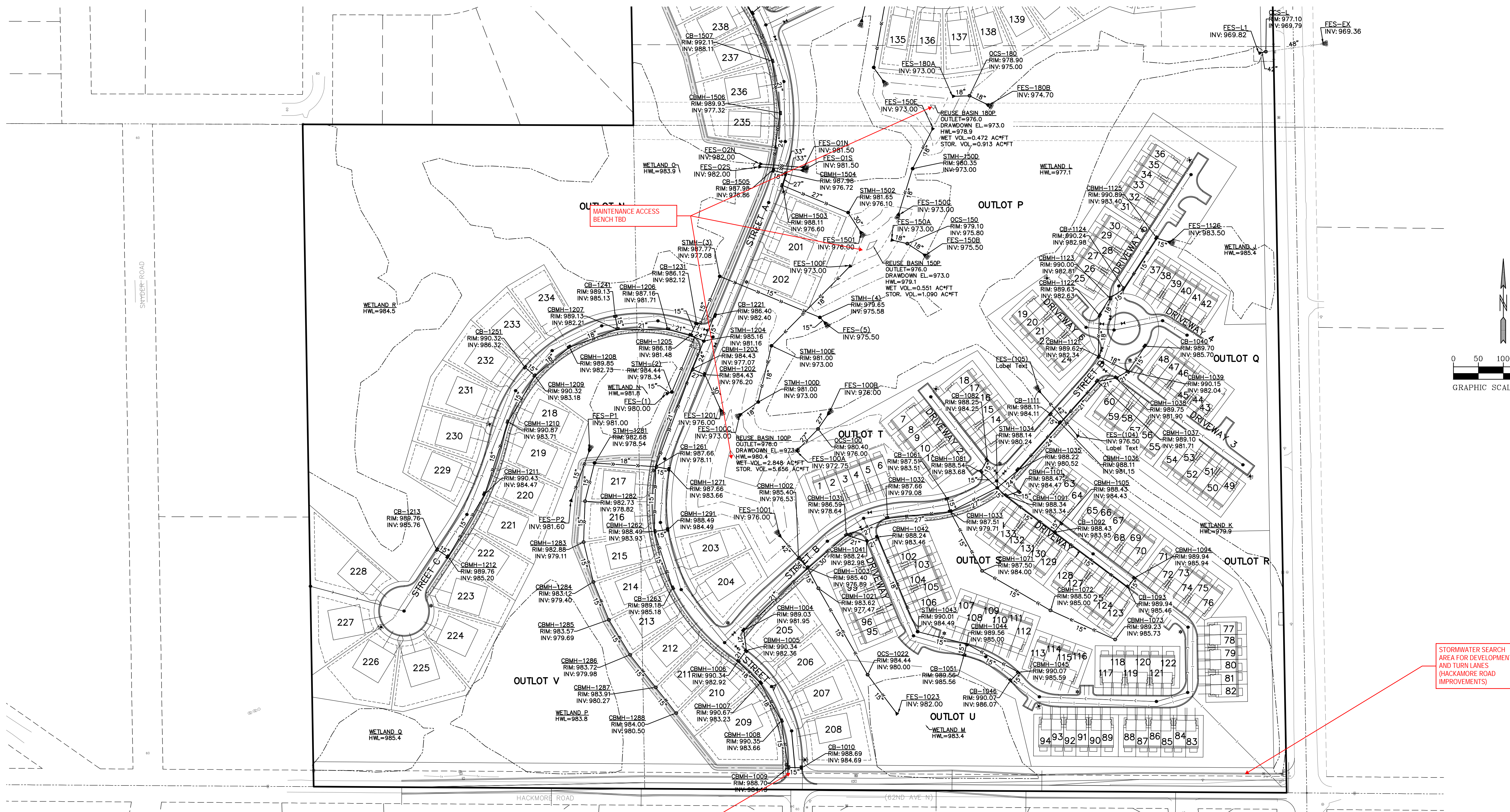
TRAIL TO BE ON NORTH SIDE OF HACKMORE ROAD TO CR 116

TOWNHOME PARKING SUMMARY  
 UNITS: 134  
 OFF STREET: 38  
 ON STREET: 20

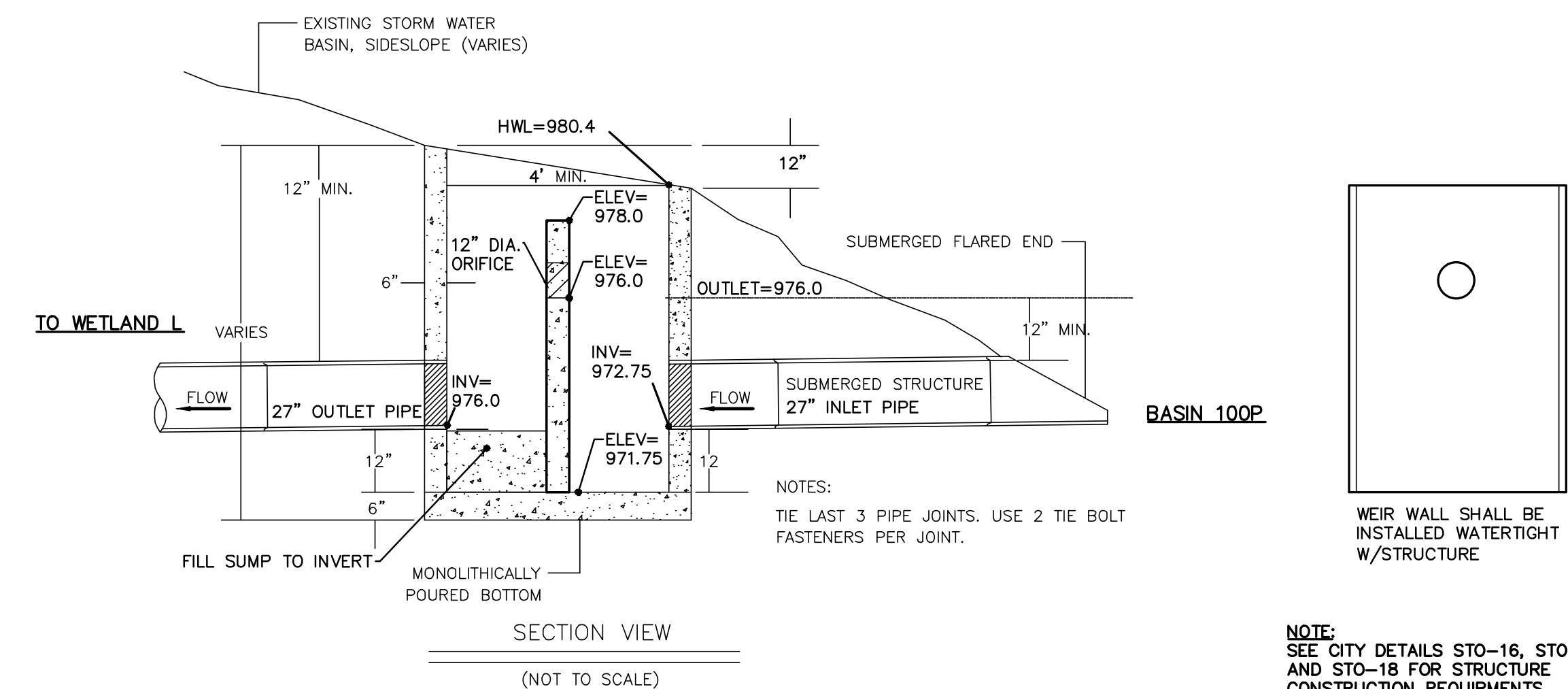
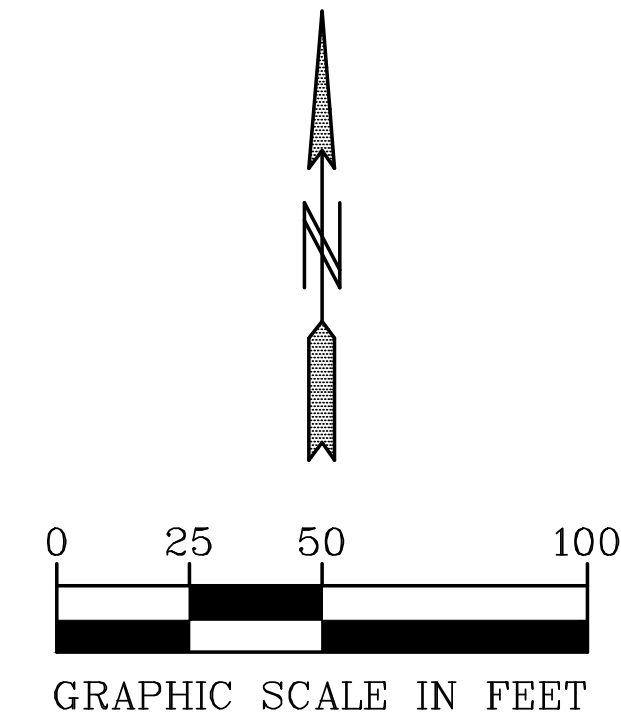
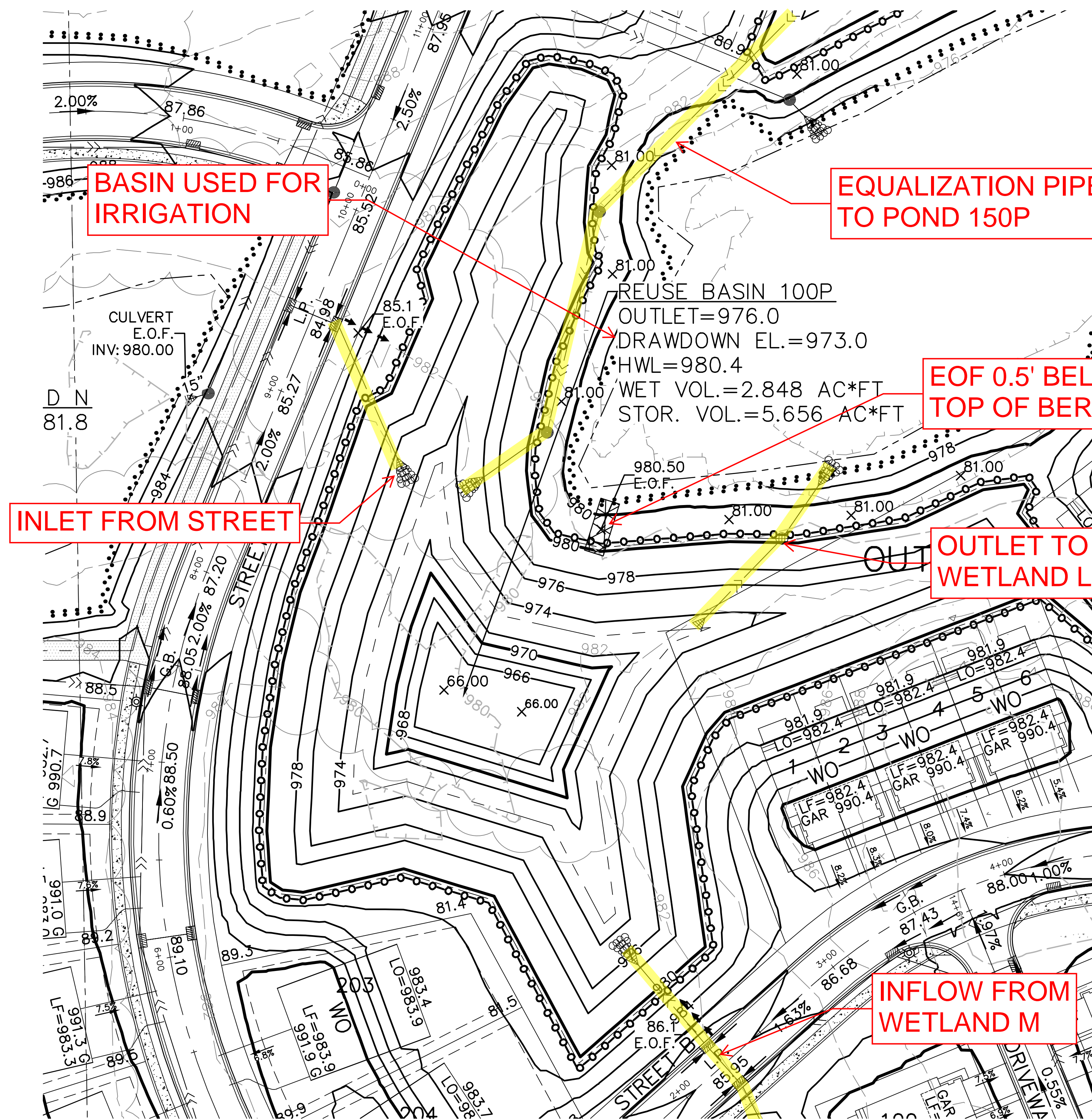
COUNTY ROAD 116







**POND 100P**



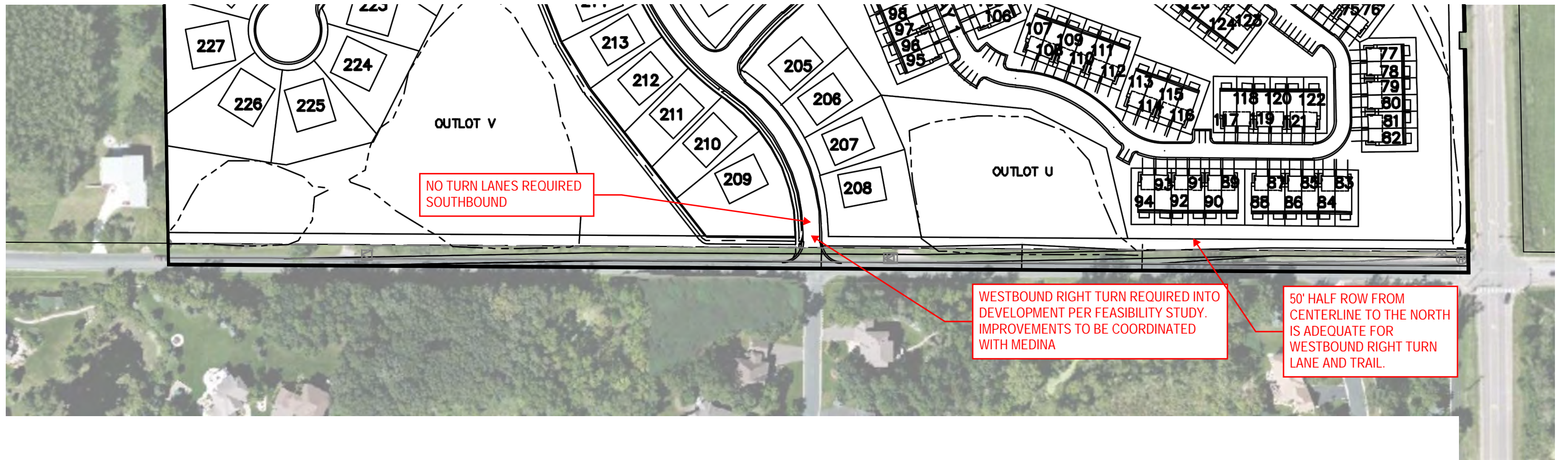
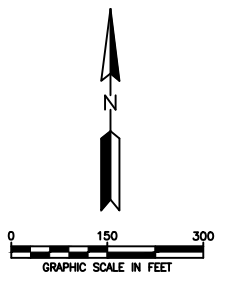
**POND OUTLET CONTROL STRUCTURE  
OCS-100**

**SPECIFIC MODEL OUTPUT VALUES NOTED HEREIN, INCLUDING BUT NOT LIMITED TO HIGH WATER LEVELS, FLOW RATES AND LOW OPENINGS, MAY CHANGE WITH UPDATED MODELING. NUMBERS AND COMMENTS PROVIDED FOR GENERAL DISCUSSION PURPOSES ONLY.**

## Area 7

---

# HACKAMORE ROAD



NO TURN LANES REQUIRED SOUTHBOUND

WESTBOUND RIGHT TURN REQUIRED INTO DEVELOPMENT PER FEASIBILITY STUDY. IMPROVEMENTS TO BE COORDINATED WITH MEDINA

50' HALF ROW FROM CENTERLINE TO THE NORTH IS ADEQUATE FOR WESTBOUND RIGHT TURN LANE AND TRAIL.



Floodplain, Drainage Areas, Initial Review and Model Schematics



CITY OF CORCORAN  
100-YEAR FLOOD PLAIN AREA



MAY 2020  
Figure 1

# Technical Memo



---

**To:** Kent Torve, P.E., City Engineer  
**From:** Dan Elemen, P.E.  
**Date:** May 20, 2020  
**Subject:** HydroCAD Model Review – Tavera by Lennar

---

This review was conducted with the Preliminary Plat review and further reviews will be conducted on revised models and plans.

## **1.0 Stormwater Model Revisions**

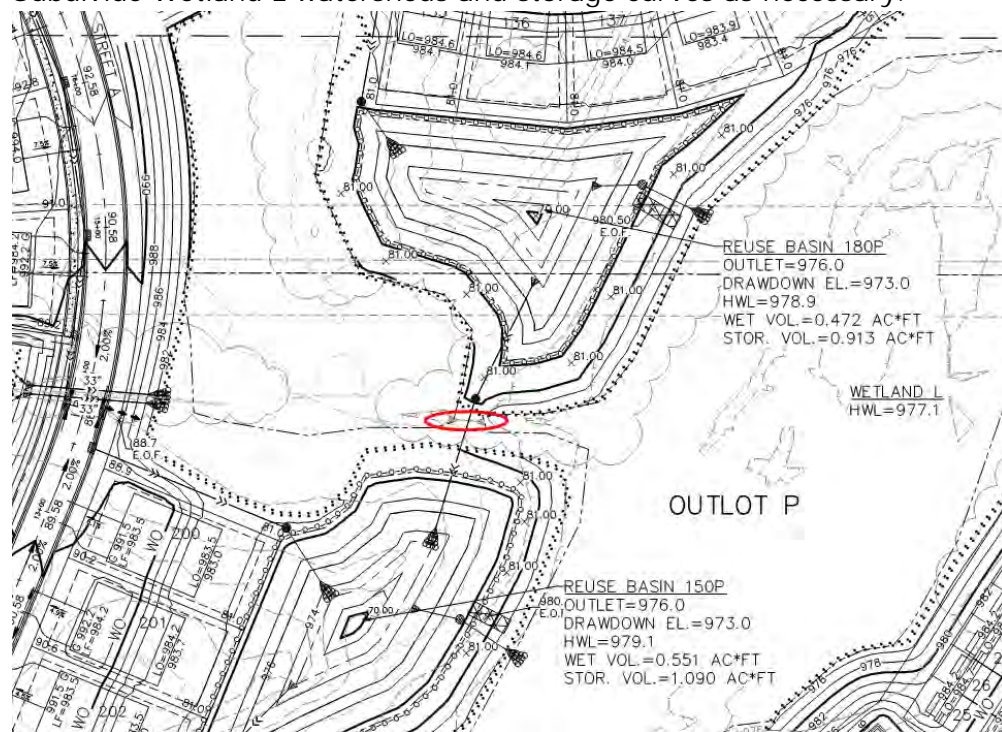
### General

- 1.1 Submit stormwater model free of warnings and errors. It is required that XP-SWMM (or equivalent) software be used to model existing and proposed conditions, due to the significant amount of equalization and/or back flow, the presence of floodplain and current number of warnings in submitted model.
- 1.2 FEMA floodplain will be established through this project.
- 1.3 Model proposed conditions assuming all Type D soils for pervious areas due to anticipated compaction from mass grading.
  - 1.3.1 Proposed pervious soil CN shall be higher than existing pervious CN
- 1.4 Existing and proposed wetlands, filtration basins and ponds shall be modeled with a curve number of 98.
- 1.5 Model all ponds and wetlands with initial water surface elevations equal to the lowest non-(in)filtration outlet elevation.
- 1.6 Update model as necessary to address Plan revision comments listed below. This may require additional pond nodes and rerouting different outlets to different receiving water bodies.
- 1.7 Include road sags and low areas in backyards in stormwater model to evaluate HWLs. This will require further delineation of watersheds and modeling additional storage areas. Reevaluate EOF and LO elevations based on model results.
- 1.8 Document how outlet boundary conditions (tailwater elevation) are determined.
- 1.9 Emergency EOFs at CR 116 shall be reviewed and additional structures may be required.
- 1.10 Rural culverts and offsite drainage to have further detail.

### Specific

- 1.11 Include secondary outflow from Pond WT. Pond WT will overflow to the west at an approximate elevation of 977. Current modeled HWL is 977.4.

- 1.12 Review culvert sizing. As water flows from pond W4 to WTse to WTsw to WT to Channel to WC, culvert crossings are 18", 12", 42", 18" and 21", respectively.
- 1.13 Provide supplemental 100-year modeling for all ponds and wetlands where culverts are identified as the basin's EOF. Supplemental models shall assume "normal" outlet is blocked (where normal outlet is different than identified EOF pipe), and basin initial water surface elevation is equal to the outlet elevation of the EOF.
- 1.14 Include the culvert crossing shown below in existing and proposed models. Subdivide Wetland L watersheds and storage curves as necessary.



## 2.0 Plan Revisions

### General

- 2.1 Identify location, dimensions and elevation of EOFs on the grading plan.
- 2.2 OCS in wetlands to be reviewed.
- 2.3 WCA process should provide analysis of how wetland quality will be maintained if used for additional depth of flood storage. Analysis should ponding durations.

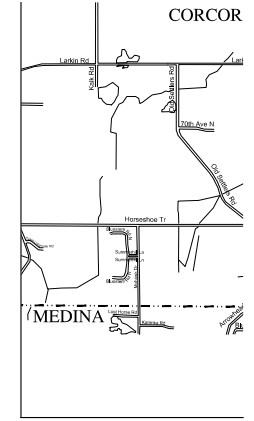
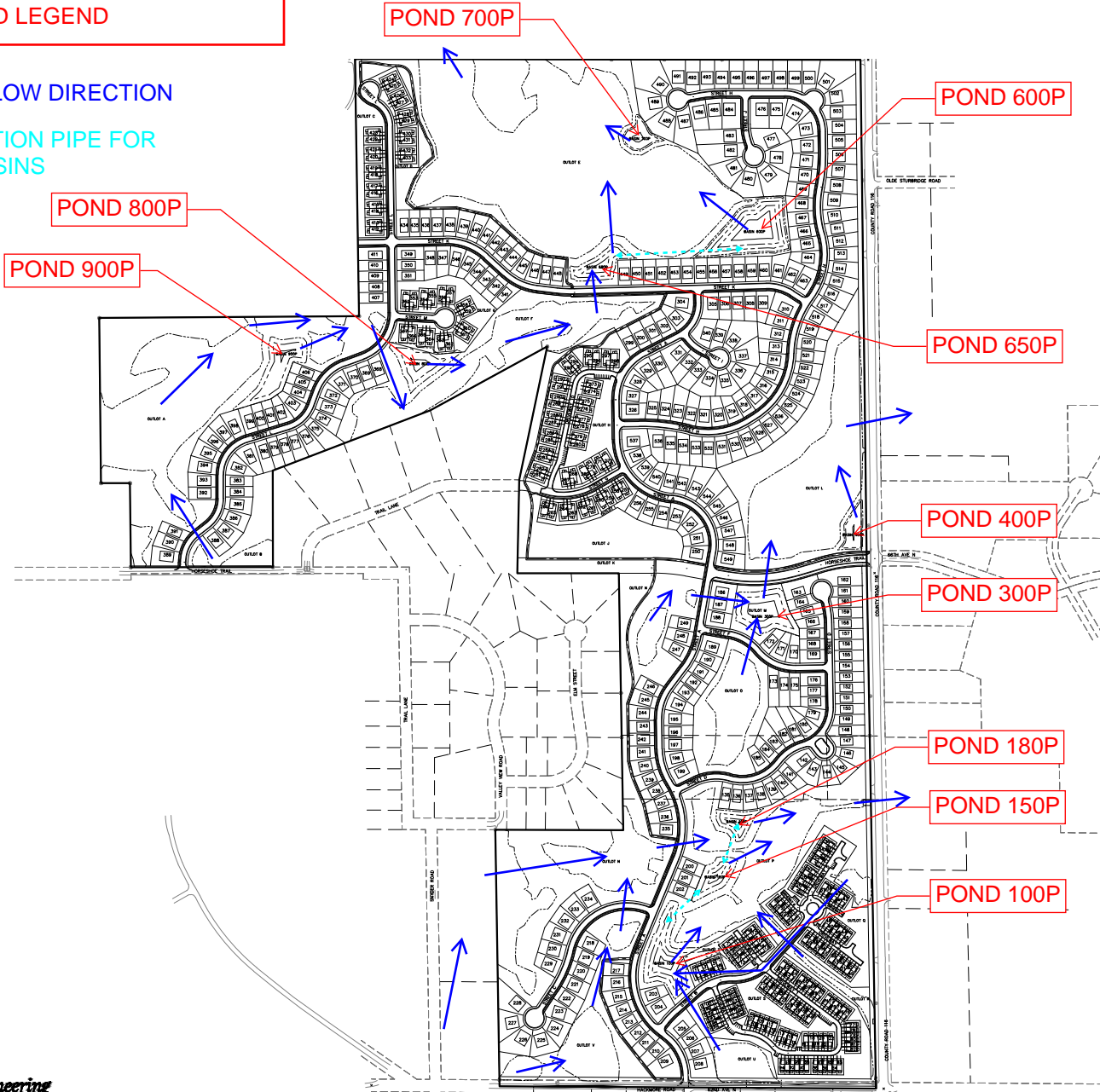
### Specific

- 2.4 Wetland C shall discharge to Wetland B, not to Pond 650P.
- 2.5 Provide additional detail for western edge of Pond 900P grading. Top of berm appears to be 978.0 which is the same elevation as the specified EOF.

- 2.6 Specify EOF elevation for the low area in the backyards of Lots 320 through 335. EOF appears to be between Lots 330 and 331. Adjust grading plan as necessary to provide adequate freeboard between EOF and LO.
- 2.7 Provide lower overland EOF for Wetland complexes N, O, P, Q and R. If the culverts plug, the overland EOF for these wetlands is overtop Street A at an elevation of approximately 985.5 which is within 0.2' of LOs of some adjacent lots.
- 2.8 Provide EOF for Wetland J. If proposed culvert plugs Wetland J will not overtop until numerous houses are flooded.
- 2.9 Provide EOF for Wetland K. If proposed culvert plugs Wetland K will not overtop until numerous houses are flooded.
- 2.10 Currently modeled HWL for Pond 800P may encroach onto Lots 365 and 363.
- 2.11 Floodplain mitigation figure identifies Ponds 600P, 650P and 700P as providing compensatory storage. However, permanent pool volume is not considered live storage. Verify and resubmit calculations demonstrating sufficient compensatory storage is provided between pond NWLs (established based on lowest, non (in)filtration-based outlet) and base flood elevation.
- 2.12 Floodplain mitigation figure identifies Pond 800P as providing compensatory storage. However, Pond 800P's normal water level (973.6) is greater than the adjacent base flood elevation (973.3). Therefore, storage provided in Pond 800P is not acceptable as compensatory storage.

POND LEGEND

- NORMAL FLOW DIRECTION
- EQUALIZATION PIPE FOR REUSE BASINS



POND 600P

POND 650P

POND 400P

POND 300P

POND 180P

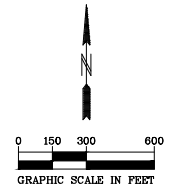
POND 150P

POND 100P

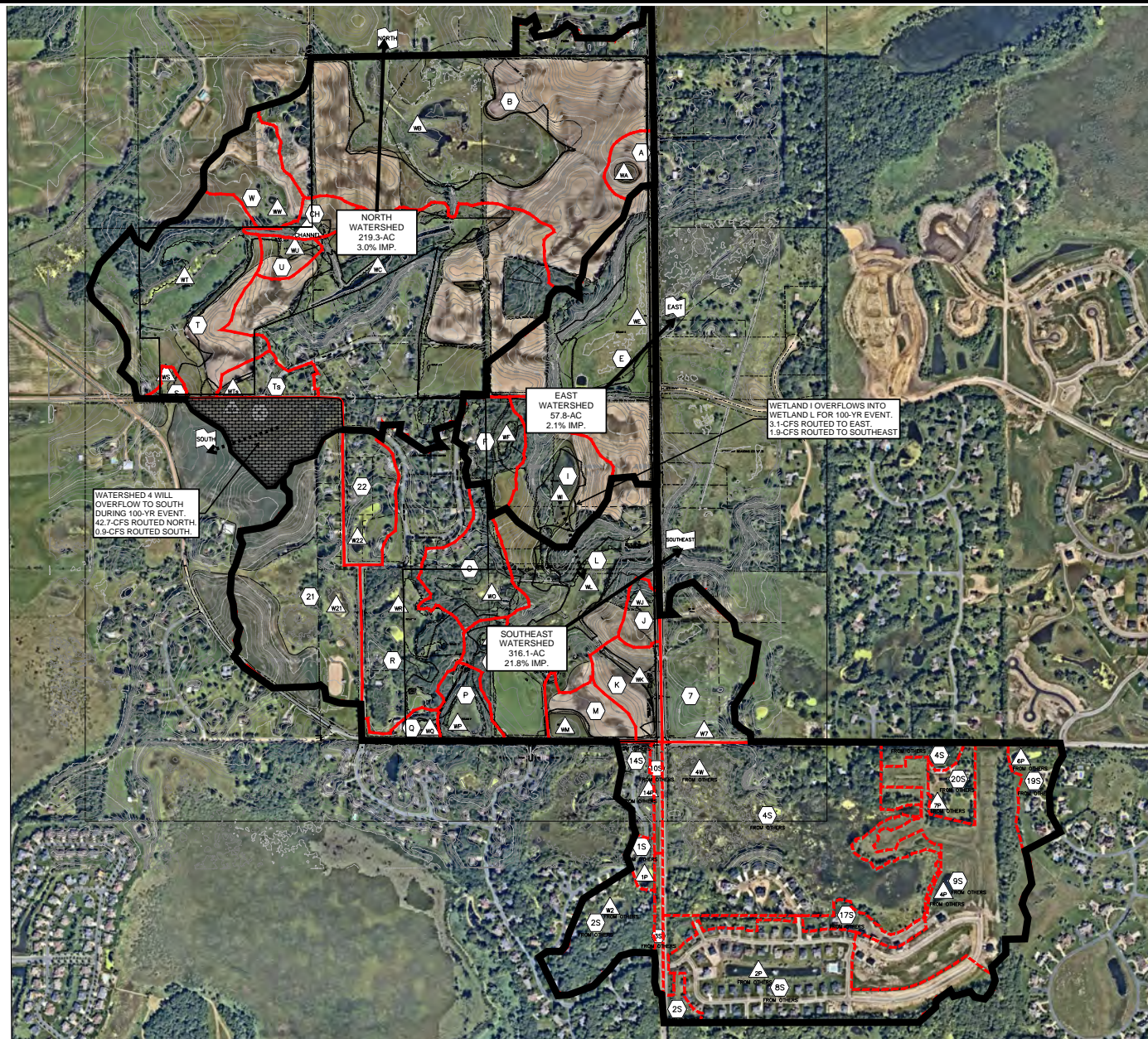
POND 800P

POND 900P

POND 700P



**FIGURE 01  
EXISTING PRIMARY  
WATERSHEDS**



**LEGEND**

- SUBCATCHMENT
- POND
- LINK

WATERSHED 4 WILL OVERFLOW TO SOUTH DURING 100-YR EVENT. 42.7-CFS ROUTED NORTH, 0.9-CFS ROUTED SOUTH.

WETLAND L OVERFLOWS INTO WETLAND L FOR 100-YR EVENT. 3.1-CFS ROUTED TO EAST, 1.8-CFS ROUTED TO SOUTHEAST.

SPECIFIC MODEL OUTPUT VALUES NOTED HEREIN, INCLUDING BUT NOT LIMITED TO HIGH WATER LEVELS, FLOW RATES AND LOW OPENINGS, MAY CHANGE WITH UPDATED MODELING. NUMBERS AND COMMENTS PROVIDED FOR GENERAL DISCUSSION PURPOSES ONLY.

**GRAPHIC SCALE IN FEET**

0 100 200 400

045N419128-SHEET-HYDR-EXIST

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I hereby certify that this plan was prepared by me, or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
 Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Reg. No. \_\_\_\_\_

Revisions  
 Date: 06-11-2020  
 Designed: PJC/BSM  
 Drawn: BSM

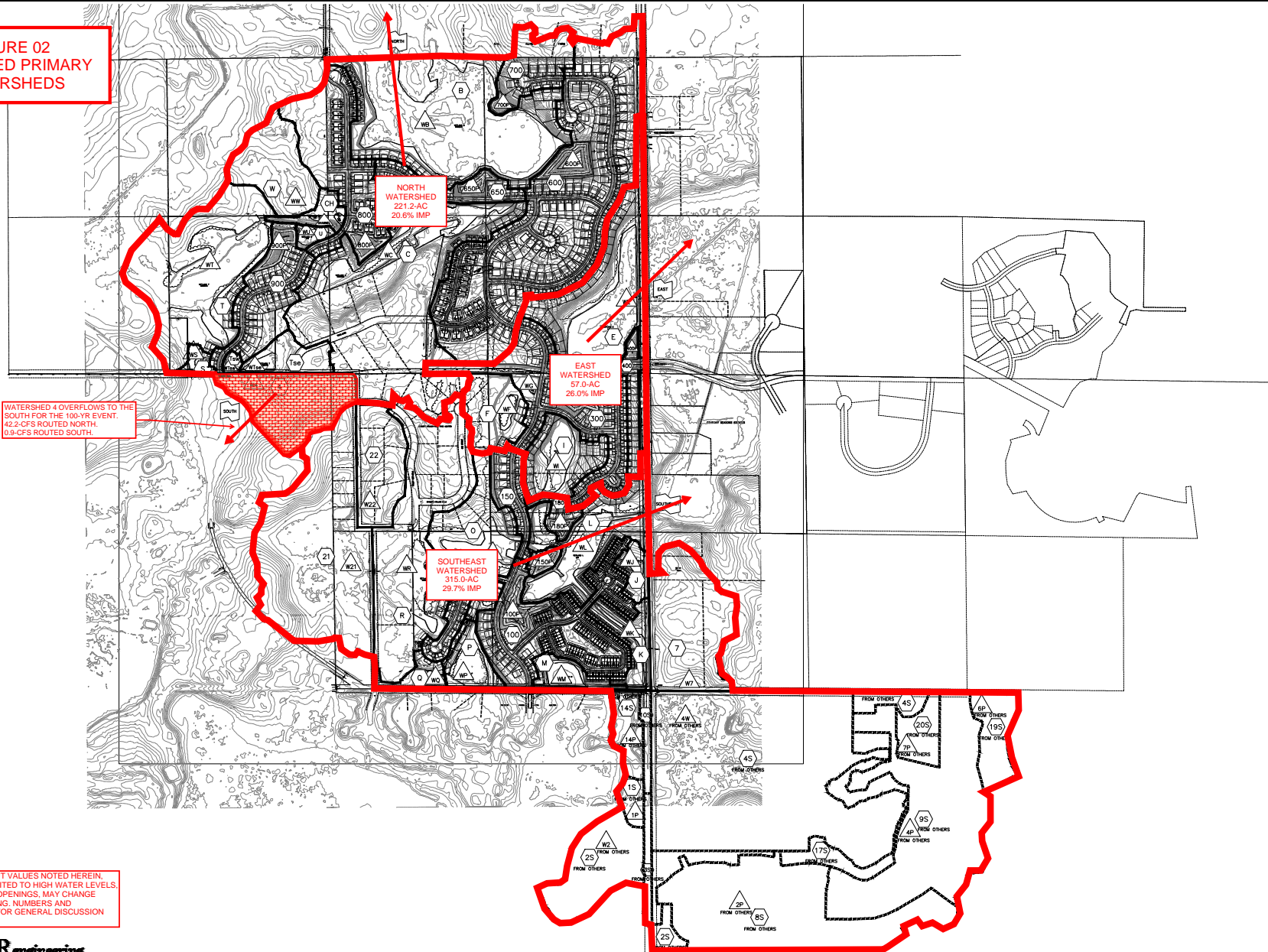
**EXISTING HYDROLOGY**

**LENNAR**  
 16305 36TH AVENUE NORTH  
 PLYMOUTH, MINNESOTA 55446

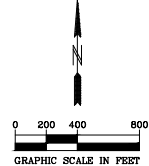
**TAVERA**  
 CORCORAN, MINNESOTA

1 OF 1

**FIGURE 02  
PROPOSED PRIMARY  
WATERSHEDS**



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I hereby certify that this plan was prepared by me, or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
Name: \_\_\_\_\_  
Reg. No. \_\_\_\_\_  
Date: \_\_\_\_\_

Revisions: \_\_\_\_\_  
Date: 06-21-2020  
Designed: PJC/BSM  
Drawn: BSM

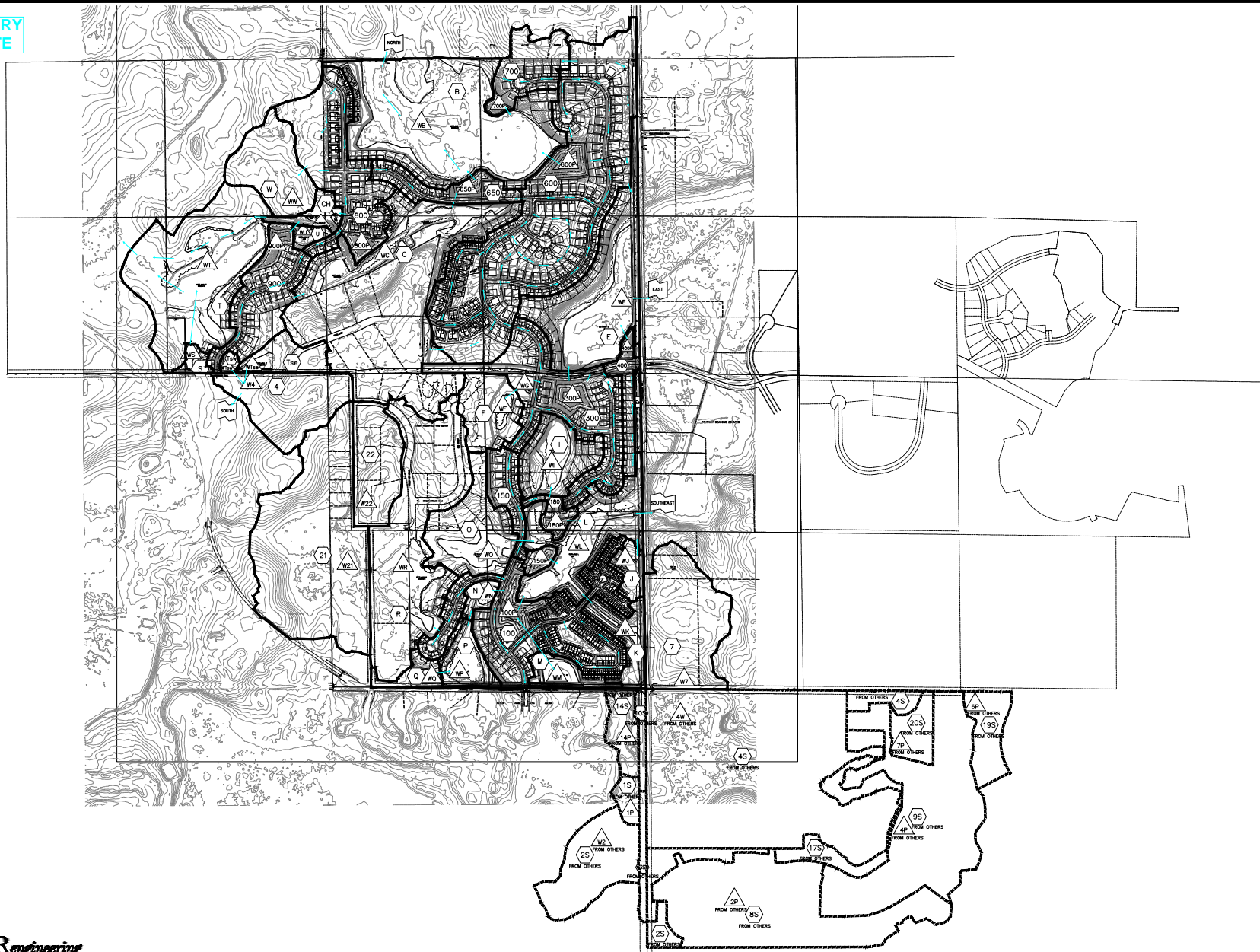
**PROPOSED HYDROLOGY**

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PLYMOUTH, MINNESOTA 55446

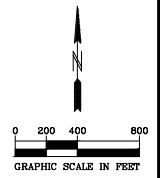
**TAVERA**  
CORCORAN, MINNESOTA



**EOF SUMMARY  
ENTIRE SITE**



- LEGEND**
- 1 SUBCATCHMENT
  - 200P POND
  - S LINK



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Menoka Heights, MN 55120  
651.681.9114  
Fax: 651.681.9488  
www.pioneereng.com

I hereby certify that this plan was prepared by me, or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

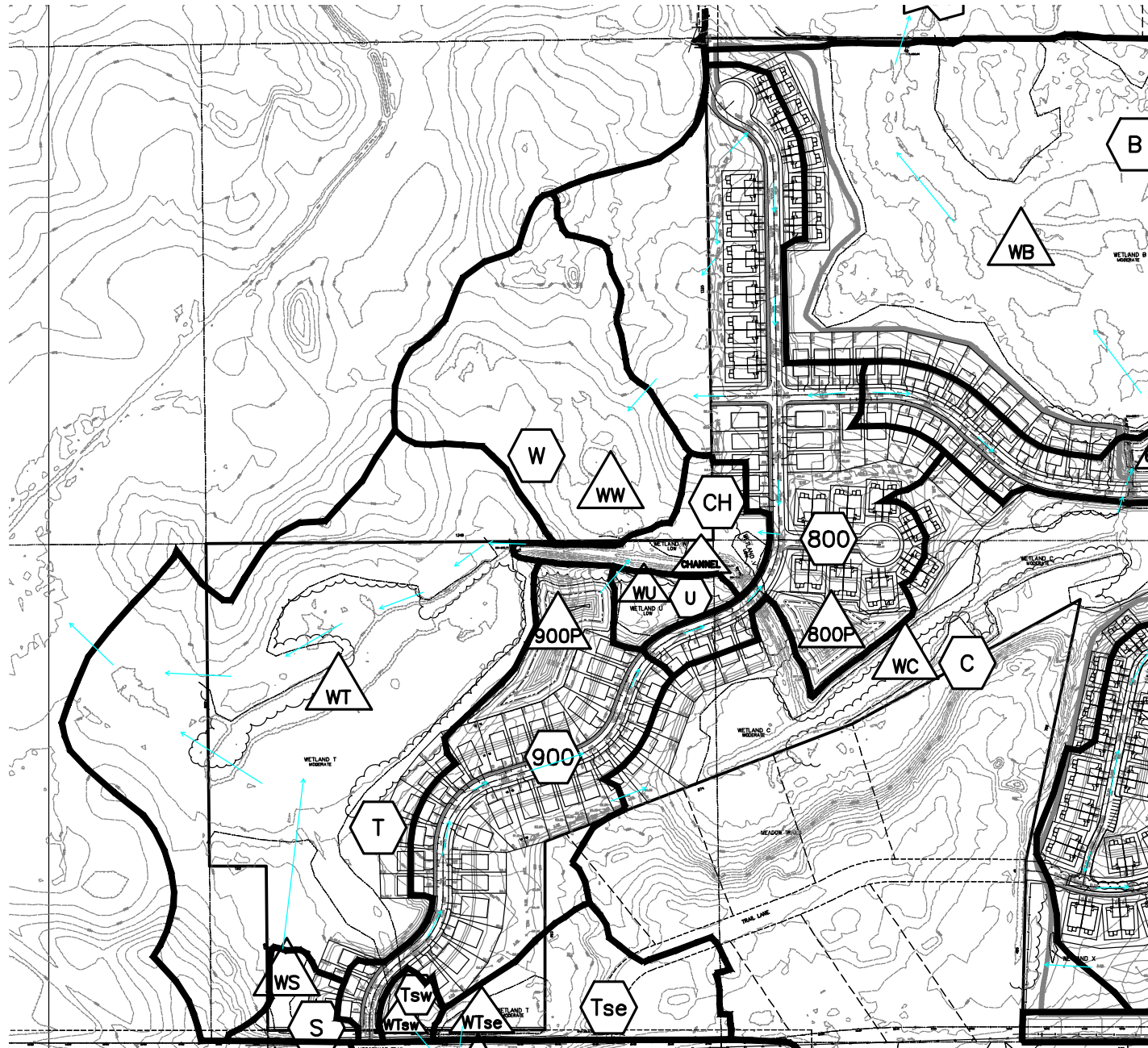
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Date: 06-21-2020  
Designed: PJC/BSM  
Drawn: BSM

**PROPOSED HYDROLOGY**

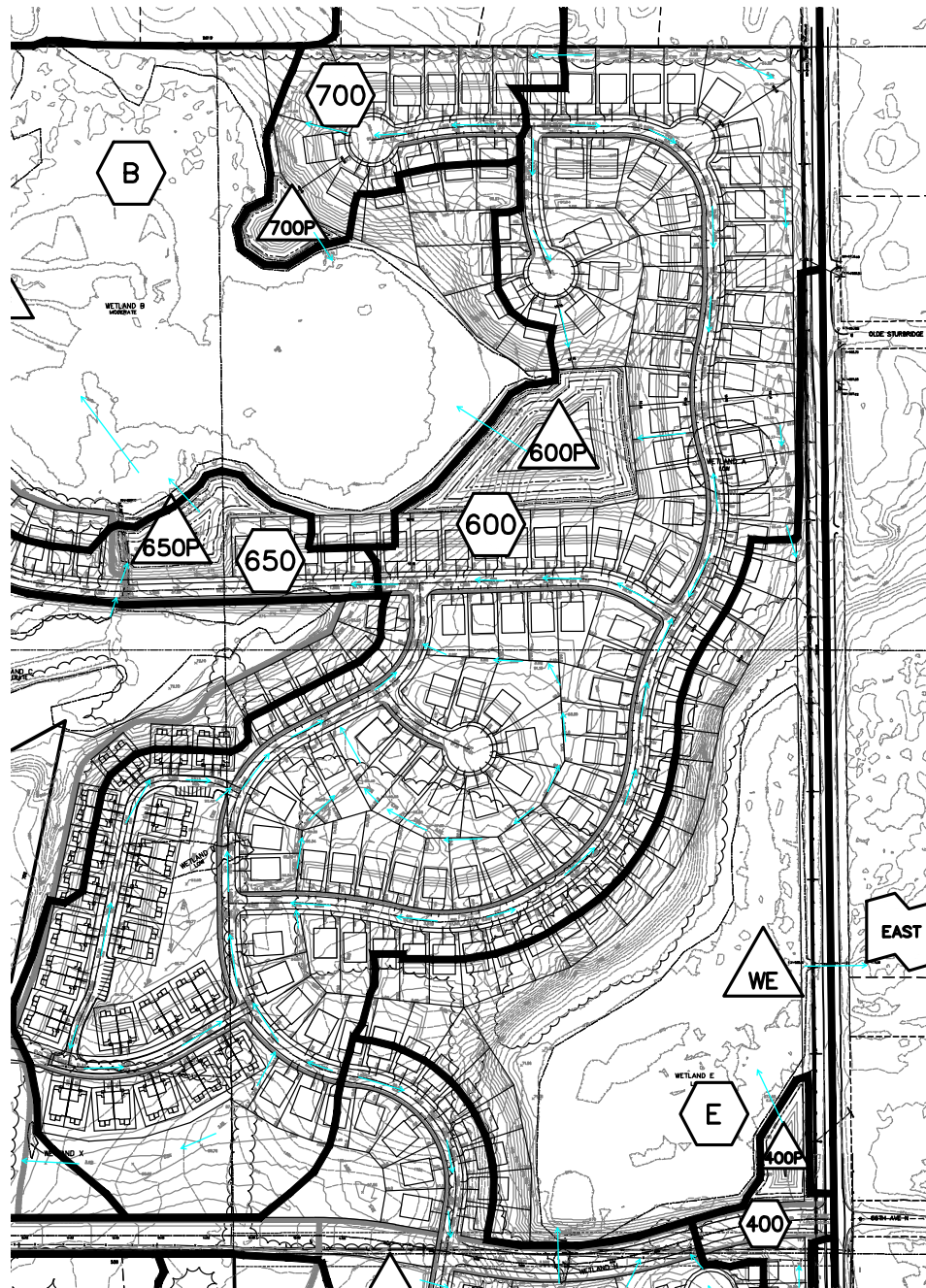
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PLYMOUTH, MINNESOTA 55446

**TAVERA**  
CORCORAN, MINNESOTA

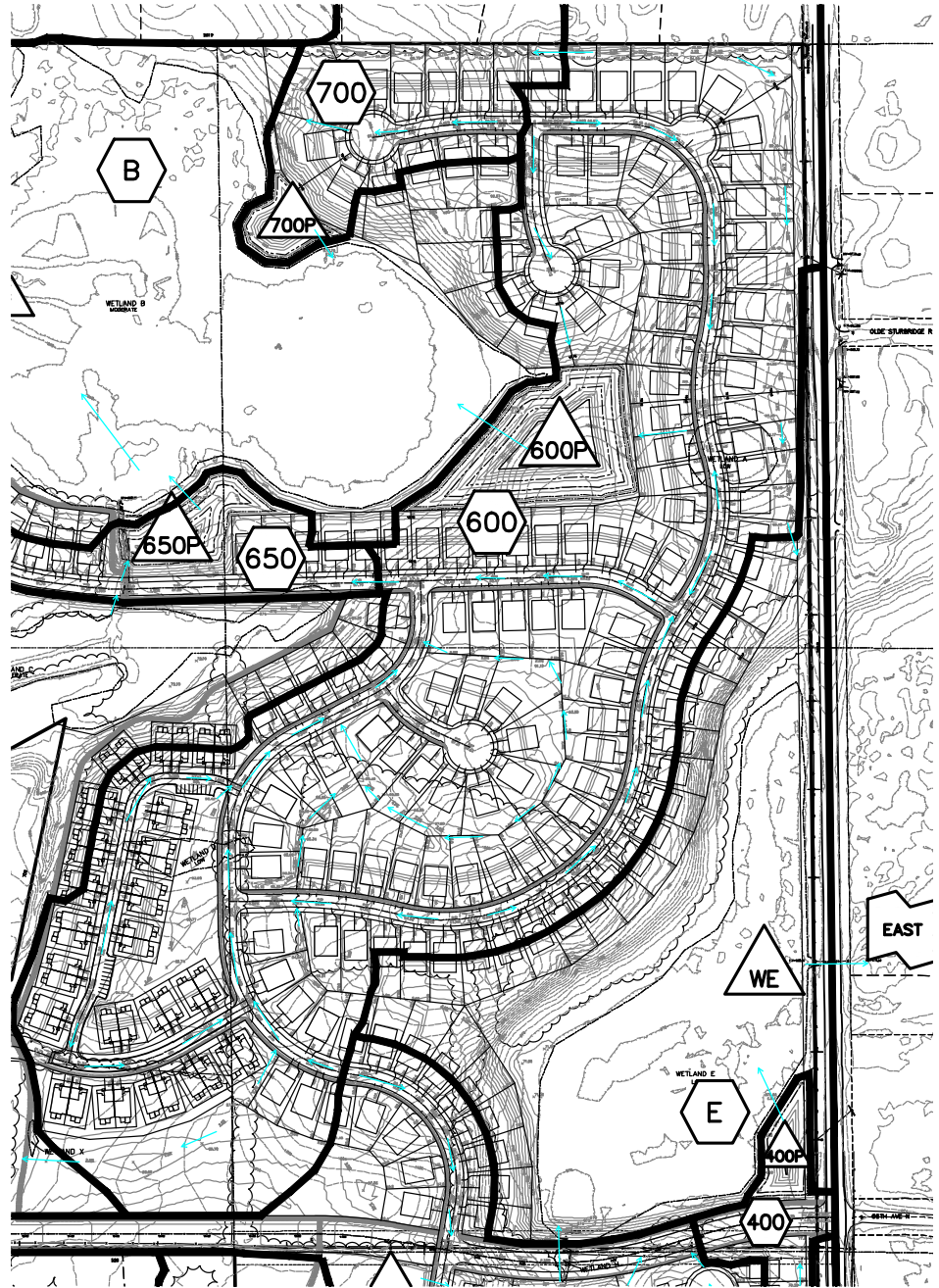
EOF SUMMARY  
NORTHWEST  
QUADRANT



EOF SUMMARY  
NORTHEAST QUADRANT



EOF SUMMARY  
SOUTHEAST QUADRANT





Responsive partner.  
Exceptional outcomes.

# Lennar – Wessel Property Development Infrastructure Feasibility Study – Concept 2

*Prepared for:*  
City of Corcoran, MN

8200 County Road 116  
Corcoran, MN 55340



*Prepared by:*

**WENCK Associates, Inc.**  
1800 Pioneer Creek Center  
Maple Plain, MN 55359  
Phone: 763-479-4200  
Fax: 763-479-4242

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5	Available Fire Flow (without Loops)
6	Average Day Pressure (with Loops and Future Tower/Booster)
7	Peak Hour Pressure (with Loops and Future Tower/Booster)
8	Available Fire Flow (with Loops and Future Tower/Booster)

## APPENDICES

A	Preliminary Phasing Plan for Development
B	Stormwater Modeling Guidelines



# 1.0 Introduction

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Lennar previously requested a feasibility study for estimated costs for utilities and recommendations for transportation improvements to serve a proposed development (hereinafter referred to as "Concept 1"), which was generally located in the northwest quadrant of the County Road 116 and Hackamore Road intersection and referred to as the Wessel property development. The requested feasibility study was completed in March 2019. Lennar has now requested an updated feasibility study that includes an additional parcel (Dempsey) located northwest of the Concept 1 development area, thus creating a larger development project (hereinafter referred to as "Concept 2"). The entrance to this development is proposed to be at 66<sup>th</sup> Avenue North and County Road 116.

This report looks specifically at the feasibility of providing sewer and water service to the proposed Concept 2 development, stormwater needs and impacts, and transportation needs for ultimate buildout. Multiple options for sanitary sewer service by the City of Corcoran were evaluated in the Concept 1 feasibility study, and as a result, only one sewer option required detailed evaluation in this feasibility study. This sewer option is discussed with respect to the projected inverts that would be achieved and the estimated costs. Water service is relatively straightforward, and development of multiple options was unnecessary.

Financing options of the development necessary for infrastructure and to mitigate impacts typically follow the approach of:

- On-site infrastructure is managed by the developer
- Upsizing of on-site trunk utilities are provided credit, with eligibility determined during the approval process
- Trunk sewer and water fees (TLAC) are being updated in 2019
- Off-site projects are managed by the City (engineering, bidding and construction management) and financed through an escrow

The financial package will be further detailed and negotiated as the project moves forward and culminates in the overall Developer Agreement with the overall preliminary plat approval which is updated for each phase of the development.

This draft report should be viewed as a working document based upon the latest information provided to the City. The report will be reviewed and finalized based on the applicant's submittal.

## 2.0 Sewer

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In the Concept 1 feasibility study, three primary alignment options (1, 2 and 3) were evaluated for potential service to the Wessel property development, though an Option 4 was developed for discussion of potential service to the large parcel adjacent to the northwest portion of Wessel, since it was recognized that the addition of this parcel could affect how the sewers within Wessel would be constructed. Since Lennar has now added this parcel to the proposed (Concept 2) development, the prior Option 4 is viewed as the only technically viable option for providing service to the entire development area. However, since the prior feasibility study determined that, among Options 1 to 3, Option 3 was the most cost effective option to serve Wessel (with sewer entering the development from 66<sup>th</sup> Avenue North), the only option presented in this feasibility study is essentially a hybrid of prior Options 3 and 4, i.e., sewer will enter the development from 66<sup>th</sup> Avenue North and a temporary lift station will be required in order to provide service to the northwest portion of the Concept 2 development. This option is hereinafter referred to as “Option A” and is shown on Figure 1. The estimated cost for Option A is shown in Table 1. This cost estimate includes contingency (10%), engineering/legal (15%), and easements, and generally only reflects costs outside the Wessel boundary (except where specifically stated otherwise).

### 2.1 OPTION A ALIGNMENT

The downstream sewer connection is to the 12-inch trunk sewer that is being extended westward through the current Lennar – Ravinia development. Routing of the sewer flows from Wessel to this sewer is generally in accordance with the 2040 Comprehensive Plan. The starting point for invert and cost analysis was at the property line just northeast of the north end of Park Trail Drive, as noted on Figure 1.

This alignment extends the 12-inch sewer to just north of 66<sup>th</sup> Avenue North, where it turns westward towards Wessel across a wetland, and then enters Wessel in the central part near the primary entrance. Note that a stub is required to be extended southward in the offsite routing (just across 66<sup>th</sup> Avenue North) to avoid future disturbance of this street. Then, a 10-inch sewer is extended to the southwest corner of Wessel. The projected invert at the southwest corner is 973.9, which appears to be serviceable. This 10-inch is intended to provide extra capacity that would be available for potential development of additional parcels located further west thereof.

Topographically a ridge of higher elevations is present in the central and northeastern portions of the Concept 1 development, which then drops significantly going westward into the added parcel (for Concept 2), and hence the only way to provide sewer service to the added parcel area is via a temporary lift station. The 2040 Comprehensive Plan indicates that service to this other parcel would be provided by the substantially lower invert that will be achieved when sewer is eventually extended southward from the downtown area. However, the timing for completing construction of permanent trunk sewer from the downtown area southward will be much later than this proposed Concept 2 development. The required temporary lift station will need to be constructed in the northwest corner of the development (Figure 1), with a force main extended eastward to discharge into the eastward-flowing gravity sewer near the development entrance (across CR 116 from 66<sup>th</sup> Avenue North). Ultimately, when the gravity sewer is finally constructed all the way to temporary lift station area from the downtown area, the lift station would be removed and wastewater reaching this location would then flow by gravity to the downtown area.

With addition of the temporary lift station, it is now possible to construct gravity sewers in the northern and west-central portion of the development to flow to the lift station. The MCES lift station at County Road 10 (where the eastward-flowing gravity sewer eventually flows) was not provided with as much capacity as needed for the portion of SE Corcoran that is currently planned to flow there. MCES has provided approximately 0.6 MGD (average day) capacity, versus a needed flow that is approximately double that. For this reason, diversion of some of the Wessel area wastewater would aid this situation, since wastewater that reaches the downtown area will eventually be diverted into Northeast Corcoran, where much larger capacity was provided by MCES.

It should be noted that the phasing plan that has been provided to the City (Appendix A) will need to be coordinated with sewer shed outlined in this Feasibility Study. As currently shown, the phasing plan could potentially result in multiple modifications to the temporary lift station and force main as the development builds out, and such costs are not estimated herein.

The cost of this option is estimated to be approximately \$1,450,000 (Table 1). Again, this cost estimate includes contingency (10%), engineering/legal (15%), and easements, and generally only reflects costs outside the Wessel boundary (except where specifically stated otherwise). For reference, if the temporary lift station and force main are not included in this estimate, the cost estimate would drop to approximately \$770,000.

## 2.2 FINDINGS

The following key findings and recommendations are made:

- Option A is recommended, with an estimated cost of approximately \$1,450,000 (or \$770,000 without including the temporary lift station and force main). This recommendation is made based on analysis presented in the prior feasibility study (Concept 1), as summarized above, and also based on the simple fact that the only technically feasible option for providing sewer service to the added northwestern parcel in the Concept 2 development is to construct the temporary lift station, as described in Option A.
- Routing of the offsite 12-inch sewer is conceptual at this point, and minor modifications with respect to routing in/near 66th Avenue North and Park Trail Drive will need to be finalized by the City. However, significant changes to the inverts shown for Option A are not expected.
- Routing of the sewer flows from Wessel eastward to the 12-inch sewer that is being extended westward through Ravinia is generally in accordance with the 2040 Comprehensive Plan.
- The phasing plan will need to be coordinated with sewer shed outlined in this Feasibility Study since it could potentially result in multiple modifications to the temporary lift station and force main (such costs are not estimated herein).

## 3.0 Water

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The water supply for the Wessel property development will be the same as planned for all of SE Corcoran. Under a contract to provide water service, Maple Grove will continue to supply SE Corcoran with up to a maximum day demand (MDD) of 5 million gallons per day (MGD).

Evaluation of multiple options for water service was unnecessary. In 2020, the City is constructing a Western Water Loop, which is the 12-inch water main segment extending southward from the downtown area and turning eastward at 66<sup>th</sup> Avenue North to eventually connect to the 12-inch water main that is being extended westward through Lennar – Ravinia (Figure 2). Primary water service into the Wessel development will be directly from this loop, with connection near the primary street entrance into Wessel (node J-C10 on Figure 2). The 12-inch water main will eventually be extended westward through the central portion of Wessel (including an isolated offsite portion, generally located between J-W7 and J-W10). 8-inch water mains will be constructed throughout the rest of the development. The need and timing for the offsite portion of the 12-inch water main (water main “looping”) is evaluated herein.

For modeling purposes, only certain potential street locations (8-inch water main locations) were utilized to reach the north and south ends of the development, i.e., not all potential anticipated (street-based) 8-inch water mains were put into the model. However, this will only serve to provide more conservative results in this FS, since the addition of a few more 8-inch water mains will act to improve water system performance (fire flows in particular). Looping of an 8-inch water main along Hackamore Road is also evaluated herein. The routing of this 8-inch water main loop could be as depicted on Figure 2, if development of the property in the northeast quadrant of the CR 116 and Hackamore Road intersection occurs in the very near future. If that development does not occur coincident with the southern construction phasing in Wessel, then Wessel will need to construct this water main loop, likely following Hackamore Road all the way to an 8-inch water main located in Wessel’s Hackamore Road entrance. Water system performance would be very similar with either configuration of the 8-inch Hackamore Road water main loop.

At some dead-end water main locations (e.g., J-W4 and J-W9), Wessel will need to ensure that water main stubs are constructed to the property line, such that future development to the west and north of Wessel will eventually create additional water main looping. These future loops serve to improve fire flow and water quality within the Wessel development. Finally, at the road entrance into Wessel from Hackamore Road, the City may require construction of an interconnect across Hackamore Road to the City of Medina’s water system, depending on Medina’s mutual interest.

Though multiple service options were not evaluated, three stages of development were considered in order to evaluate the progression of water system performance. First, an analysis of the Wessel development without the 12-inch west-central water main loop (between J-W7 and J-W10) and also without the 8-inch water main loop along Hackamore Road (see Figure 2). Then, a “with loops” scenario was evaluated to reflect completion of these two loops. Finally, water system performance was evaluated at a point soon after the future water tower and booster station are constructed. Per the May 4, 2017 Wenck Technical Memo summarizing the most recent SE Corcoran water supply modeling, the water tower would be constructed near the point at which maximum day demand (MDD) reaches 1,225 gpm (1.75 MGD), or approximately 1,550 households (using a conservative

MDD of 0.79 gpm per household). The water tower was assumed to be constructed somewhere just east of the downtown area, and the booster station would be constructed concurrently with the tower, at a location just inside Corcoran at the Maple Grove feed point (i.e., near node J-C2 as shown on Figure 2).

The water demands placed on the pipe network total approximately 1,550 gpm (MDD). This is slightly above the demand at which the tower is estimated to be needed, as noted above. For the residential water demand, an average day demand (ADD) of 350 gallons per day (gpd) per household was utilized, which translates to approximately 0.24 gpm per household. The ratio of MDD to ADD is referred to as the “peaking factor”. Using a peaking factor of 3.25, the MDD is 1,138 gpd per household, or 0.79 gpm per household. The 350 gpd per household does include an allowance for contribution of water demand from commercial/industrial sources.

Hydraulic analysis of the SE Corcoran water system was conducted using the computer modeling software WaterCAD, which simulates the water system’s response to average and peak demands and firefighting scenarios. Each condition creates different responses in the water system. The modeling results help to identify and evaluate the various options for future water system infrastructure in the SE Corcoran, including pipe and water tower sizing and the estimated timing of water tower construction.

For residential areas, a target fire flow of 1,500 gpm (2-hour duration) will be used. For commercial/ industrial areas, a higher target fire flow of 3,000 gpm (3-hour duration) will be used. New commercial/ industrial buildings will be sprinklered and, as such, most of these buildings will ultimately have a lower acceptable target. However, 3,000 gpm is deemed a reasonable overall target, and allows for some conservatism in this safety-driven parameter.

A map of the pipe network that was used for this modeling work is shown on Figure 2. The west-central 12-inch water main loop and the Hackamore Road 8-inch water main loop that is shown on this figure was shut off for Scenario 1 but turned on for Scenarios 2 and 3. The water tower shown on this figure was shut off for Scenarios 1 and 2 but turned on in Scenario 3. Although the booster station is built into the model and was shut off in Scenarios 1 and 2, it was also shut off in Scenario 3 to provide the most conservative results (i.e., it represents times when the water system is only operating off the water tower and the booster is in an “off” cycle).

### **3.1 SCENARIO 1: WATER SYSTEM WITHOUT WATER MAIN LOOPS**

The modeling results for this scenario are shown on Figures 3, 4, and 5, and in Table 2. Under ADD conditions, pressures at all nodes were above the recommended minimum pressure of 35 psi, and most locations were in the 40 to 60 psi range. Under MDD conditions, which are a relatively rare occurrence, only the two highest-elevation locations (both in Ravinia) fell slightly below the 35 psi minimum, as highlighted in Table 2. All Wessel locations were in the 35 to 45 psi range, approximately. In the peak hour (of the MDD), these same two highest-elevation locations fall to near 25 psi, and some of the other relatively high elevations drop into the 29 to 35 psi range. Given the rare and short duration-nature of this condition and given the relatively conservative household demand that is being used, these transient pressures are considered acceptable. However, these results do confirm the previously-referenced, prior modeling work, which concluded a future water tower/booster station should be added at the point in the future when the 1,225 gpm MDD is reached. This represents a point in time that is slightly earlier than the point in time that is reflected in the scenarios evaluated herein.

The available fire flow, which is evaluated under MDD conditions, shows a few locations in Ravinia that are somewhat short of the 1,500 gpm target, and most locations in the downtown area are somewhat short of the 3,000 gpm target, matching what was observed in prior modeling work. In Wessel, the non-looped 8-inch water mains generally show fire flows below the 1,500 gpm target, reaching as low as approximately 750 gpm at nodes J-W3 and J-W7, which are the most-distant locations in the two dead-end water main segments. Given that both of these locations are only providing half the recommended fire flow, construction of both water main loops concurrent with Wessel's water system installation would be prudent (see next section for discussion of water main looping results).

### **3.2 SCENARIO 2: WATER SYSTEM WITH WATER MAIN LOOPS**

Results for this scenario are shown in Table 2 (no figures are presented). This scenario was prepared to evaluate the effects of adding the west-central 12-inch water main loop and a complete 8-inch water main loop along Hackamore Road, while other conditions remain unchanged (i.e., with the same water demands applied, and both without the water tower/booster station online). The pressures in Scenario 2 were not significantly changed by the addition of this loop, as expected (pressures are largely dominated by ground elevations). However, fire flows were significantly improved in Wessel. The approximately 750 gpm fire flows noted above (nodes J-W3 and J-W7) improved significantly to approximately 1,400 and 1,750 gpm, respectively, which are right around the 1,500 gpm target. Similar improvement was evident in several other nodes.

The results for this scenario clearly show the improvements in fire flow that will be achieved by adding the west-central 12-inch water main loop and the Hackamore Road 8-inch water main loop. Water quality will also be improved by this looping, since long dead-end water mains can sometimes have water quality problems due to potential slow-moving or stagnant water (possibly causing low chlorine residual and/or bacterial film formation in pipes).

### **3.3 SCENARIO 3: WATER SYSTEM WITH WATER MAIN LOOPS AND TOWER/BOOSTER**

The final scenario evaluates the potential improvements due to the future addition of a water tower and booster station at the locations discussed previously, which are shown on Figures 2, 6, 7, and 8. Modeling results for this scenario are shown on Figures 6, 7, and 8, and in Table 2. Under ADD conditions, pressures at all nodes are all well above the recommended minimum pressure of 35 psi, and most locations are in the 65 to 85 psi range (typically providing about a 25 psi pressure boost from Scenarios 1 and 2). Under MDD conditions, pressures are typically only about 2 psi less than those in ADD, still well above minimum pressure. In the peak hour (of the MDD), the pressures would typically drop another 4 to 7 psi; however, the minimum predicted pressures are still above 50 psi, approximately 15 psi above the minimum pressure. Available fire flows at all locations are improved to above-target levels.

These results indicate that adding the currently planned 1 MG tower with a hydraulic grade line (HGL) of 1,156 feet (with the accompanying booster station) will provide acceptable results for all pressure and fire flow scenarios that were evaluated.

### 3.4 FINDINGS

The following key findings and recommendations are made:

- Looping of the development is required, such as the street connection on Horseshoe Trail, which is required to be looped with either the west-central 12-inch water main loop or Old Settlers.
- Looping the development back to Ravinia along Hackamore Road with an 8-inch water main is required.
- Provide easement along CR 116 for the trunk water connection from 66<sup>th</sup> Avenue North to the development boundary for the trunk line that will connect at 75<sup>th</sup> Avenue North (City funded construction project).
- At some dead-end water main locations (e.g., J-W4 and J-W9), Wessel will need to ensure that water main stubs are constructed to the property line, such that future development to the west and north of Wessel will eventually allow for additional water main looping. These future loops serve to improve fire flow and water quality within the Wessel development.
- At the road entrance to Wessel from Hackamore Road, the City may require construction of an interconnect across Hackamore Road to the City of Medina's water system, depending on Medina's mutual interest.

## 4.0 Water Resources

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In this chapter, the stormwater implications of this proposed development are reviewed in light of local and state regulations, watershed features, and potential changes in land use that would occur if development proceeds.

### 4.1 REGULATORY OVERVIEW

Stormwater management regulations in the proposed project area would be guided or directed by Corcoran's Local Surface Water Management Plan (Local Plan) and the City's Stormwater Pollution Prevention Plan (SWPPP). Each of these documents has a larger regulatory context:

- The Local Plan reflects the goals, policies and rules of the Elm Creek Watershed Management Commission's Third Generation Watershed Management Plan (Commission's WMP).
- The SWPPP is a requirement of the City's stormwater permit, formally known as the Municipal Separate Storm Sewer System (MS4) permit. The MS4 permit is issued by the Minnesota Pollution Control Agency (MPCA).
- Among other goals, both documents include plans to meet pollutant load reductions calculated in the Elm Creek Watershed Total Maximum Daily Load (TMDL) study. TMDL studies are required for surface waters that are designated as impaired – in other words, those that do not meet one or more state water quality standards.

### 4.2 WATERSHED SETTING AND LAND USE

The proposed development is situated in the Maple Creek drainage area, which discharges to Maple Grove south of Lions Park and the west end (included in Concept 2) drains northward towards the City park complex and joins the South Fork of Rush Creek north of County Road 10. For the easterly drainage, a previous study (Maple Creek Drainage Study, 2002) identified 850 acres within Corcoran discharging to Maple Grove. The vicinity of the project is drained by a ditch (County Ditch #16—Maple Creek), towards the northeast into a large wetland east of CR 116 and north of the Ravinia development. Maple Creek, in turn, drains to Elm Creek, which is impaired for aquatic life and recreation by excess *E. coli* bacteria and low dissolved oxygen. Improved stormwater management in the Maple Creek drainage area will benefit the Elm Creek system and downstream waters.

Land use and cover in the proposed development is a mix of natural and agricultural with minor residential (farm homestead) use and several wetlands. This pattern is typical of Corcoran, which is still a predominantly agricultural community with scattered low-density residential development and an abundance of wetlands. Development is increasing in the City, however, and the change from agricultural to non-agricultural land use presents opportunities to better manage stormwater runoff. This is true of the proposed development site, where land use will change from row crops and farm homestead to suburban residential. Stormwater Best Management Practices (BMPs) installed during construction will improve water quality not only in Maple Creek and the wetlands on site but also in the large wetland complex northeast of the proposed development. Improvement of this wetland complex, including a public waters wetland (DNR #27-0437), is one of the goals of Corcoran's Local Plan.



### 4.3 STORMWATER MANAGEMENT

Lennar proposes a development on the Wessel and Dempsey parcel which changes the land cover from agricultural/wooded/wetlands to suburban residential. Agricultural use of the land would cease, replaced by both pervious lawns/open space and impervious surfaces that will change the landscape and impact stormwater runoff.

Although cessation of agriculture generally benefits water quality by reducing export of nutrients and sediment, construction of additional impervious surfaces, such as the roads, driveways and sidewalks in this residential development, increases the rate, volume, and pollutant load to nearby surface waters. Turn lane improvements to CR 116 would also slightly increase impervious surface area and, like neighborhood roads and driveways, would require practices to mitigate the impact of impervious stormwater runoff.

Mitigation is accomplished by aligning development plans with stormwater regulations. Corcoran's Local Plan, in agreement with the Commission's WMP, requires that certain development plans be submitted to the City and the Commission for review. The purpose of the review is to ensure that the developer's plans for stormwater management during and after construction meet the Commission's rules regarding the rate, volume and pollutant load of stormwater runoff, along with other rules regarding wetland alteration, erosion and sediment control and other aspects of surface water protection.

This adherence to Commission rules is one of the strategies Corcoran has chosen to also meet its TMDL obligations. The implementation plan calls on Corcoran to apply these standards when land use changes, a strategy that is expected to have the net result of improving the quality of stormwater runoff. Stormwater modeling guidelines are in Appendix B, and as noted FEMA floodplain modifications and offsite water quality improvements are listed.

In addition to improved stormwater management, restoration or improvement of the wetlands in the development can also benefit water quality. The details of the restoration and its benefits will be determined as the project moves forward.

Complementing the Local Plan, Corcoran's SWPPP requires plan review, construction site erosion and sediment control, and post-construction stormwater management. Construction site inspections by the City or its authorized staff would begin with land-disturbing activity and end with final stabilization of exposed soils. After construction, the City would enter an agreement with the homeowners' association or similar group to ensure that stormwater Best Management Practices continue to function as intended.

### 4.4 FINDINGS

- Stormwater improvements are necessary within the development to meet regulations of the WMO. The Elm Creek Watershed Management Commission's development rules and standards will apply.
- Stormwater improvements would also need to meet the goals of Corcoran's Local Plan and the Elm Creek TMDL study.
- Corcoran has modeling guidelines for hydrology and hydraulics to consistently manage stormwater events in new developments.
- To move towards meeting load reduction goals, the City's Local Surface Water Plan identifies that improvements to water resources will occur with development.

- Offsite improvements for wetland enhancement will be necessary to manage the additional drainage and allow the City to implement the compliance with the City's TMDL. Consistent with other large developments and Ravinia, in lieu of a stormwater fee, the offsite improvement contribution will be paid towards a regional project (possibly along the County Ditch #16 or in the Lions Park wetland) that will be combined with grant funds for a larger watershed project.
- Downstream identification/mitigation of additional volume will need to be studied further.
- FEMA-designated Zone A floodplain is located within/adjacent to the project area. A Letter of Map Revision (LOMR) from FEMA is likely required. FEMA floodplain formal approvals will be required and are typically modeled and administered by the City.
- The City has recently obtained the LGU responsibility for implementing WCA.

## 5.0 Transportation

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### 5.1 BACKGROUND

This study examined weekday a.m. and p.m. peak hour traffic impacts of the proposed development on the following intersections:

- County Road 116/Olde Sturbridge Road/north development access
- County Road 116/66<sup>th</sup> Avenue N./middle development access
- County Road 116/south development access (future only)
- County Road 116/Hackamore Road
- Hackamore Road/Medina Lake Road/development access
- Old Settlers Road/Horseshoe Trail

### 5.2 PROPOSED DEVELOPMENT CHARACTERISTICS

For purpose of the traffic impact analysis, the proposed project is assumed to consist of 355 new single-family homes and 196 new townhouses. Three access locations will be provided on CR 116, with one at Olde Sturbridge Road, one at 66<sup>th</sup> Avenue N. and one midway between 66<sup>th</sup> Avenue N. and Hackamore Road. One access location will be provided on Hackamore Road at Medina Lake Road. One access will be provided on Horseshoe Trail east of Old Settlers Road. The proposed project is expected to be completed in phases with the entire development complete by 2031.

### 5.3 FUTURE DEVELOPMENT ASSUMPTIONS

Additional development was assumed for the property located west of the proposed project. For purpose of this study, it was assumed an additional 100 single family homes would be constructed by 2031 on property to the west. This development would have access to Old Settlers Road and would also be connected to the proposed project through the internal roadway network.

### 5.4 EXISTING CONDITIONS

The proposed site consists primarily of vacant land. The project site is bounded by County Road 116 on the east, Hackamore Road on the south, and single family homes to the west and north.

Near the site location, County Road 116 is a two-lane undivided roadway with turn lanes at major intersections. Hackamore Road is a two-lane undivided roadway near the site location. Olde Sturbridge Road, 66<sup>th</sup> Avenue N., Old Settlers Road, and Horseshoe Trail are two-lane undivided roadways. Existing conditions near the proposed project location are described below.

*County Road 116/Olde Sturbridge Road* - This three-way intersection is controlled with a stop sign on the westbound approach. The westbound approach consists of one shared left turn/right turn lane. The northbound approach consists of one through lane and one right turn lane. The southbound approach consists of one left turn/through lane and one through lane.

*County Road 116/66<sup>th</sup> Avenue N.* - This three-way intersection is controlled with a stop sign on the westbound approach. The westbound approach consists of one shared left turn/right turn lane. The northbound approach consists of one through/right turn lane. The southbound approach consists of one left turn/through lane.

*County Road 116/Hackamore Road* - The signalized intersection provides one left turn lane and one through/right turn lane on the northbound and southbound approaches. The eastbound and westbound approaches consist of one lane shared by all movements.

*Hackamore Road/Medina Lake Road* - This three-way intersection is controlled with a stop sign on the northbound Medina Lake Road approach. All approaches consist of one shared lane for all movements.

*Old Settlers Road/Horseshoe Trail* – This four-way intersection is controlled with stop signs on the eastbound and westbound approaches. All approaches consist of one shared lane for all movements.

Turn movement data for the intersections was collected during the weekday a.m. (6:00 - 9:00 a.m.) and p.m. (3:00 - 6:00 p.m.) peak periods in January and October 2019.

## 5.5 TRAFFIC FORECASTS

To adequately address the impacts of the proposed project, forecasts and analyses were completed for the year 2031. Specifically, weekday a.m. and p.m. peak hour traffic forecasts were completed for the following scenarios:

- *2019 Existing.* Existing volumes were determined through traffic counts at the subject intersections. The existing volume information includes trips generated by nearby uses.
- *2031 No-Build.* Existing volumes at the subject intersections were increased by 1.0 percent per year to determine 2031 No-Build volumes. The 1.0 percent per year growth rate was calculated based on both recent growth experienced near the site and projected growth in the area. In addition, trips from the Ravinia development that will use 66<sup>th</sup> Avenue N. in the future were added to the roadway network.
- *2031 Build.* Trips generated by the proposed project and the additional development to the west were added to the 2031 No-Build volumes to determine 2031 Build volumes.

Weekday a.m. and p.m. peak hour trip generation for the proposed development were calculated based on data presented in the tenth edition of Trip Generation, published by the Institute of Transportation Engineers (ITE). The resultant trip generation estimates are shown in **Table 5-1**.

**Table 5-1. Weekday Trip Generation for Proposed Project**

Land Use	Size	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily Total
		In	Out	Total	In	Out	Total	
<b>Proposed Project</b>								
Single Family	355 DU	66	197	263	221	130	351	3351
Townhouses	196 DU	21	69	90	69	41	110	1435
<b>Totals</b>		<b>87</b>	<b>266</b>	<b>353</b>	<b>290</b>	<b>171</b>	<b>461</b>	<b>4786</b>
<b>Future Development</b>								
Single Family	100 DU	18	56	74	62	37	99	944

Notes: DU=dwelling unit

As shown, the project adds 353 trips during the a.m. peak hour, 461 trips during the p.m. peak hour, and 4,786 net trips daily.

Trip distribution percentages for the subject development trips were established based on the nearby roadway network, existing and expected future traffic patterns, and location of the subject development in relation to major attractions and population concentrations.

The distribution percentages for trips generated by the proposed development are as follows:

- 45 percent to/from the south on County Road 116
- 15 percent to/from the north on County Road 116
- 25 percent to/from the east on Hackamore Road
- 5 percent to/from the north on Old Settlers Road
- 5 percent to/from the west on Horseshoe Trail
- 5 percent to/from the south on Arrowhead Drive

Development trips were assigned to the surrounding roadway network using the preceding trip distribution percentages. Traffic volumes were established for all the forecasting scenarios described earlier during the weekday a.m. and p.m. peak hours. The resultant traffic volumes are shown in Tables 5-2 and 5-3.

**Table 5-2. Weekday A.M. Peak Hour Traffic Volumes**

CR 116/Olde Sturbridge Rd/north development access	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	2019 Existing	-	-	-	11	-	3	-	92	0	0	820
2031 No-Build	-	-	-	12	-	3	-	125	0	0	932	-
2031 Build	18	0	66	12	0	3	22	147	0	0	939	6
CR 116/66 <sup>th</sup> Ave/middle development access	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 Existing	-	-	-	4	-	1	-	91	0	0	831	-
2031 No-Build	-	-	-	18	-	14	-	111	4	5	939	-
2031 Build	12	0	56	18	0	14	17	143	4	5	1008	4



Responsive partner. Exceptional outcomes.

<b>CR 116/south development access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2019 Existing	-	-	-	-	-	-	-	94	-	-	838	-
2031 No-Build	-	-	-	-	-	-	-	118	-	-	960	-
2031 Build	10	-	24	-	-	-	6	157	-	-	1082	3
<b>CR 116/Hackamore Rd</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2019 Existing	13	57	26	79	9	10	2	71	58	135	693	10
2031 No-Build	23	78	54	89	15	11	10	84	65	152	794	14
2031 Build	23	94	81	89	20	27	19	113	65	204	888	14
<b>Hackamore Rd/Medina Lake Rd/development access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2019 Existing	-	83	1	3	18	-	1	-	13	-	-	-
2031 No-Build	-	141	1	3	36	-	1	-	15	-	-	-
2031 Build	6	160	1	3	42	8	1	0	15	24	0	18
<b>Old Settlers Rd/Horseshoe Tr</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2019 Existing	2	0	21	0	2	0	9	5	0	0	6	3
2031 No-Build	2	0	24	0	2	0	13	9	0	0	8	3
2031 Build	2	2	25	3	10	11	16	13	7	4	10	3

**Table 5-3. Weekday P.M. Peak Hour Traffic Volumes**

<b>CR 116/Olde Sturbridge Rd/north development access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2019 Existing	-	-	-	5	-	0	-	678	5	0	133	-
2031 No-Build	-	-	-	6	-	0	-	778	6	0	172	-
2031 Build	12	0	43	6	0	0	74	792	6	0	196	20
<b>CR 116/66<sup>th</sup> Ave/middle development access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2019 Existing	-	-	-	2	-	0	-	683	2	0	138	-
2031 No-Build	-	-	-	10	-	8	-	776	16	13	165	-
2031 Build	8	0	36	10	0	8	61	856	16	13	219	13
<b>CR 116/south development access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2019 Existing	-	-	-	-	-	-	-	691	-	-	145	-
2031 No-Build	-	-	-	-	-	-	-	799	-	-	180	-
2031 Build	6	-	15	-	-	-	25	934	-	-	259	11
<b>CR 116/Hackamore Rd</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2019 Existing	20	30	11	32	22	55	25	616	72	21	113	11
2031 No-Build	29	43	29	36	41	62	56	708	81	24	135	21
2031 Build	29	52	47	36	57	120	85	810	81	59	194	21

<b>Hackamore Rd/ Medina Lake Rd/ development access</b>												
2019 Existing	-	53	1	14	44	-	1	-	8	-	-	-
2031 No-Build	-	92	1	16	103	-	1	-	9	-	-	-
2031 Build	19	104	1	16	123	25	1	0	9	15	0	10
<b>Old Settlers Rd/ Horseshoe Tr</b>												
2019 Existing	1	2	25	0	0	1	6	5	0	0	4	1
2031 No-Build	1	2	31	0	0	1	8	8	0	0	8	1
2031 Build	1	11	34	14	5	8	10	10	23	11	12	1

## 5.6 TRAFFIC ANALYSIS

Traffic analyses were completed for the subject intersections for all scenarios described earlier during the weekday a.m. and p.m. peak hours using Synchro software. Initial analysis was completed using existing geometrics, control, and signal timing.

Capacity analysis results are presented in terms of level of service (LOS), which is defined in terms of traffic delay at the intersection. LOS ranges from A to F. LOS A represents the best intersection operation, with little delay for each vehicle using the intersection. LOS F represents the worst intersection operation with excessive delay. The following is a detailed description of the conditions described by each LOS designation:

- Level of service A corresponds to a free flow condition with motorists virtually unaffected by the intersection control mechanism. For a signalized or an unsignalized intersection, the average delay per vehicle would be approximately 10 seconds or less.
- Level of service B represents stable flow with a high degree of freedom, but with some influence from the intersection control device and the traffic volumes. For a signalized intersection, the average delay ranges from 10 to 20 seconds. An unsignalized intersection would have delays ranging from 10 to 15 seconds for this level.
- Level of service C depicts a restricted flow which remains stable, but with significant influence from the intersection control device and the traffic volumes. The general level of comfort and convenience changes noticeably at this level. The delay ranges from 20 to 35 seconds for a signalized intersection and from 15 to 25 seconds for an unsignalized intersection at this level.
- Level of service D corresponds to high-density flow in which speed and freedom are significantly restricted. Though traffic flow remains stable, reductions in comfort and convenience are experienced. The control delay for this level is 35 to 55 seconds for a signalized intersection and 25 to 35 seconds for an unsignalized intersection.
- Level of service E represents unstable flow of traffic at or near the capacity of the intersection with poor levels of comfort and convenience. The delay ranges from 55 to 80 seconds for a signalized intersection and from 35 to 50 seconds for an unsignalized intersection at this level.

- Level of service F represents forced flow in which the volume of traffic approaching the intersection exceeds the volume that can be served. Characteristics often experienced include long queues, stop-and-go waves, poor travel times, low comfort and convenience, and increased accident exposure. Delays over 80 seconds for a signalized intersection and over 50 seconds for an unsignalized intersection correspond to this level of service.

The LOS results for the study intersections are presented in Tables 5-4 and 5-5.

**Table 5-4. Weekday A.M. Peak Hour Level of Service Results**

<b>CR 116/Olde Sturbridge Rd/north access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	<b>Intersection</b>
2019 Existing	-	-	-	C	-	C	-	A	A	A	A	-	A
2031 No-Build	-	-	-	C	-	C	-	A	A	A	A	-	A
2031 Build	D	D	D	D	D	D	B	A	A	A	A	A	A
<b>CR 116/66<sup>th</sup> Ave/middle access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2019 Existing	-	-	-	C	-	C	-	A	A	A	A	-	A
2031 No-Build	-	-	-	C	-	C	-	A	A	A	A	-	A
2031 Build	D	D	D	D	D	D	B	A	A	A	A	A	A
<b>CR 116/south access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2031 Build	C	-	C	-	-	-	B	A	-	-	A	A	A
<b>CR 116/Hackamore Rd</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2019 Existing	D	A	A	D	A	A	A	A	A	A	A	A	B
2031 No-Build	D	A	A	D	A	A	A	A	A	A	A	A	B
2031 Build	D	A	A	D	A	A	A	A	A	A	A	B	B
<b>Hackamore Rd/Medina Lake Rd/access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2019 Existing	-	A	A	A	A	-	A	-	A	-	-	-	A
2031 No-Build	-	A	A	A	A	-	A	-	A	-	-	-	A
2031 Build	A	A	A	A	A	A	A	A	A	A	A	A	A
<b>Old Settlers Rd/Horseshoe Tr</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2019 Existing	A	A	A	A	A	A	A	A	A	A	A	A	A
2031 No-Build	A	A	A	A	A	A	A	A	A	A	A	A	A
2031 Build	A	A	A	A	A	A	A	A	A	A	A	A	A



**Table 5-5. Weekday P.M. Peak Hour Level of Service Results**

<b>CR 116/Olde Sturbridge Rd/north access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	<b>Intersection</b>
2019 Existing	-	-	-	C	-	C	-	A	A	A	A	-	A
2031 No-Build	-	-	-	C	-	C	-	A	A	A	A	-	A
2031 Build	B	B	B	D	D	D	B	A	A	A	A	A	A
<b>CR 116/66<sup>th</sup> Ave/middle access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2019 Existing	-	-	-	C	-	C	-	A	A	A	A	-	A
2031 No-Build	-	-	-	C	-	C	-	A	A	A	A	-	A
2031 Build	B	B	B	D	D	D	A	A	A	A	A	A	A
<b>CR 116/south access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2031 Build	B	-	B	-	B	-	A	A	-	-	A	A	A
<b>CR 116/Hackamore Rd</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2019 Existing	D	A	A	D	A	A	A	A	A	A	A	A	B
2031 No-Build	D	A	A	D	A	A	A	A	A	A	A	A	B
2031 Build	D	A	A	D	A	A	A	A	B	A	A	B	B
<b>Hackamore Rd/Medina Lake Rd/access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2019 Existing	-	A	A	A	A	-	A	-	A	-	-	-	A
2031 No-Build	-	A	A	A	A	-	A	-	A	-	-	-	A
2031 Build	A	A	A	A	A	A	A	A	A	A	A	A	A
<b>Old Settlers Rd/Horseshoe Tr</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2019 Existing	A	A	A	A	A	A	A	A	A	A	A	A	A
2031 No-Build	A	A	A	A	A	A	A	A	A	A	A	A	A
2031 Build	A	A	A	A	A	A	A	A	A	A	A	A	A

*Vehicle Queue Lengths at CR 116/Hackamore Road*

Vehicle queues for the 2019 and 2031 Build scenarios were reviewed to determine impacts on the Hackamore Road approaches. Under existing conditions, both the eastbound and westbound approaches consist of one lane shared by all movements. The resultant queue lengths with existing lane geometrics are shown in Table 5-6.

**Table 5-6. 95th Percentile Vehicle Queue Lengths at CR 116/Hackamore Road**

Scenario	Eastbound approach	Westbound approach
AM Peak Hour		
2019	100'	117'
2031 Build	183'	166'
PM Peak Hour		
2019	85'	115'
2031 Build	150'	244'

As shown, the queue lengths are expected to increase on both the eastbound and westbound approaches.

In addition to the existing geometrics, vehicle queue lengths assuming the addition of left turn and right turn lanes on the eastbound and westbound approaches were also reviewed. The resultant queue lengths are shown in Table 5-7.

**Table 5-7. 95th Percentile Vehicle Queue Lengths at CR 116/Hackamore Road**

Scenario	Eastbound			Westbound		
	Left turn	Through	Right turn	Left turn	Through	Right turn
AM Peak						
2031 Build	46'	112'	79'	119'	47'	44'
PM Peak						
2031 Build	56'	73'	55'	67'	77'	98'

As shown, the queue lengths are reduced compared to the single lane approach results.

*Traffic Signal Warrants at CR 116/66<sup>th</sup> Avenue N./middle development access*

The traffic forecasts for the 2031 Build scenario were used to analyze the peak hour and four hour traffic signal warrants. These volumes include trips from the proposed project as well and trips from the Ravinia development that will use 66<sup>th</sup> Avenue N. in the future.

The traffic volume forecasts were used to determine if specific warrants are satisfied based on published criteria outlined in the Minnesota Manual of Uniform Traffic Control Devices (MMUTCD). Warrant 2 (Four-Hour Vehicular Volume) and Warrant 3 (Peak Hour Volume) were assessed. Since the posted speed limit on CR 116 at the intersection is 55 mph, the analyses presented consider reductions for speeds greater than 40 mph.

Based on this analysis, warrants are not met, however due to regional traffic pattern changes, internal street patterns, and other unknowns the City will pursue signal options with the County.

*Impacts on Old Settlers Road*

Traffic volumes on Old Settlers Road west of Snyder Road are forecast to increase by 710 vehicles per day due to the proposed project by 2031.

Traffic volumes on Old Settlers Road west of Snyder Road are forecast to increase by 1,760 vehicles per day due to a combination of the proposed project and the additional development by 2031.

## 5.7 FINDINGS

In order to accommodate the 2031 traffic volumes presented in this report, we recommend implementation of the following improvements:

### *66<sup>th</sup> Avenue Collector Street*

- Dedicate 80 foot ROW to preserve future road corridor options.

### *County Road 116/Olde Sturbridge Road/north development access*

- Construct right turn lane on southbound approach and left turn lane on northbound approach for the development. County approval is required and that process may require additional improvements.

### *County Road 116/66<sup>th</sup> Avenue North/main development access*

- Construct right turn lane on southbound approach and left turn lane on northbound approach for the development.
- Construct west leg of intersection (66<sup>th</sup> Ave. extended) at CR 116 with a left turn lane and a right turn lane.
- Construction of east leg of intersection is planned as part of Ravinia development.
- Future signal was planned with Ravinia and City will pursue County process involving warrants and County policy for installation of a signal at developer cost.
- Local street spacing near intersection will be modified during plan review process. Current site plan shows the connection is not allowable due to minimum spacing on collector road.

### *County Road 116/south development access*

- Construct right turn lane on southbound approach and left turn lane on northbound approach for the development. County approval is required and that process may require additional improvements.
- County may require relocation of the proposed access approximately 420 feet north to meet 1/4 mile County spacing requirements.

### *County Road 116/Hackamore Road*

- Improve Hackamore Road to collector standard to west development property boundary (west of the development's local street connection).
- On Hackamore, construct left turn and right turn lanes on both the east leg and west leg of intersection. This will require coordination with the County and City of Medina regarding right-of-way acquisition, impacts and design details.
- Install updated traffic signal control and mitigate trail and any ponding/wetland impacts.
- County approval is required and that process may require additional turn lanes on CR 116.

### *Hackamore Road/Medina Lake Road/development access*

- Construct a westbound right turn lane.

*Old Settlers north of Butterworth Lane*

- Based on the expected traffic volume increase, pave existing gravel road from north of Butterworth Lane to Horseshoe Trail.

*Horseshoe Trail*

- Based on the expected traffic volume increase, pave existing gravel road from Old Settlers Road to the development's east property boundary.

*Bluebonnet Drive*

- Provide ROW and possibly a turnaround meeting City standards at connection to Bluebonnet.

*Local access to adjacent parcels*

- Ghost plat and provide ROW for access points to the property adjacent to the northwest (20301 Larkin Road).
- Ghost plat and provide ROW for access points to the property address 6421 CR 116 adjacent to the east.

*Trail Lane ROW*

- ROW should be extended to cul-de-sac on Trail Lane with street or trail improvements to be considered during plan review process.

*Local Street Spacing*

- Plan review process may modify local street intersection spacing.

## 6.0 Financing

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### 6.1 SUMMARY

Financing options of the development necessary for infrastructure and to mitigate impacts typically follow the approach of:

- On-site infrastructure is managed by the developer
- Upsizing of on-site trunk utilities are provided credit, with eligibility determined during the approval process
- Trunk sewer and water fees (TLAC) are being updated in 2019
- Off-site projects are managed by the City (engineering, bidding and construction management) through an escrow

The financial package will be further detailed and negotiated as the project moves forward and culminates in the overall Developer Agreement with the overall preliminary plat approval which is updated for each phase of the development.

## 7.0 Conclusions and Recommendations

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The following infrastructure improvements are feasible and necessary to manage the development. These improvements are consistent with similar requirements for other developments in Corcoran, and have shown to be necessary for managing the additional population:

### Sewer

- Option A is recommended, with an estimated cost of approximately \$1,450,000 (or \$770,000 without including the temporary lift station and force main). This recommendation is made based on analysis presented in the prior feasibility study (Concept 1), as summarized above, and also based on the simple fact that the only technically feasible option for providing sewer service to the added northwestern parcel in the Concept 2 development is to construct the temporary lift station, as described in Option A.
- Routing of the offsite 12-inch sewer is conceptual at this point, and minor modifications with respect to routing in/near 66th Avenue North and Park Trail Drive will need to be finalized by the City. However, significant changes to the inverts shown for Option A are not expected.
- Routing of the sewer flows from Wessel eastward to the 12-inch sewer that is being extended westward through Ravinia is generally in accordance with the 2040 Comprehensive Plan.
- The phasing plan will need to be coordinated with sewer shed outlined in this Feasibility Study, since it could potentially result in multiple modifications to the temporary lift station and force main (such costs are not estimated herein).

### Water

- Looping of the development is required, such as the street connection on Horseshoe Trail, which is required to be looped with either the west-central 12-inch water main loop or Old Settlers.
- Looping the development back to Ravinia along Hackamore Road with an 8-inch water main is required.
- Provide easement along CR 116 for the trunk water connection from 66<sup>th</sup> Avenue North to the development boundary for the trunk line that will connect at 75<sup>th</sup> Avenue North (City funded construction project).
- At some dead-end water main locations (e.g., J-W4 and J-W9), Wessel will need to ensure that water main stubs are constructed to the property line, such that future development to the west and north of Wessel will eventually allow for additional water main looping. These future loops serve to improve fire flow and water quality within the Wessel development.
- At the road entrance to Wessel from Hackamore Road, the City may require construction of an interconnect across Hackamore Road to the City of Medina's water system, depending on Medina's mutual interest.

### Water Resources

- Offsite improvements will be necessary to manage the additional drainage and allow the City to implement compliance as identified in the City's TMDL. Consistent with other large developments and Ravinia, in lieu of a stormwater utility fee, the offsite improvement contribution will be paid towards a regional project (possibly along the

County Ditch #16 or in the Lions Park wetland) that will be combined with grant funds for a larger watershed project.

- FEMA floodplain formal approvals will be required and are typically modeled and administered by the City.
- The City has recently obtained the LGU responsibility for implementing WCA.

### **Transportation**

In order to accommodate the 2031 traffic volumes presented in this report, we recommend implementation of the following improvements:

#### *66<sup>th</sup> Avenue Collector Street*

- Dedicate 80 foot ROW to preserve future road corridor options.

#### *County Road 116/Olde Sturbridge Road/north development access*

- Construct right turn lane on southbound approach and left turn lane on northbound approach for the development. County approval is required and that process may require additional improvements.

#### *County Road 116/66<sup>th</sup> Avenue North/main development access*

- Construct right turn lane on southbound approach and left turn lane on northbound approach for the development.
- Construct west leg of intersection (66<sup>th</sup> Ave. extended) at CR 116 with a left turn lane and a right turn lane.
- Construction of east leg of intersection is planned as part of Ravinia development.
- Future signal was planned with Ravinia and City will pursue County process involving warrants and County policy for installation of a signal at developer cost.
- Local street spacing near intersection will be modified during plan review process. Current site plan shows the connection is not allowable due to minimum spacing on collector road.

#### *County Road 116/south development access*

- Construct right turn lane on southbound approach and left turn lane on northbound approach for the development. County approval is required and that process may require additional improvements.
- County may require relocation of the proposed access approximately 420 feet north to meet 1/4 mile County spacing requirements.

#### *County Road 116/Hackamore Road*

- Improve Hackamore Road to collector standard to west development property boundary (west of the development's local street connection).
- On Hackamore, construct left turn and right turn lanes on both the east leg and west leg of intersection. This will require coordination with the County and City of Medina regarding right-of-way acquisition, impacts and design details.
- Install updated traffic signal control and mitigate trail and any ponding/wetland impacts.
- County approval is required and that process may require additional turn lanes on CR 116.

#### *Hackamore Road/Medina Lake Road/development access*

- Construct a westbound right turn lane.

*Old Settlers north of Butterworth Lane*

- Based on the expected traffic volume increase, pave existing gravel road from north of Butterworth Lane to Horseshoe Trail.

*Horseshoe Trail*

- Based on the expected traffic volume increase, pave existing gravel road from Old Settlers Road to the development's east property boundary.

*Bluebonnet Drive*

- Provide ROW and possibly a turnaround meeting City standards at connection to Bluebonnet.

*Local access to adjacent parcels*

- Ghost plat and provide ROW for access points to the property adjacent to the northwest (20301 Larkin Road).
- Ghost plat and provide ROW for access points to the property address 6421 CR 116 adjacent to the east.

*Trail Lane ROW*

- ROW should be extended to cul-de-sac on Trail Lane with street or trail improvements to be considered during plan review process.

*Local Street Spacing*

- Plan review process may modify local street intersection spacing.



- 1 Cost Estimate for Sewer Option
- 2 Water Distribution System Modeling Results

**Table 1. Cost Estimates for Sewer Options**

**Sewer Option A**

Item #	Description	Qty	Units	Unit Price	Total Cost
1	Mobilization/Demobilization	1	LS	\$ 50,000.00	\$ 50,000
2	Clearing & Grubbing	0.5	AC	\$ 8,000.00	\$ 4,000
3	Sanitary Sewer (offsite) - 12"	2900	LF	\$ 95.00	\$ 275,500
4	Sanitary Sewer - Upsize 8" to 10" within Wessel	3500	LF	\$ 10.00	\$ 35,000
5	Sanitary Sewer - Upsize 8" to 15" within Wessel	3200	LF	\$ 25.00	\$ 80,000
6	Sanitary Manholes (offsite) - 4' diam	9	EA	\$ 4,000.00	\$ 36,000
7	Jacked Crossing of CR 116 (1 location)	100	LF	\$ 400.00	\$ 40,000
8	Turf Establishment Uplands	1.8	AC	\$ 2,000.00	\$ 3,600
9	Turf Establishment Wetlands	1.5	AC	\$ 6,000.00	\$ 9,000
10	Erosion Control	2900	LF	\$ 6.00	\$ 17,400
11	Sewer Force Main - 6" (direct bury w/sewer install)	4600	LF	\$ 20.00	\$ 92,000
12	Air Release Manhole w/Valve (6' dia)	3	EA	\$ 15,000.00	\$ 45,000
13	Sewer Lift Station (temp; later conversion to gravity)	1	LS	\$ 400,000.00	\$ 400,000

Subtotal	\$ 1,087,500
With Contingency (10%)	\$ 1,196,250
With Engineering/Legal (15%)	\$ 1,375,688
Easements	\$ 72,500
<b>Total</b>	<b>\$ 1,448,188</b>

**Notes:**

- 1) Costs are generally for construction outside the Wessel boundary, except where specifically stated otherwise.
- 2) Easement costs in Corcoran are commonly estimated at \$50 per LF; however, given the high percentage of wetland area within the off-development construction segments, a \$25 per LF cost was assumed.
- 3) Sewer construction across 66th Ave N is assumed to be coordinated with the upcoming street reconstruction, and thus no separate pavement restoration is included.

**Table 2. Water Distribution System Modeling Results**

Average Day Demand

Node	Elevation (ft)	Demand (gpm)	w/o Loops		w/ Loops		w/ Loops, Tower, Booster	
			Hydraulic Grade (ft)	Pressure (psi)	Hydraulic Grade (ft)	Pressure (psi)	Hydraulic Grade (ft)	Pressure (psi)
J-B1	985	13.4	1,097.9	48.8	1,097.9	48.8	1,155.3	73.7
J-B2	992	5.8	1,097.9	45.8	1,097.9	45.8	1,155.3	70.7
J-B3	970	4.6	1,097.9	55.3	1,097.9	55.3	1,155.3	80.2
J-C1	990	0	1,098.0	46.7	1,098.0	46.7	1,098.0	46.7
J-C2	982	0	1,098.0	50.2	1,098.0	50.2	1,155.3	75.0
J-C3	950	0	1,097.9	64.0	1,097.9	64.0	1,155.3	88.8
J-C4	969	92.3	1,097.2	55.5	1,097.3	55.5	1,155.5	80.7
J-C5	946	0	1,097.2	65.4	1,097.2	65.4	1,155.5	90.6
J-C6	954	0	1,097.2	62.0	1,097.2	62.0	1,155.5	87.2
J-C10	1003	8.5	1,097.1	40.7	1,097.2	40.7	1,155.4	65.9
J-C11	1004	4.6	1,097.2	40.3	1,097.2	40.3	1,155.8	65.7
J-C12	980	0	1,097.9	51.0	1,097.9	51.0	1,155.3	75.9
J-C13	978	0	1,097.8	51.8	1,097.8	51.8	1,155.3	76.7
J-C14	988	0	1,097.4	47.3	1,097.4	47.3	1,155.3	72.4
J-C15	994	12.6	1,097.9	45.0	1,097.9	45.0	1,155.3	69.8
J-C16	990	0	1,097.4	46.5	1,097.4	46.4	1,155.3	71.5
J-C19	1015	26.7	1,097.2	35.6	1,097.2	35.6	1,155.3	60.7
J-C20	1009	0	1,097.3	38.2	1,097.3	38.2	1,155.3	63.3
J-C22	982	0	1,097.5	50.0	1,097.5	50.0	1,155.4	75.0
J-D1	971	4.3	1,097.2	54.6	1,097.2	54.6	1,155.5	79.8
J-D2	971	0	1,097.2	54.6	1,097.2	54.6	1,155.5	79.8
J-D3	973	4.4	1,097.2	53.7	1,097.2	53.7	1,155.6	79.0
J-D4	955	3.8	1,097.2	61.5	1,097.2	61.5	1,155.5	86.8
J-D5	965	48.6	1,097.2	57.2	1,097.2	57.2	1,155.5	82.4
J-D6	973	3.5	1,097.2	53.7	1,097.2	53.7	1,155.7	79.0
J-D7	976	3.1	1,097.2	52.4	1,097.2	52.4	1,155.7	77.7
J-D8	978	5.5	1,097.2	51.6	1,097.2	51.6	1,155.7	76.9
J-D9	975	3.8	1,097.2	52.9	1,097.2	52.9	1,155.7	78.2
J-D10	980	2.8	1,097.2	50.7	1,097.2	50.7	1,155.9	76.1
J-R1	988	2.4	1,097.4	47.3	1,097.3	47.3	1,155.3	72.4
J-R2	994	1.9	1,097.4	44.7	1,097.3	44.7	1,155.3	69.8
J-R3	984	4.9	1,097.3	49.0	1,097.3	49.0	1,155.3	74.1
J-R4	990	5.3	1,097.4	46.5	1,097.3	46.4	1,155.3	71.5
J-R5	986	3.2	1,097.3	48.2	1,097.3	48.2	1,155.3	73.2
J-R6	994	0	1,097.3	44.7	1,097.3	44.7	1,155.3	69.8
J-R7	991	2.4	1,097.3	46.0	1,097.3	46.0	1,155.3	71.1
J-R8	997	0	1,097.3	43.4	1,097.3	43.4	1,155.3	68.5
J-R9	994	3.2	1,097.3	44.7	1,097.3	44.7	1,155.3	69.8
J-R10	1005	3.2	1,097.3	40.0	1,097.3	39.9	1,155.3	65.0
J-R11	999	2.4	1,097.3	42.5	1,097.3	42.5	1,155.3	67.6
J-R12	995	2.4	1,097.3	44.3	1,097.3	44.3	1,155.3	69.3
J-R13	996	2.7	1,097.3	43.8	1,097.3	43.8	1,155.3	68.9
J-R14	996	3.6	1,097.3	43.8	1,097.3	43.8	1,155.3	68.9
J-R15	998	2.7	1,097.3	43.0	1,097.3	43.0	1,155.3	68.1
J-R16	1001	3.4	1,097.3	41.7	1,097.3	41.7	1,155.3	66.8
J-R17	995	3.4	1,097.3	44.3	1,097.3	44.3	1,155.3	69.3
J-R18	998	1.9	1,097.3	43.0	1,097.3	43.0	1,155.3	68.0
J-R19	999	3.4	1,097.3	42.5	1,097.3	42.5	1,155.3	67.6
J-R20	1007	3.4	1,097.3	39.1	1,097.3	39.1	1,155.3	64.2
J-R21	1005	2.4	1,097.3	39.9	1,097.3	39.9	1,155.3	65.0
J-R22	996	7.3	1,097.3	43.8	1,097.3	43.8	1,155.3	68.9
J-R23	989	1.9	1,097.3	46.9	1,097.3	46.9	1,155.3	71.9
J-R24	1007	2.4	1,097.3	39.1	1,097.3	39.1	1,155.3	64.2
J-R25	1016	3.9	1,097.3	35.2	1,097.3	35.2	1,155.3	60.3
J-R26	985	3.9	1,097.3	48.6	1,097.3	48.6	1,155.3	73.7
J-R27	985	5.3	1,097.3	48.6	1,097.3	48.6	1,155.3	73.7
J-R28	995	4.1	1,097.3	44.2	1,097.3	44.2	1,155.3	69.4
J-R29	1005	3.9	1,097.3	39.9	1,097.3	39.9	1,155.3	65.0
J-R30	1000	8.3	1,097.3	42.1	1,097.3	42.1	1,155.3	67.2
J-R31	995	0	1,097.3	44.3	1,097.3	44.2	1,155.3	69.4
J-R32	992	3.4	1,097.3	45.5	1,097.3	45.5	1,155.3	70.6
J-W1	1004	20.9	1,097.1	40.3	1,097.2	40.3	1,155.4	65.5
J-W2	990	19.7	1,097.0	46.3	1,097.2	46.4	1,155.3	71.5
J-W3	993	24.8	1,097.0	45.0	1,097.2	45.1	1,155.3	70.2
J-W4	988	4.1	1,097.0	47.2	1,097.2	47.2	1,155.3	72.4
J-W5	996	10.4	1,097.1	43.7	1,097.2	43.8	1,155.4	68.9
J-W6	1005	19.0	1,097.1	39.9	1,097.2	39.9	1,155.4	65.1
J-W7	992	8.5	1,097.1	45.5	1,097.2	45.5	1,155.4	70.7
J-W8	984	14.1	1,097.1	48.9	1,097.2	49.0	1,155.4	74.1
J-W9	982	3.9	1,097.1	49.8	1,097.2	49.8	1,155.4	75.0
J-W10	1006	0	1,097.1	39.4	1,097.2	39.4	1,155.4	64.6
<b>Total</b>		<b>476</b>						

Target Pressure: 35 psi - nodes with pressure less than target are highlighted red

SE Corcoran Feed Node Hydraulic Grade Result from Maple Grove Model (ULT MDD - 50 MGD):

1,105.9

Wessel Model Feed Hydraulic Grade (assumed): 1098

**Table 2. Water Distribution System Modeling Results**

Maximum Day Demand

Node	w/o Loops					w/ Loops			w/ Loops, Tower, Booster			
	Elevation (ft)	Demand (gpm)	Target Fire Flow (gpm)	Hydraulic Grade (ft)	Pressure (psi)	Fire Flow (gpm)	Hydraulic Grade (ft)	Pressure (psi)	Fire Flow (gpm)	Hydraulic Grade (ft)	Pressure (psi)	Fire Flow (gpm)
J-B1	985	43.5	1,500	1,096.8	48.4	3,513	1,096.7	48.3	3,512	1,150.0	71.4	3,124
J-B2	992	19.0	1,500	1,097.3	45.5	5,000	1,097.3	45.5	5,000	1,150.1	68.4	3,453
J-B3	970	15.0	1,500	1,097.4	55.1	5,000	1,097.4	55.1	5,000	1,150.1	77.9	3,680
J-C1	990	0	1,500	1,097.9	46.7	5,000	1,097.9	46.7	5,000	1,098.0	46.7	5,000
J-C2	982	0	1,500	1,097.6	50.0	5,000	1,097.6	50.0	5,000	1,150.1	72.7	3,986
J-C3	950	0	1,500	1,097.5	63.8	5,000	1,097.5	63.8	5,000	1,150.1	86.6	3,980
J-C4	969	300	3,000	1,091.0	52.8	2,241	1,091.3	52.9	2,380	1,151.5	78.9	5,000
J-C5	946	0	1,500	1,090.9	62.7	2,232	1,091.3	62.9	2,367	1,151.5	88.9	5,000
J-C6	954	0	1,500	1,090.8	59.2	2,210	1,091.1	59.3	2,347	1,151.7	85.5	5,000
J-C10	1003	27.7	1,500	1,090.3	37.8	1,643	1,090.8	38.0	1,736	1,150.3	63.7	3,872
J-C11	1004	15	3,000	1,090.5	37.4	1,878	1,090.9	37.6	1,990	1,154.2	65.0	5,000
J-C12	980	0	1,500	1,097.3	50.8	5,000	1,097.3	50.7	5,000	1,150.1	73.6	4,016
J-C13	978	0	1,500	1,096.5	51.3	4,512	1,096.5	51.3	4,507	1,150.0	74.4	3,917
J-C14	988	0	1,500	1,093.0	45.4	2,056	1,092.8	45.3	2,055	1,149.8	70.0	3,471
J-C15	994	41.1	1,500	1,097.3	44.7	4,350	1,097.3	44.7	4,350	1,150.1	67.5	3,286
J-C16	990	0	1,500	1,092.5	44.3	1,930	1,092.2	44.2	1,930	1,149.7	69.1	3,411
J-C19	1015	86.9	1,500	1,090.7	32.8	1,555	1,091.0	32.9	1,635	1,149.9	58.4	3,470
J-C20	1009	0	1,500	1,092.1	36.0	1,369	1,091.6	35.8	1,461	1,149.6	60.8	2,787
J-C22	982	0	1,500	1,093.7	48.3	2,870	1,093.9	48.4	3,017	1,150.9	73.1	4,800
J-D1	971	14.0	3,000	1,090.8	51.8	2,970	1,091.1	52.0	3,114	1,151.9	78.3	5,000
J-D2	971	0	3,000	1,090.8	51.8	2,639	1,091.1	52.0	2,724	1,151.9	78.3	4,955
J-D3	973	14.2	3,000	1,090.7	50.9	2,935	1,091.1	51.1	3,076	1,152.1	77.5	5,000
J-D4	955	12.3	3,000	1,090.7	58.7	2,978	1,091.1	58.9	3,121	1,151.9	85.2	5,000
J-D5	965	158	3,000	1,090.7	54.4	2,930	1,091.1	54.5	3,028	1,151.7	80.8	5,000
J-D6	973	11.4	3,000	1,090.7	50.9	2,844	1,091.0	51.1	2,980	1,152.9	77.8	5,000
J-D7	976	10.1	3,000	1,090.7	49.6	2,009	1,091.0	49.8	2,063	1,152.9	76.6	3,751
J-D8	978	17.9	3,000	1,090.6	48.7	2,767	1,091.0	48.9	2,899	1,153.7	76.0	5,000
J-D9	975	12.3	3,000	1,090.6	50.0	2,198	1,091.0	50.2	2,269	1,153.7	77.3	4,643
J-D10	980	9.2	3,000	1,090.5	47.8	2,648	1,090.9	48.0	2,787	1,155.3	75.9	5,000
J-R1	988	7.9	1,500	1,092.4	45.1	2,293	1,092.1	45.0	2,299	1,149.7	70.0	3,606
J-R2	994	6.3	1,500	1,092.2	42.5	2,254	1,092.0	42.4	2,263	1,149.7	67.4	3,576
J-R3	984	15.8	1,500	1,092.2	46.8	2,287	1,091.9	46.7	2,289	1,149.7	71.7	3,611
J-R4	990	17.4	1,500	1,092.4	44.3	2,356	1,092.2	44.2	2,360	1,149.7	69.1	3,529
J-R5	986	10.3	1,500	1,092.1	45.9	2,295	1,091.8	45.8	2,289	1,149.7	70.8	3,630
J-R6	994	0	1,500	1,092.1	42.4	2,194	1,091.8	42.3	2,211	1,149.7	67.4	3,328
J-R7	991	7.9	1,500	1,092.1	43.7	1,957	1,091.8	43.6	1,960	1,149.7	68.7	2,840
J-R8	997	0	1,500	1,092.1	41.1	2,154	1,091.8	41.0	2,174	1,149.7	66.1	3,233
J-R9	994	10.3	1,500	1,092.1	42.4	1,837	1,091.8	42.3	1,841	1,149.7	67.3	2,727
J-R10	1005	10.3	1,500	1,092.2	37.7	2,159	1,091.9	37.6	2,180	1,149.7	62.6	3,495
J-R11	999	7.9	1,500	1,092.2	40.3	2,122	1,091.9	40.2	2,148	1,149.7	65.2	3,463
J-R12	995	7.9	1,500	1,092.2	42.0	1,812	1,091.9	41.9	1,820	1,149.7	66.9	2,729
J-R13	996	8.7	1,500	1,092.2	41.6	1,460	1,091.9	41.5	1,462	1,149.7	66.5	2,220
J-R14	996	11.9	1,500	1,092.2	41.6	1,616	1,091.9	41.5	1,620	1,149.7	66.5	2,447
J-R15	998	8.7	1,500	1,092.2	40.7	2,084	1,091.8	40.6	2,114	1,149.7	65.6	3,421
J-R16	1001	11.1	1,500	1,092.1	39.4	2,042	1,091.8	39.3	2,078	1,149.7	64.3	3,377
J-R17	995	11.1	1,500	1,092.1	42.0	1,936	1,091.8	41.9	1,989	1,149.6	66.9	3,270
J-R18	998	6.3	1,500	1,092.1	40.7	1,563	1,091.8	40.6	1,581	1,149.6	65.6	2,461
J-R19	999	11.1	1,500	1,092.1	40.3	1,223	1,091.8	40.1	1,230	1,149.6	65.2	1,930
J-R20	1007	11.1	1,500	1,092.1	36.8	1,795	1,091.7	36.6	1,874	1,149.6	61.7	3,121
J-R21	1005	7.9	1,500	1,092.1	37.7	1,327	1,091.7	37.5	1,352	1,149.6	62.6	2,234
J-R22	996	23.7	1,500	1,092.1	41.6	1,741	1,091.7	41.4	1,834	1,149.6	66.5	3,074
J-R23	989	6.3	1,500	1,092.1	44.6	1,741	1,091.7	44.4	1,833	1,149.6	69.5	2,880
J-R24	1007	7.9	1,500	1,092.1	36.8	1,635	1,091.6	36.6	1,749	1,149.6	61.7	2,954
J-R25	1016	12.6	1,500	1,092.1	32.9	1,026	1,091.6	32.7	1,056	1,149.6	57.8	2,008
J-R26	985	12.6	1,500	1,091.8	46.2	2,344	1,091.6	46.1	2,307	1,149.7	71.3	3,691
J-R27	985	17.4	1,500	1,091.7	46.1	2,369	1,091.5	46.1	2,316	1,149.7	71.3	3,729
J-R28	995	13.4	1,500	1,091.5	41.7	1,747	1,091.4	41.7	1,788	1,149.8	67.0	3,550
J-R29	1005	12.6	1,500	1,091.5	37.4	1,763	1,091.4	37.4	1,803	1,149.7	62.6	3,440
J-R30	1000	26.9	1,500	1,091.5	39.6	1,763	1,091.4	39.6	1,803	1,149.7	64.8	3,420
J-R31	995	0	1,500	1,091.6	41.8	1,803	1,091.5	41.8	1,834	1,149.7	66.9	3,442
J-R32	992	11.1	1,500	1,091.6	43.1	1,778	1,091.5	43.1	1,780	1,149.7	68.2	2,676
J-W1	1004	67.9	1,500	1,090.2	37.3	1,645	1,090.7	37.5	1,755	1,150.2	63.3	3,803
J-W2	990	64.0	1,500	1,089.3	43.0	957	1,090.6	43.5	1,532	1,149.6	69.1	2,438
J-W3	993	80.6	1,500	1,089.1	41.6	764	1,090.7	42.2	1,388	1,149.5	67.7	2,222
J-W4	988	13.4	1,500	1,089.3	43.8	876	1,090.6	44.4	1,183	1,149.6	69.9	1,831
J-W5	996	34.0	1,500	1,090.1	40.7	1,606	1,090.7	41.0	1,765	1,150.4	66.8	3,469
J-W6	1005	61.6	1,500	1,090.3	36.9	1,699	1,090.8	37.1	1,794	1,151.1	63.2	4,263
J-W7	992	27.7	1,500	1,089.9	42.3	753	1,090.7	42.7	1,744	1,150.2	68.4	3,373
J-W8	984	45.8	1,500	1,089.9	45.8	1,036	1,090.6	46.1	1,753	1,150.2	71.9	2,856
J-W9	982	12.6	1,500	1,089.9	46.7	994	1,090.6	47.0	1,334	1,150.2	72.8	2,070
J-W10	1006	0	1,500	1,090.2	36.4	1,527	1,090.7	36.6	1,721	1,150.2	62.4	3,484

**Total** 1550

Target Fire Flow: 1,500 gpm for residential nodes, 3,000 commercial/industrial nodes - nodes with fire flow less than target are highlighted red

Target Pressure: 35 psi - nodes with pressure less than target are highlighted red

SE Corcoran Feed Node Hydraulic Grade Result from Maple Grove Model (ULT MDD - 50 MGD): 1,104.0

Wessel Model Feed Hydraulic Grade (assumed): 1098

**Table 2. Water Distribution System Modeling Results**

Peak Hour Demand

Node	Elevation (ft)	Demand (gpm)	w/o Loops		w/ Loops		w/ Loops, Tower, Booster	
			Hydraulic Grade (ft)	Pressure (psi)	Hydraulic Grade (ft)	Pressure (psi)	Hydraulic Grade (ft)	Pressure (psi)
J-B1	985	86.9	1,093.5	46.9	1,093.4	46.9	1,134.5	64.7
J-B2	992	37.9	1,095.3	44.7	1,095.3	44.7	1,134.6	61.7
J-B3	970	30.0	1,095.7	54.4	1,095.7	54.4	1,134.7	71.3
J-C1	990	0	1,097.4	46.5	1,097.4	46.5	1,098.0	46.7
J-C2	982	0	1,096.4	49.5	1,096.4	49.5	1,134.8	66.1
J-C3	950	0	1,096.1	63.2	1,096.1	63.2	1,134.9	80.0
J-C4	969	600	1,072.6	44.8	1,073.8	45.3	1,139.6	73.8
J-C5	946	0	1,072.5	54.7	1,073.7	55.2	1,139.8	83.8
J-C6	954	0	1,072.0	51.0	1,073.2	51.6	1,140.3	80.6
J-C10	1003	55.3	1,070.3	29.1	1,071.9	29.8	1,135.2	57.2
J-C11	1004	30.0	1,070.8	28.9	1,072.3	29.5	1,149.5	63.0
J-C12	980	0	1,095.5	50.0	1,095.4	49.9	1,134.7	66.9
J-C13	978	0	1,092.7	49.6	1,092.5	49.5	1,134.5	67.7
J-C14	988	0	1,079.9	39.8	1,079.1	39.4	1,133.5	62.9
J-C15	994	82.2	1,095.3	43.8	1,095.3	43.8	1,134.6	60.8
J-C16	990	0	1,078.1	38.1	1,077.2	37.7	1,133.3	62.0
J-C19	1015	174	1,071.7	24.5	1,072.6	24.9	1,134.1	51.5
J-C20	1009	0	1,076.7	29.3	1,075.0	28.6	1,132.9	53.6
J-C22	982	0	1,082.3	43.4	1,083.0	43.7	1,137.7	67.3
J-D1	971	28.1	1,071.9	43.7	1,073.2	44.2	1,141.3	73.7
J-D2	971	0	1,071.9	43.7	1,073.2	44.2	1,141.3	73.7
J-D3	973	28.4	1,071.7	42.7	1,073.0	43.3	1,142.0	73.1
J-D4	955	24.6	1,071.7	50.5	1,073.0	51.0	1,141.0	80.5
J-D5	965	316	1,071.7	46.2	1,073.0	46.7	1,140.6	76.0
J-D6	973	22.8	1,071.5	42.6	1,072.8	43.2	1,144.9	74.4
J-D7	976	20.3	1,071.5	41.3	1,072.8	41.9	1,144.9	73.1
J-D8	978	35.9	1,071.3	40.4	1,072.7	41.0	1,147.8	73.5
J-D9	975	24.6	1,071.3	41.7	1,072.7	42.3	1,147.8	74.8
J-D10	980	18.4	1,071.0	39.4	1,072.5	40.0	1,153.6	75.1
J-R1	988	15.8	1,077.6	38.8	1,076.6	38.4	1,133.3	62.9
J-R2	994	12.6	1,077.2	36.0	1,076.2	35.6	1,133.3	60.3
J-R3	984	31.6	1,077.0	40.2	1,076.0	39.8	1,133.3	64.6
J-R4	990	34.8	1,077.8	38.0	1,076.9	37.6	1,133.3	62.0
J-R5	986	20.5	1,076.5	39.2	1,075.7	38.8	1,133.3	63.7
J-R6	994	0	1,076.6	35.7	1,075.6	35.3	1,133.2	60.2
J-R7	991	15.8	1,076.6	37.0	1,075.6	36.6	1,133.2	61.5
J-R8	997	0	1,076.7	34.5	1,075.6	34.0	1,133.1	58.9
J-R9	994	20.5	1,076.7	35.8	1,075.6	35.3	1,133.1	60.2
J-R10	1005	20.5	1,077.0	31.2	1,075.9	30.7	1,133.2	55.5
J-R11	999	15.8	1,076.9	33.7	1,075.8	33.2	1,133.1	58.0
J-R12	995	15.8	1,076.9	35.4	1,075.8	35.0	1,133.1	59.7
J-R13	996	17.4	1,076.9	35.0	1,075.8	34.5	1,133.1	59.3
J-R14	996	23.7	1,076.9	35.0	1,075.8	34.5	1,133.1	59.3
J-R15	998	17.4	1,076.9	34.1	1,075.7	33.6	1,133.1	58.5
J-R16	1001	22.1	1,076.8	32.8	1,075.6	32.3	1,133.1	57.1
J-R17	995	22.1	1,076.8	35.4	1,075.5	34.8	1,133.0	59.7
J-R18	998	12.6	1,076.8	34.1	1,075.4	33.5	1,133.0	58.4
J-R19	999	22.1	1,076.7	33.6	1,075.4	33.1	1,133.0	58.0
J-R20	1007	22.1	1,076.7	30.2	1,075.3	29.5	1,133.0	54.5
J-R21	1005	15.8	1,076.7	31.0	1,075.3	30.4	1,133.0	55.4
J-R22	996	47.4	1,076.7	34.9	1,075.2	34.3	1,132.9	59.2
J-R23	989	12.6	1,076.7	38.0	1,075.2	37.3	1,132.9	62.3
J-R24	1007	15.8	1,076.7	30.2	1,075.1	29.4	1,132.9	54.5
J-R25	1016	25.3	1,076.7	26.3	1,075.1	25.5	1,132.9	50.6
J-R26	985	25.3	1,075.6	39.2	1,075.0	38.9	1,133.3	64.2
J-R27	985	34.8	1,075.1	39.0	1,074.7	38.8	1,133.4	64.2
J-R28	995	26.9	1,074.4	34.4	1,074.2	34.3	1,133.4	59.9
J-R29	1005	25.3	1,074.5	30.1	1,074.3	30.0	1,133.4	55.6
J-R30	1000	53.7	1,074.5	32.2	1,074.3	32.1	1,133.4	57.7
J-R31	995	0	1,074.9	34.6	1,074.6	34.4	1,133.4	59.9
J-R32	992	22.1	1,074.9	35.9	1,074.6	35.7	1,133.4	61.2
J-W1	1004	136	1,069.7	28.4	1,071.6	29.3	1,135.1	56.7
J-W2	990	128	1,066.6	33.1	1,071.3	35.2	1,132.9	61.8
J-W3	993	161	1,065.9	31.5	1,071.5	33.9	1,132.6	60.4
J-W4	988	26.9	1,066.5	34.0	1,071.3	36.0	1,132.9	62.7
J-W5	996	67.9	1,069.6	31.8	1,071.6	32.7	1,135.6	60.4
J-W6	1005	123	1,070.3	28.2	1,071.9	28.9	1,138.2	57.6
J-W7	992	55.3	1,068.6	33.1	1,071.5	34.4	1,135.1	61.9
J-W8	984	91.6	1,068.7	36.7	1,071.4	37.8	1,135.1	65.4
J-W9	982	25.3	1,068.7	37.5	1,071.4	38.7	1,135.1	66.2
J-W10	1006	0	1,069.7	27.6	1,071.6	28.4	1,135.1	55.8
<b>Total</b>		<b>3099</b>						

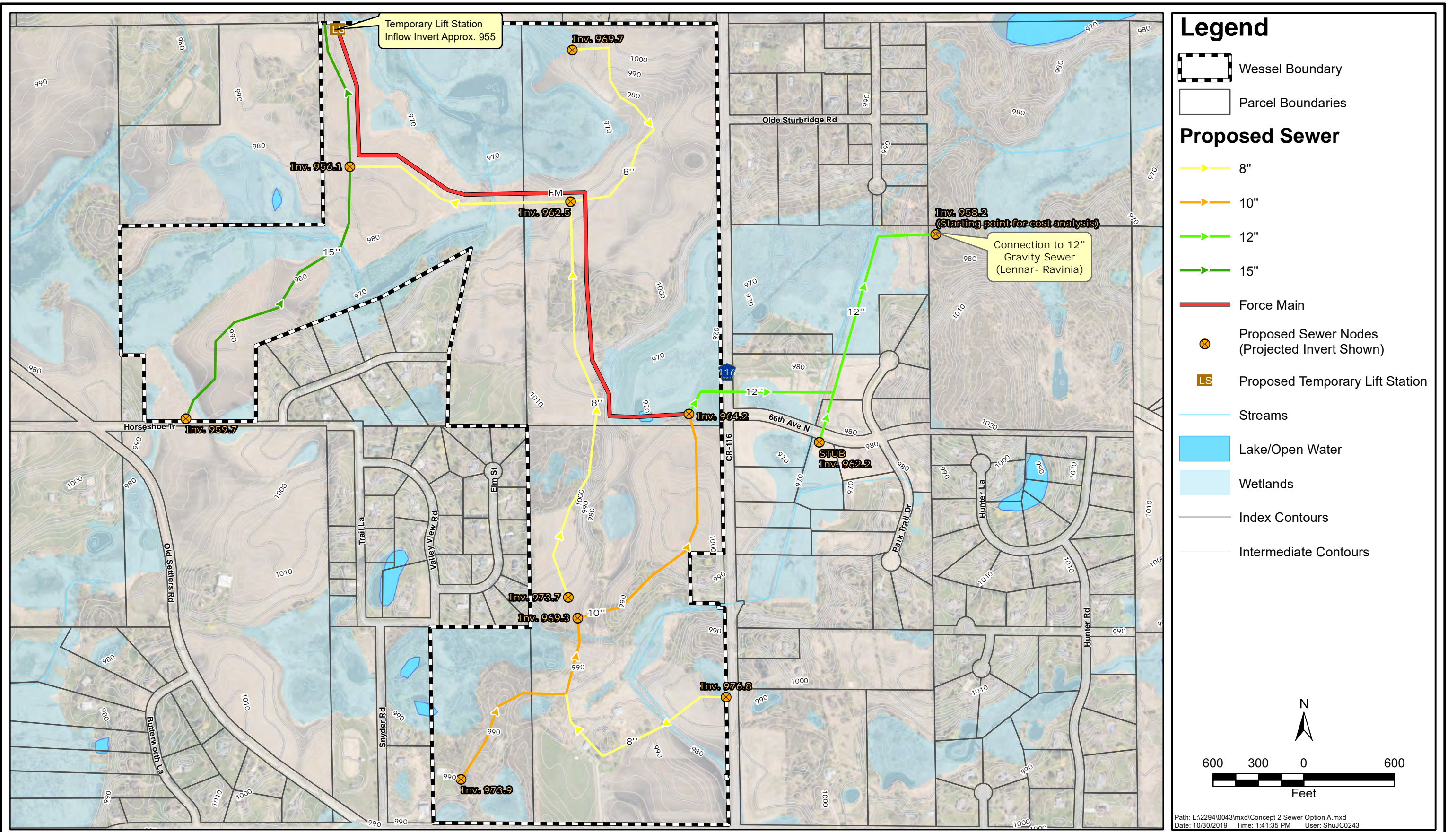
Target Pressure: 35 psi - nodes with pressure less than target are highlighted red

SE Corcoran Feed Node Hydraulic Grade Result from Maple Grove Model (ULT MDD - 50 MGD):

1,101.0

Wessel Model Feed Hydraulic Grade (assumed): 1098

- 1 Sewer Option A
- 2 Water Model Pipe Network
- 3 Average Day Pressure (without Loops)
- 4 Peak Hour (without Loops)
- 5 Available Fire Flow (without Loops)
- 6 Average Day Pressure (with Loops & Future Tower/Booster)
- 7 Peak Hour Pressure (with Loops & Future Tower/Booster)
- 8 Available Fire Flow (with Loops & Future Tower/Booster)



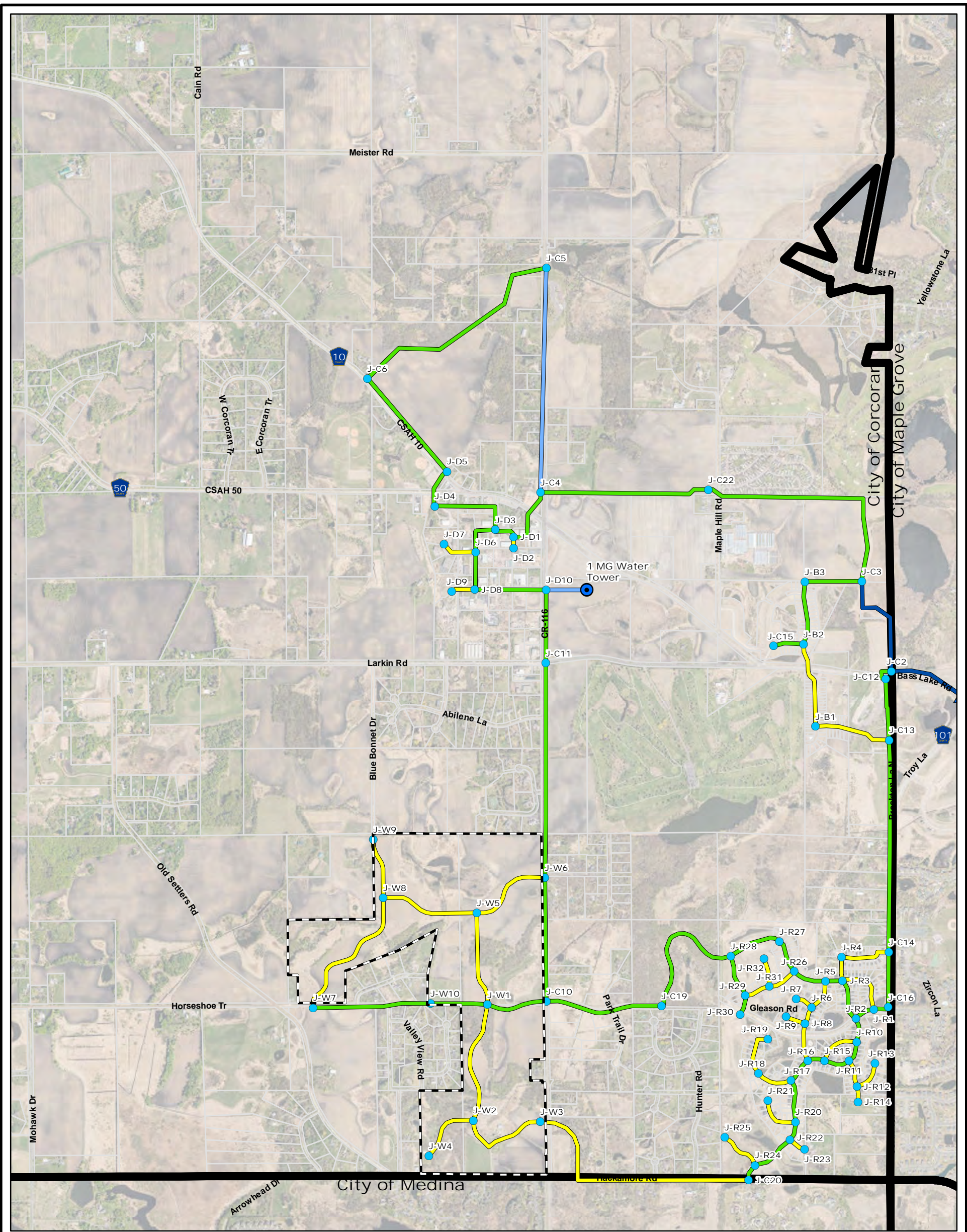
- ### Legend
- Wessel Boundary
  - Parcel Boundaries
  - Proposed Sewer**
  - 8"
  - 10"
  - 12"
  - 15"
  - Force Main
  - Proposed Sewer Nodes (Projected Invert Shown)
  - Proposed Temporary Lift Station
  - Streams
  - Lake/Open Water
  - Wetlands
  - Index Contours
  - Intermediate Contours

N

600 300 0 600

Feet

Path: L:\2294\0043\mxd\Concept 2 Sewer Option A.mxd  
Date: 10/30/2019 Time: 1:41:35 PM User: ShuJCO243



**Legend**

Municipal Boundary	Pipe Nodes	8"
Wessel Development	Booster Pump Station	12"
Parcel Boundary	1 MG Water Tower	16"
		24"

1,200 600 0 1,200 Feet

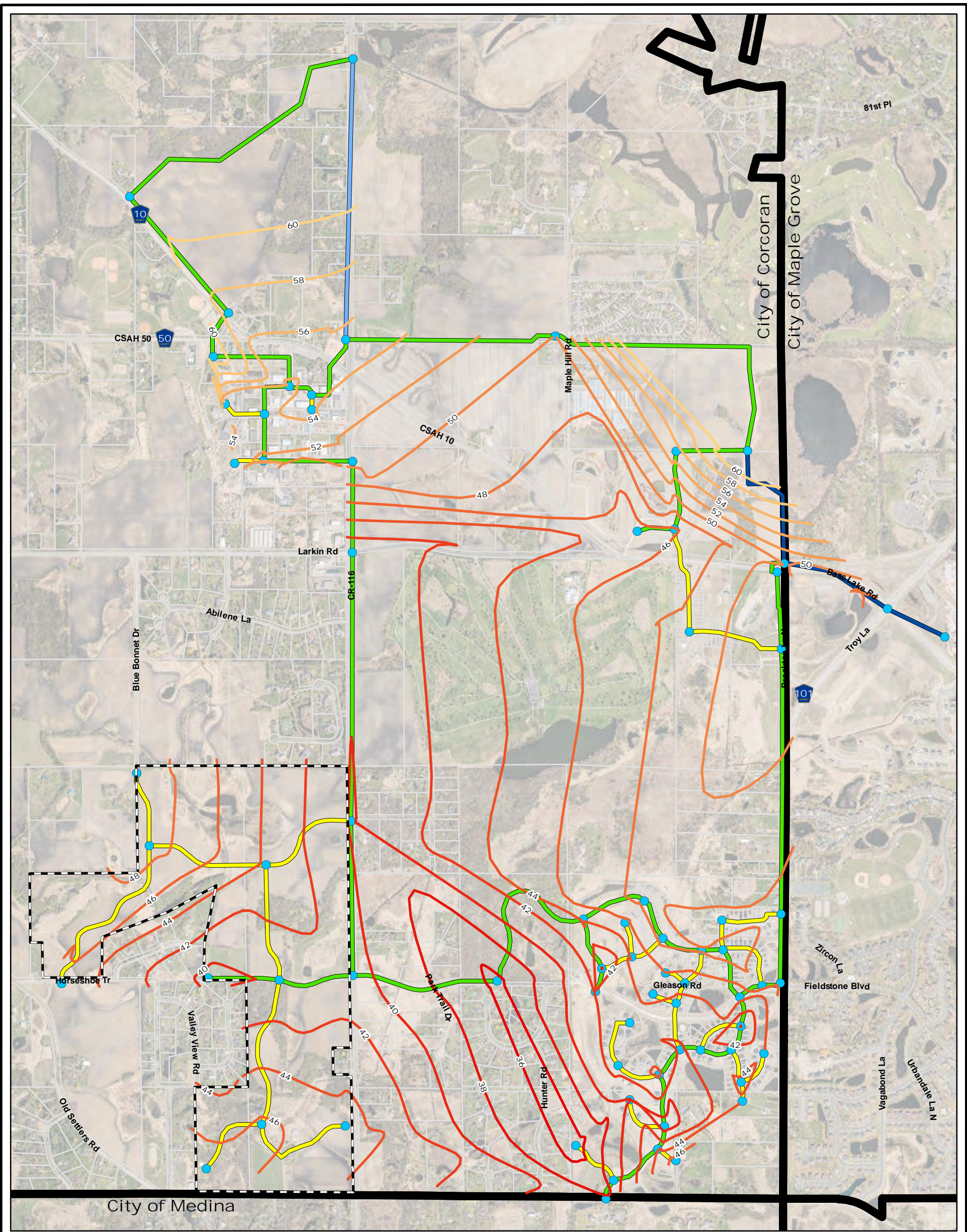
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Date: 10/30/2019 Time: 11:11:27 AM User: ShuJC0243

CITY OF CORCORAN - WESSEL DEVELOPMENT  
Water Model Pipe Network



OCT 2019  
Figure 2





Note: Contour values away from node locations are not necessarily accurate

**Legend**

- Municipal Boundary
- Parcel Boundary
- Wessel Development
- Pipe Nodes

**Pipe Network Average Day Pressure (PSI)**

- 8" (Yellow)
- 12" (Green)
- 16" (Light Blue)
- 24" (Dark Blue)

40	48	56
42	50	58
44	52	60
46	54	

1,200 600 0 1,200 Feet

Path: L:\2294\0043\mxd\Concept 2 Average Day Pressure (without Hackamore Loop).mxd  
Date: 10/30/2019 Time: 1:26:58 PM User: ShuJC0243

CITY OF CORCORAN - WESSEL DEVELOPMENT

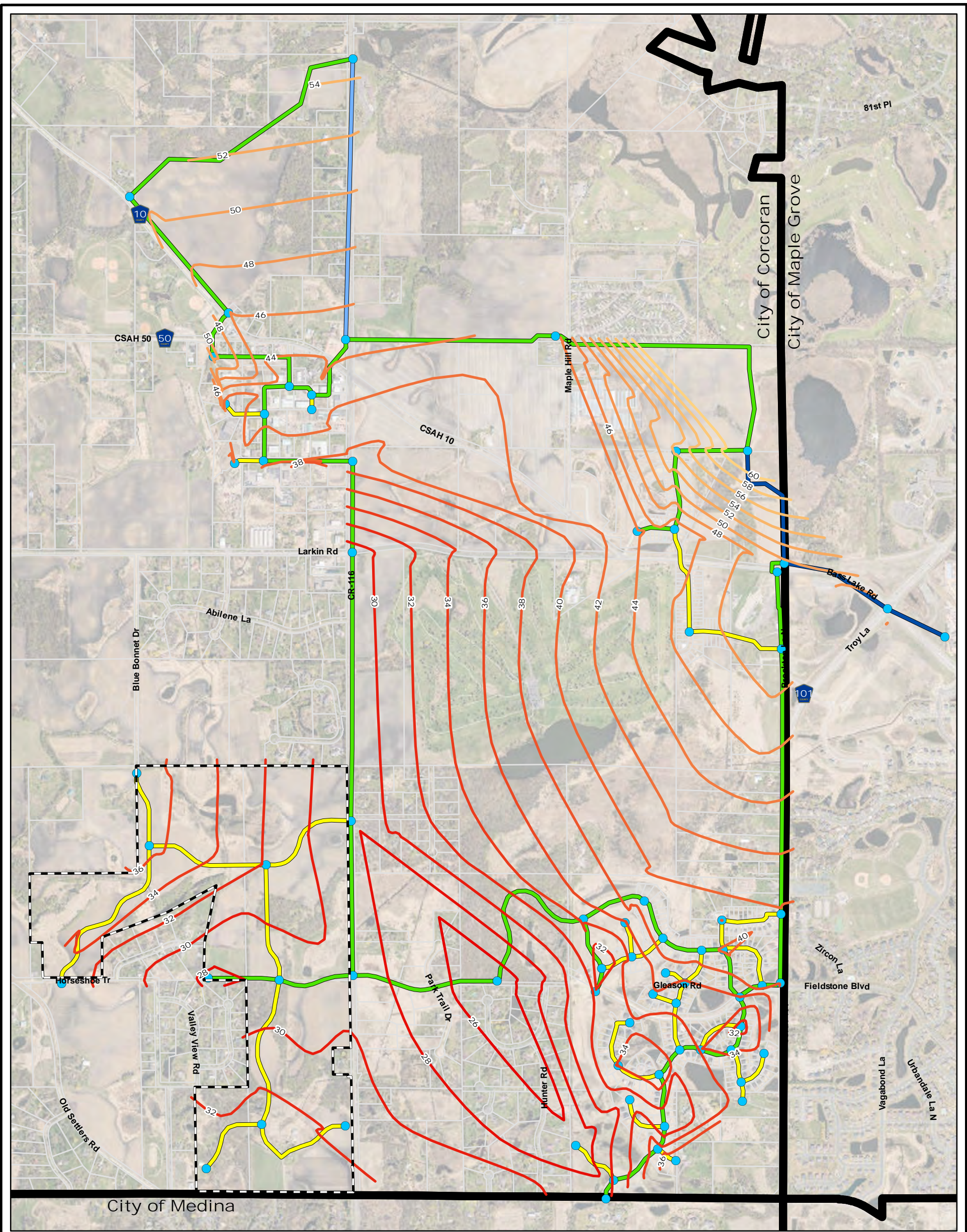
Average Day Pressure (without Loops)



Responsive partner. Exceptional outcomes.

OCT 2019

Figure 3



Note: Contour values away from node locations are not necessarily accurate

**Legend**

- Municipal Boundary
- Parcel Boundary
- Wessel Development
- Pipe Nodes

**Pipe Network Peak Hour Pressure (PSI)**

8"	12"	16"	24"	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
----	-----	-----	-----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

1,200 600 0 1,200 Feet

Path: L:\2294\0043\mxd\Concept 2 Peak Hour Pressure (without Hackamore Loop).mxd  
Date: 10/30/2019 Time: 1:29:14 PM User: Shu,JC0243

CITY OF CORCORAN - WESSEL DEVELOPMENT

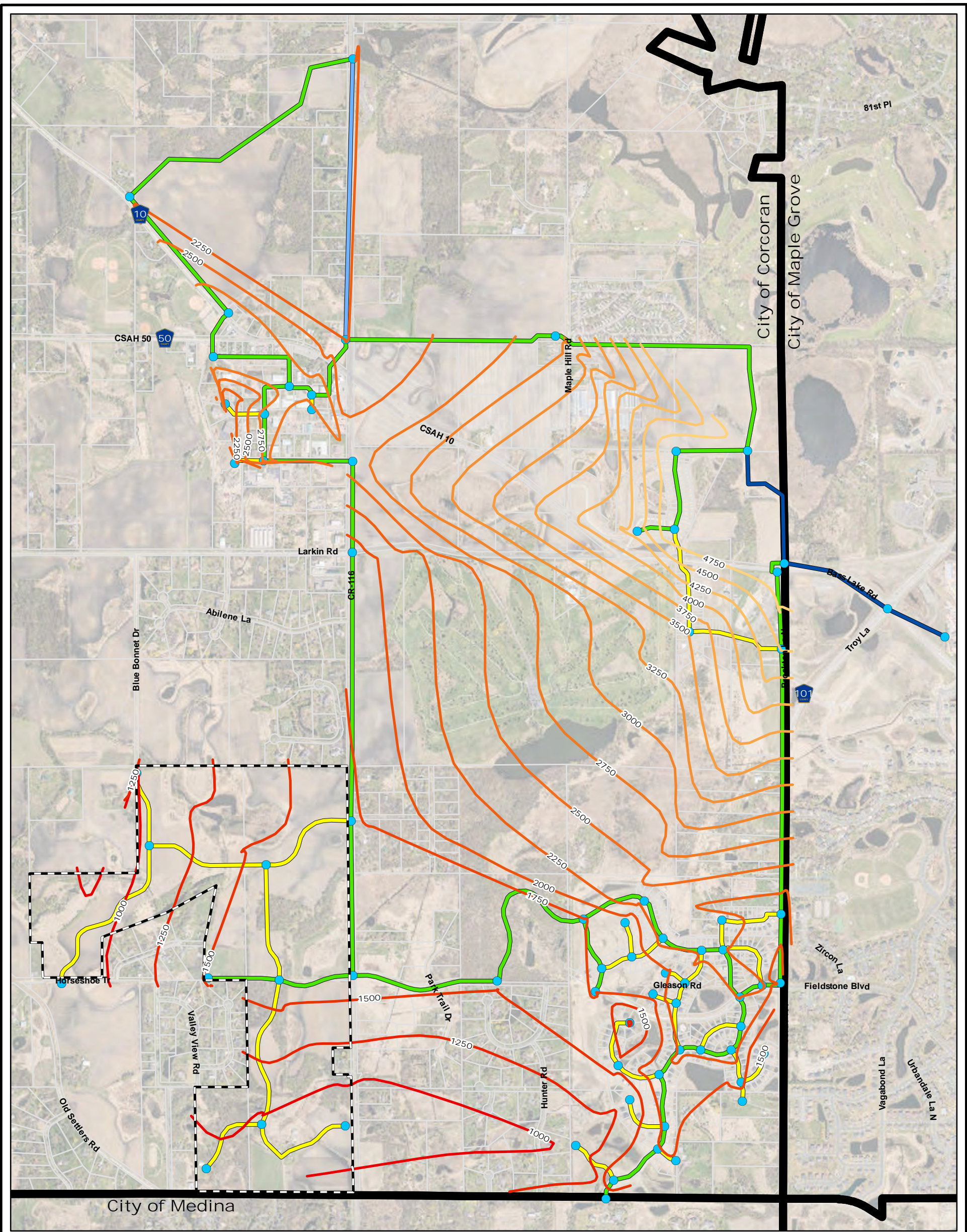
Peak Hour Pressure (without Loops)



Responsive partner. Exceptional outcomes.

OCT 2019

Figure 4



Note: Contour values away from node locations are not necessarily accurate

1,200 600 0 1,200 Feet

Path: L:\2294\0043\mxd\Concept 2 Available Fire Flow (without Hackamore Loop).mxd  
Date: 10/30/2019 Time: 1:25:05 PM User: ShuJC0243

**Legend**

- Municipal Boundary
- Parcel Boundary
- Wessel Development
- Pipe Nodes

**Pipe Network Available Fire Flow (GPM)**

Pipe Size	Available Fire Flow (GPM)
8"	2000
12"	2250
16"	2500
24"	2750
	3000
	3250
	3500
	3750
	4000
	4250
	4500
	4750

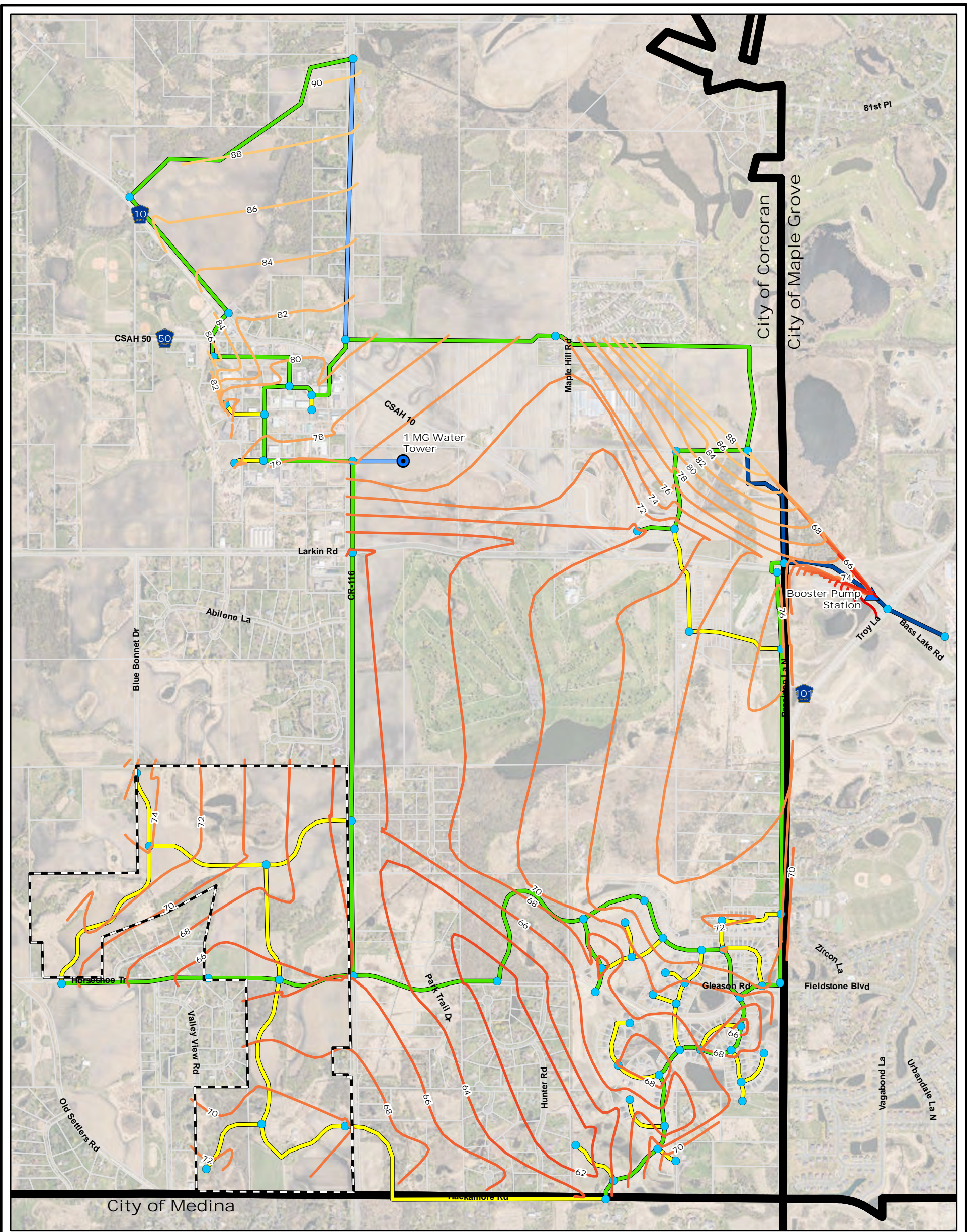
CITY OF CORCORAN - WESSEL DEVELOPMENT

Available Fire Flow (without Loops)



OCT 2019

Figure 5



**Legend**

- Municipal Boundary
- Parcel Boundary
- Wessel Development
- Pipe Nodes
- Booster Pump Station
- 1 MG Water Tower

**Pipe Network Average Day Pressure (PSI)**

8"	50	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90
12"	52	54	56															
16"																		
24"																		

Note: Contour values away from node locations are not necessarily accurate

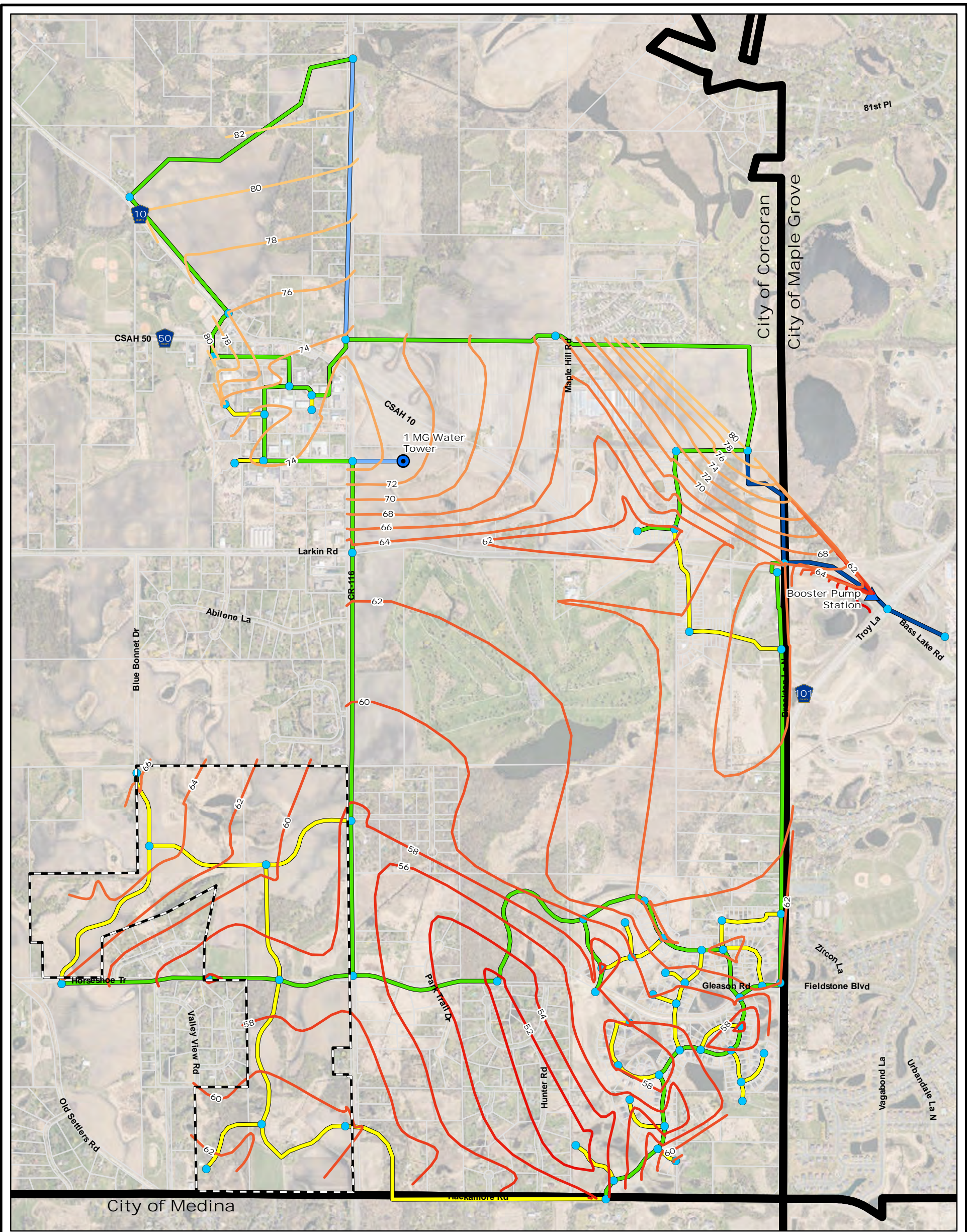
1,200 600 0 1,200 Feet

Path: L:\2294\0043\mxd\Concept 2 Average Day Pressure (with Future Tower Booster).mxd  
Date: 10/30/2019 Time: 1:26:18 PM User: ShuJC0243

**CITY OF CORCORAN - WESSEL DEVELOPMENT**  
Average Day Pressure  
(with Loops and Future Tower Booster)



OCT 2019  
Figure 6



**Legend**

- Municipal Boundary
- Parcel Boundary
- Wessel Development
- Pipe Nodes
- Booster Pump Station
- 1 MG Water Tower

**Pipe Network Peak Hour Pressure (PSI)**

8"	50	66	76
12"	52	68	78
16"	54	70	80
24"		72	82
		64	74

Note: Contour values away from node locations are not necessarily accurate

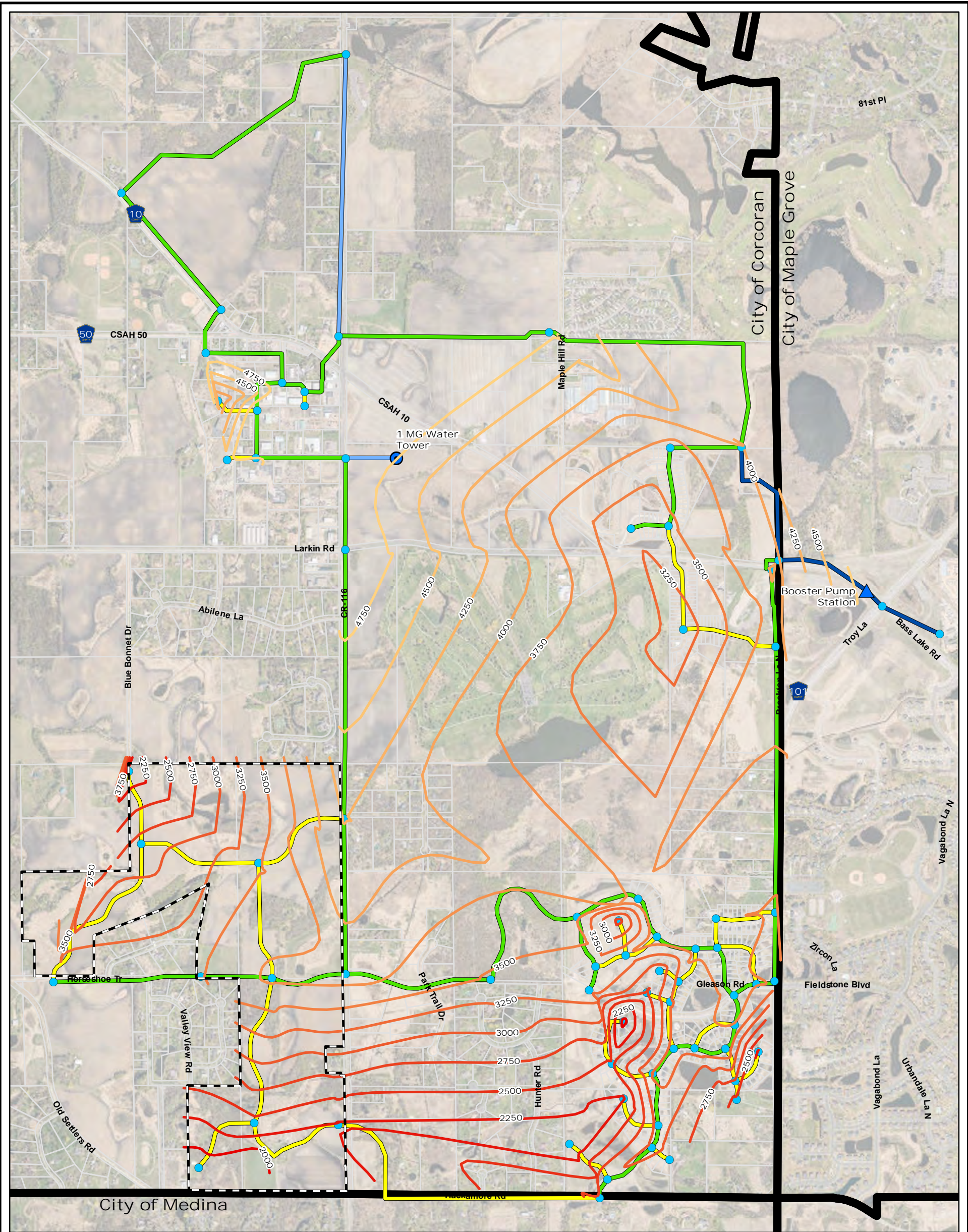
1,200 600 0 1,200 Feet

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Date: 10/30/2019 Time: 1:29:36 PM User: Shu.JC0243

CITY OF CORCORAN - WESSEL DEVELOPMENT  
Peak Hour Pressure  
(with Loops and Future Tower Booster)



OCT 2019  
Figure 7



Note: Contour values away from node locations are not necessarily accurate

1,200 600 0 1,200 Feet

Path: L:\2294\0043\mxd\Concept 2 Available Fire Flow (with Future Tower Booster).mxd  
Date: 10/30/2019 Time: 1:24:47 PM User: ShuJC0243

### Legend

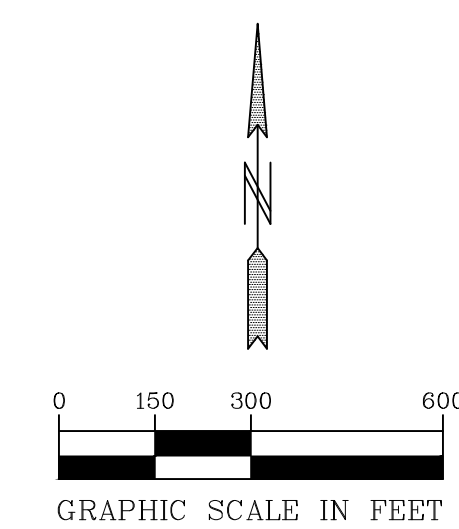
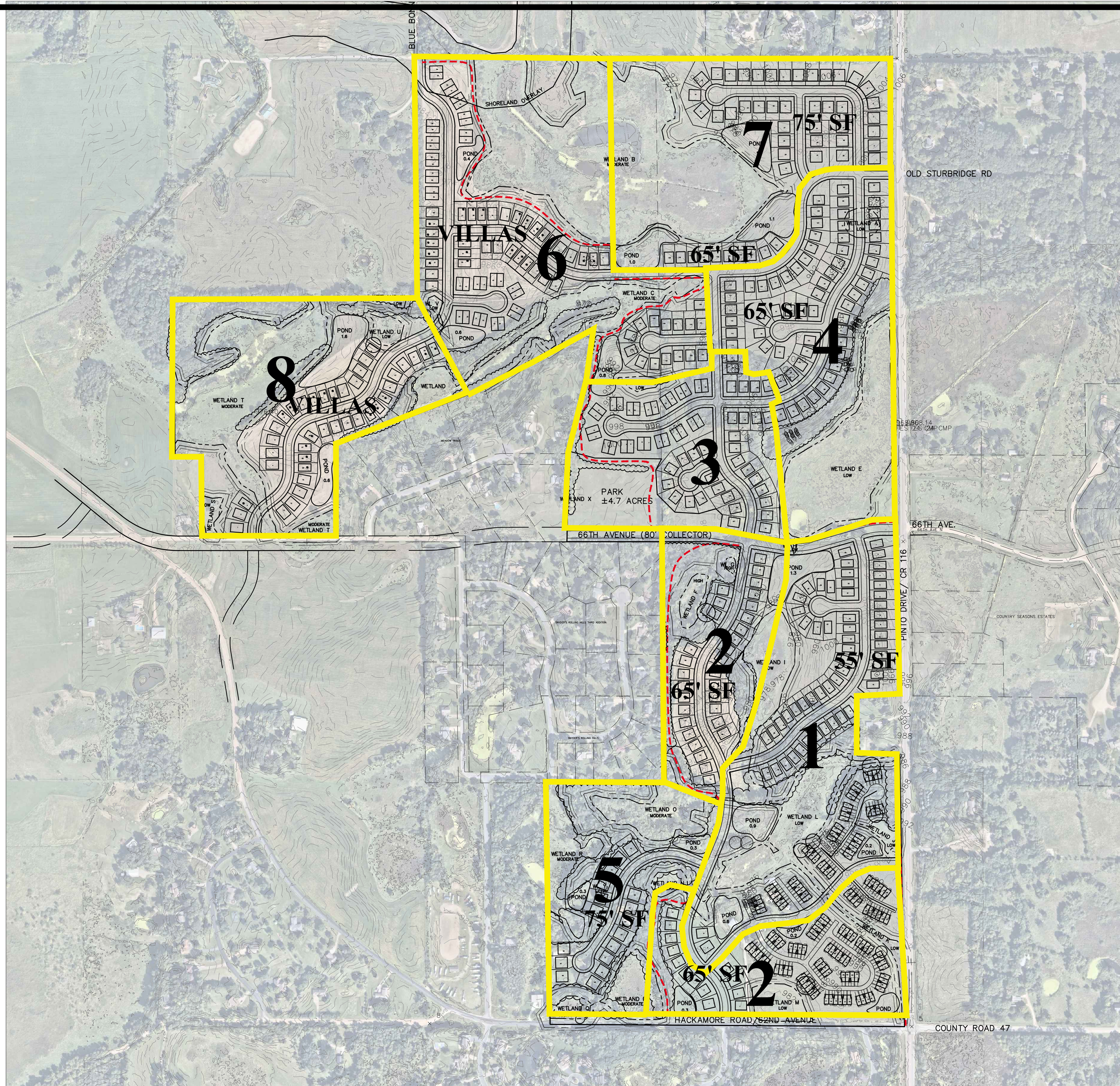
	Municipal Boundary	<b>Pipe Network</b>	<b>Available Fire Flow (GPM)</b>		
	Parcel Boundary				
	Wessel Development				
	Pipe Nodes				
	Booster Pump Station				
	1 MG Water Tower				

CITY OF CORCORAN - WESSEL DEVELOPMENT  
Available Fire Flow  
(with Loops and Future Tower Booster)



OCT 2019  
Figure 8

Preliminary Phasing Plan for Development





Stormwater Modeling Guidelines



## Stormwater Guidelines for Development March 2019

### Issue

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Cities changing from rural to urban development are challenged by the additional stormwater generated due to construction of impervious surfaces, along with the offsite infrastructure, or lack thereof, to manage effectively. To standardize the modeling and review process, the guidelines below were created for efficiency.

Note: A watershed approval is required per Elm Creek WMO rules, which also reviews flow rates, water quality and volume management.

### Modeling

---

#### Watershed Information

- Provide an aerial photo of the development that includes the overall watershed and subwatershed boundaries
- Provide a summary of the acreage to each discharge point leaving the site. Any increase (or decrease) shall be identified.
- Show any floodplain adjacent to project or within the project
- Show downstream water bodies and flow paths
  - Downstream flow paths and water bodies typically need to have elevations, inverts, and condition identified.

#### Subwatersheds

A HydroCAD model (typically used) has inputs that can vary by user. To minimize resubmittals, review time and effort, the following data shall be utilized.

- Electronic model shall be submitted
- Hydrologic Soil Group (HSG) shall be lowered one category due to the mass grading and compaction of the soils. For example, an existing B soil, shall be modeled as a proposed C soil (unless it remains undisturbed)
- Wetlands, filtration basins, and ponds shall be modeled at CN of 98
- Identify peak rates for storm events and proposed shall be equal or less than existing rates.
  - Note: There are certain conditions where at City's discretion the off-site conditions require a reduction in flow rate from existing rates.
- SWMM (i.e. EPA-, XP-, or PC-) models can be submitted for review, however these increase review time.

#### Model Setup for Outlet Control Structures, NWLs and Infiltration

- The model's flow control structures (OCS, culverts, etc.) shall match the construction plan information. During the plan and model review both may be modified and revised
- Individual detail plates are required for each OCS, and individual plates shall have inverts identified
- A pond or wetland NWL (and model starting elevation) shall be set at the constructed outlet control elevation.
  - No live storage shall be utilized below the controlling OCS elevation.
  - No live storage shall be used for filtration shelves on ponds below controlling OCS elevation

- If a pond or wetland has an NWL (wet surface), infiltration shall not be used in flood routing.
- If a pond has filtration BMP causing drawdown below the NWL, this drawdown elevation shall not be used as the NWL for flood routing. (Filtration has a slower release time and during wet periods is not available as live storage).

## Construction Plans

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### Catch Basins

- Street drainage shall be sufficient to manage the 10-year event
- Typical a CB inlet capacity is 2 to 2.5 CFS, and CBs shall be spaced accordingly
- Three inches (0.25 feet) of head on a CB will inundate a street centerline (2% slope).
- Spacing is 200 to 250 feet using longitudinal street dimensions of 40 feet from road centerline to half the house footprint (assumes rear half of house drains to rear yard). Dimensions equal 10,000 SF.
- CBs may be required on both sides of ped ramps to capture flows

### Natural Drainage Features

- Waterbodies receiving urban drainage (wetlands, ditches, gullies) may need to have OCS installed, erosion protection, or reduced flow rates to allow the feature to function over the long term due to more consistent flows from increased impervious via development
- Offsite work may be necessary and City will assist with coordination, easements, etc.

### HWLs and EOFs

- The freeboard requirements are:
  - Low Opening is a minimum of two feet above the HWL
  - Low Opening is a minimum of two feet above the EOF
- EOFs shall be accurately shown and as built are required. The highest point shall be the EOF (for example top of curb) since this is the controlling elevation
  - In certain instances, channel calculations of the swale may be required to show the EOF has capacity to manage estimated flow
- Overland EOFs are preferred, however if a second pipe serves as an EOF then modeling will include a 100-year event using the second pipe (EOF) as the only outlet (primary outlet plugged).

### Rear Yards

- Rear yards or swales less than 2% shall have draintile. Typically, every two to three lots will require rear yard CBs.

### Sump Connections

- Houses adjoining a wetland or pond do not need individual sump connection
- Others will have access to rear yard stormsewer.

## Offsite Impacts

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### Adjacent Parcels

- City will review adjacent parcels (downstream and upstream) for impacts from volume, point discharge, etc. and may require off site improvements. City will assist in coordination of any off site work.
- Off site water quality improvement projects may be determined by the City for assistance with compliance with City's TMDL approach of implementing improvements upon development.
- FEMA modifications may be necessary due to development and implemented by City.





## CITY OF CORCORAN

8200 County Road 116, Corcoran, MN 55340

763.420.2288

E-mail - [general@ci.corcoran.mn.us](mailto:general@ci.corcoran.mn.us) / Web Site - [www.ci.corcoran.mn.us](http://www.ci.corcoran.mn.us)

# Memo

**To:** Planning (Planner Lindahl)  
**From:** Director Gottschalk  
**Date:** May 7, 2020  
**Re:** Tavera Plan Review

---

A Public Safety plan review meeting was held on 05/06/2020. In attendance were: Director of Public Safety Gottschalk, Lieutenant Ryan Burns, Fire Chief Feist, Fire Chief Dave Malewicki, Fire Chief Leuer, Building Inspector Todd Geske, and Code Compliance Official Pritchard. The following are comments from the meeting:

1. In this plan, the private roads will be serving as fire apparatus roads which will require that specific construction requirements are met, and that parking will be restricted. This also raises some public safety concerns as it relates to availability of visitor parking and snow removal and storage feasibility for the association (as it relates to maintaining hydrant access, driveway access, necessary passable roadway width, and sight lines). As the project progresses, public safety will need additional detail for the private roads, including planned hydrant locations.
2. For the larger structures, demonstration of the 300 ft. hose pull access (for non-sprinkled structures) and 150 ft. hose pull access (for sprinkled structures) will need to be demonstrated.
3. Structure proximity in several locations could trigger increased building code requirements based on the small setbacks.
4. Public safety recommends exploring an emergency access option on the northwest cul-de-sac.

This memo serves as a preliminary review and assumes that all specifications not articulated in the concept meet City standards. Additional fire and building codes will apply.

## Kendra Lindahl, AICP

---

**From:** Jason D Gottfried <Jason.Gottfried@hennepin.us>  
**Sent:** Wednesday, May 6, 2020 2:20 PM  
**To:** Kendra Lindahl, AICP  
**Cc:** Michael Pritchard; Kevin Mattson  
**Subject:** RE: [External] Project Distribution #20-017 - Tavera Preliminary Plat/PUD

Hello Kendra, et al,

Hope all is well with you and the Corcoran team

I was able to discuss the Tavera plat proposal at our latest plat review committee on Tuesday (May 5<sup>th</sup>) and we offer the following preliminary comments for your consideration:

- As previously indicated, both a southbound right and northbound left turn lane will be required at Horseshoe Trail. The design will again need to be formally reviewed by our staff during the permitting process, similar to how the east side of the intersection (66<sup>th</sup> Ave) was recently coordinated with Wenck.
- A southbound right turn lane will also be necessary at 62<sup>nd</sup> Avenue/Hackamore Rd to serve the additional trips. Further coordination will be necessary as we understand this may be provided through the upcoming Hackamore Rd improvements. Our staff is continuing to review a potential cost participation for the necessary signal replacement both here and at Hackamore Rd/CSAH 101.
- We will be seeking 60' half right-of-way dedication for our long range needs of the 2 lane with ditch drainage section of County Road 116 and the likely addition of an off-road trail at some point. Additional right-of-way will likely be necessary for to accommodate the turn lanes at the intersection approaches.
- In order to maintain adequate intersection sight distance and space for signal infrastructure, we request ROW dedication of 25' x 25' triangles at both intersections (66<sup>th</sup> and 62<sup>nd</sup>). We recognize there may be long term potential for a signal @ 66<sup>th</sup>/Horseshoe Trail should it meet warrants and the signal priority factor.
- We believe an off-road trail along County Road 116 should be prioritized as an amenity for the significant amount of new residents here and would connect with the existing trail to the south. We welcome further discussion between the developer, city staff, and potentially with Three Rivers Parks District given their planned Diamond Lake Regional Trail being aligned closely within this proximity.
- Thinking long term, especially with potential for a trail, we are open to consideration of a raised median between Horseshoe Trail and 66th Avenue should there be interest at the city('s) level. This could perhaps be incorporated into the intersection design.
- We need to collectively ensure the proposed drainage structures (ponds, basin) will allow for adequate ROW/setback from County Road 116 and our proposed ROW/turn lanes/trail/ditch drainage. Our stormwater staff is currently reviewing.
- Please also ensure existing culverts and their drainage flow underneath County Road 116 would be sufficiently covered by ROW/easements.
- Finally, we are curious if internal street connections were / could be considered to neighboring subdivisions such as Oak Ridge Rd? This would optimize mail, school bus routes etc and possibly increase potential for a future signal at Horseshoe Trail/66<sup>th</sup> Ave.

This is of course is a lot to consider for this ambitious project. We certainly welcome additional discussion (teams mtg?) to better synergize some of these items. It may prudent to walk through these items prior to submitting our more formal comment letter in the coming weeks. In the mean time I will begin drafting out letter in hopes of submitting by May 21<sup>st</sup> as requested.

Again thank you for your consideration on these many items, we look forward to further coordination

Jason

## Jason Gottfried

Transportation Planner  
Transportation Planning

Office: 612-596-0394  
jason.gottfried@hennepin.us  
Hennepin County Public Works  
1600 Prairie Drive  
Medina, MN 55340

---

**From:** Michael Pritchard <MPritchard@ci.corcoran.mn.us>  
**Sent:** Wednesday, April 29, 2020 3:08 PM  
**To:** Kendra Lindahl <klindahl@landform.net>; Kevin Mattson <kmattson@ci.corcoran.mn.us>; Kent Torve <ktorve@wenck.com>; mgottschalk@ci.corcoran.mn.us; rburns@ci.corcoran.mn.us; 'Jason A Swenson' <Jason.Swenson@hennepin.us>; Todd Geske <tg.metrowest@gmail.com>; lfdch1@gmail.com; kate.drewry@state.mn.us; Jason D Gottfried <Jason.Gottfried@hennepin.us>  
**Subject:** [External] Project Distribution #20-017 - Tavera Preliminary Plat/PUD

Please find the link below for distribution of project #20-017. This project is tentatively scheduled for Planning Commission review on June 4, 2020. We ask that you please provide comments no later than May 21, 2020.

<https://www.dropbox.com/sh/iy2w79qb8jyrv/AAAMEQrm0sSwPpQqJCcTfmp7a?dl=0>

Please refer questions to: City Planner Kendra Lindahl [klindahl@landform.net](mailto:klindahl@landform.net).

Thank you,

**Mike Pritchard**  
**Code Compliance Official**  
*Zoning, Code Enforcement, Permits*

*City of Corcoran*  
*8200 Co Rd 116*  
*Corcoran, MN 55340*  
*Direct Line 763-400-7033*  
[mpritchard@ci.corcoran.mn.us](mailto:mpritchard@ci.corcoran.mn.us)

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April 21, 2020

Kendra Lindahl, AICP  
City Planner  
City of Corcoran  
8200 County Road 116  
Corcoran MN 55340

RE: Tavera Preliminary Plat and PUD proposal

Dear Kendra:

Lennar is pleased to submit this application for a Rezone, PUD, Preliminary Plat, and grading permit for a 549-home community located at the corner of HWY 116 and HWY 47 (Hackamore Road) in Corcoran. The properties that make up the proposed community are currently used as vacant or agricultural land with some residential and agricultural buildings located on them. The parcels are zoned Urban Reserve and are guided for low density residential growth in the City's Comprehensive Plan. The community will be named Tavera and is planned to be developed in approximately 10 phases. Four types of housing are proposed with varying floorplans and options introducing a true "aging in place" housing opportunity in the City of Corcoran.

### **Home Types**

Tavera will provide additional lifecycle housing opportunities within the City of Corcoran. Home styles proposed are intended to supplement what is already being constructed in Corcoran, as well as the northwest area of the Twin Cities Metro. A brief description of each home type is below:

**Liberty Townhomes** – These townhomes are approximately 1700 -1800 square feet in size, feature 3 bedrooms, 3 bathrooms, a 2-car garage and potential slab on grade or walkout or lookout basement configurations. Liberty townhomes are designed to attract young professionals, young families, potential divorcees or active adults that may not want a villa home. They will provide another homestyle currently not offered within the city and are intended to provide a more attainable housing choice, expanding upon the "age in place" housing options within the community. An association will be formed for exterior maintenance on units, as well as snow removal and common landscape maintenance. City officials can visit these townhomes in our Rush Creek Commons community, located in Maple Grove.

**Twinhomes** – Lennar is proposing a newly designed twin home that is not garage forward and has an entrance on the front of the home. The twin homes will be association maintained and intended for the active adult or "empty nester" segment of the market. Floorplans are approximately 1600 square feet and



include 2 bedrooms and 2 bathrooms on the main floor with a spacious kitchen/dining area and family room. A basement may be included with optional finishes that include a recreation room, additional bedroom and bathroom, and a storage area. These Twinhomes could provide an attractive main floor living home with a lower price point than the Villa homes.

**Villa Homes** – Similar to what was approved in Ravinia, these homes are targeted towards active adults or empty nesters. Floorplans range from approximately 1600 to 1800 square feet and incorporate 2-car, 3-car, basement and slab on grade offerings. 3 bedrooms and 2 bathrooms are offered in a typical floorplan. An association will be formed for landscape and snow removal service.

**Single Family homes** – Lennar has significantly diversified our single-family home offerings. As was discussed at the concept plan review in September, Lennar is proposing a variety of single-family homes. These homes vary in size and configuration and are intended to appeal to young families or couples, as well as first and second time move-up buyers and more established families. They are available in traditional two story and single level floorplans with walkouts, lookouts, and full basements. Square footages range from approximately 2,000 square feet up to 3,700 square feet, depending on the chosen floorplan and options. Floorplans include 3+ bedrooms, 2+ bathrooms, and 2 and 3-car garages, as well as varying basement finishes or options.

All architectural materials, colors, textures, and accents on all elevations are designed to provide some design variation while also visually unifying the neighborhood, similar to Ravinia.

### **Community Benefits**

The primary PUD request from Lennar is relaxation of the City's conventional zoning & development regulations for this challenging piece of property, primarily for lot sizes and setbacks. Proposed development regulations are included on site plan pages in the planset. In exchange for this flexibility, Lennar wishes to offer the following community benefits that will benefit Tavera as well as the City of Corcoran:

**Enhanced Landscape/buffering** – Landscaping is proposed that exceeds minimum city requirements for homesites and buffer areas. Enhanced landscaping and screening provide privacy against the Oak Ridge neighborhood to the north. Screening is also provided along Hackamore for proposed townhomes along the southern border of the community. A landscape buffer is included along CR-116 within the 60-foot setback area. All three buffer and screening areas utilize coniferous and hardwood species and are intended to replace some of proposed tree removals onsite. Over 900 trees are proposed throughout the community to screen and soften the appearance of hardscaped areas.

**Environmental Preservation** – A total of 68.9 acres of wetlands are present on-site. A total of 2.76 acres of wetland impacts are proposed, meaning that 96% of the on-site wetlands will remain preserved. Additionally, a total of 57 acres of woodlands are located on site. Of the 57 acres of wooded areas, 45 acres are designated as Ecologically Significant areas in the City's Comprehensive Plan. A total of 30 acres of all wooded areas are proposed to be saved. This acreage includes 21 of the 45 acres of Ecologically Significant areas identified in the City's 2040 Comprehensive Plan.

**Public Park & trail dedication** – Public park land dedication is proposed that totals 4 acres. While it was noted that a park is not planned in this area of the City, Lennar recognizes the need for a larger open space within Tavera and ultimately a public amenity in this section of Corcoran. Additionally, Lennar is proposing 9,450 lineal feet (1.8 miles) of interior trails throughout the community.

**Entrance Monuments & Corner Treatment** – Two primary entry monuments are proposed at the entrances from CR 116 and Hackamore. These entry monuments will provide a sense of place upon arrival into Tavera. As a PUD benefit, Lennar is also proposing a corner treatment feature that signifies entry into Corcoran for motorists heading west on Hackamore or coming north along CR 116. These signage and wayfinding features have been preliminarily identified but options and final designs are still being explored at this time.

**Architecture** – Architectural materials, colors, and textures will be comparable to Ravinia. Lennar prides itself on our interior and exterior design and strives to deliver an excellent value to the marketplace through high quality, durable, cost effective and low maintenance materials. Exterior stone accents are made of a composite that is proven to withstand weathering over time. Siding consists of our standard vinyl packages that require virtually no maintenance and are warrantied up to 50 years. Additionally, we are proposing LP trim around windows and doors, similar to Ravinia.

All architectural elements, materials, colors, and textures are designed to provide façade variation while still achieving a unifying visual theme throughout the neighborhood. Architectural sample renderings are included as part of this submittal. Sample floorplans are also included for twin homes, newer villa designs, and liberty townhomes with basements.

### **Schedule**

Lennar is anticipating to secure entitlements and a grading permit this year. Upon completion of first phase earth work, we would look to install utilities and streets and ultimately plan to have a model home ready for the 2021 parade of homes.

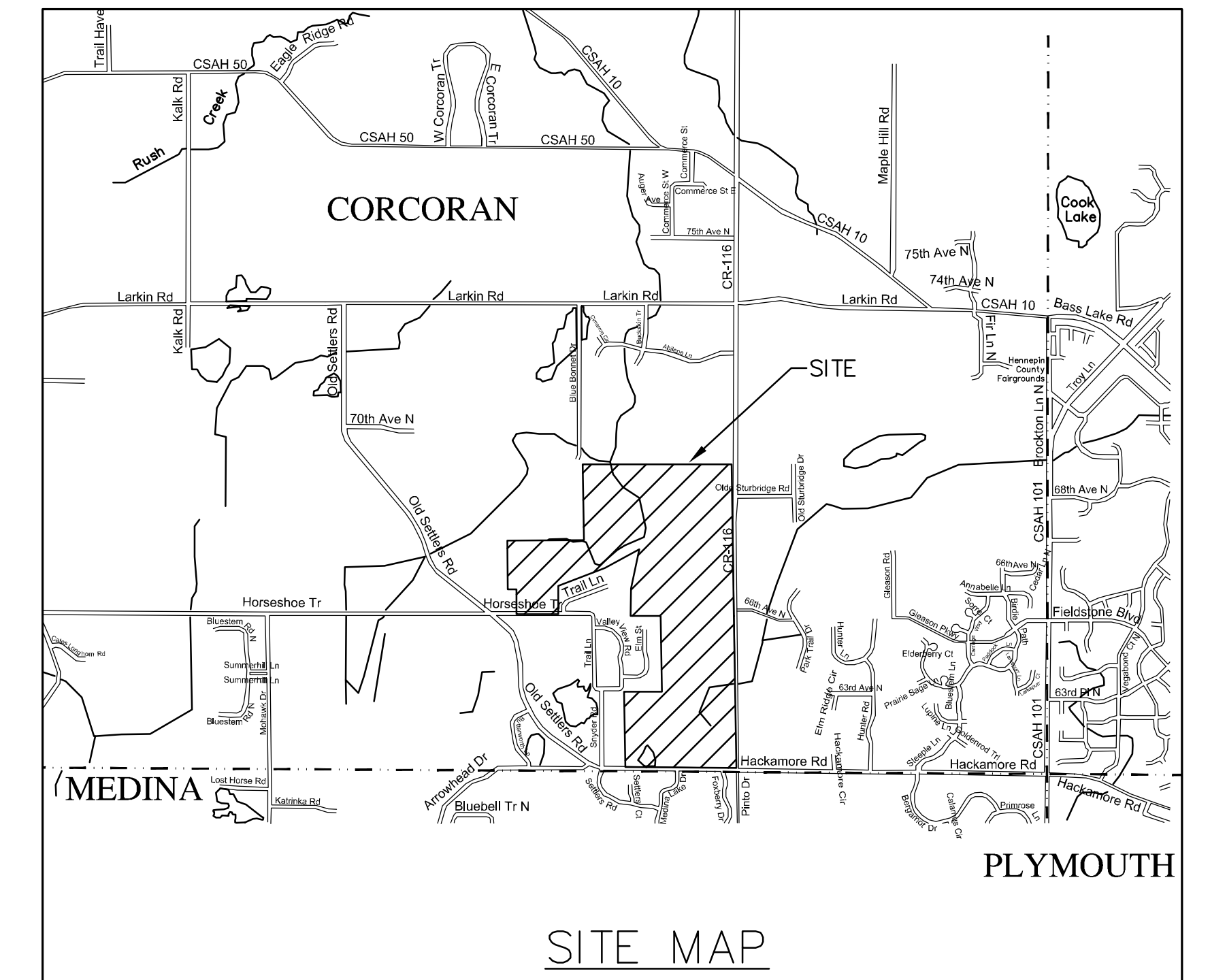
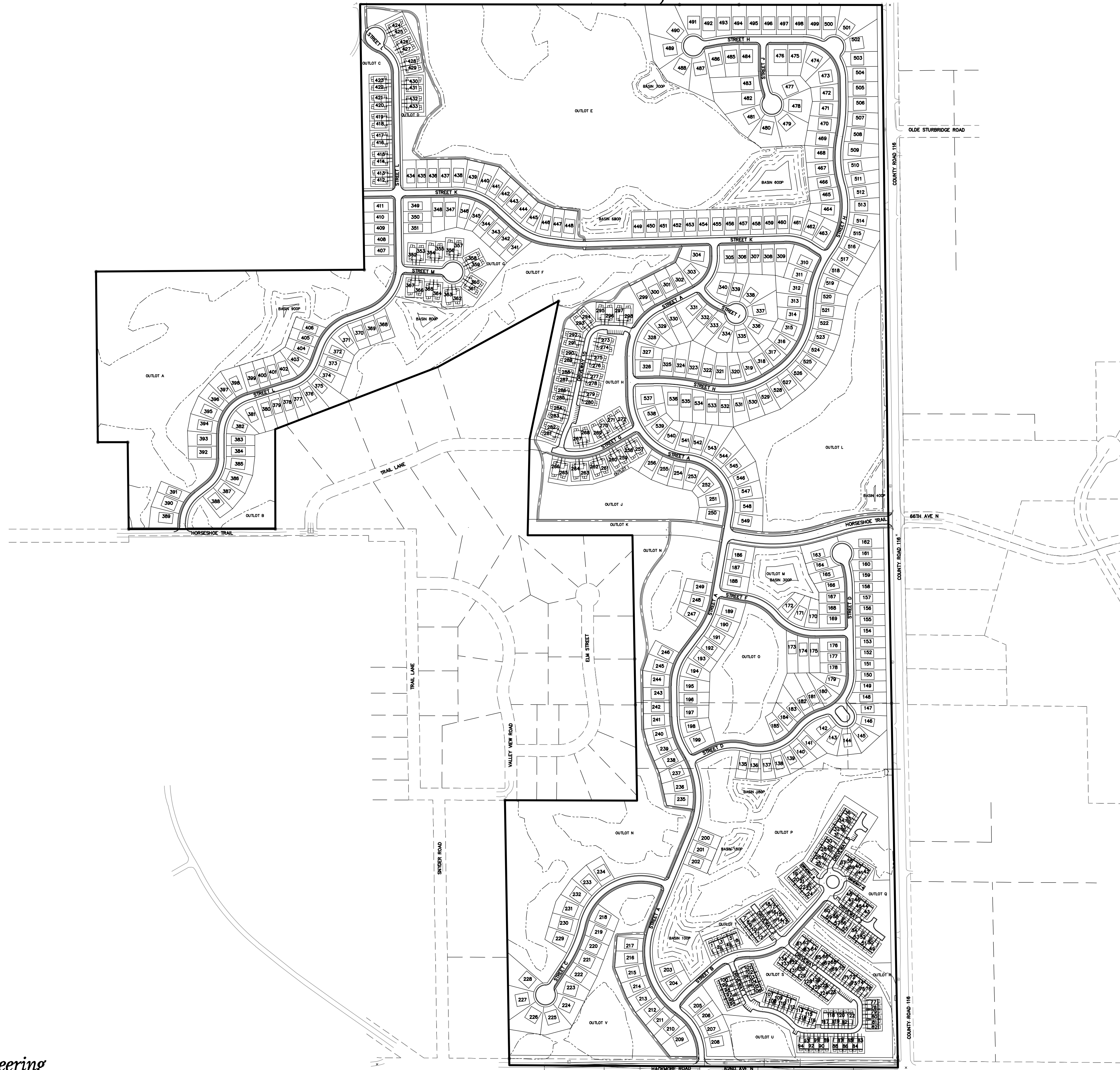
We are looking forward to creating another quality Lennar community in the City of Corcoran. Please contact me with questions.

Regards,

A handwritten signature in blue ink that reads "Paul J. Tabone". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

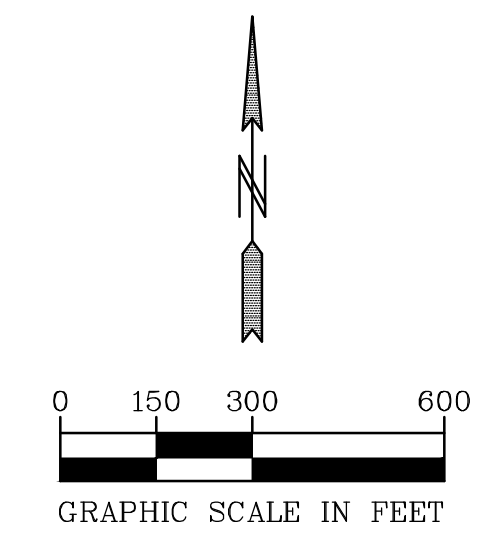
Paul J. Tabone  
Land Entitlement Mgr  
Lennar Minnesota

# TAVERA PRELIMINARY PLAT & P.U.D. PLAN CORCORAN, MINNESOTA



**SHEET INDEX**

- 0.01 COVER SHEET
- 0.02 LEGEND SHEET
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- 2.01-2.06 PRELIMINARY PLAT
- 3.01-3.05 PRELIMINARY SITE PLAN
- 4.01-4.05 PRELIMINARY SANITARY & WATER PLAN
- 5.01-5.05 PRELIMINARY STORM SEWER PLAN
- 6.01-6.24 PRELIMINARY GRADING PLAN
- 7.01-7.05 PRELIMINARY EROSION CONTROL PLAN
- 8.01-8.05 GRADING & EROSION CONTROL DETAILS
- 9.01-9.02 WETLAND IMPACT PLAN
- 9.11-9.15 WETLAND BUFFER PLAN
- 10.01 PRELIMINARY PHASING PLAN



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2422 Enterprise Drive  
Mendota Heights, MN 55120  
(651) 681-1914  
Fax: 681-9488  
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
Name: *Paul J. Cherm*  
Paul J. Cherm  
Reg. No. 19860 Date 4-21-2020

Revisions  
Date 4-21-20  
Designed PIC/BNM  
Drawn MPC/MSN

**COVER SHEET**

**LENNAR**  
16305 36TH AVENUE NORTH  
PLYMOUTH, MINNESOTA 55446

**TAVERA**  
CORCORAN, MINNESOTA

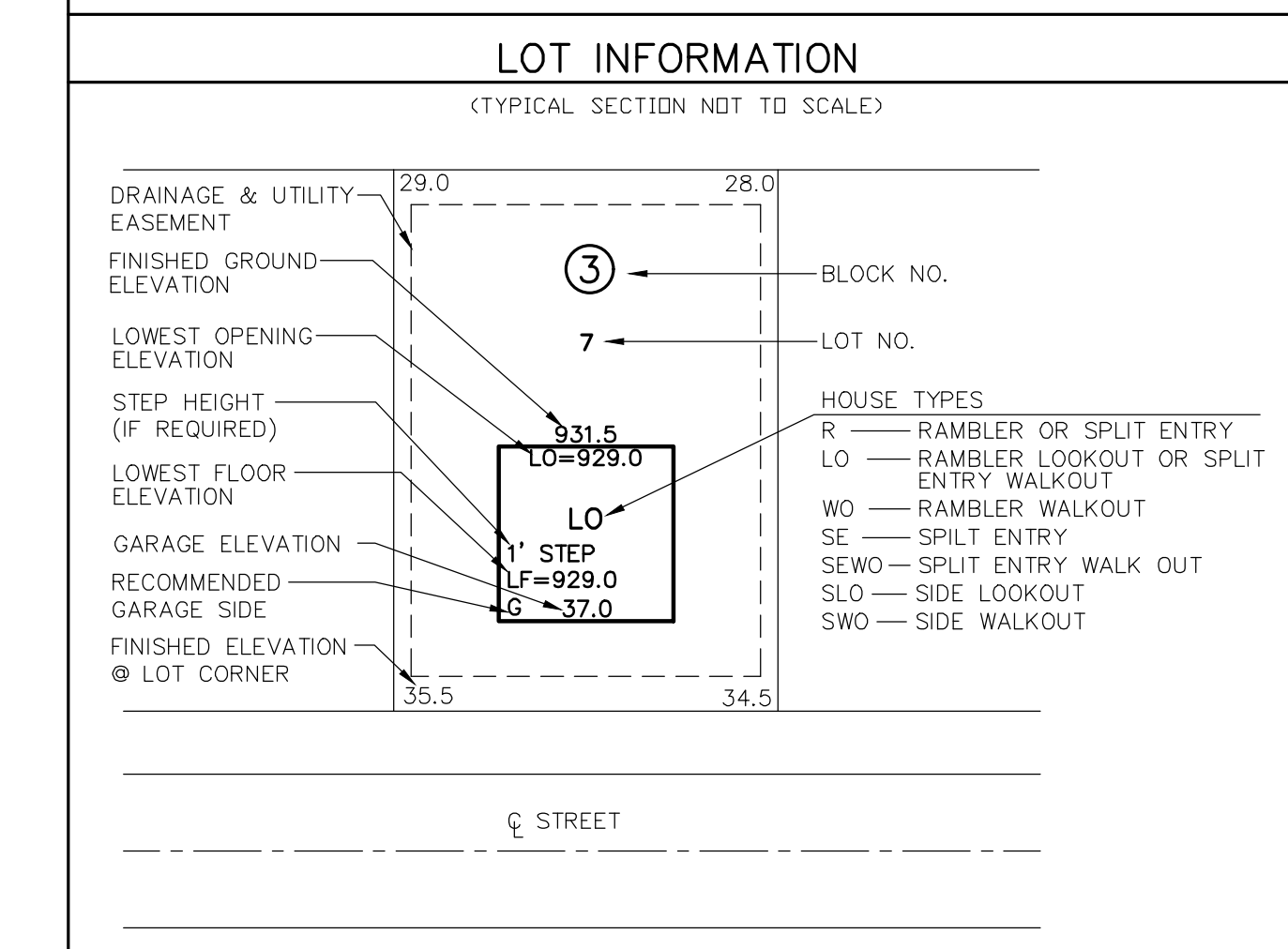
0.01 OF 67

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

TOPOGRAPHIC SYMBOLS	
	CATCH BASIN
	CATCH BASIN BEEHIVE
	FLARED END SECTION
	GATE VALVE
	HYDRANT
	WATER SERVICE
	WATER WELL
	MONITORING WELL
	CLEANOUT
	HAND HOLE
	MANHOLE OTHER THAN SANITARY OR STORM
	SANITARY OR STORM MANHOLE
	LAWN SPRINKLER VALVE
	LAWN SPRINKLER HEAD
	UTILITY POLE
	TRANSFORMER BOX
	FIBER OPTIC BOX
	ELECTRIC BOX
	NATURAL GAS METER
	LIGHT POLE
	SEMAPHORE
	TELEPHONE BOX
	CABLE BOX
	CAST IRON MONUMENT
	FOUND IRON PIPE
	JUDICIAL LAND MARK
	PK NAIL
	CONTROL POINT
	SPIKE
	FLAG POLE
	TEST HOLE
	MAILBOX
	SIGN
	BOLLARD
	CONSERVATION POST
	DECIDUOUS TREE
	CONIFEROUS TREE
	SHRUB / BUSH

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

ABBREVIATIONS	
A	ALGEBRAIC DIFFERENCE
B-B	BACK TO BACK
BV	BUTTERFLY VALVE
BOC	BACK OF CURB
BFE	BASE FLOOD ELEVATION
BMP	BEST MANAGEMENT PRACTICE
CL	CENTER LINE
CB	CATCHBASIN
CBMH	CATCHBASIN MANHOLE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CS	CURB STOP
DIP	DUCTILE IRON PIPE
DT	DRAINTILE
EL/ELEV	ELEVATION
EOF	EMERGENCY OVERFLOW
EX	EXISTING
FES	FLARED END SECTION
F-F	FACE TO FACE
FM	FORCEMAIN
GB	GRADE BREAK
GND	GROUND
GV	GATE VALVE
HP	HIGH POINT
HYD	HYDRANT
HWL	HIGH WATER LEVEL
INV	INVERT
K	CURVE COEFFICIENT
L	LENGTH
LF	LOWEST FLOOR
LO	LOOKOUT
LO	LOWEST OPENING
LP	LIQUID PETROLEUM
LP	LOW POINT
MH	MANHOLE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PRC	POINT OF REVERSE CURVATURE
PVT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
R	RAMBLER
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
SSWR	SANITARY SEWER
STA	STATION
STRM	STORM SEWER
SWPPP	STORM WATER POLLUTION PROTECTION PLAN
TNH	TYPICAL
TYP	TYPICAL
WM	WATER MAIN
WO	WALKOUT



CURB LEGEND	
	= GUTTERLINE ELEVATION FOR SURMOUNTABLE CURB
	= GUTTERLINE ELEVATION FOR SURMOUNTABLE CURB (TIP OUT GUTTER)
	= GUTTERLINE ELEVATION FOR B618 CURB
	= GUTTERLINE ELEVATION FOR B618 CURB (TIP OUT GUTTER)
	= BITUMINOUS ELEVATION

**PROPOSED LEGAL FOR PRELIMINARY PLAT PURPOSES ONLY:**

East 1/2 of the Southwest Quarter of the Southeast Quarter, Section 35, Township 119, Range 23, Hennepin County, Minnesota.

Together with:

Lot 10, Block 1, Meadow Trails, Hennepin County, Minnesota.

Together with:

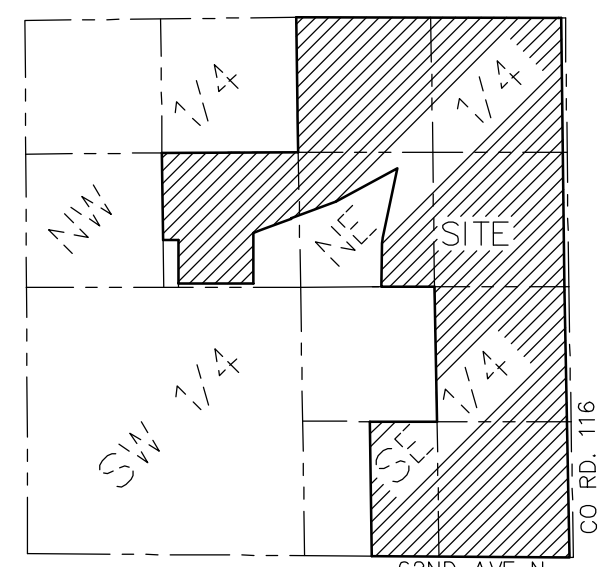
The East 1/2 of the Northeast Quarter except that part which lies East of a line parallel with and distant 40 feet West of the East line, Section 35, Township 119, Range 23, Hennepin County, Minnesota.

Together with:

The East 1/2 of the Southeast 1/4 of Section 35, Township 119, Range 23, Hennepin County, Minnesota. EXCEPT:

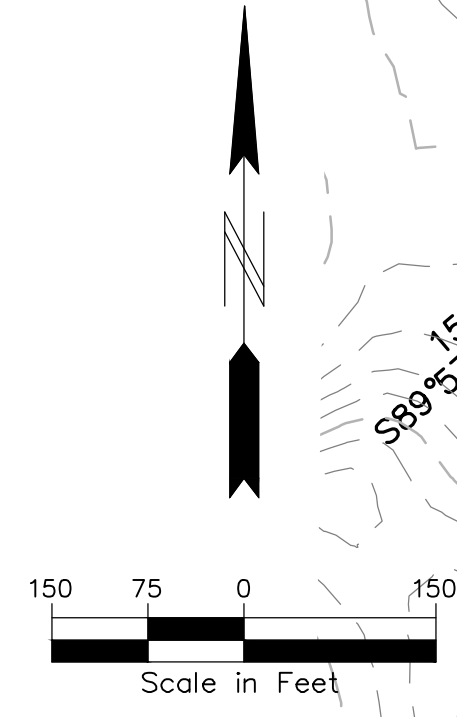
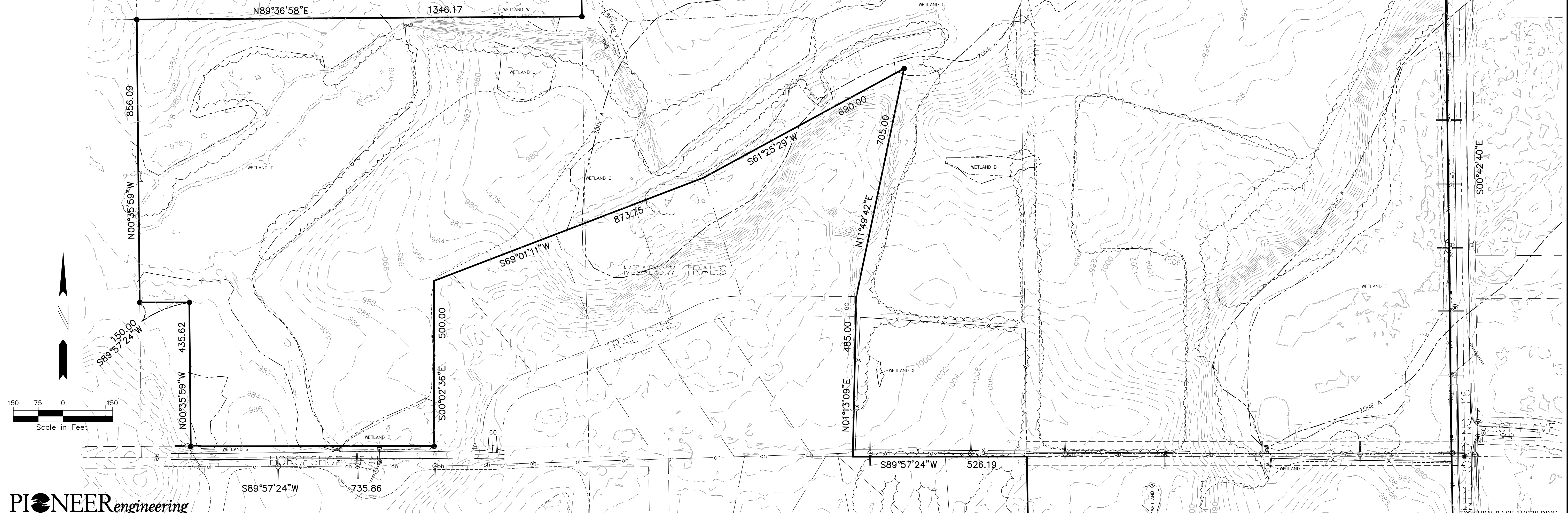
All that part of the following described tract: Southeast 1/4 of the Southeast 1/4 and the South 9 8/10 rods of Northeast 1/4 of Southeast 1/4 also that part of North 20 rods of South 29 8/10 rods of the Northeast 1/4 of Southeast 1/4 lying West of East 18 rods thereof and that part of the Northeast 1/4 of Southeast 1/4 lying North of South 29 8/10 rods thereof, all lying in Section 35, Township 119 North, Range 23 West, except roads; which lies East of a line parallel with and distant 40 feet West of the East line of said section.

**LEGEND**



SECTION 35, TWP. 119 RGE. 23  
LOCATION MAP  
NO SCALE

- |  |                                      |  |  |
|--|--------------------------------------|--|--|
|  | Denotes concrete                     |  | Denotes catch basin                          |
|  | Denotes gravel                       |  | Denotes catch basin beehive                  |
|  | Denotes bituminous                   |  | Denotes flared end section                   |
|  | Denotes riprap                       |  | Denotes gate valve                           |
|  | Denotes field edge                   |  | Denotes hydrant                              |
|  | Denotes tree line                    |  | Denotes service                              |
|  | Denotes storm sewer line             |  | Denotes water well                           |
|  | Denotes sanitary sewer line          |  | Denotes cleanout                             |
|  | Denotes water line                   |  | Denotes manhole other than sanitary or storm |
|  | Denotes overhead utility lines       |  | Denotes sanitary or storm manhole            |
|  | Denotes underground television line  |  | Denotes utility pole                         |
|  | Denotes underground telephone line   |  | Denotes transformer box                      |
|  | Denotes underground fiber optic line |  | Denotes fiber optic box                      |
|  | Denotes underground electric line    |  | Denotes electric box                         |
|  | Denotes underground gas line         |  | Denotes light pole                           |
|  | Denotes fence (barbed wire)          |  | Denotes telephone box                        |
|  | Denotes fence (chain link)           |  | Denotes television box                       |
|  | Denotes fence (wood)                 |  | Denotes found iron pipe                      |
|  |                                      |  | Denotes mailbox                              |
|  |                                      |  | Denotes sign                                 |



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(651) 681-1914  
Fax: 681-9488  
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Surveyor under the laws of the State of Minnesota.  
Name: Peter J. Hawkinson  
Reg. No.: 42299 Date: XX-XX-2020

Revisions  
Date: XX-XX-20  
Designed: PIC/BNM  
Drawn: XXX

**EXISTING CONDITIONS**

**LENNAR**  
16305 36TH AVENUE NORTH  
PLYMOUTH, MINNESOTA 55446

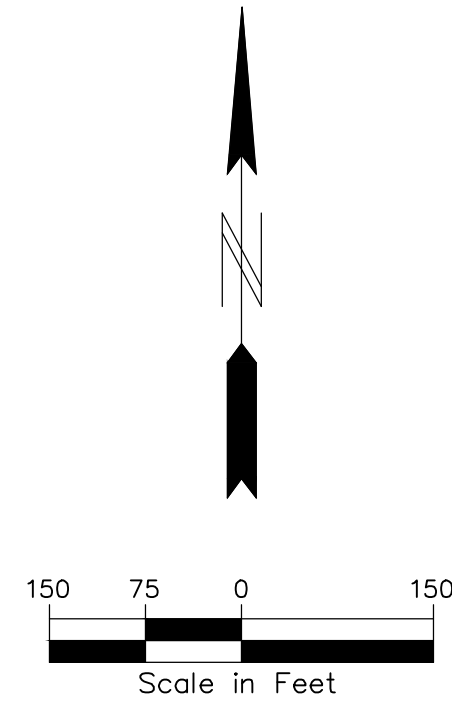
**TAVERA**  
CORCORAN, MINNESOTA

1.01 OF X

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LEGEND

- Denotes concrete
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- Denotes bituminous
- Denotes riprap
- Denotes field edge
- Denotes tree line
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- Denotes hydrant
- Denotes service
- Denotes water well
- Denotes cleanout
- Denotes hand hole
- Denotes manhole other than sanitary or storm
- Denotes sanitary or storm manhole
- Denotes lawn sprinkler valve
- Denotes lawn sprinkler head
- Denotes utility pole
- Denotes transformer box
- Denotes fiber optic box
- Denotes electric box
- Denotes natural gas meter
- Denotes light pole
- Denotes telephone box
- Denotes television box
- Denotes cast iron monument
- Denotes found iron pipe
- Denotes flag pole
- Denotes test hole
- Denotes mailbox
- Denotes sign



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 Mendota Heights, MN 55120  
 (651) 681-1914  
 Fax: 681-9488  
 www.pioneereng.com

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

Name: *Peter J. Hawkinson*  
 Peter J. Hawkinson  
 Reg. No. 42299 Date XX-XX-2020

Revisions

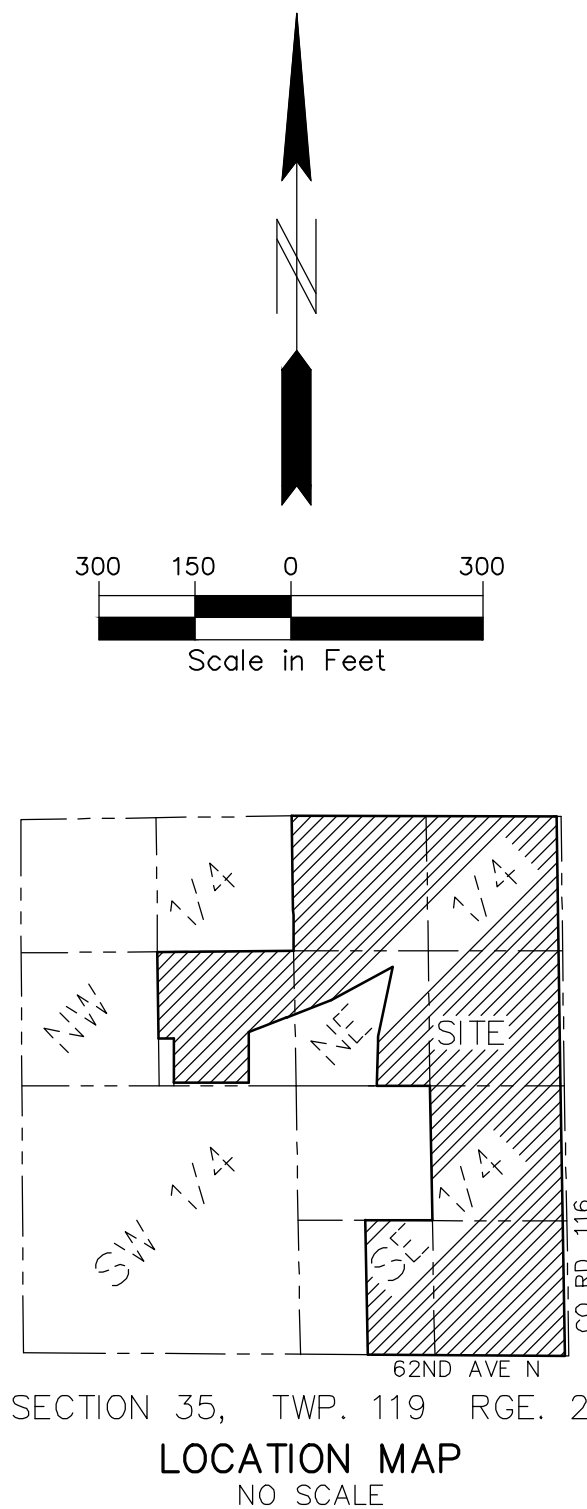
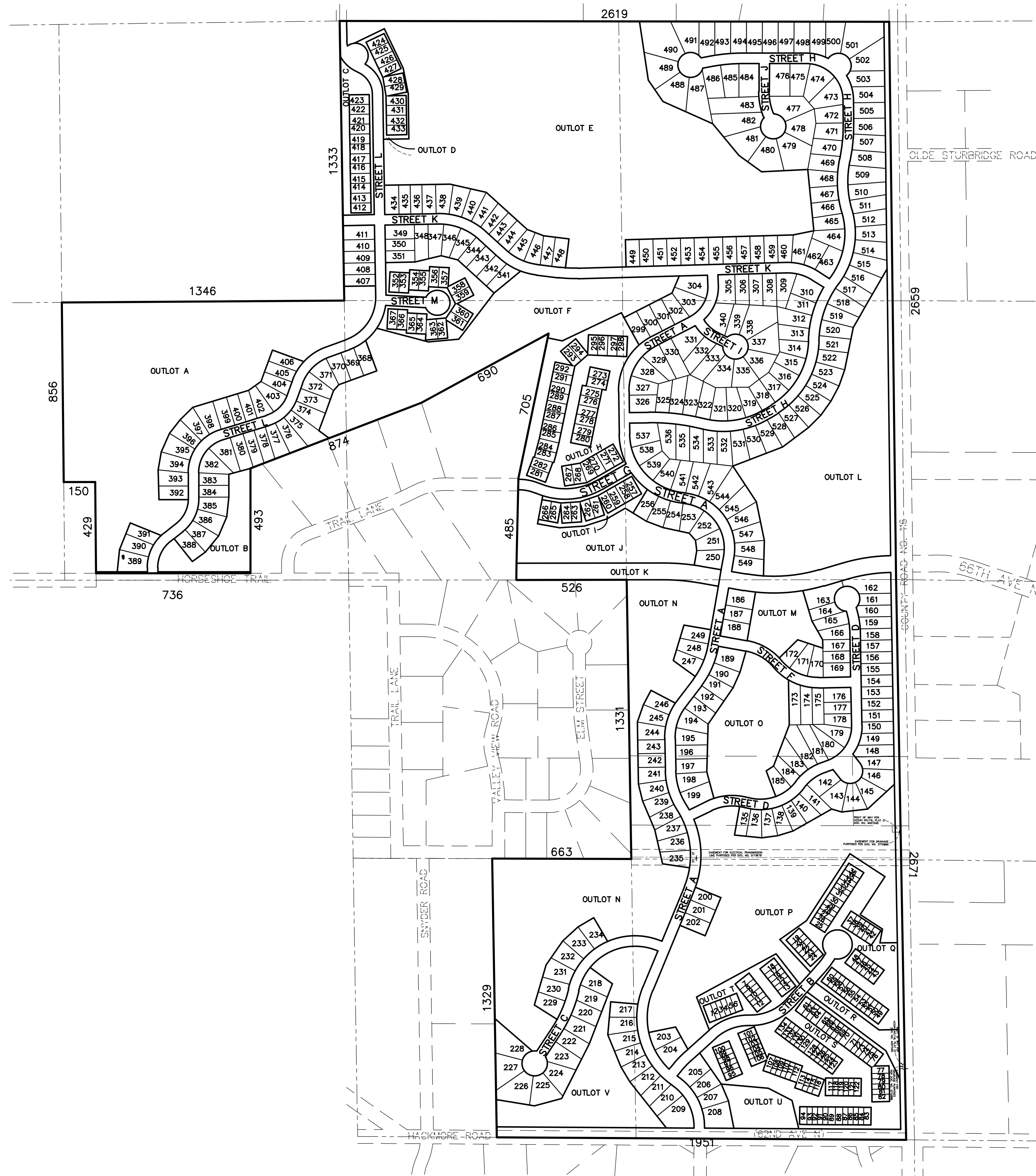
Date XX-XX-20  
 Designed PIC/BNM  
 Drawn XXX

EXISTING CONDITIONS

LENNAR  
 16305 36TH AVENUE NORTH  
 PLYMOUTH, MINNESOTA 55446

TAVERA  
 CORCORAN, MINNESOTA

1.02 OF X



PROPOSED LEGAL FOR PRELIMINARY PLAT PURPOSES ONLY:

East 1/2 of the Southwest Quarter of the Southeast Quarter, Section 35, Township 119, Range 23, Hennepin County, Minnesota.

Together with:

Lot 10, Block 1, Meadow Trails, Hennepin County, Minnesota.

Together with:

The East 1/2 of the Northeast Quarter except that part which lies East of a line parallel with and distant 40 feet West of the East line, Section 35, Township 119, Range 23, Hennepin County, Minnesota.

Together with:

The East 1/2 of the Southeast 1/4 of Section 35, Township 119, Range 23, Hennepin County, Minnesota.

EXCEPT: The East Sixteen (16) rods of the North Twenty (20) rods of the South Twenty-nine and eight tenths (29.8) rods of the Northeast Quarter (NE 1/4) of the Southeast Quarter (SE 1/4) of Section Thirty-five (35), Township One Hundred Nineteen (119), Range Twenty-three (23).

AND FURTHER EXCEPT:

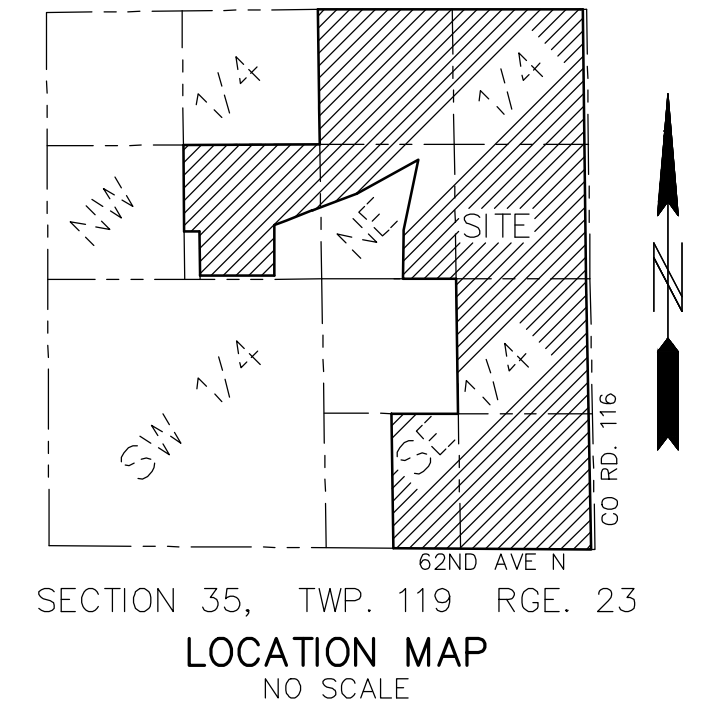
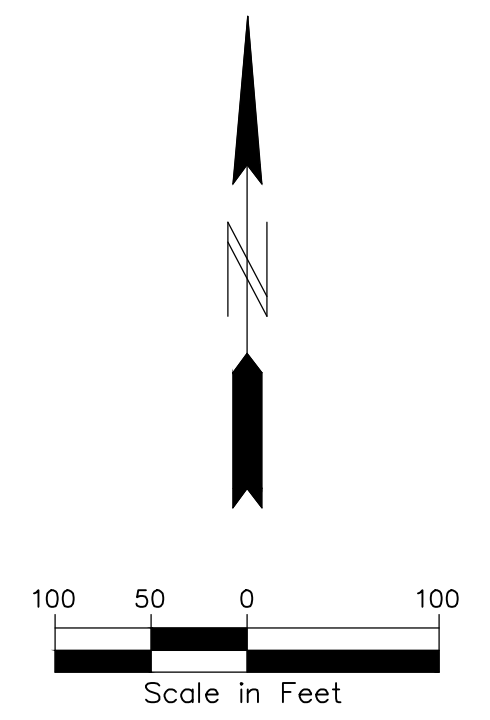
All that part of the following described tract:

Southeast 1/4 of the Southeast 1/4 and the South 9 8/10 rods of Northeast 1/4 of Southeast 1/4 also that part of North 20 rods of South 29 8/10 rods of the Northeast 1/4 of Southeast 1/4 lying West of East 16 rods thereof and that part of the Northeast 1/4 of Southeast 1/4 lying North of South 29 8/10 rods thereof, all lying in Section 35, Township 119 North, Range 23 West, except roads; which lies East of a line parallel with and distant 40 feet West of the East line of said section.

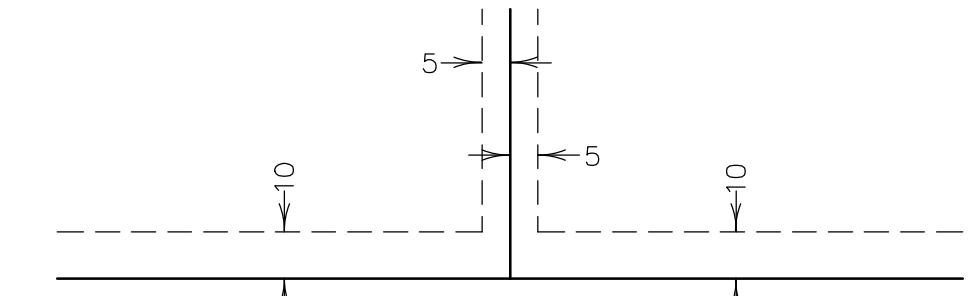
Together with:

The East 16 Rods of North 20 Rods of South 29.8 Rods of Northeast 1/4 of Southeast 1/4, Section 35, Township 119 North, Range 23 West, except that part which lies East of a line parallel with and distant 40 feet West of the East line of said section, Hennepin County, Minnesota.

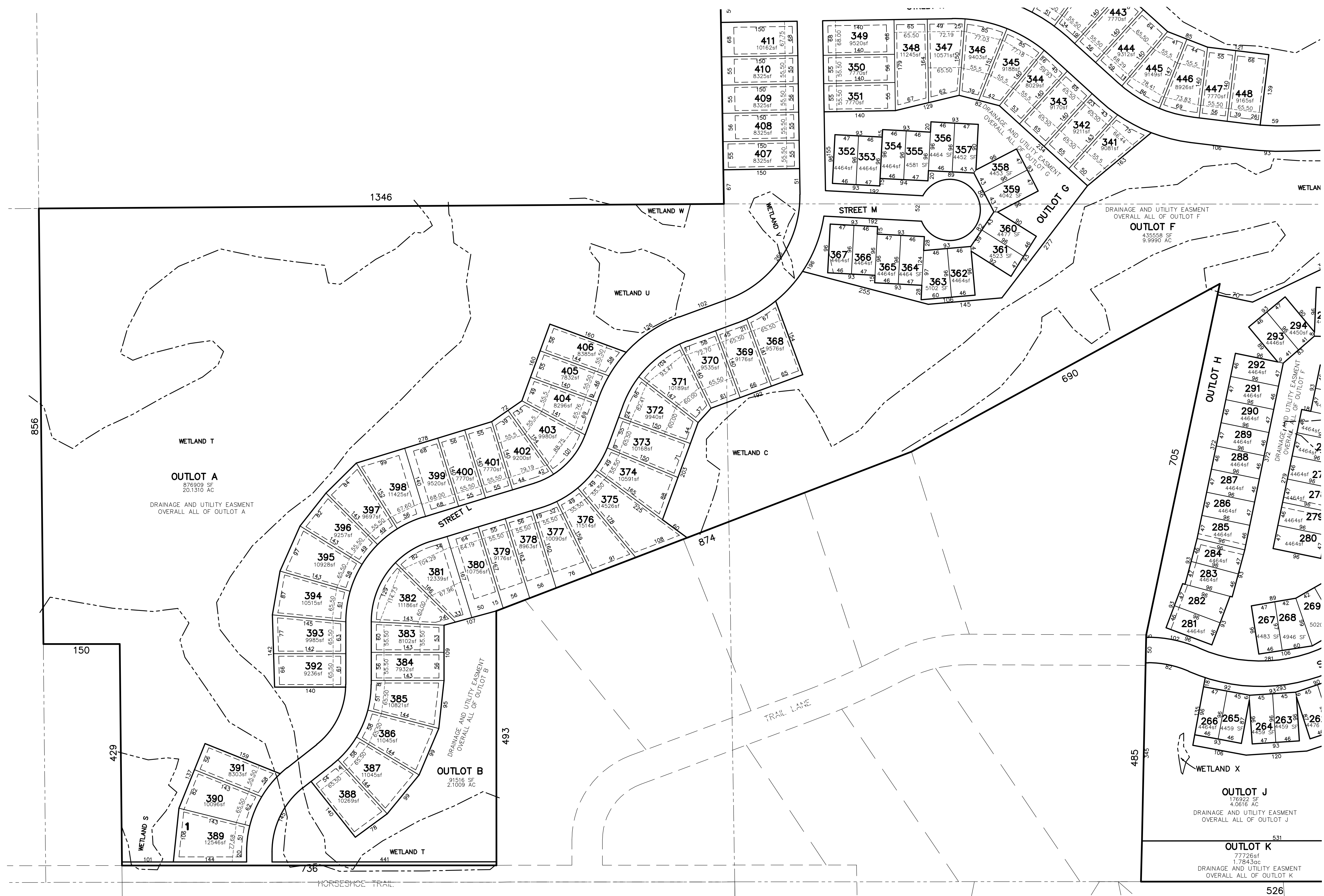
TOTAL GROSS AREA	273.57	ACRES
TOTAL LOT AREA	98.32	ACRES
NUMBER OF LOTS	549	
NUMBER OF OUTLOTS	12	
TOTAL OUTLOT AREA	142.83	ACRES
TOTAL RIGHT OF WAY AREA	32.42	ACRES
GROSS DENSITY	2.01	LOTS/ACRE
NET DENSITY (EXCLUDES WETLANDS AND COUNTY ROW)	2.72	LOTS/ACRE



DRAINAGE AND UTILITY EASEMENTS FOR SINGLE FAMILY LOTS ARE SHOWN THUS:



being 5 feet in width, and adjoining lot lines unless otherwise indicated, and 10 feet in width and adjoining street lines and rear lot lines unless otherwise indicated on the plat.



BENCH MARK  
XXXXXXXXXX  
(X' X. OF XXX)  
ELEV=XXX.XX

00-SURV-119128-PREPLAT.DWG

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CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS  
2422 Enterprise Drive  
Mendota Heights, MN 55120  
(651) 681-1914  
Fax: 681-9488  
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Surveyor under the laws of the State of Minnesota.  
Name: Peter J. Hawkinson  
Reg. No.: 42299 Date: 4-21-2020

Revisions  
Date: 4-21-20  
Designed: PIC/BNM  
Drawn: MPC/MSN

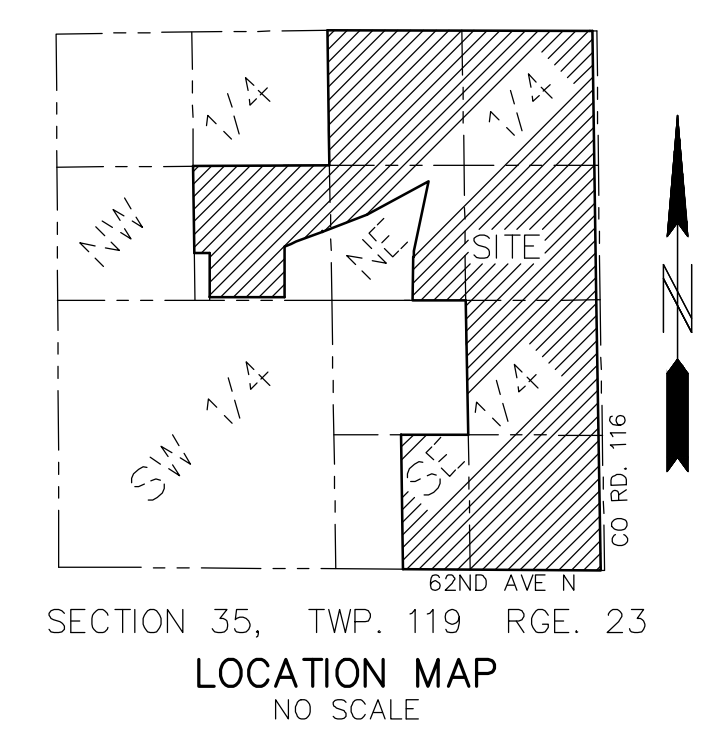
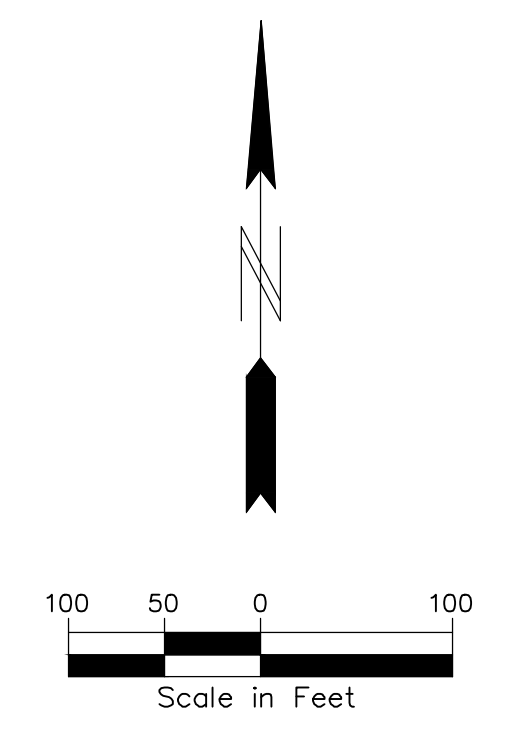
PRELIMINARY PLAT

LENNAR  
16305 36TH AVENUE NORTH  
PLYMOUTH, MINNESOTA 55446

TAVERA  
CORCORAN, MINNESOTA

2.02 OF 67

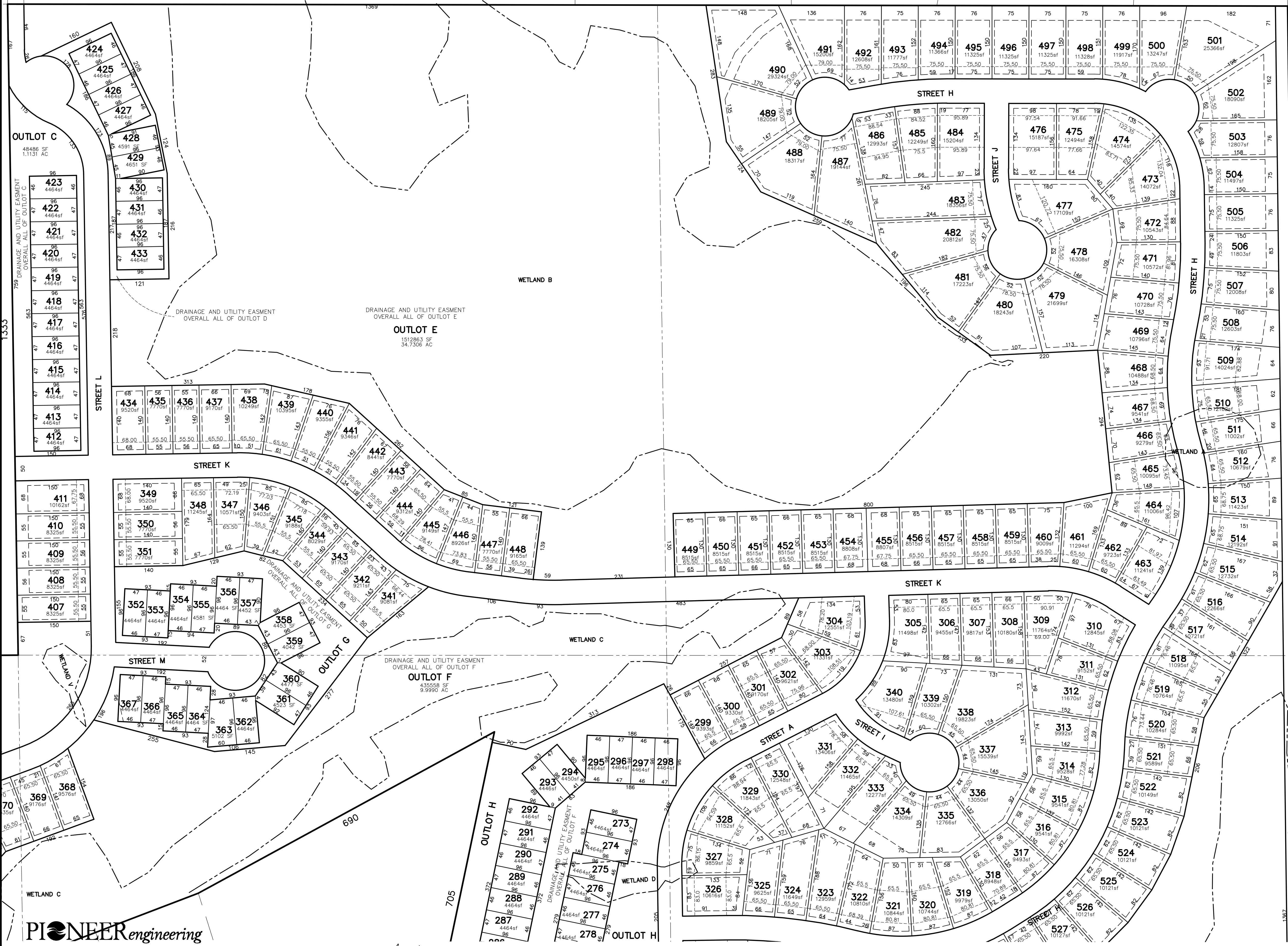




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BENCH MARK  
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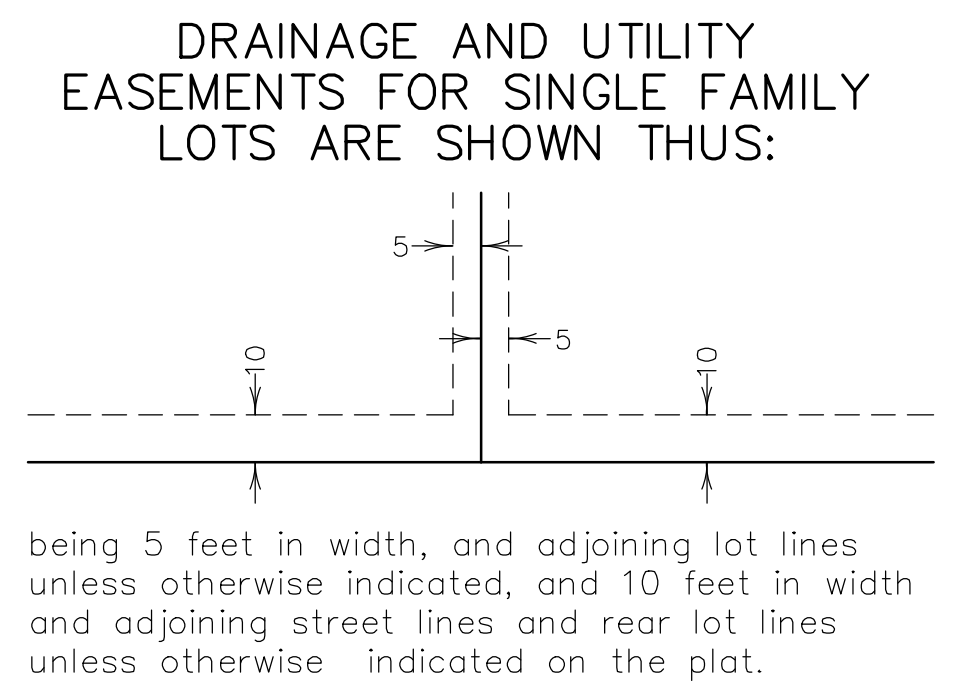
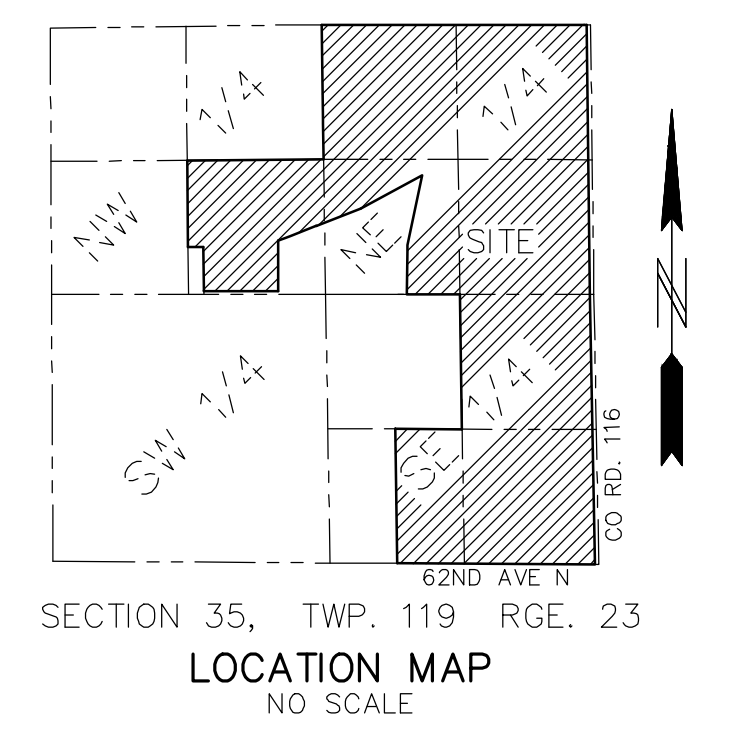
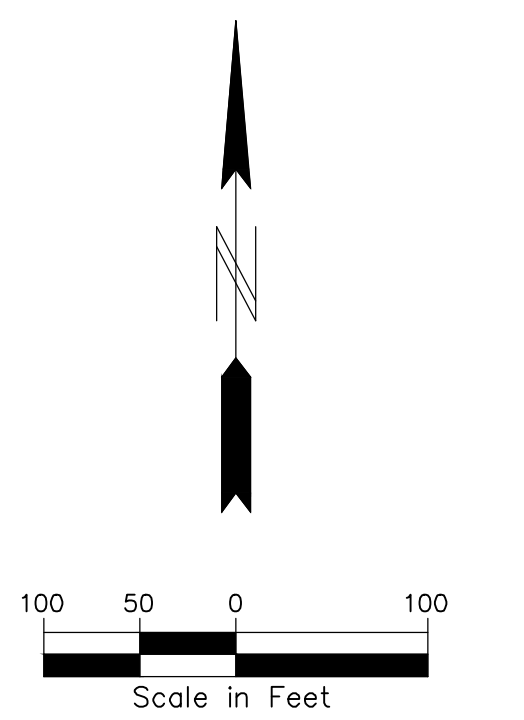
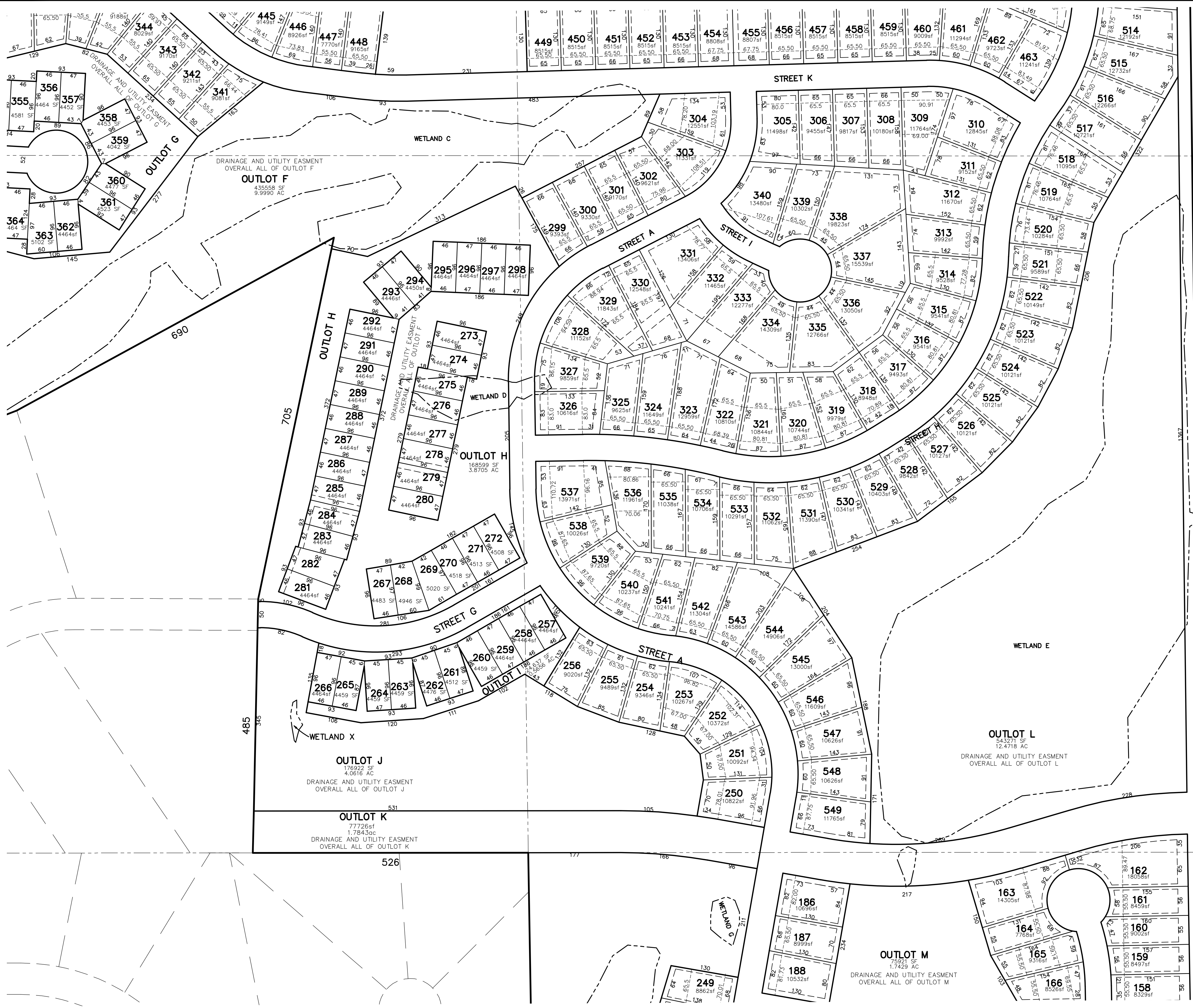
Revisions

Date: 4-21-20  
Designed: PIC/BNM  
Drawn: MPC/MSN

PRELIMINARY PLAT

LENNAR  
16305 36TH AVENUE NORTH  
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TAVERA  
CORCORAN, MINNESOTA



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 (X' X. OF XXX)  
 ELEV=XXX.XX

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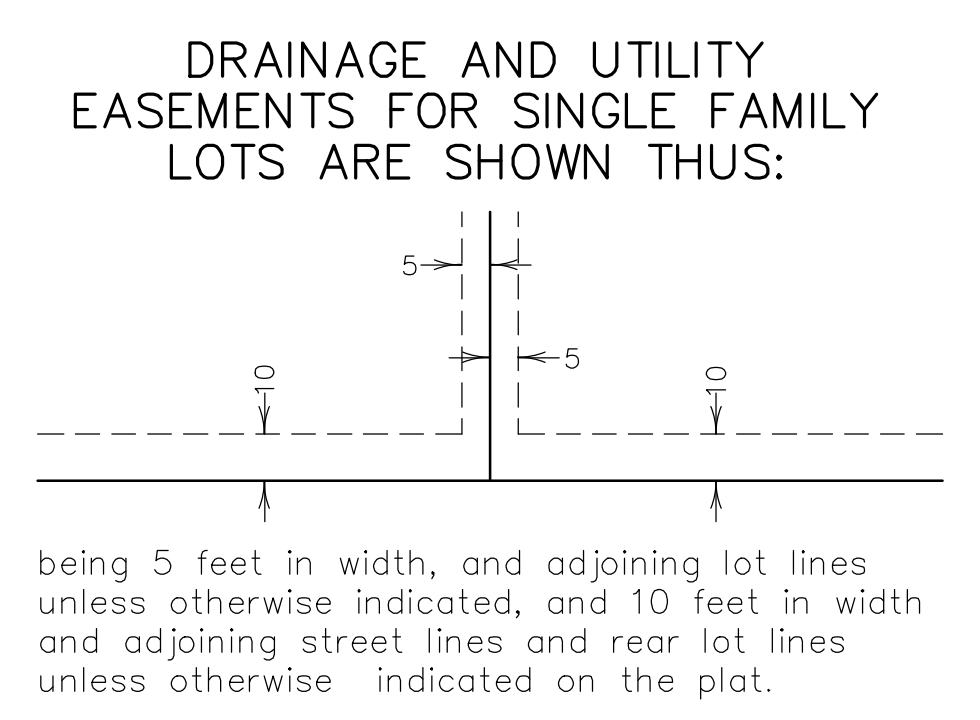
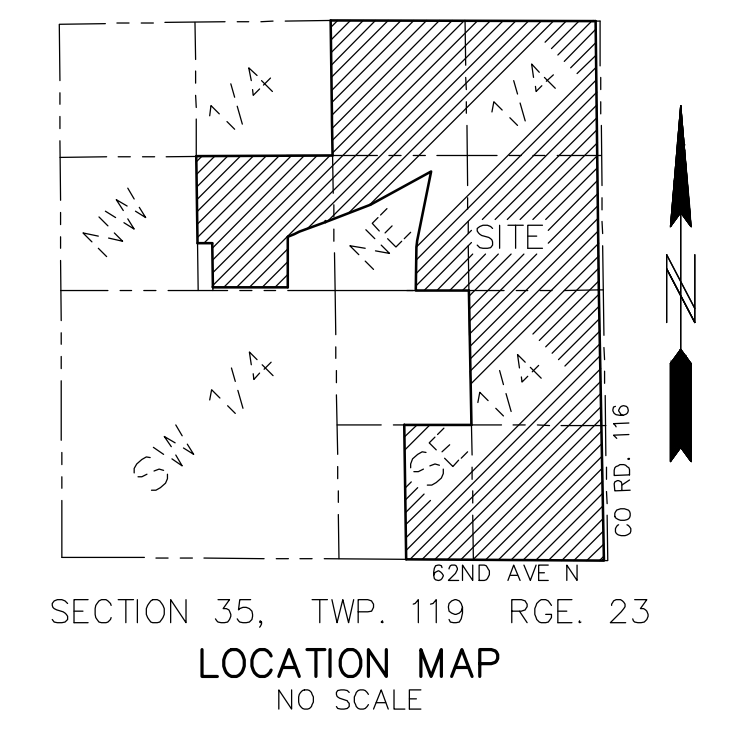
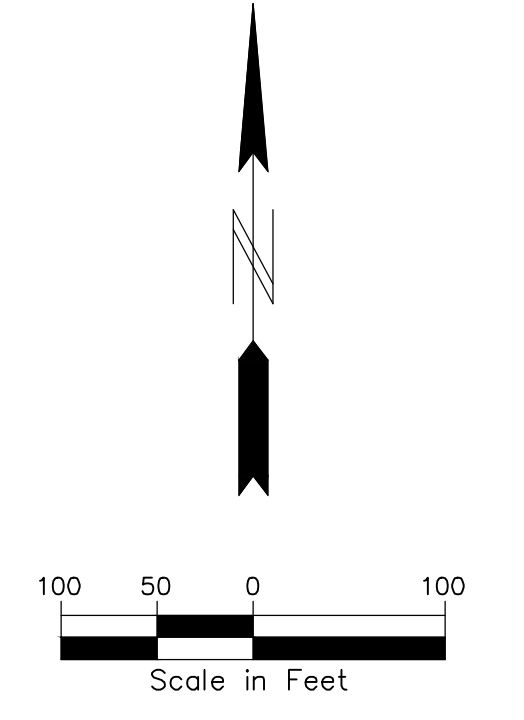
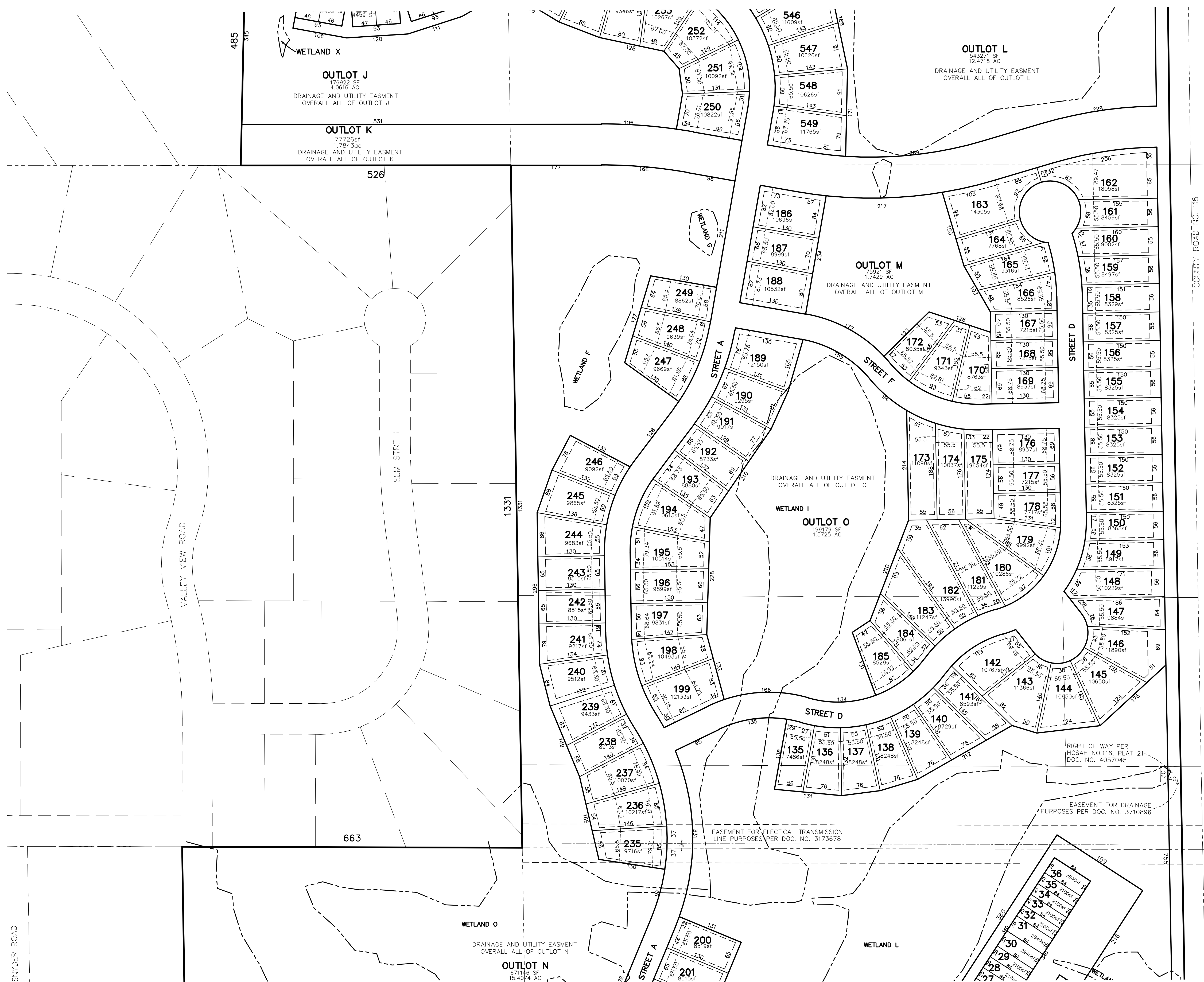
Revisions  
 Date: 4-21-20  
 Designed: PIC/BNM  
 Drawn: MPC/MSN

PRELIMINARY PLAT

LENNAR  
 16305 36TH AVENUE NORTH  
 PLYMOUTH, MINNESOTA 55446

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 CORCORAN, MINNESOTA

2.04 OF 67



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Revisions  
Date: 4-21-20  
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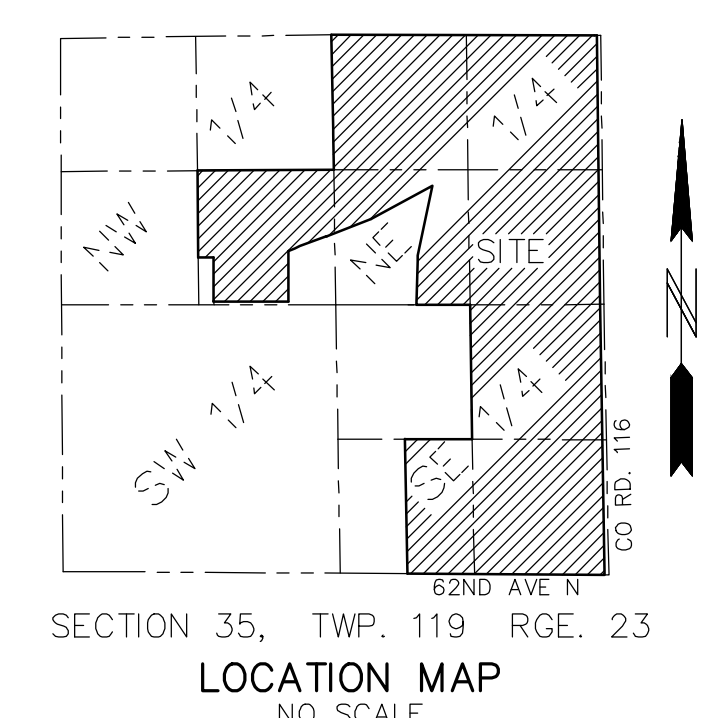
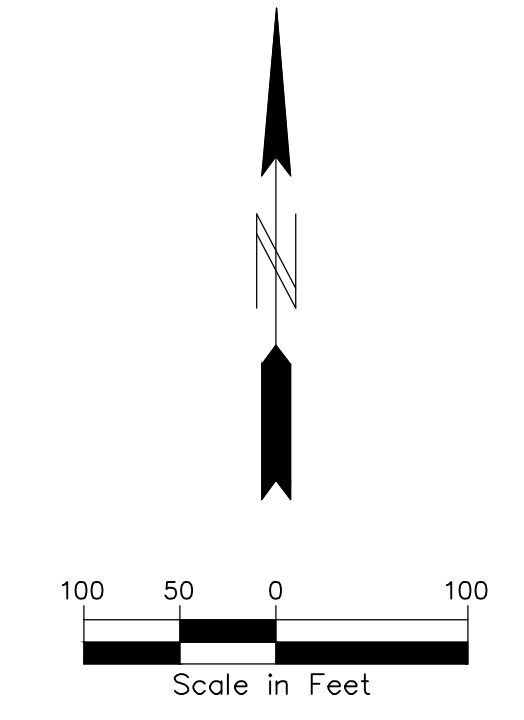
PRELIMINARY PLAT

LENNAR  
16305 36TH AVENUE NORTH  
PLYMOUTH, MINNESOTA 55446

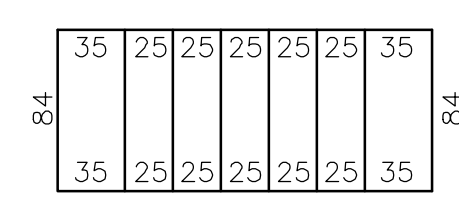
TAVERA  
CORCORAN, MINNESOTA

BENCH MARK  
XXXXXXXXXX  
(X' X. OF XXX)  
ELEV=XXX.XX

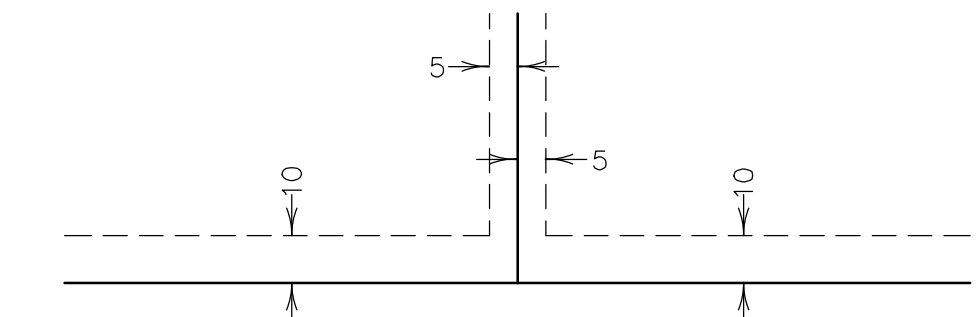
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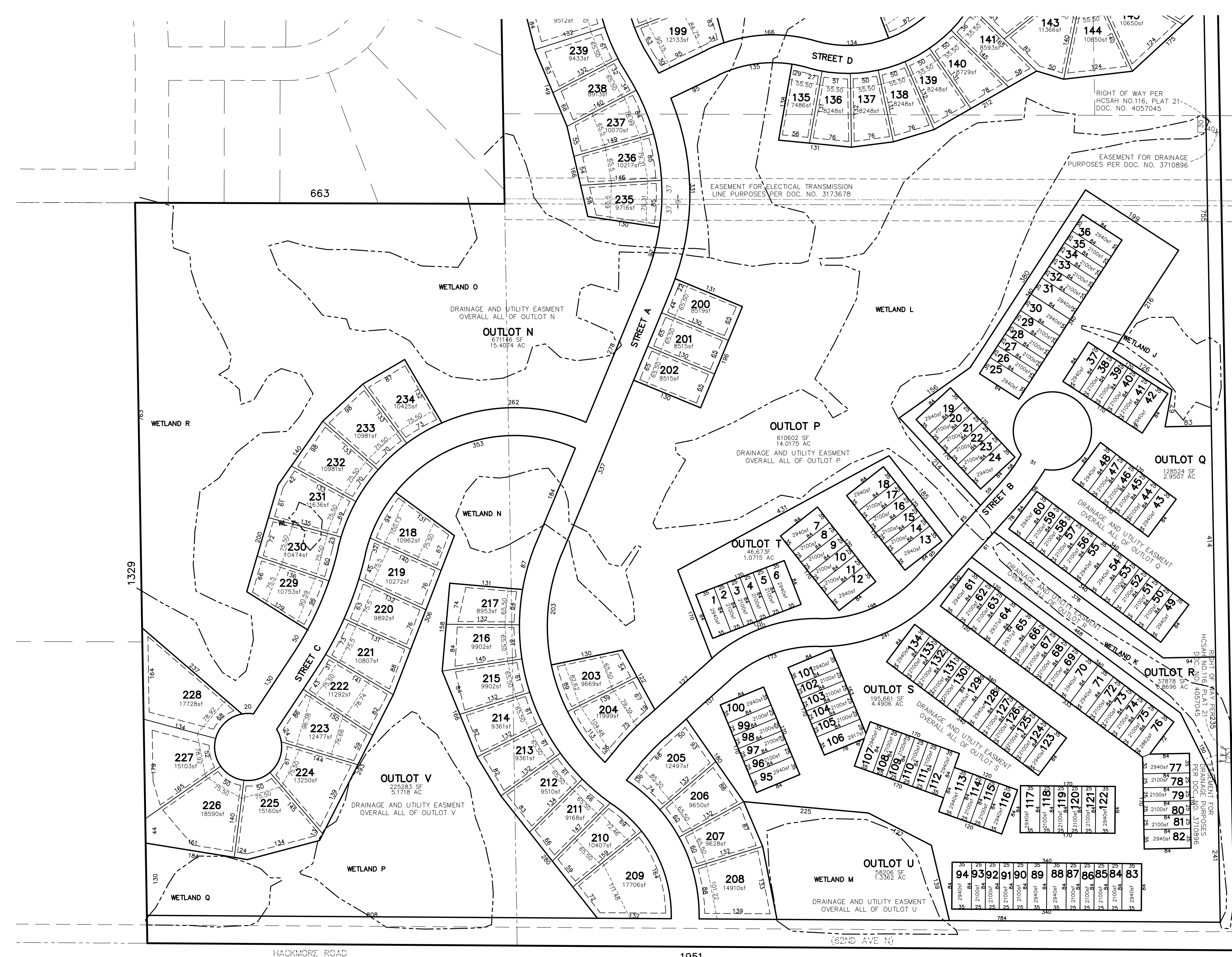
TOWNHOME LOT TYPICAL:

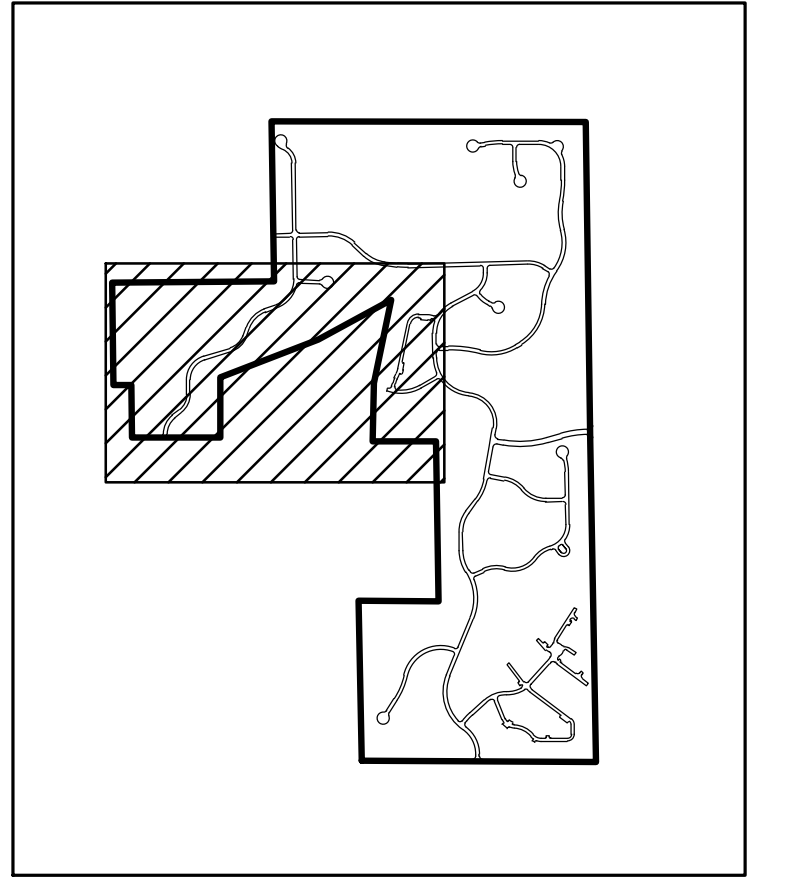
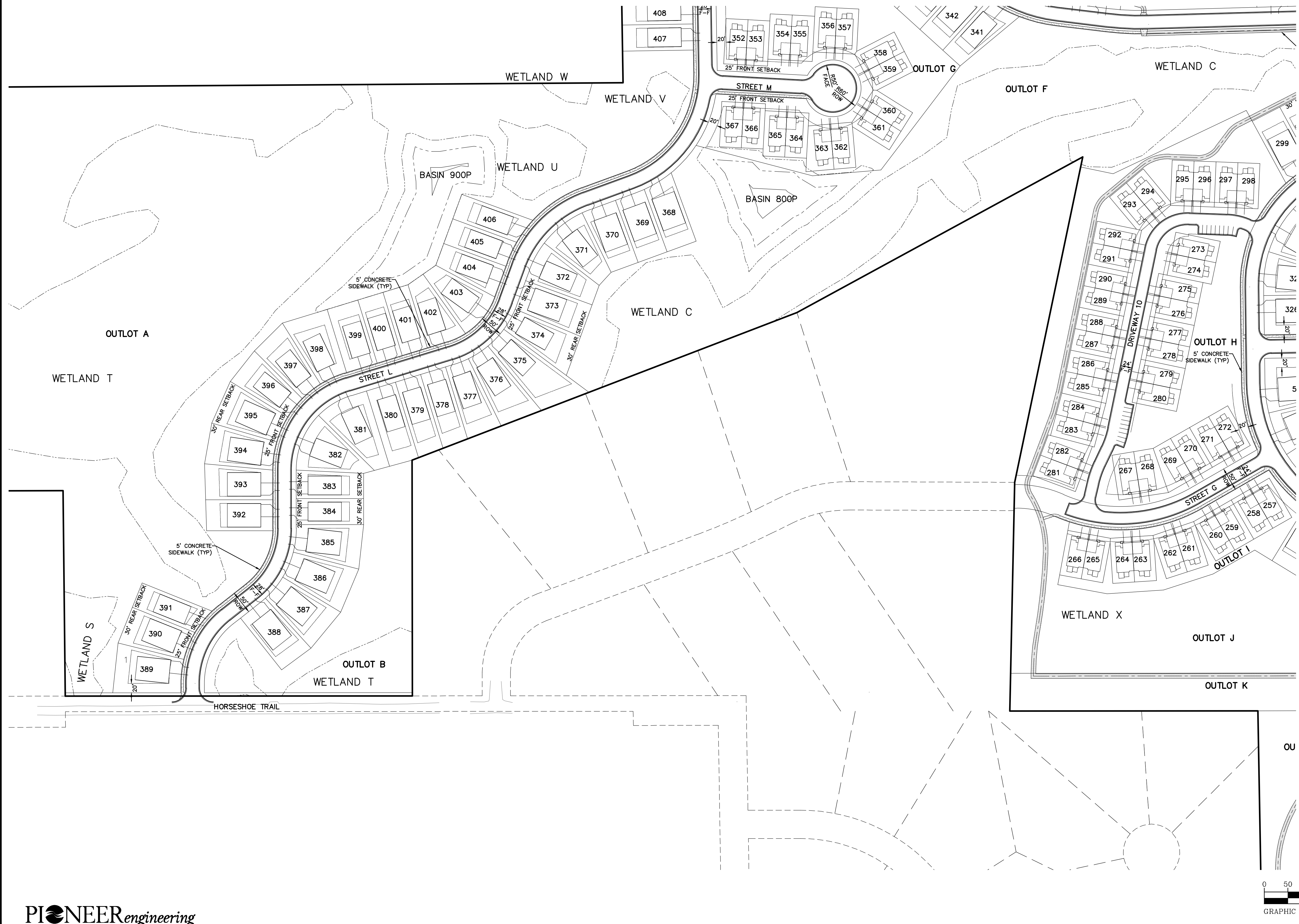


DRAINAGE AND UTILITY EASEMENTS FOR SINGLE FAMILY LOTS ARE SHOWN THIS:



being 5 feet in width, and adjoining lot lines unless otherwise indicated, and 10 feet in width and adjoining street lines and rear lot lines unless otherwise indicated on the plat.





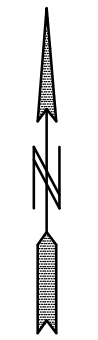
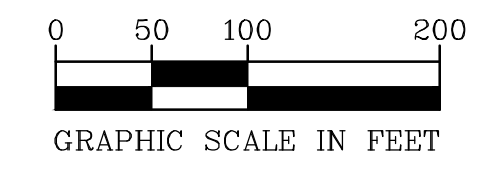
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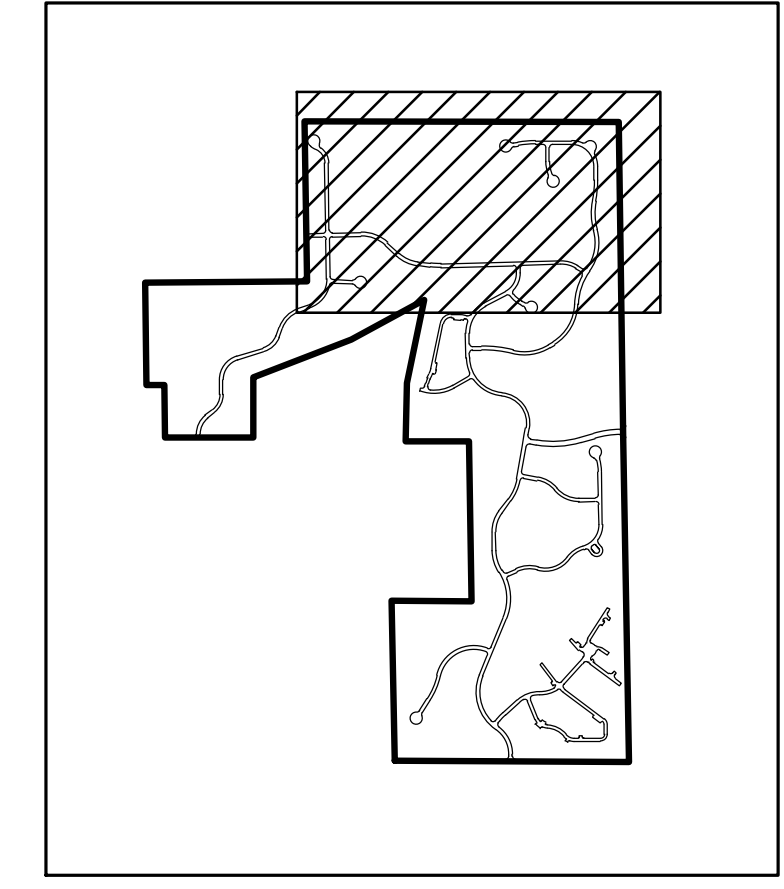
PROPOSED UNITS: 549  
 55-65' VILLAS: 70 (44-55', 29-65')  
 55' SF: 51  
 65' SF: 156  
 75' SF: 58  
 TWIN UNITS: 80  
 ROW TOWNHOME UNITS: 134

PROPOSED SETBACKS:  
**VILLAS:**  
 AREA: 7,000 SF  
 WIDTH: 55' TO 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'  
**75' WIDE SINGLE FAMILY LOTS:**  
 AREA: 9,000 SF  
 WIDTH: 75'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'  
**65' WIDE SINGLE FAMILY LOTS:**  
 AREA: 7,800 SF  
 WIDTH: 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'  
**55' WIDE SINGLE FAMILY LOTS:**  
 AREA: 6,600 SF  
 WIDTH: 55'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

**TOWNHOME LOTS:**  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING  
**TOWNHOME LOTS:**  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING  
 SIDE STREET: 20' TO CURB(PRIVATE STREET)  
 SIDE STREET: 20' TO RIGHT OF WAY(PUBLIC STREET)

**WETLAND REQUIREMENTS (AVERAGING ALLOWED):**  
**HIGH:**  
 AVERAGE WIDTH: 50'  
 MINIMUM WIDTH: 40'  
 MAXIMUM WIDTH: 60'  
 SETBACK FROM BUFFER: 15'  
**MEDIUM:**  
 AVERAGE WIDTH: 25'  
 MINIMUM WIDTH: 20'  
 MAXIMUM WIDTH: 40'  
 SETBACK FROM BUFFER: 15'  
**LOW:**  
 AVERAGE WIDTH: 25' (WATERSHED STANDARD)  
 MINIMUM WIDTH: 10'  
 MAXIMUM WIDTH: 20'  
 SETBACK FROM BUFFER: 15'





INDEX

PROPOSED UNITS: 549  
 55-65' VILLAS: 70 (44-55', 29-65')  
 55' SF: 51  
 65' SF: 156  
 75' SF: 58  
 TWIN UNITS: 80  
 ROW TOWNHOME UNITS: 134

PROPOSED SETBACKS:  
 VILLAS:  
 AREA: 7,000 SF  
 WIDTH: 55' TO 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECKS)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

75' WIDE SINGLE FAMILY LOTS:  
 AREA: 9,000 SF  
 WIDTH: 75'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECKS)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

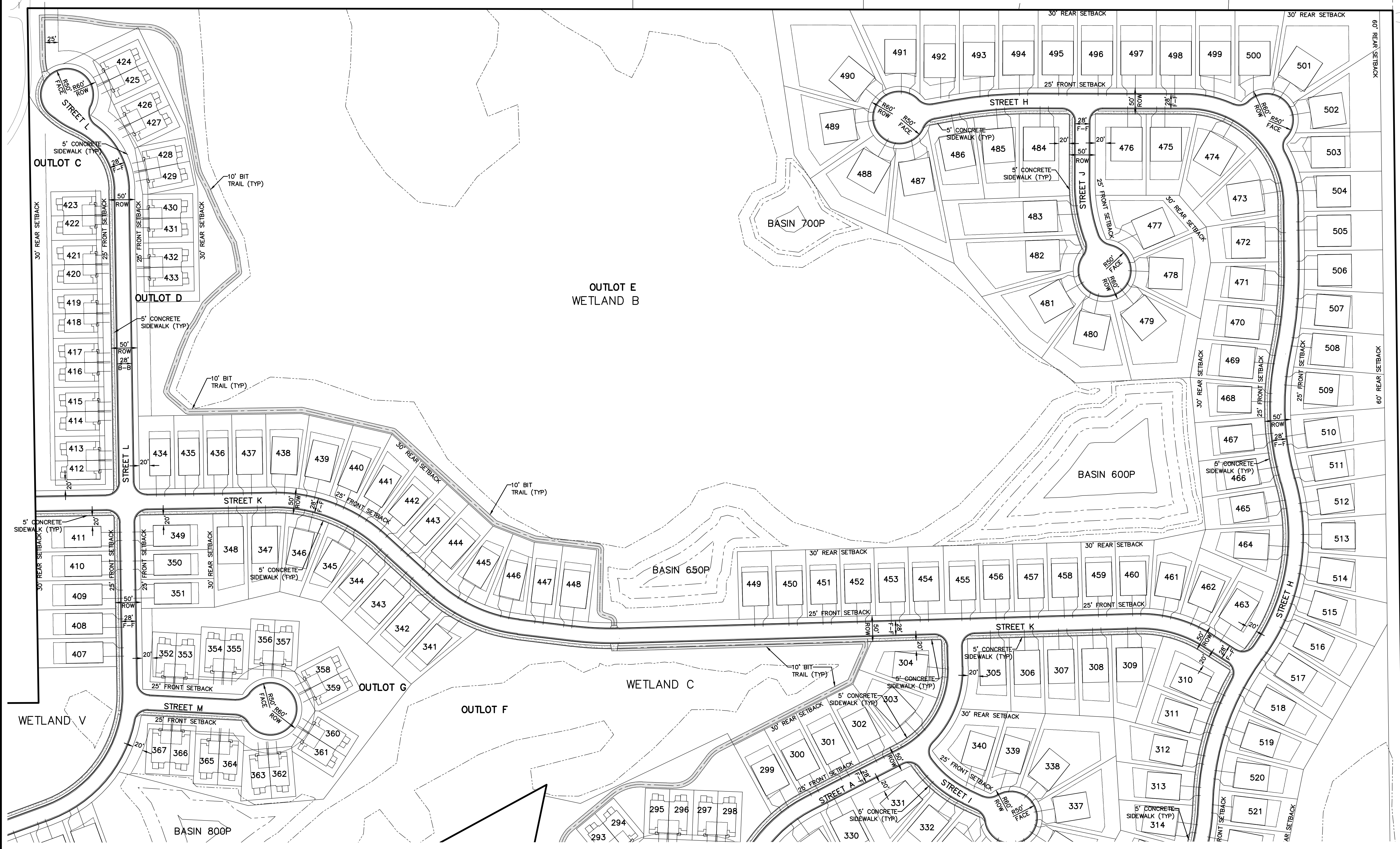
65' WIDE SINGLE FAMILY LOTS:  
 AREA: 7,800 SF  
 WIDTH: 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECKS)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

55' WIDE SINGLE FAMILY LOTS:  
 AREA: 6,600 SF  
 WIDTH: 55'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECKS)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

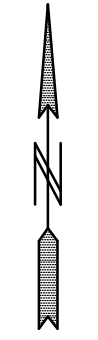
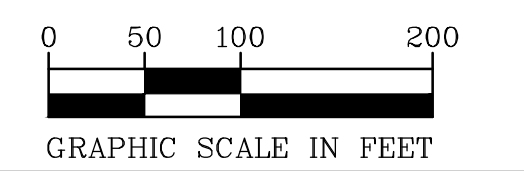
TWINHOME LOTS:  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING

TOWNHOME LOTS:  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING  
 SIDE STREET: 20' TO CURB(PRIVATE STREET)  
 SIDE STREET: 20' TO RIGHT OF WAY(PUBLIC STREET)

WETLAND REQUIREMENTS (AVERAGING ALLOWED):  
 HIGH:  
 AVERAGE WIDTH: 50'  
 MINIMUM WIDTH: 40'  
 MAXIMUM WIDTH: 60'  
 SETBACK FROM BUFFER: 15'  
 MEDIUM:  
 AVERAGE WIDTH: 25'  
 MINIMUM WIDTH: 20'  
 MAXIMUM WIDTH: 40'  
 SETBACK FROM BUFFER: 15'  
 LOW:  
 AVERAGE WIDTH: 25' (WATERSHED STANDARD)  
 MINIMUM WIDTH: 10'  
 MAXIMUM WIDTH: 20'  
 SETBACK FROM BUFFER: 15'



COUNTY ROAD 116



00-ENG-119128-SHEET-SITE



2422 Enterprise Drive  
 Mendota Heights, MN 55120  
 (651) 681-1914  
 Fax: 681-9488  
 www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
 Name: Paul J. Cherm  
 Reg. No.: 19860  
 Date: 4-21-2020

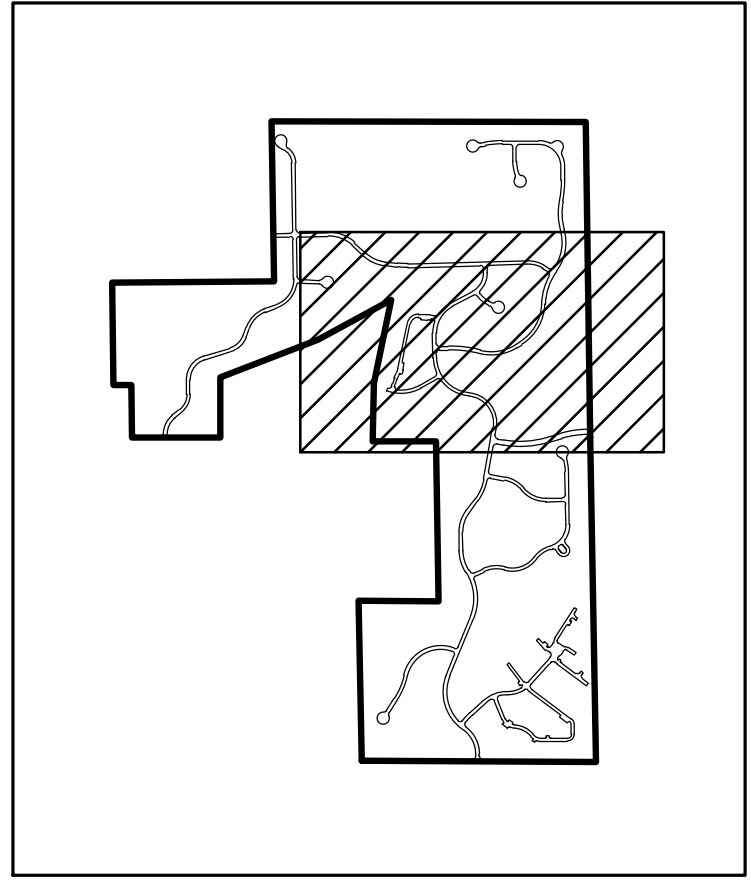
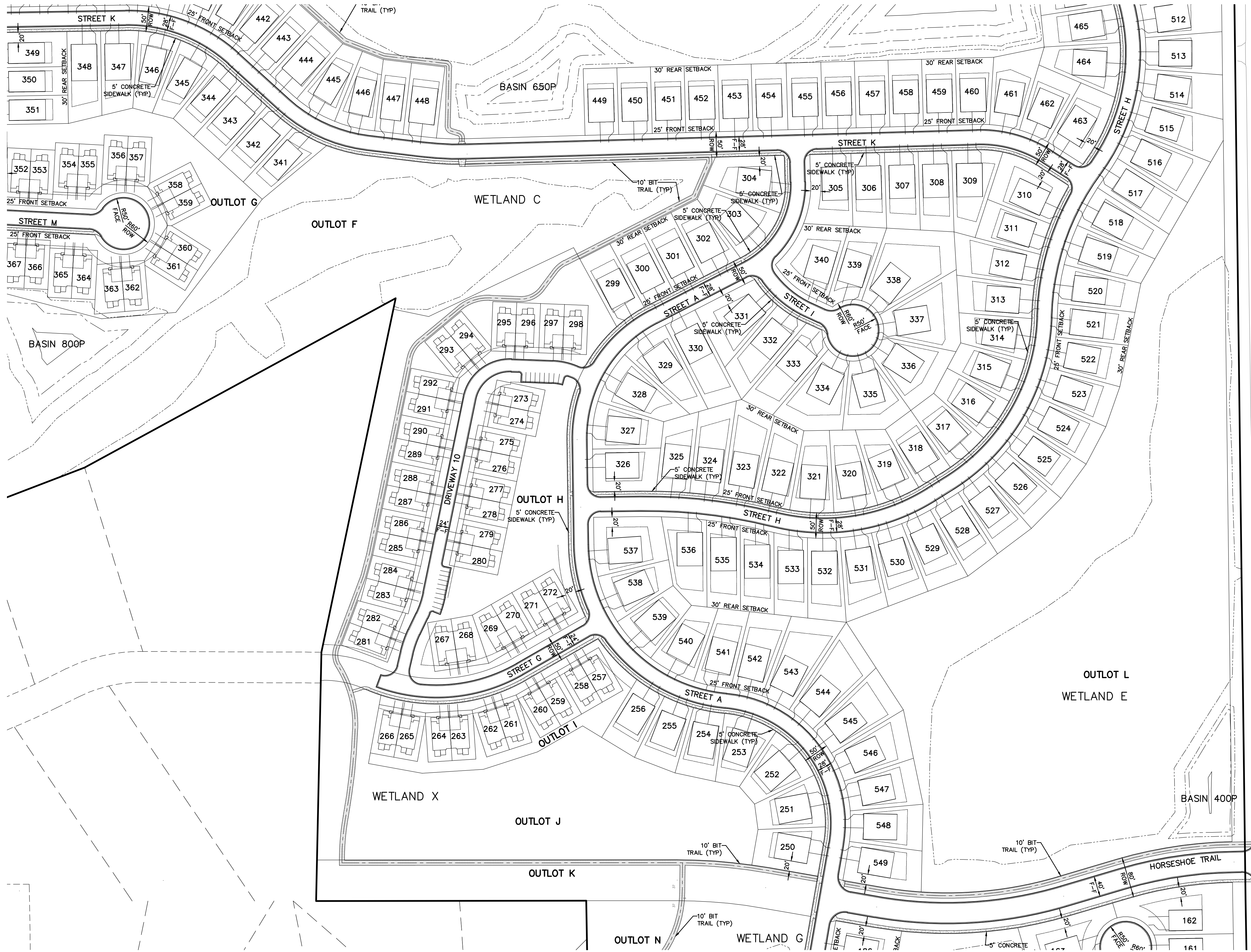
Revisions  
 Date: 4-21-20  
 Designed: PIC/BNM  
 Drawn: MPC/MSN

PRELIMINARY SITE PLAN

LENNAR  
 16305 36TH AVENUE NORTH  
 PLYMOUTH, MINNESOTA 55446

TAVERA  
 CORCORAN, MINNESOTA

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PROPOSED UNITS: 549

55-65' VILLAS: 70 (44-55', 29-65')  
 55' SF: 51  
 65' SF: 156  
 75' SF: 58  
 TWIN UNITS: 80  
 ROW TOWNHOME UNITS: 134

PROPOSED SETBACKS:

VILLAS:  
 AREA: 7,000 SF  
 WIDTH: 55' TO 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

75' WIDE SINGLE FAMILY LOTS:  
 AREA: 9,000 SF  
 WIDTH: 75'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

65' WIDE SINGLE FAMILY LOTS:  
 AREA: 7,800 SF  
 WIDTH: 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

55' WIDE SINGLE FAMILY LOTS:  
 AREA: 6,600 SF  
 WIDTH: 55'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
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 CO. RD. 116: 60'

TWINHOME LOTS:  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING

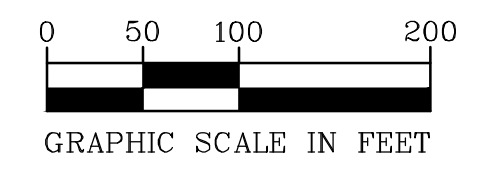
TOWNHOME LOTS:  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING  
 SIDE STREET: 20' TO CURB(PRIVATE STREET)  
 SIDE STREET: 20' TO RIGHT OF WAY(PUBLIC STREET)

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 AVERAGE WIDTH: 50'  
 MINIMUM WIDTH: 40'  
 MAXIMUM WIDTH: 60'  
 SETBACK FROM BUFFER: 15'

MEDIUM:  
 AVERAGE WIDTH: 25'  
 MINIMUM WIDTH: 20'  
 MAXIMUM WIDTH: 40'  
 SETBACK FROM BUFFER: 15'

LOW:  
 AVERAGE WIDTH: 25' (WATERSHED STANDARD)  
 MINIMUM WIDTH: 10'  
 MAXIMUM WIDTH: 20'  
 SETBACK FROM BUFFER: 15'



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 Name: *Paul J. Cherm*  
 Paul J. Cherm  
 Reg. No. 19860 Date: 4-21-2020

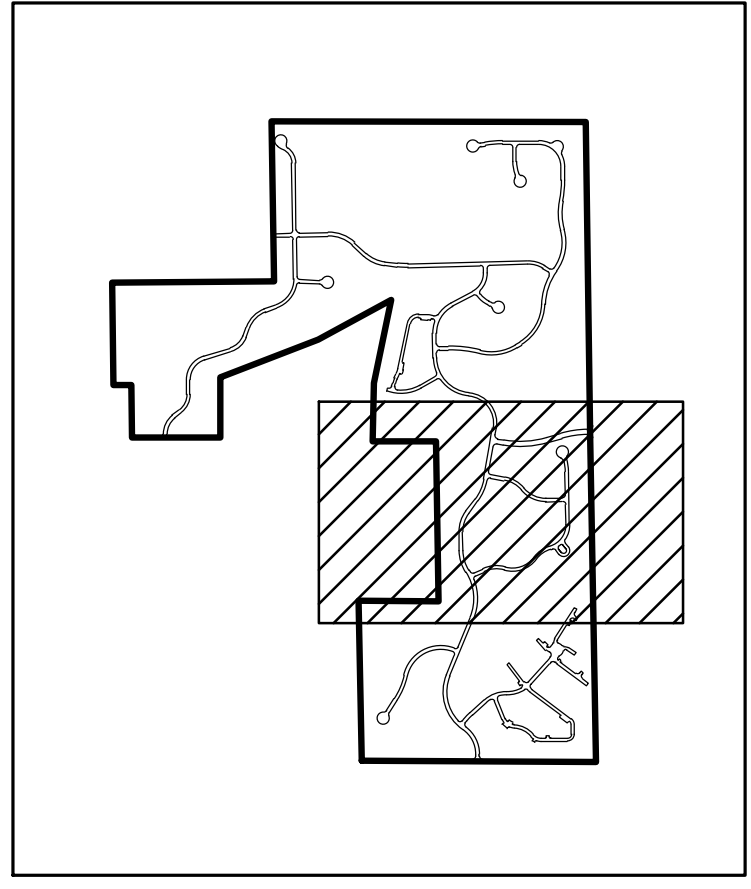
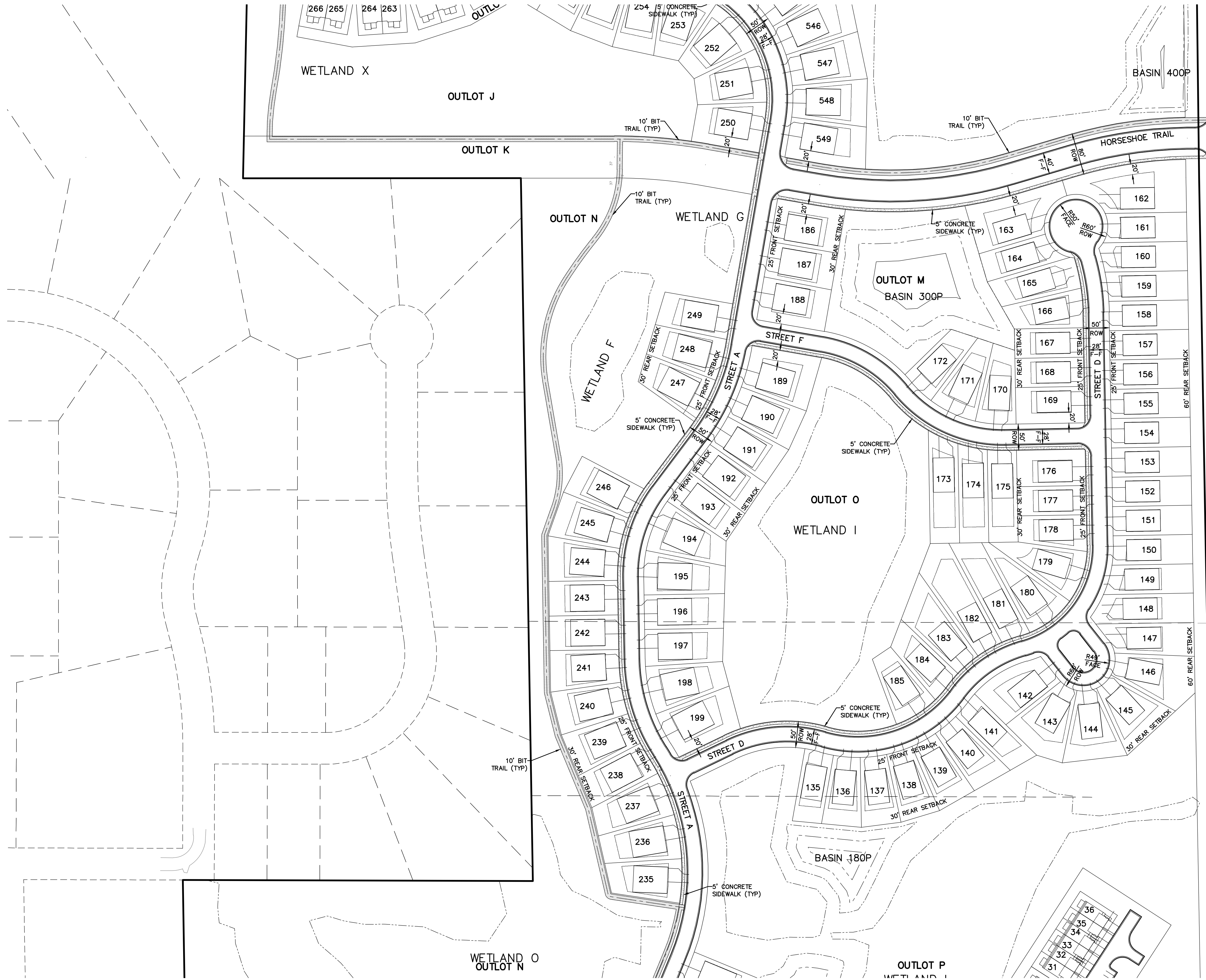
Revisions  
 Date: 4-21-20  
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 Drawn: MPC/MSN

**PRELIMINARY SITE PLAN**

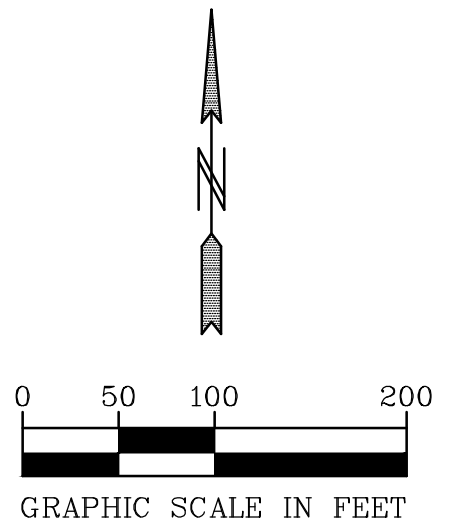
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**TAVERA**  
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 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'
- 65' WIDE SINGLE FAMILY LOTS:  
 AREA: 7,800 SF  
 WIDTH: 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'
- 55' WIDE SINGLE FAMILY LOTS:  
 AREA: 6,600 SF  
 WIDTH: 55'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'
- TWINHOME LOTS:  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING
- TOWNHOME LOTS:  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING  
 SIDE STREET: 20' TO CURB(PRIVATE STREET)  
 SIDE STREET: 20' TO RIGHT OF WAY(PUBLIC STREET)
- WETLAND REQUIREMENTS (AVERAGING ALLOWED):
- HIGH:  
 AVERAGE WIDTH: 50'  
 MINIMUM WIDTH: 40'  
 MAXIMUM WIDTH: 60'  
 SETBACK FROM BUFFER: 15'
- MEDIUM:  
 AVERAGE WIDTH: 25'  
 MINIMUM WIDTH: 20'  
 MAXIMUM WIDTH: 40'  
 SETBACK FROM BUFFER: 15'
- LOW:  
 AVERAGE WIDTH: 25' (WATERSHED STANDARD)  
 MINIMUM WIDTH: 10'  
 MAXIMUM WIDTH: 20'  
 SETBACK FROM BUFFER: 15'



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Name: *Paul J. Cherm*  
 Paul J. Cherm  
 Reg. No. 19860 Date 4-21-2020

Revisions

Date 4-21-20  
 Designed PIC/BNM  
 Drawn MPC/MSN

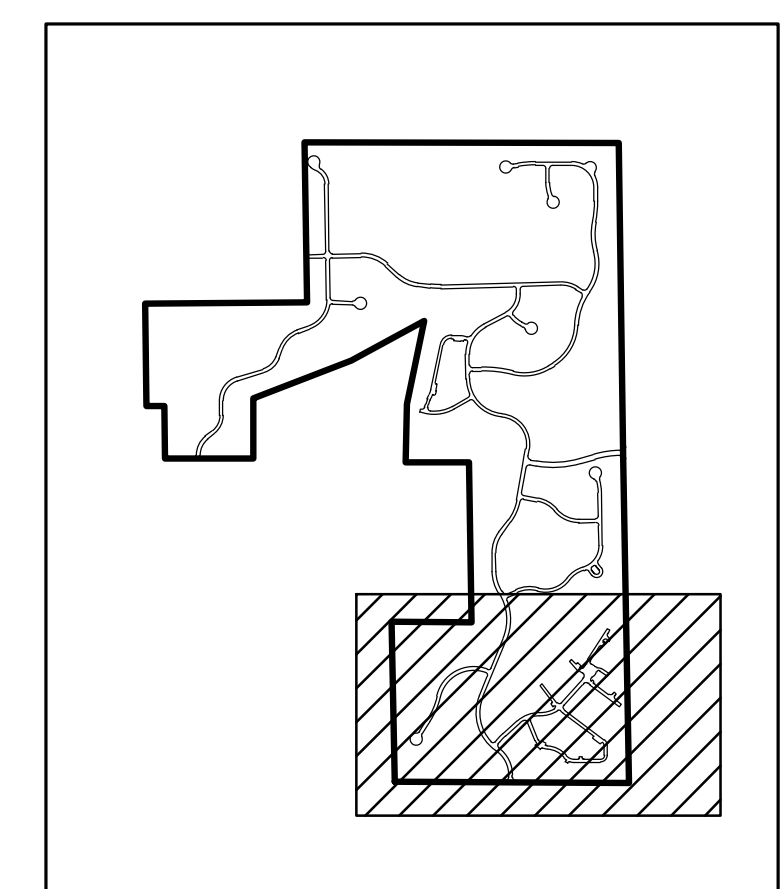
PRELIMINARY SITE PLAN

LENNAR  
 16305 36TH AVENUE NORTH  
 PLYMOUTH, MINNESOTA 55446

TAVERA  
 CORCORAN, MINNESOTA

3.04 OF 67





**INDEX**

PROPOSED UNITS: 549  
 55-65' VILLAS: 70 (44-55', 29-65')  
 55' SF: 51  
 65' SF: 156  
 75' SF: 58  
 TWIN UNITS: 80  
 ROW TOWNHOME UNITS: 134

**PROPOSED SETBACKS:**

**VILLAS:**  
 AREA: 7,000 SF  
 WIDTH: 55' TO 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

**75' WIDE SINGLE FAMILY LOTS:**  
 AREA: 9,000 SF  
 WIDTH: 75'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

**65' WIDE SINGLE FAMILY LOTS:**  
 AREA: 7,800 SF  
 WIDTH: 65'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

**55' WIDE SINGLE FAMILY LOTS:**  
 AREA: 6,600 SF  
 WIDTH: 55'  
 FRONT: 25'  
 REAR: 30'(BUILDING)  
 REAR: 20'(PATIO, DECK)  
 SIDE: 7.5'  
 SIDE STREET: 20'  
 CO. RD. 116: 60'

**TOWNHOME LOTS:**  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING

**TOWNHOME LOTS:**  
 FRONT: 25' TO CURB(PRIVATE STREET)  
 FRONT: 25' TO RIGHT OF WAY(PUBLIC STREET)  
 SIDE: 15' BUILDING TO BUILDING  
 SIDE STREET: 20' TO CURB(PRIVATE STREET)  
 SIDE STREET: 20' TO RIGHT OF WAY(PUBLIC STREET)

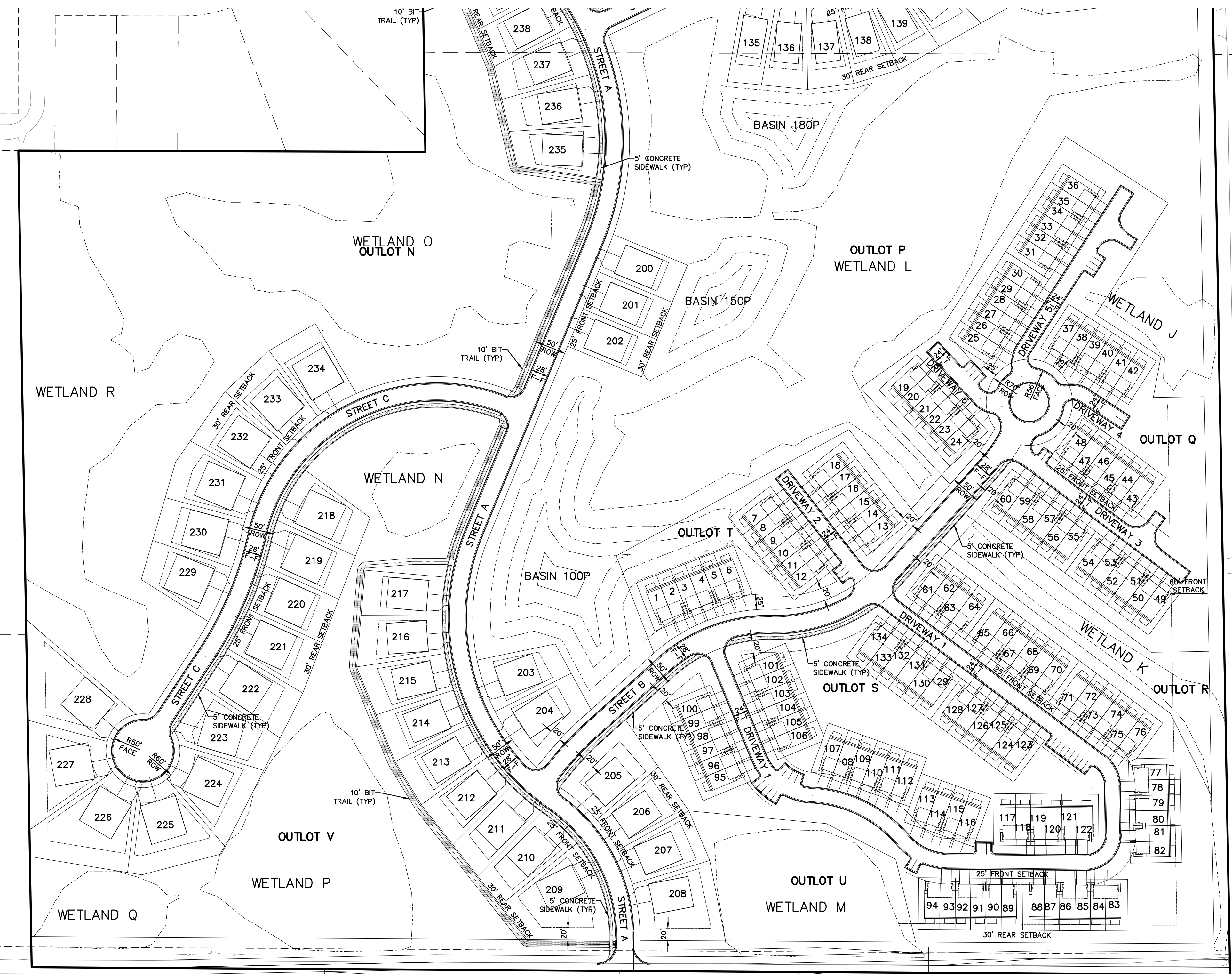
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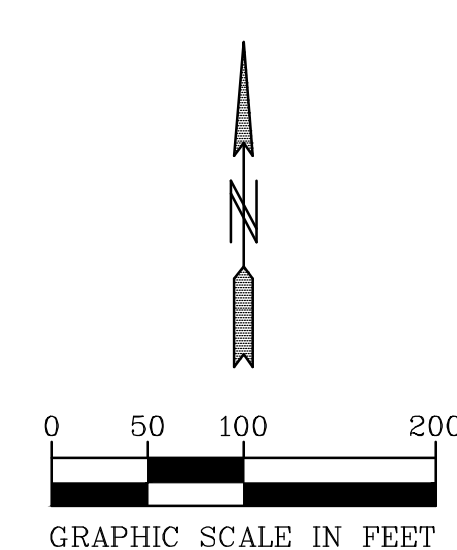
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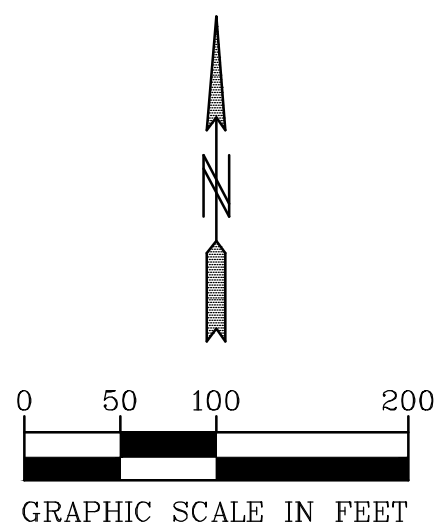
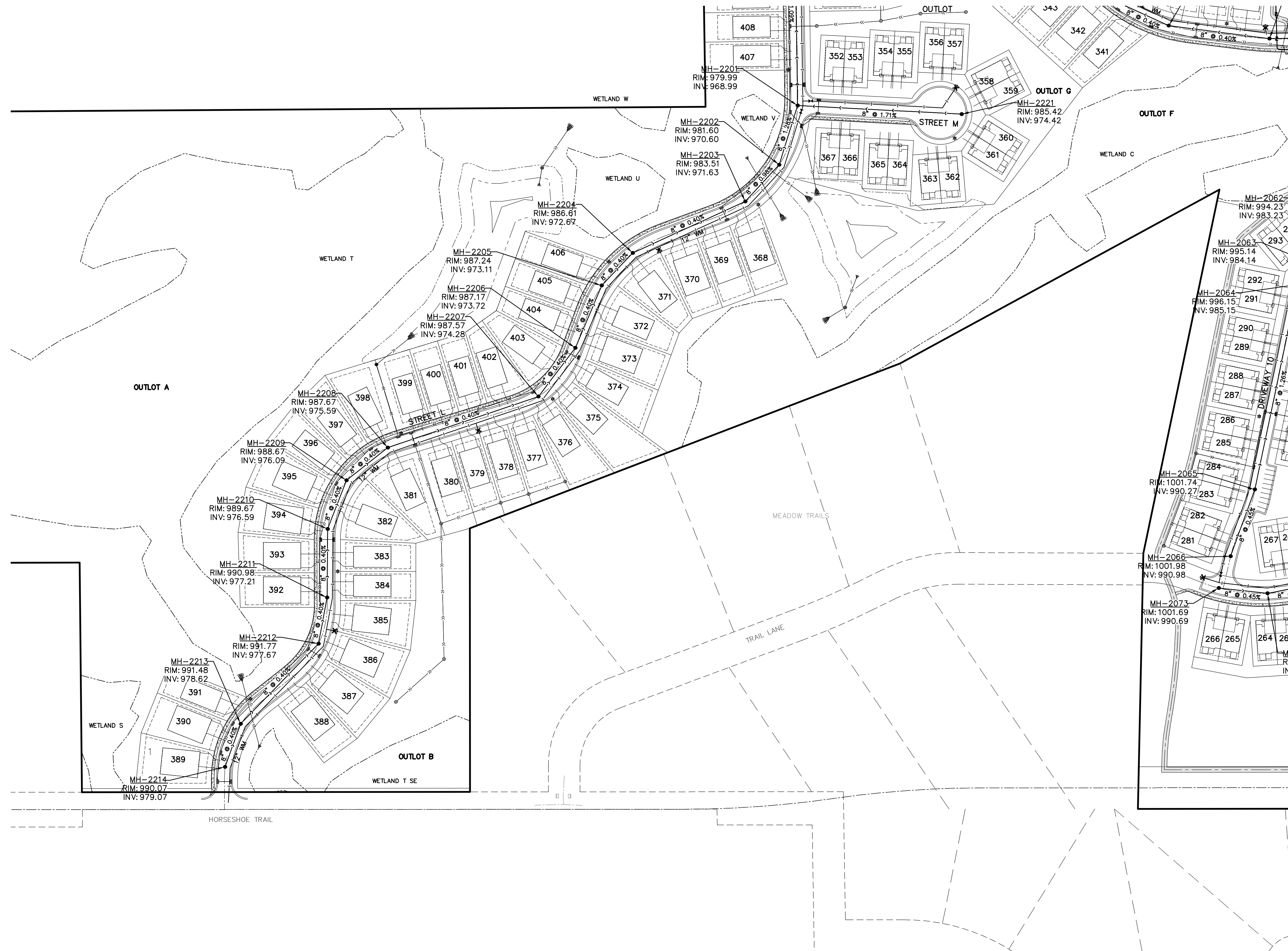
**LOW:**  
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 MINIMUM WIDTH: 10'  
 MAXIMUM WIDTH: 20'  
 SETBACK FROM BUFFER: 15'

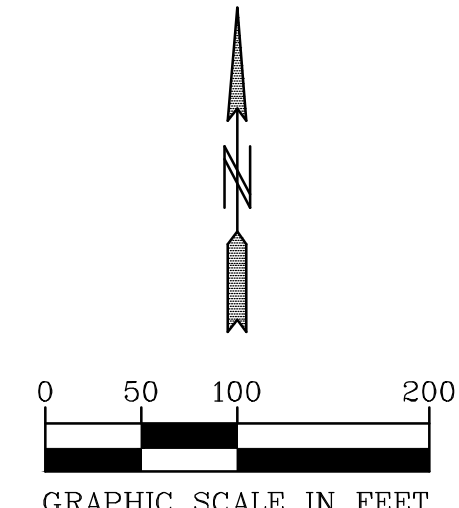
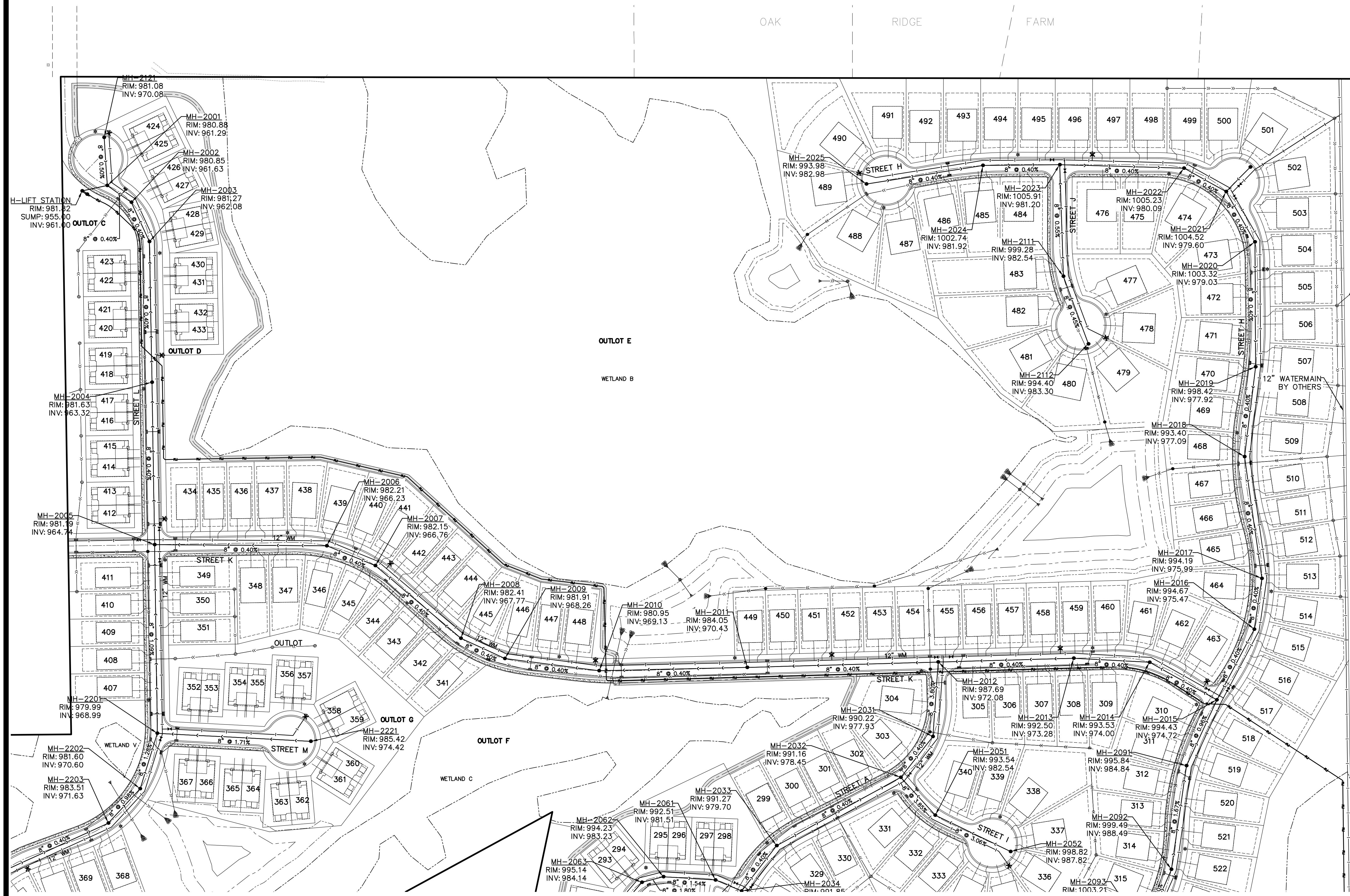
**TOWNHOME PARKING SUMMARY**  
 UNITS: 134  
 OFF STREET: 38  
 ON STREET: 20



COUNTY ROAD 116







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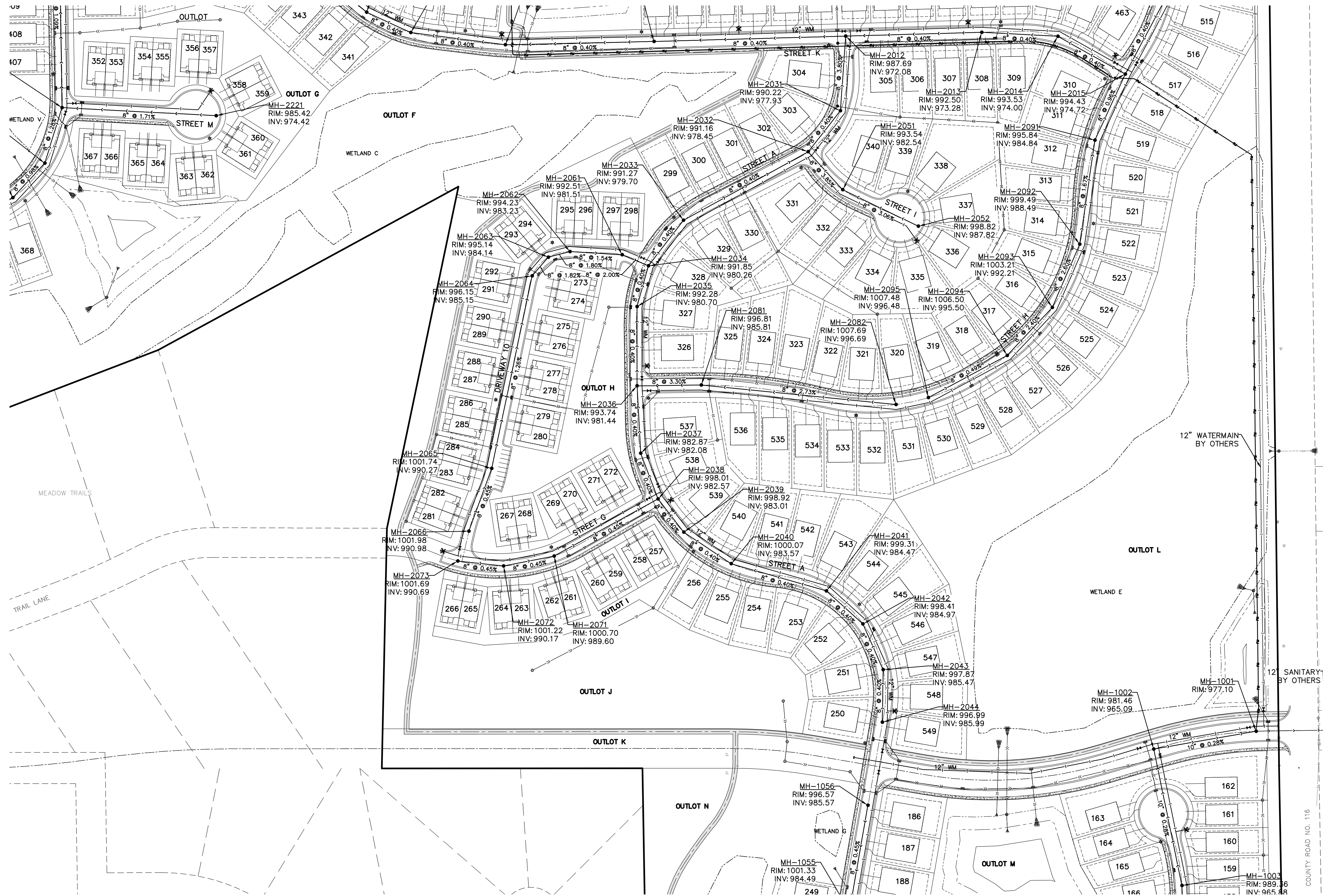
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 Designed: PIC/BNM  
 Drawn: MPC/MSN

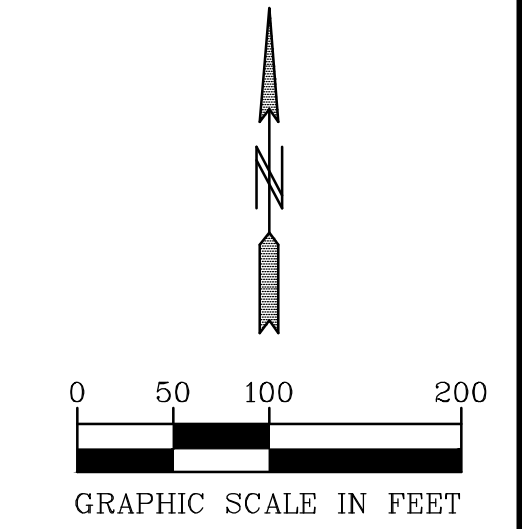
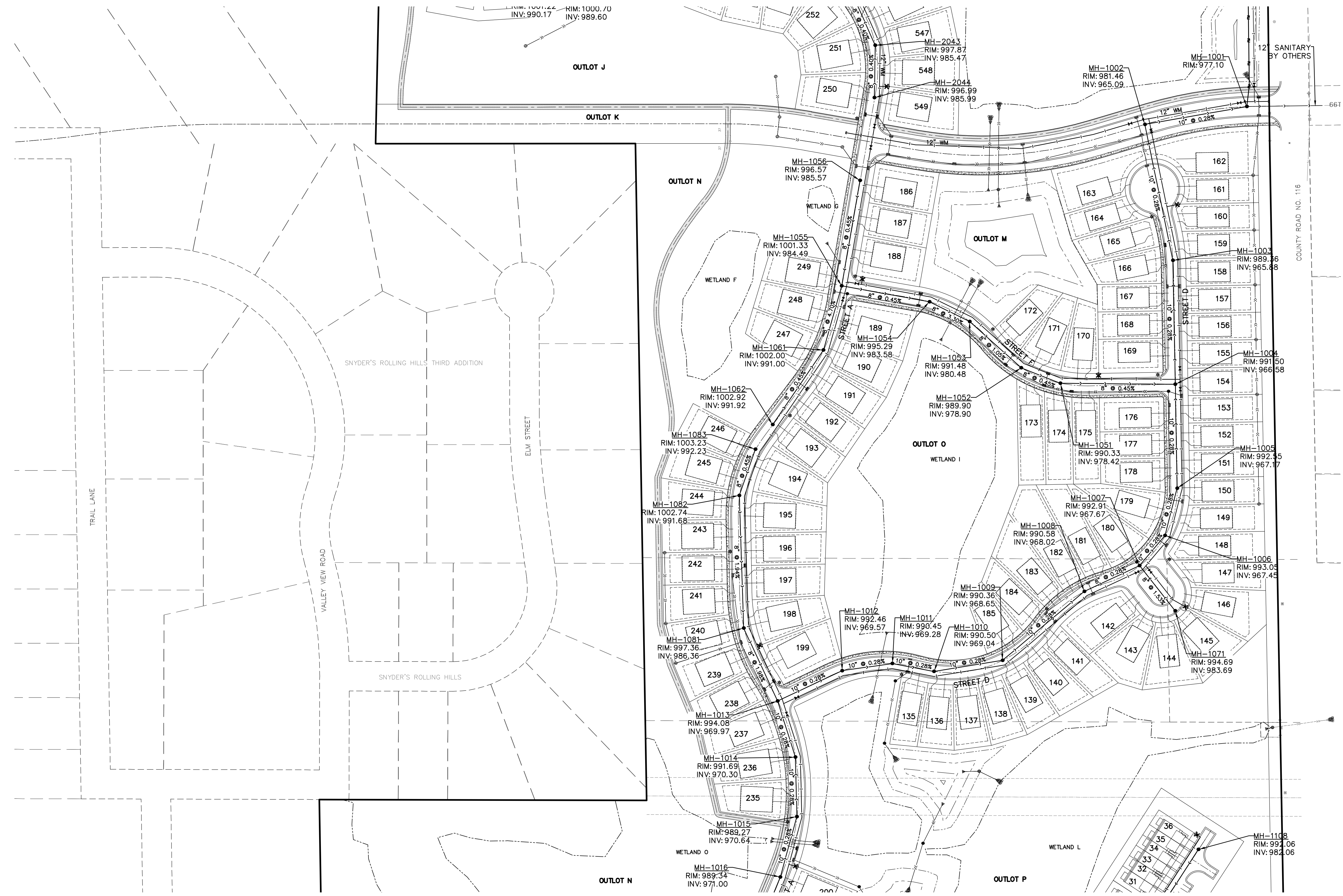
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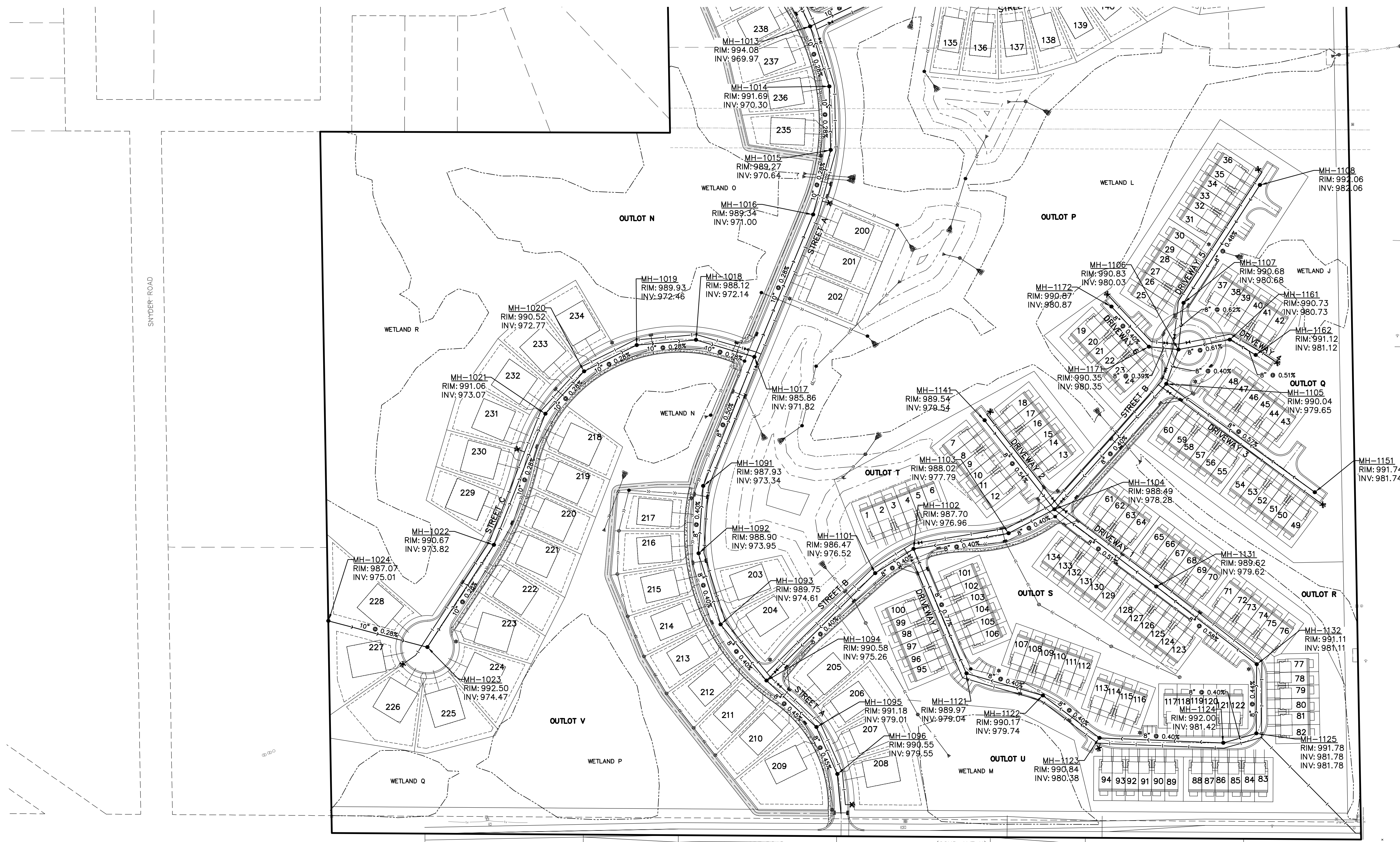
**LENNAR**  
 16305 36TH AVENUE NORTH  
 PLYMOUTH, MINNESOTA 55446

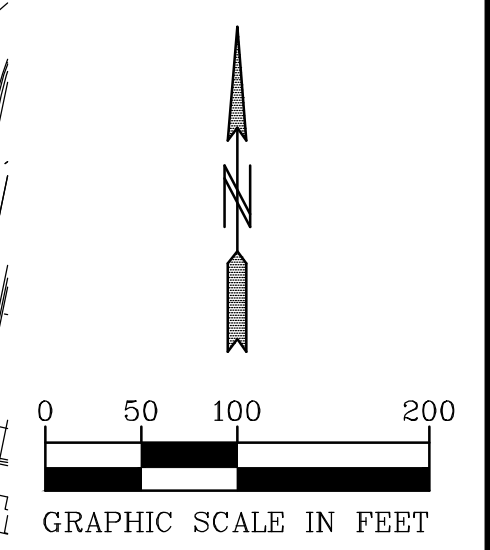
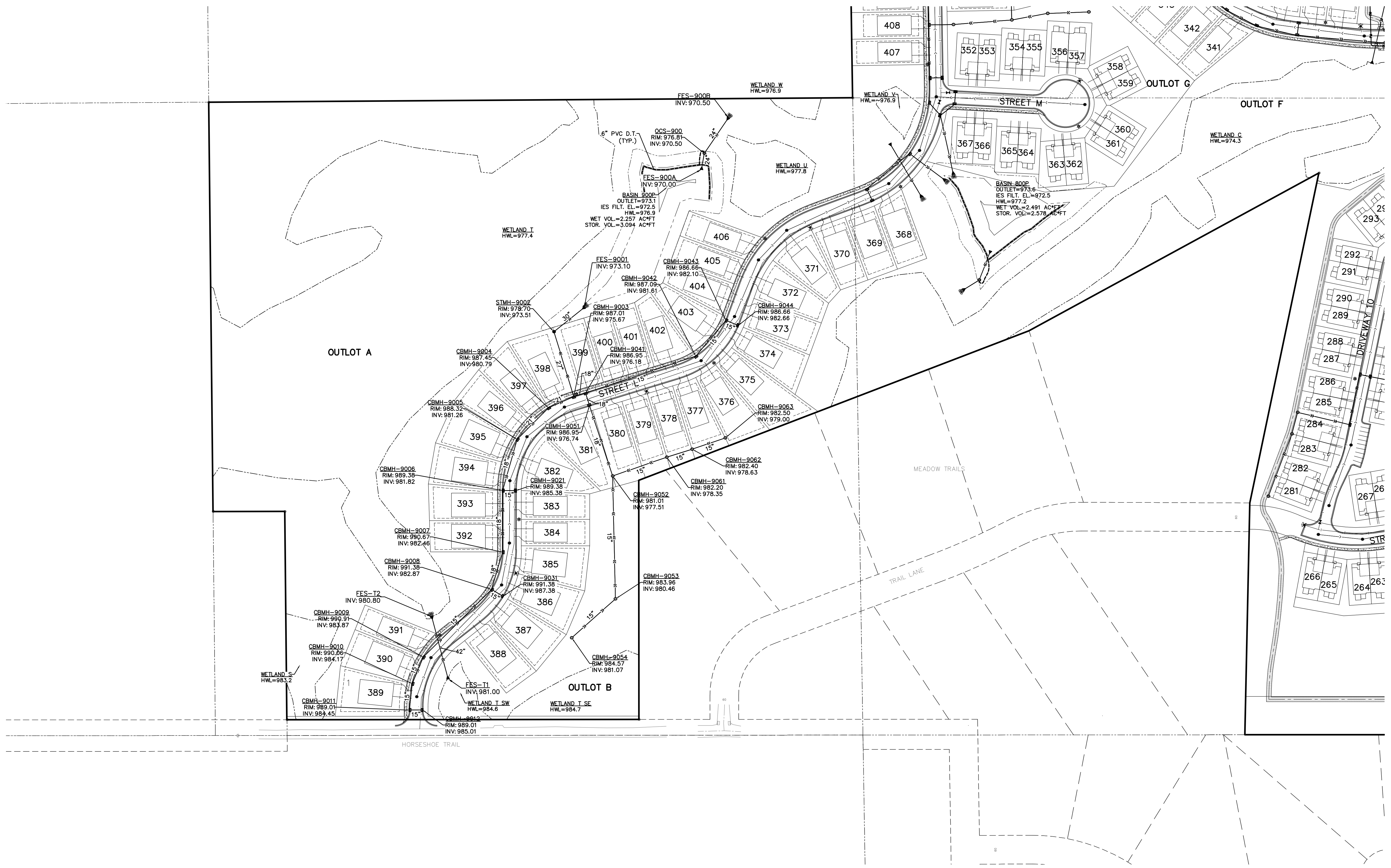
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 CORCORAN, MINNESOTA

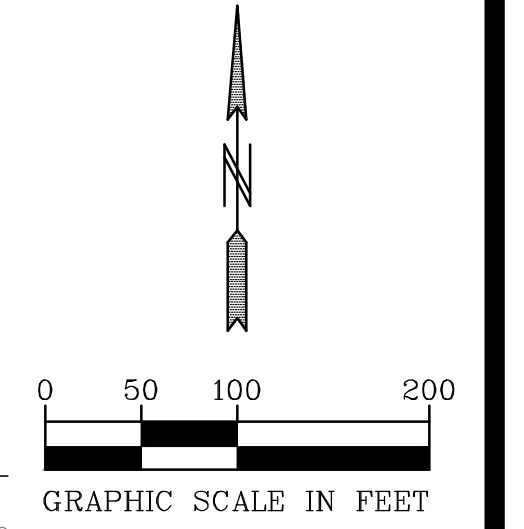
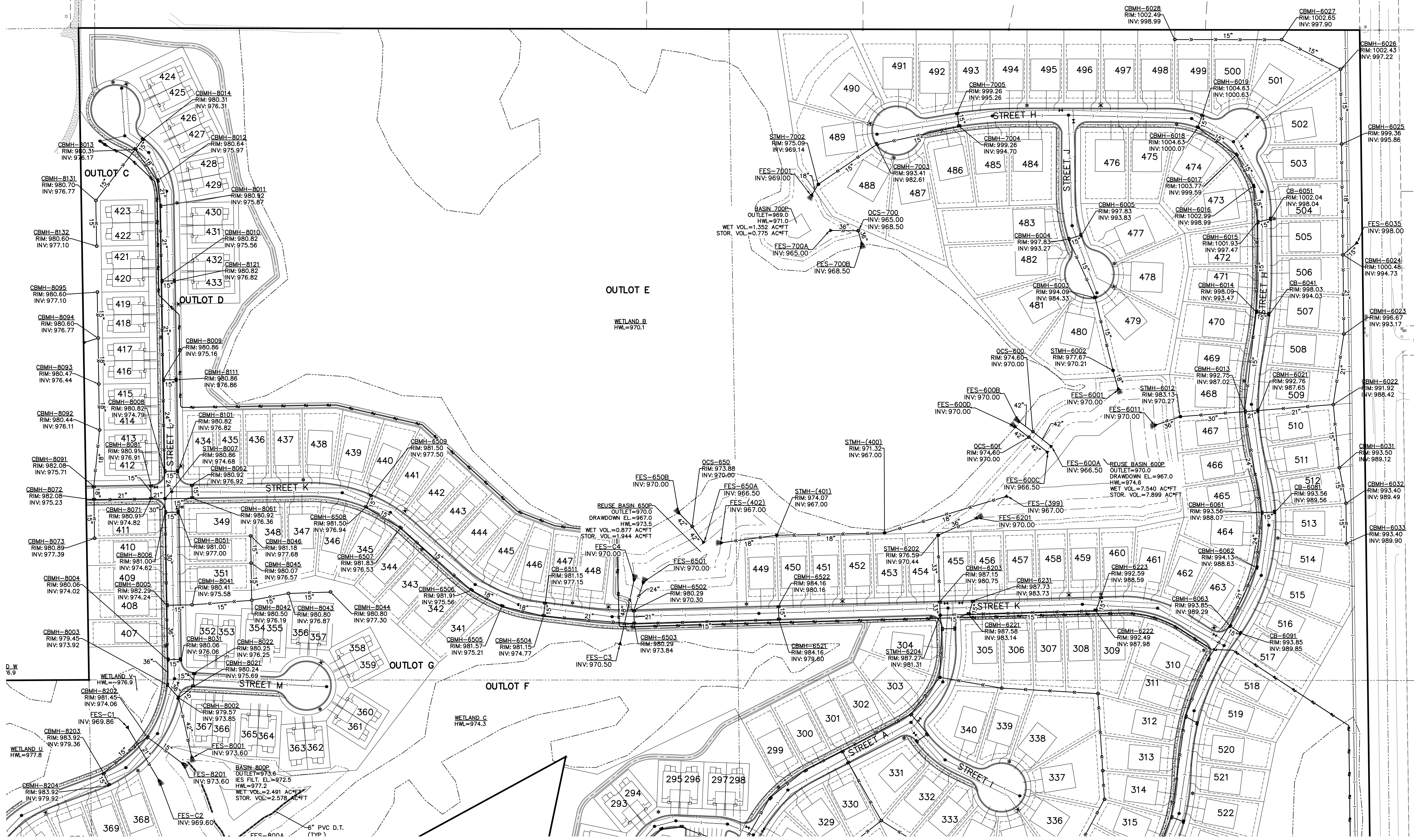
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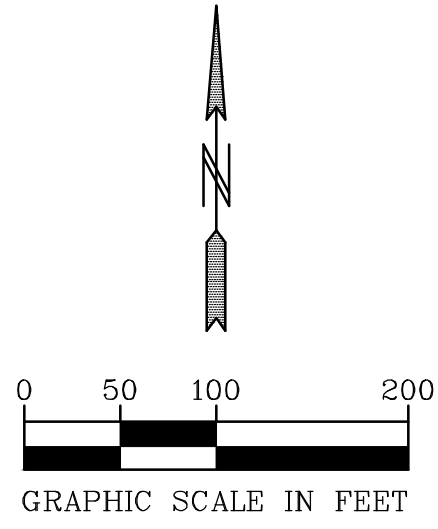
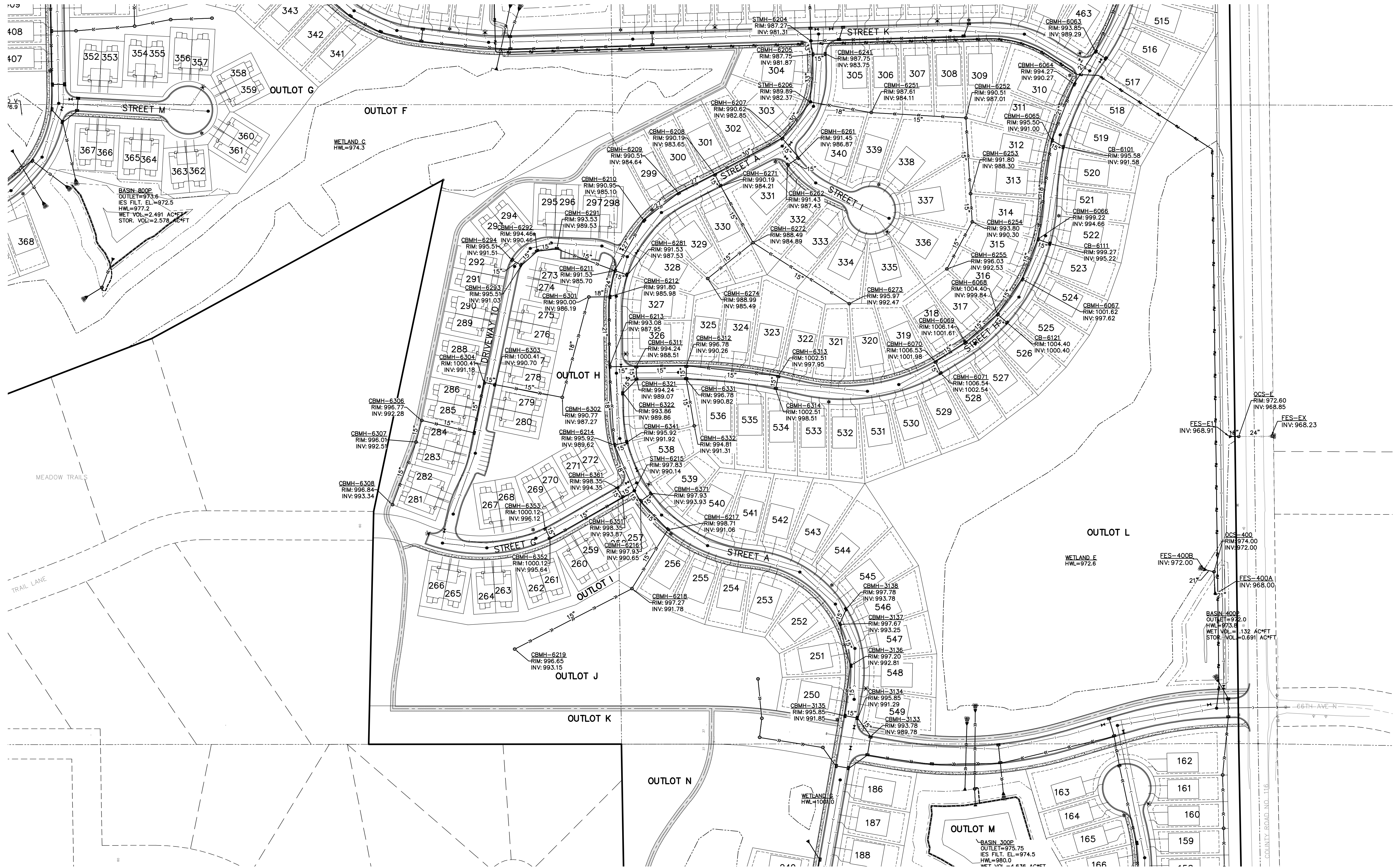












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Revisions  
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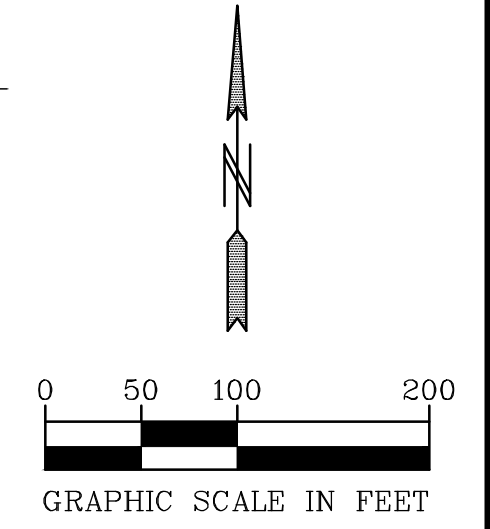
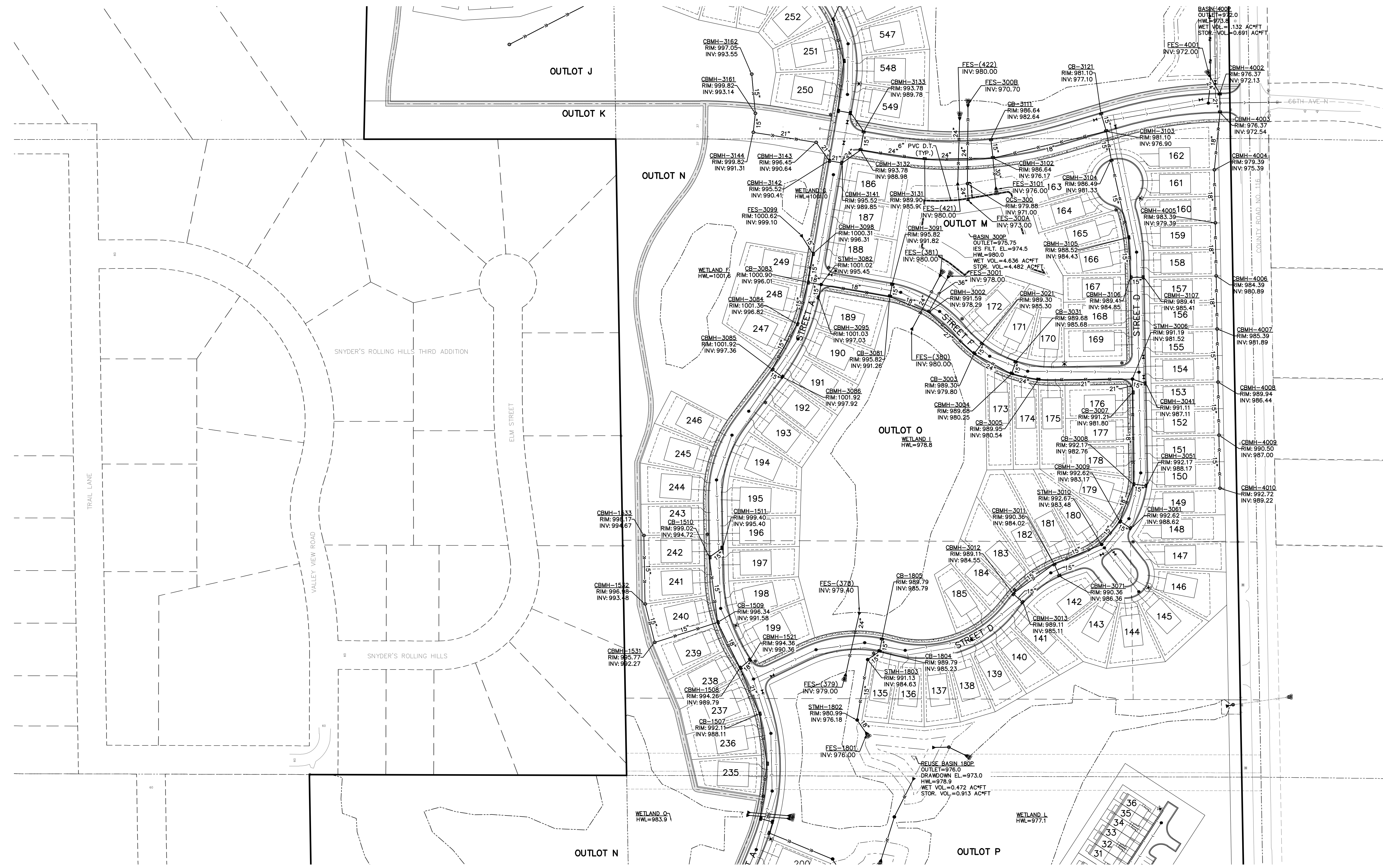
**PRELIMINARY STORM SEWER CONSTRUCTION**

**LENNAR**  
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**TAVERA**  
 CORCORAN, MINNESOTA

00-ENG-119128-SHEET-STRM  
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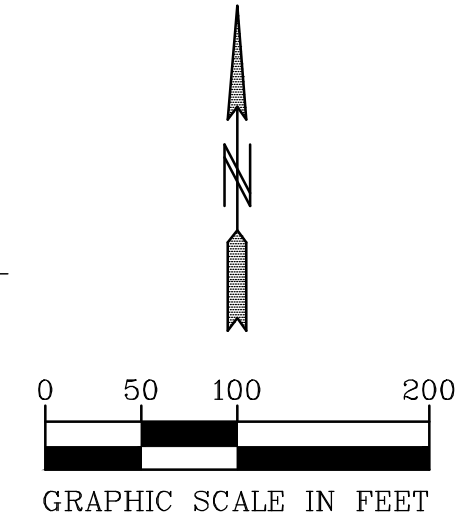
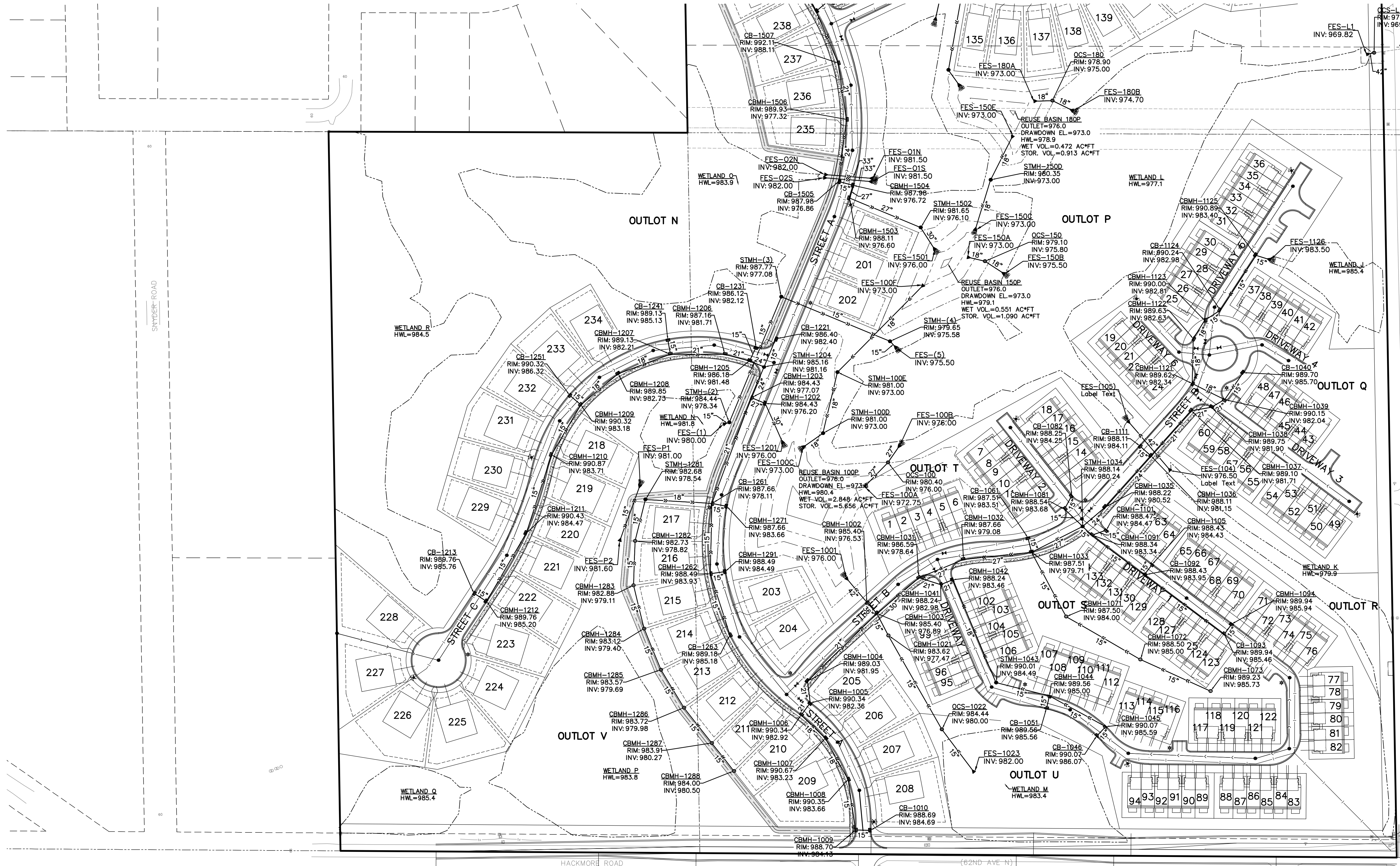
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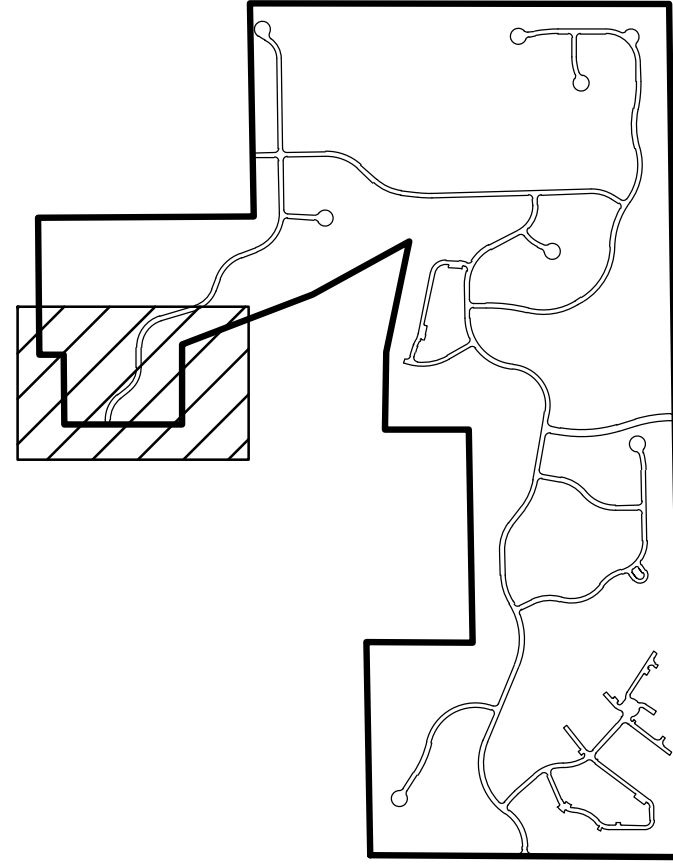
**LENNAR**  
 16305 36TH AVENUE NORTH  
 PLYMOUTH, MINNESOTA 55446

**TAVERA**  
 CORCORAN, MINNESOTA

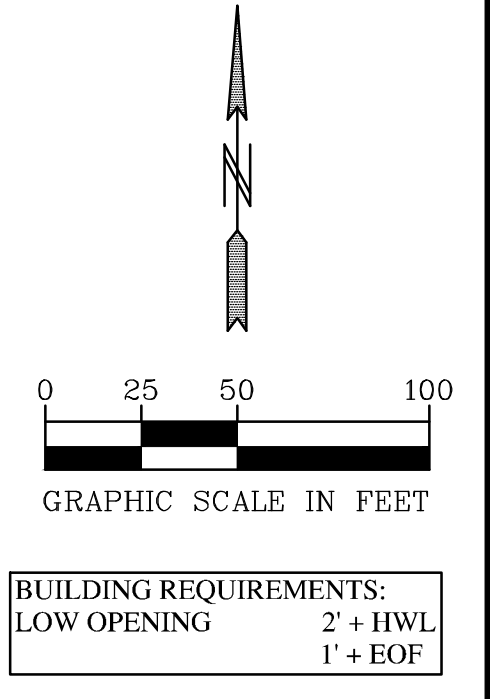
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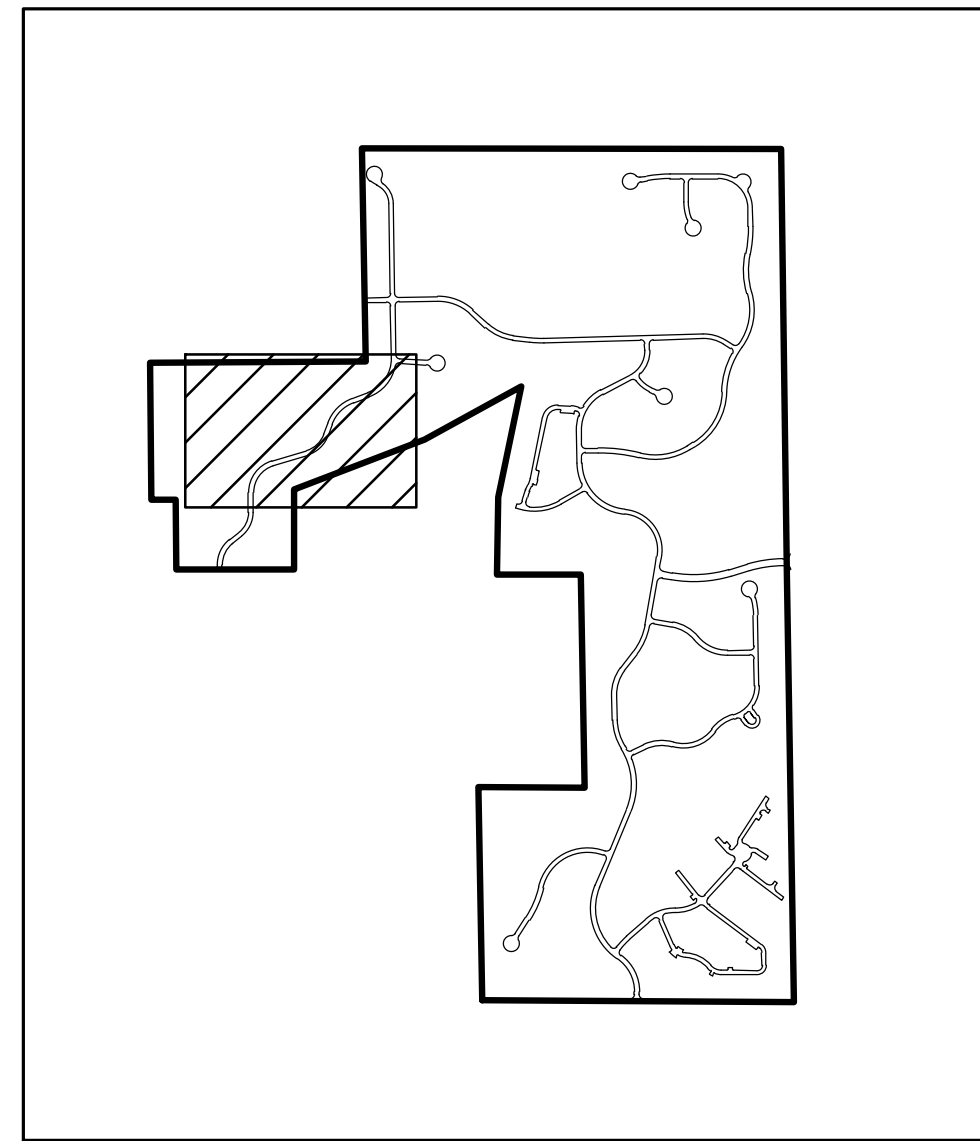
PRELIMINARY GRADING PLAN

LENNAR  
 16305 36TH AVENUE NORTH  
 PLYMOUTH, MINNESOTA 55446

TAVERA  
 CORCORAN, MINNESOTA

00-ENG-119128-SHEET-GRAD

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OUTLOT A

WETLAND T  
HWL=977.4

BASIN 900P  
OUTLET=973.1  
IES FILT. EL.=972.5  
HWL=976.9  
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STOR. VOL.=3.094 AC\*FT

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HWL=976.9

WETLAND V  
HWL=976.9

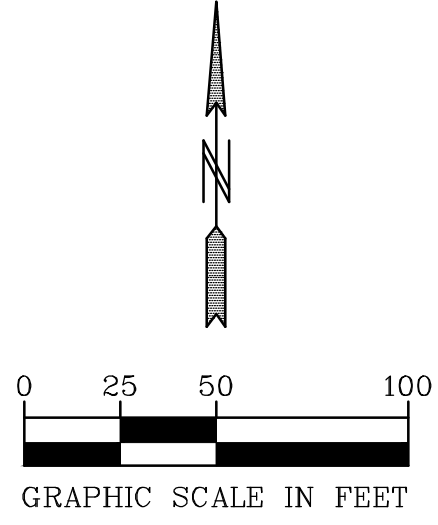
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WETLAND U  
HWL=977.8

CULVERT  
E.O.F.  
INV. 969.86

GAR 984.3  
LF=976.3

367-LO-366  
LO=979.3  
978.8



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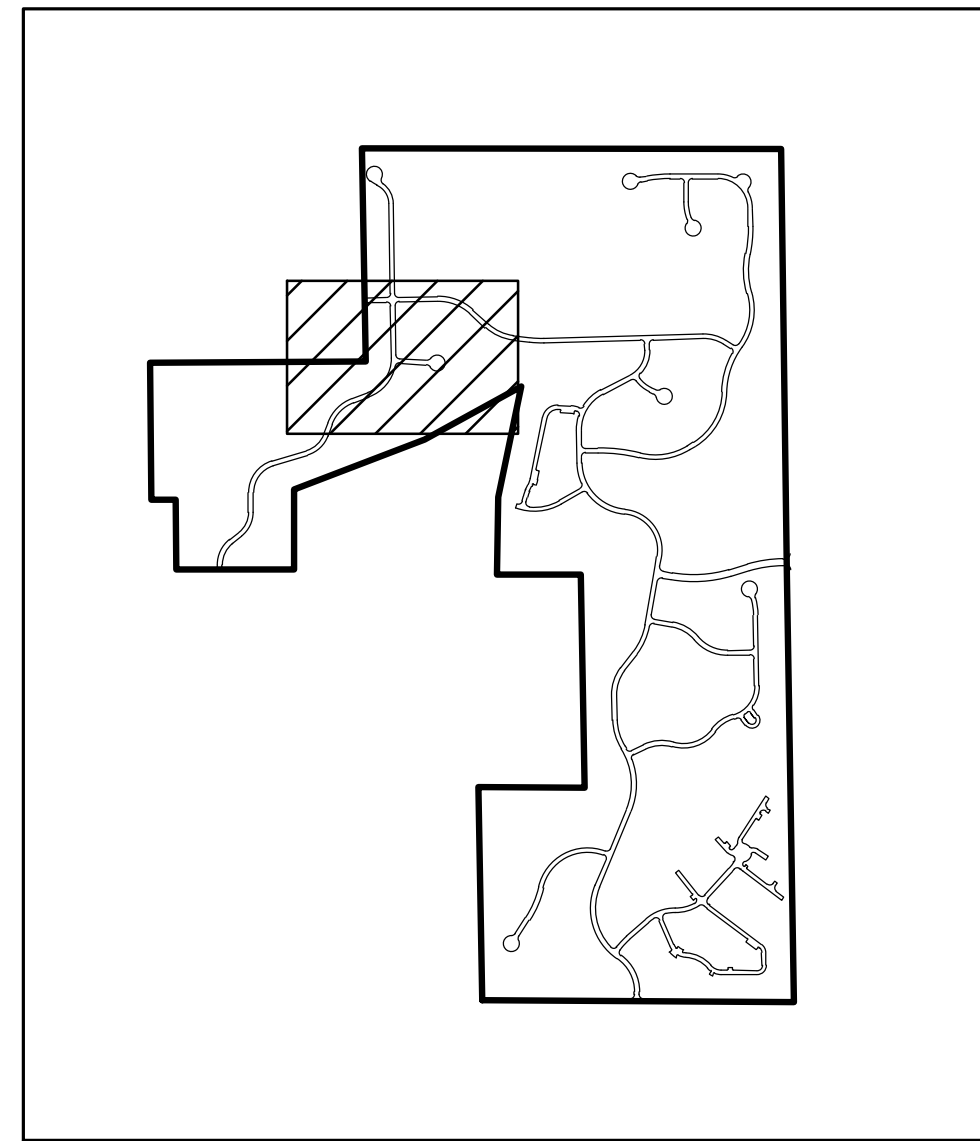
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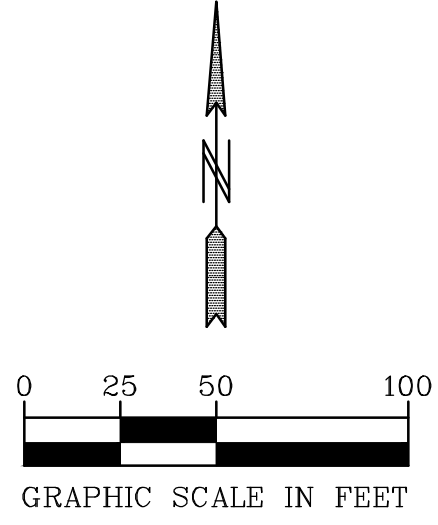
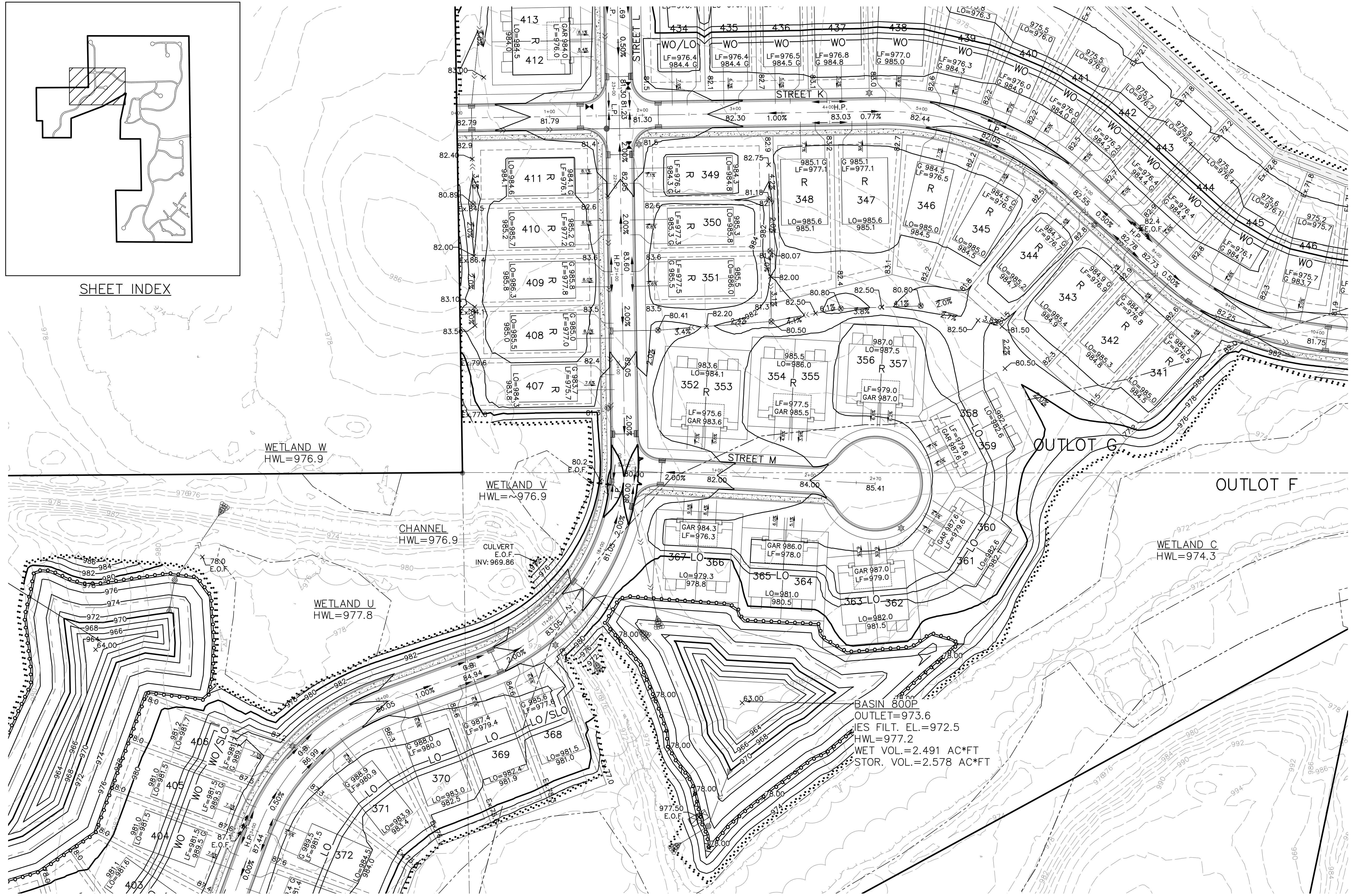
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TAVERA  
CORCORAN, MINNESOTA

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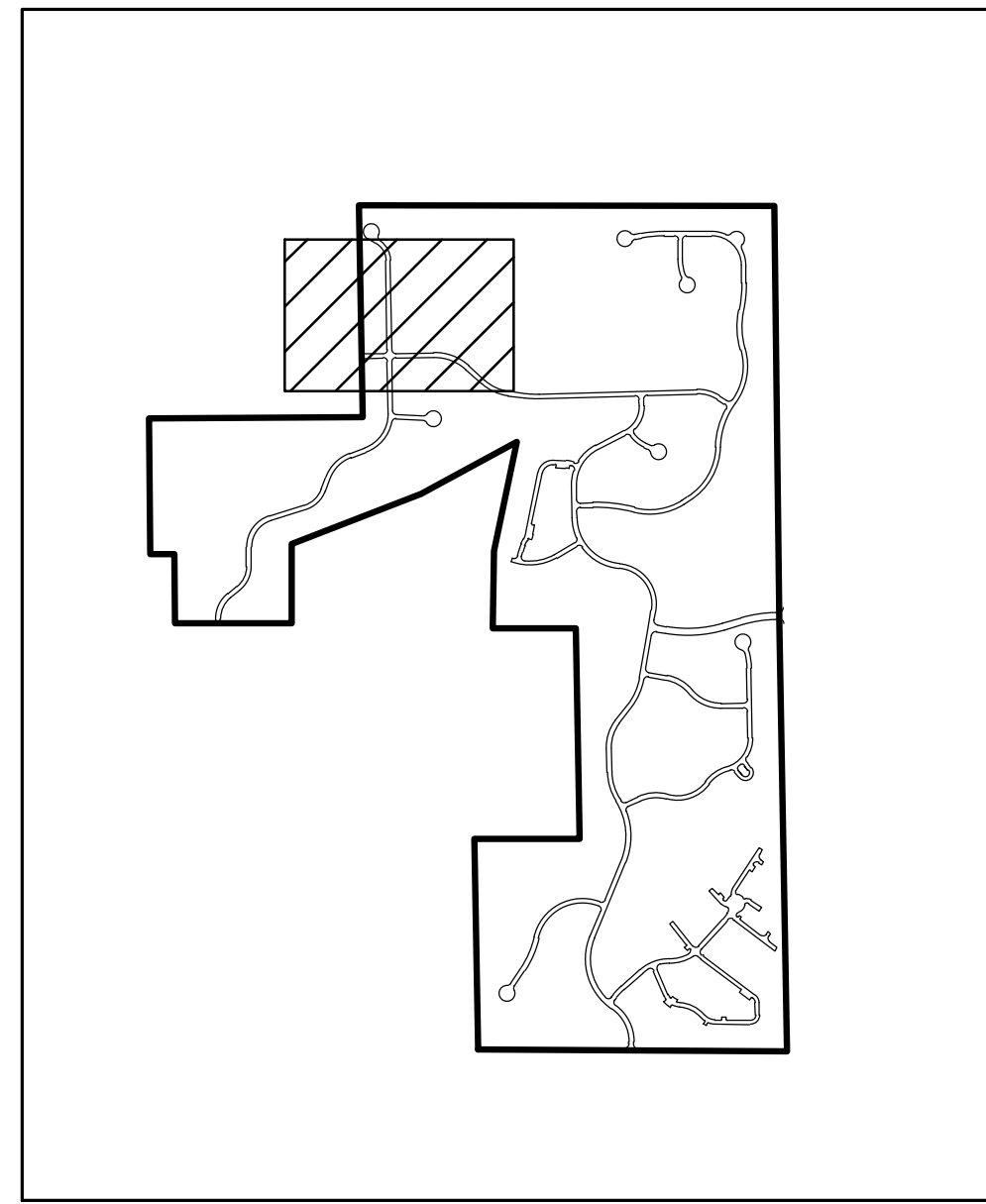
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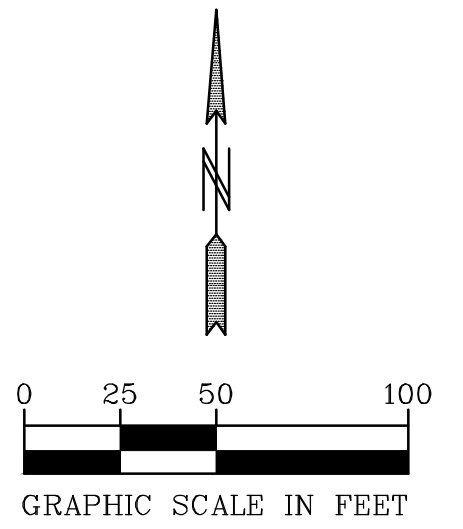
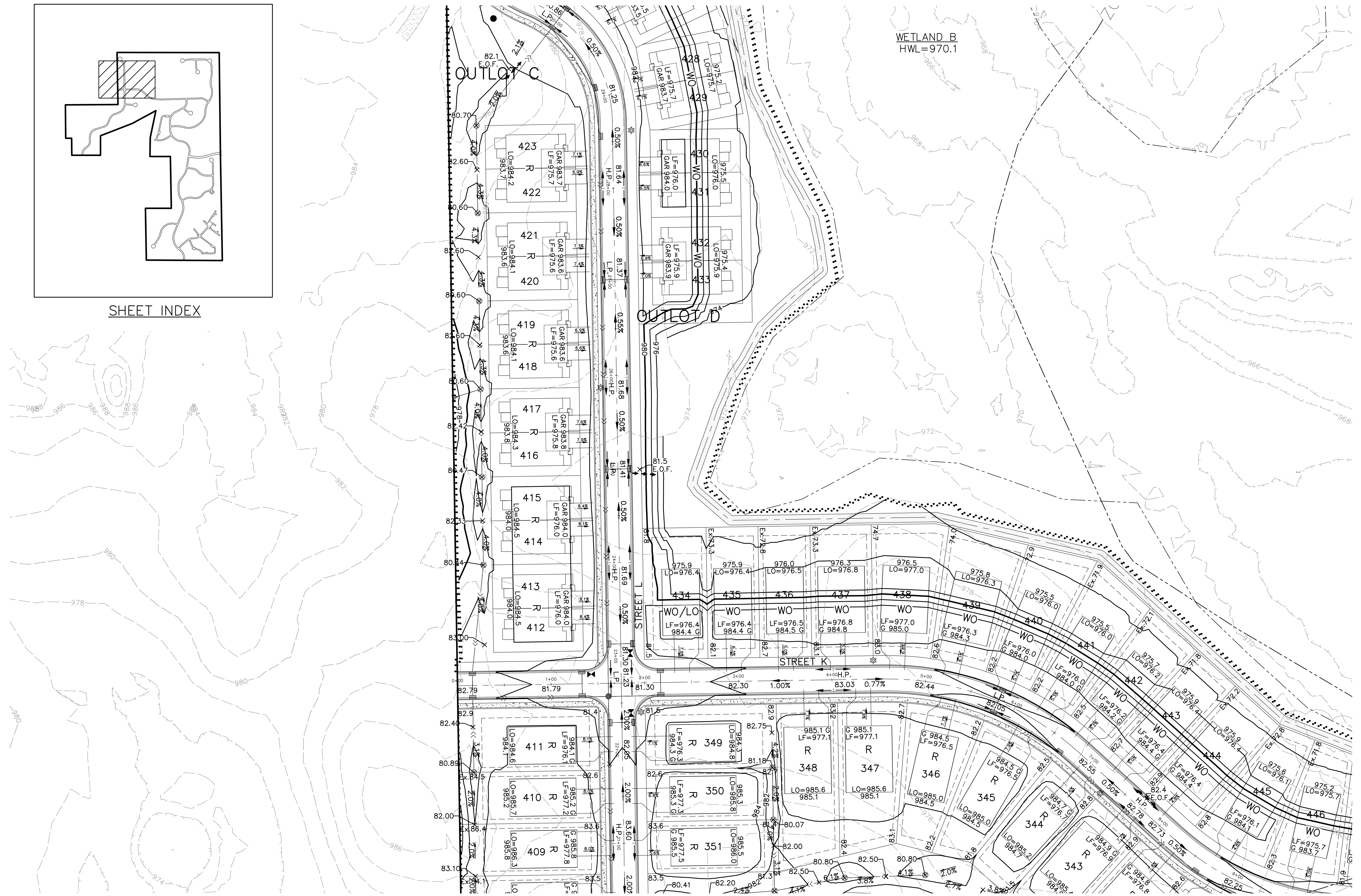
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 PLYMOUTH, MINNESOTA 55446

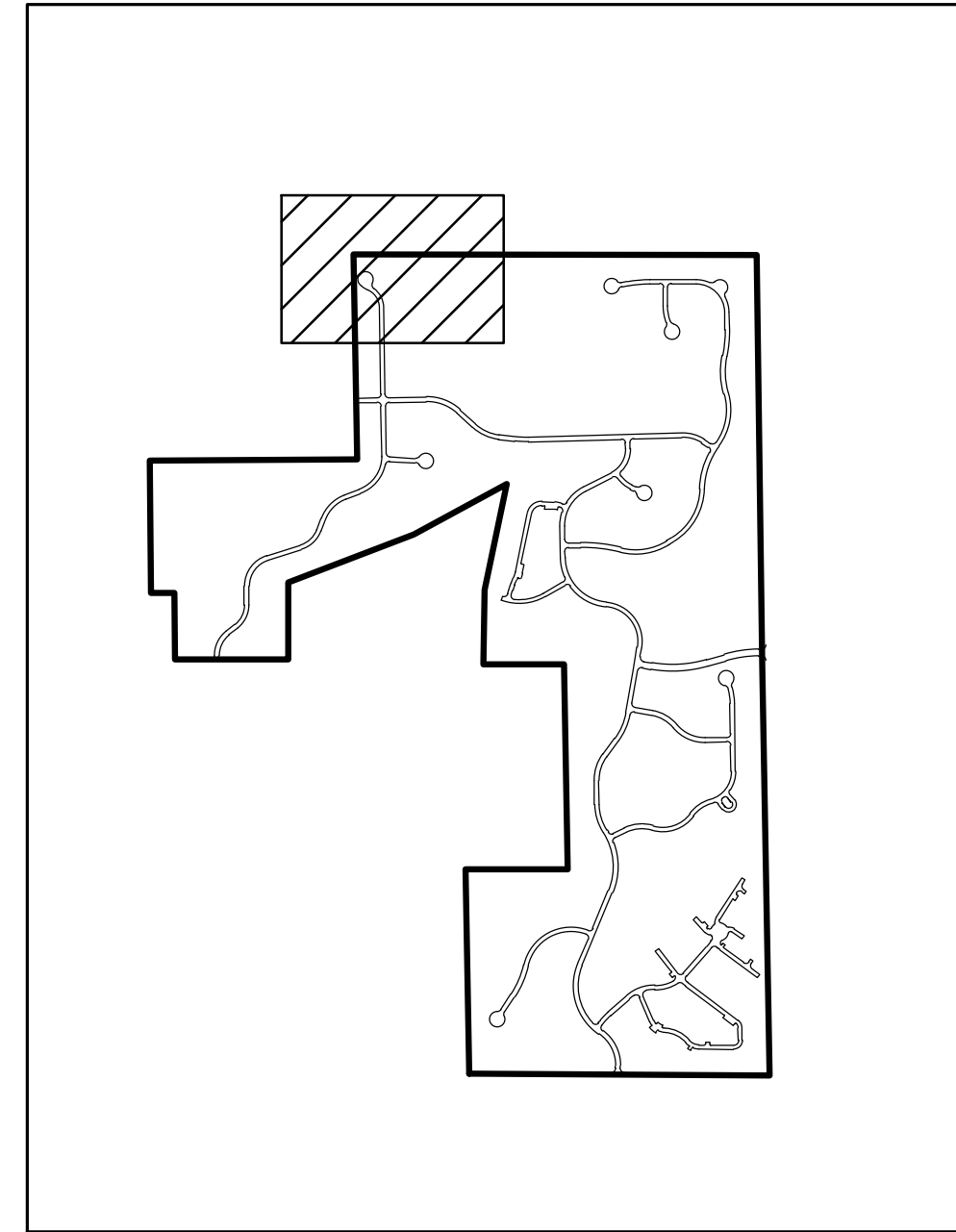
**TAVERA**  
 CORCORAN, MINNESOTA

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 6.03 OF 67

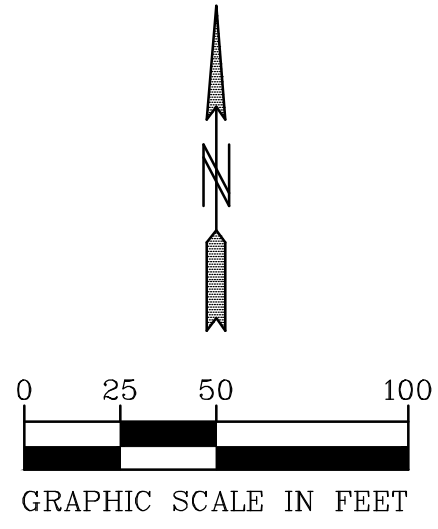


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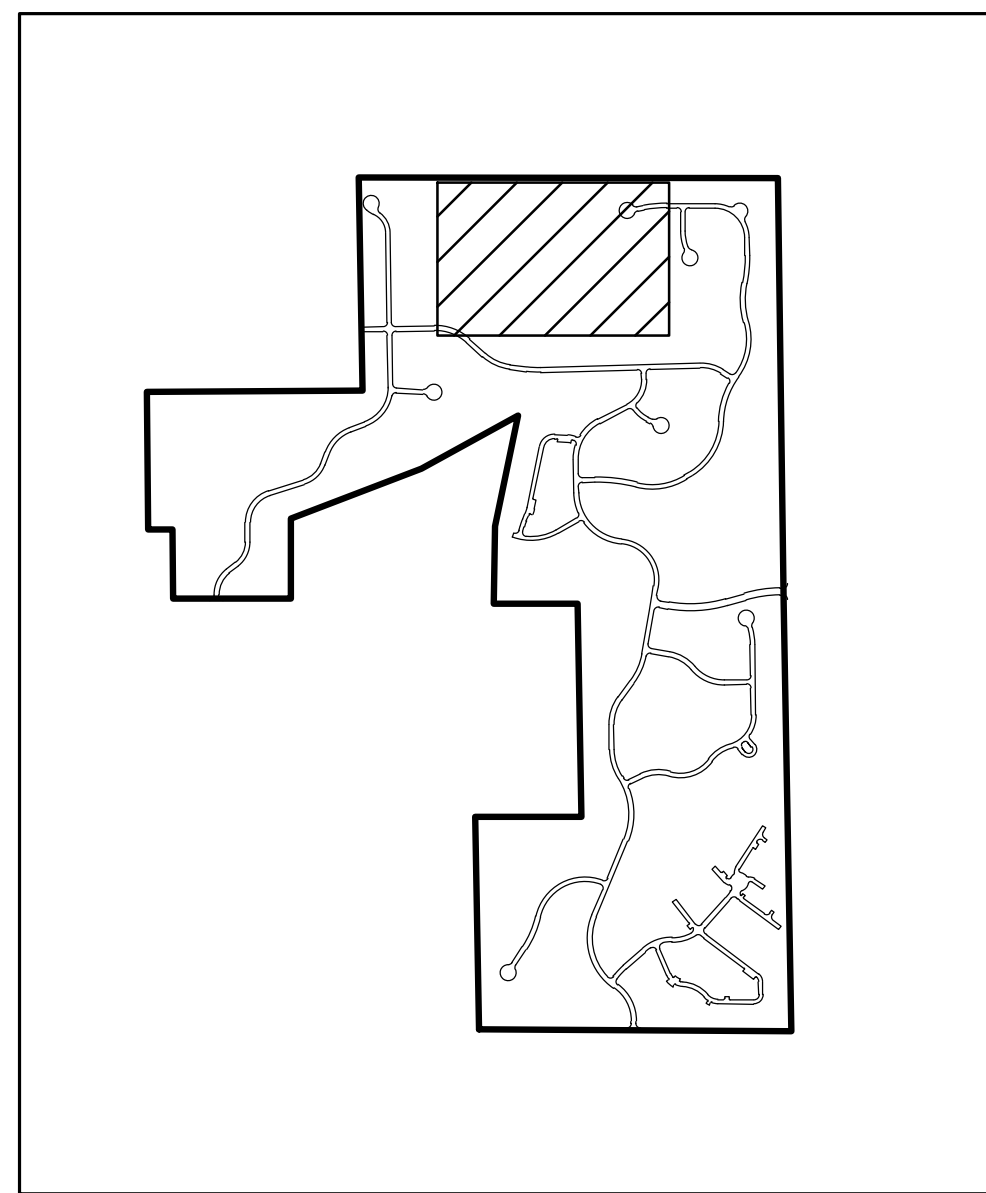
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PLYMOUTH, MINNESOTA 55446

TAVERA  
CORCORAN, MINNESOTA

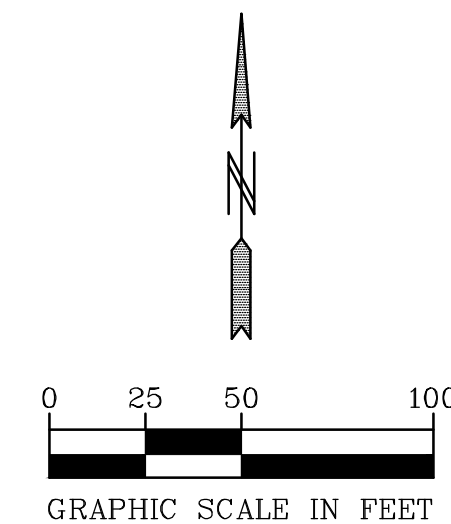
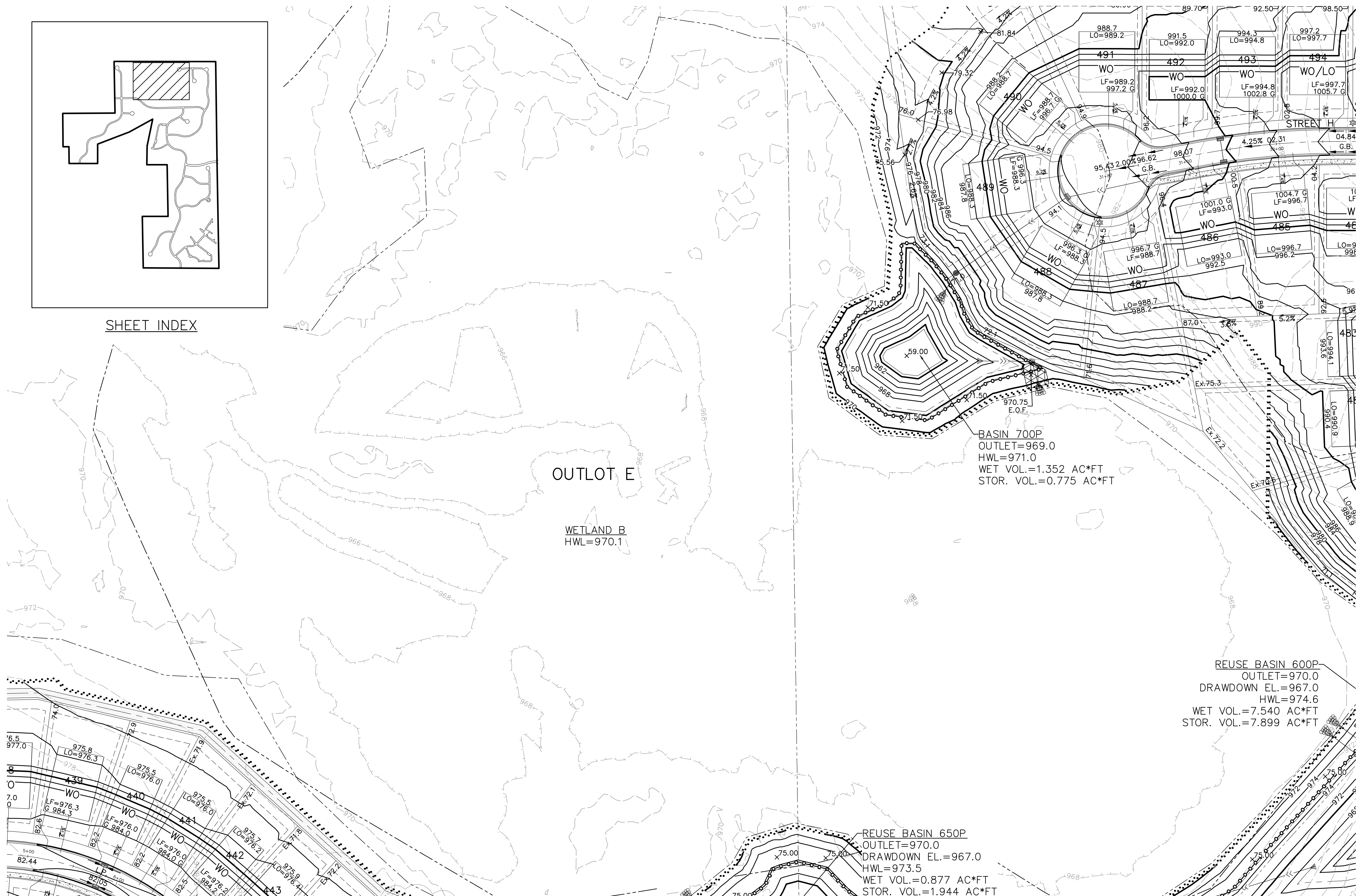
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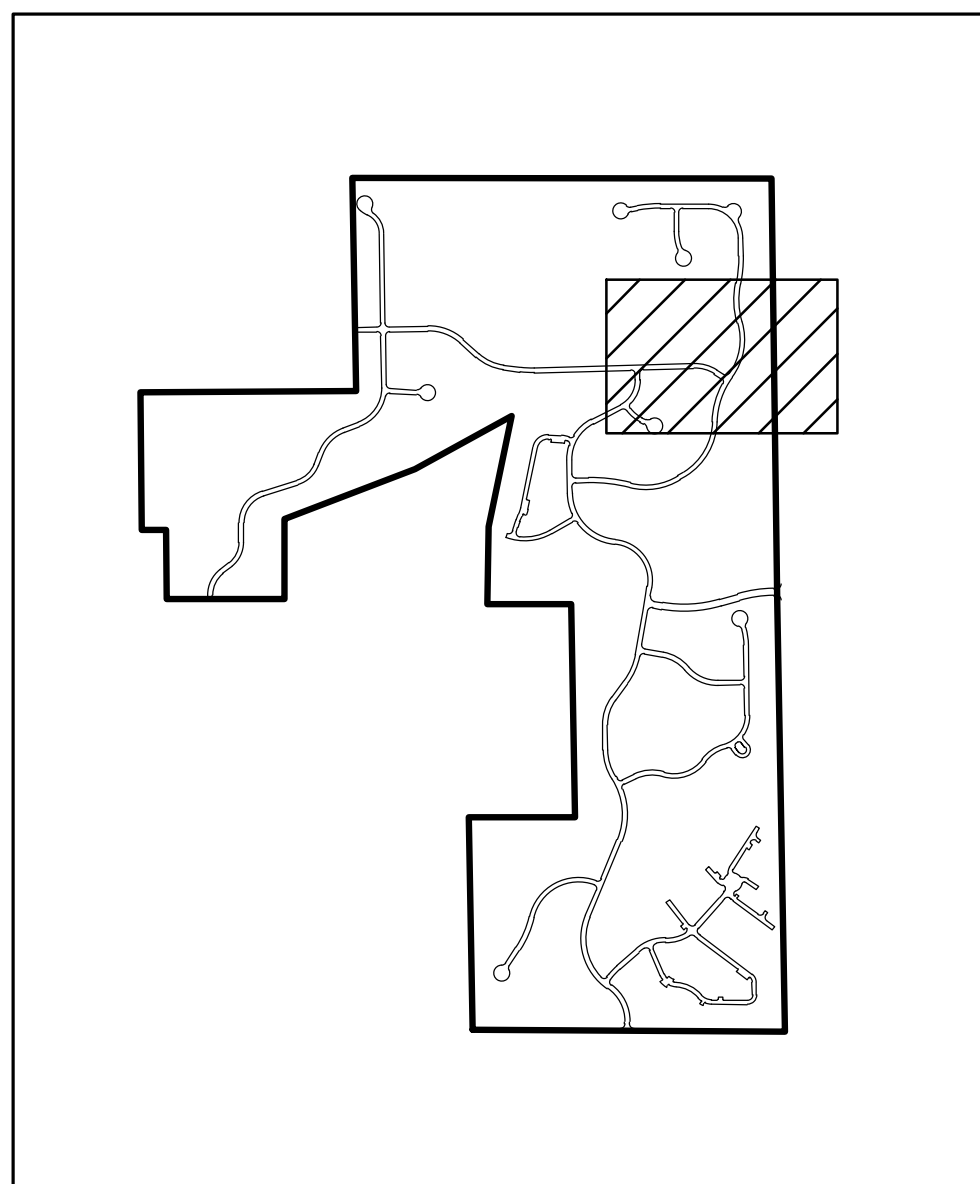
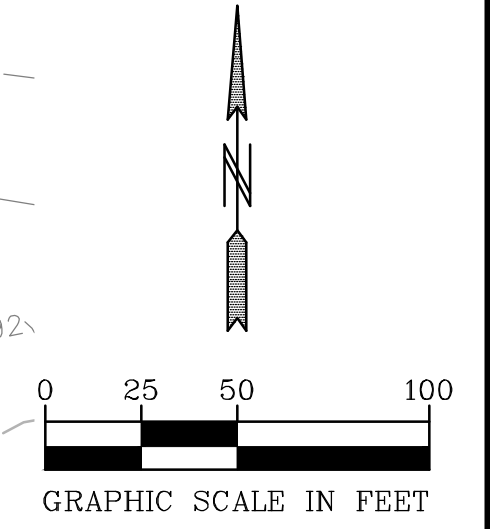
LENNAR  
16305 36TH AVENUE NORTH  
PLYMOUTH, MINNESOTA 55446

TAVERA  
CORCORAN, MINNESOTA

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REUSE BASIN 600P  
 OUTLET=970.0  
 DRAWDOWN EL.=967.0  
 HWL=974.6  
 WET VOL.=7.540 AC\*FT  
 STOR. VOL.=7.899 AC\*FT



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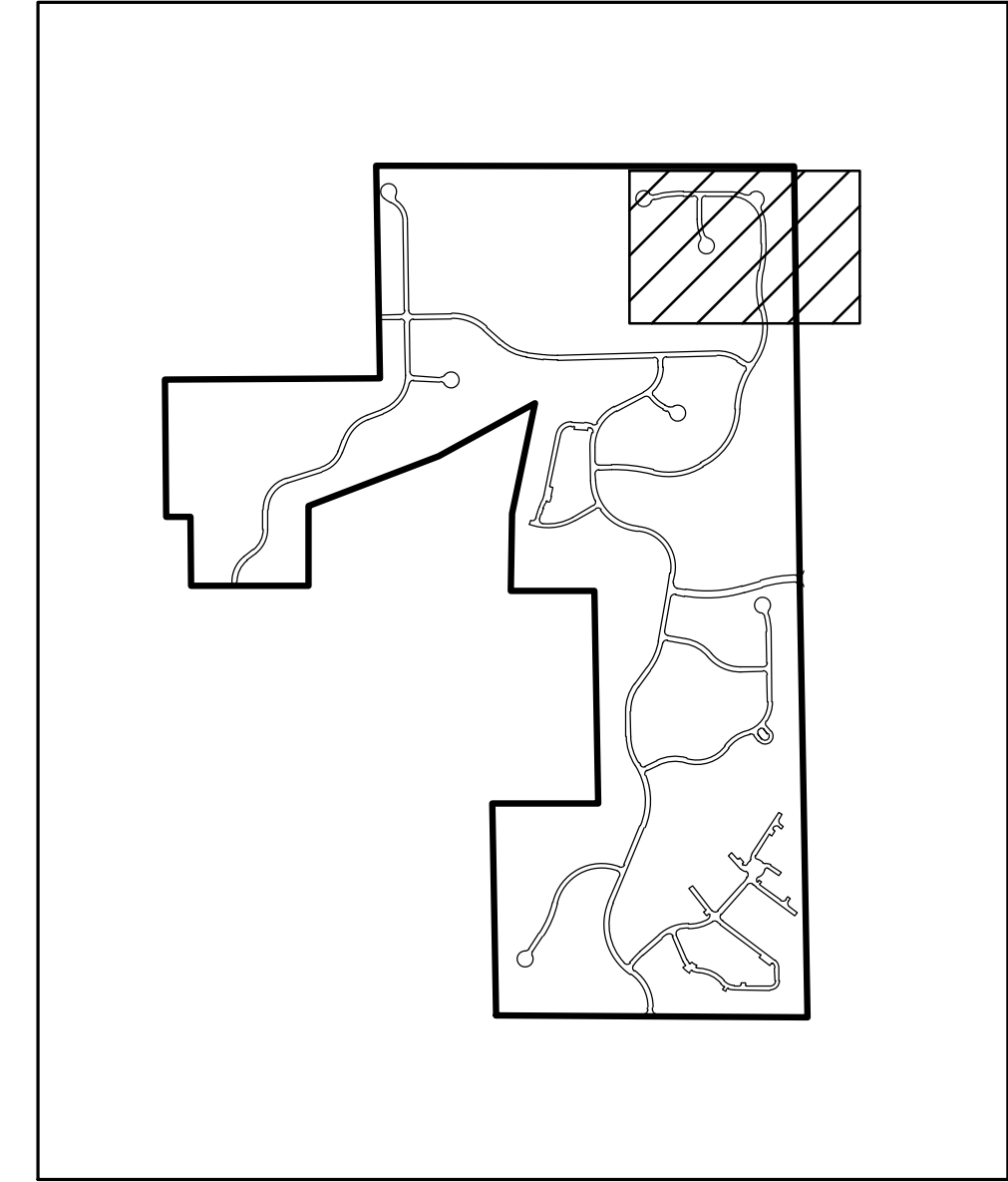
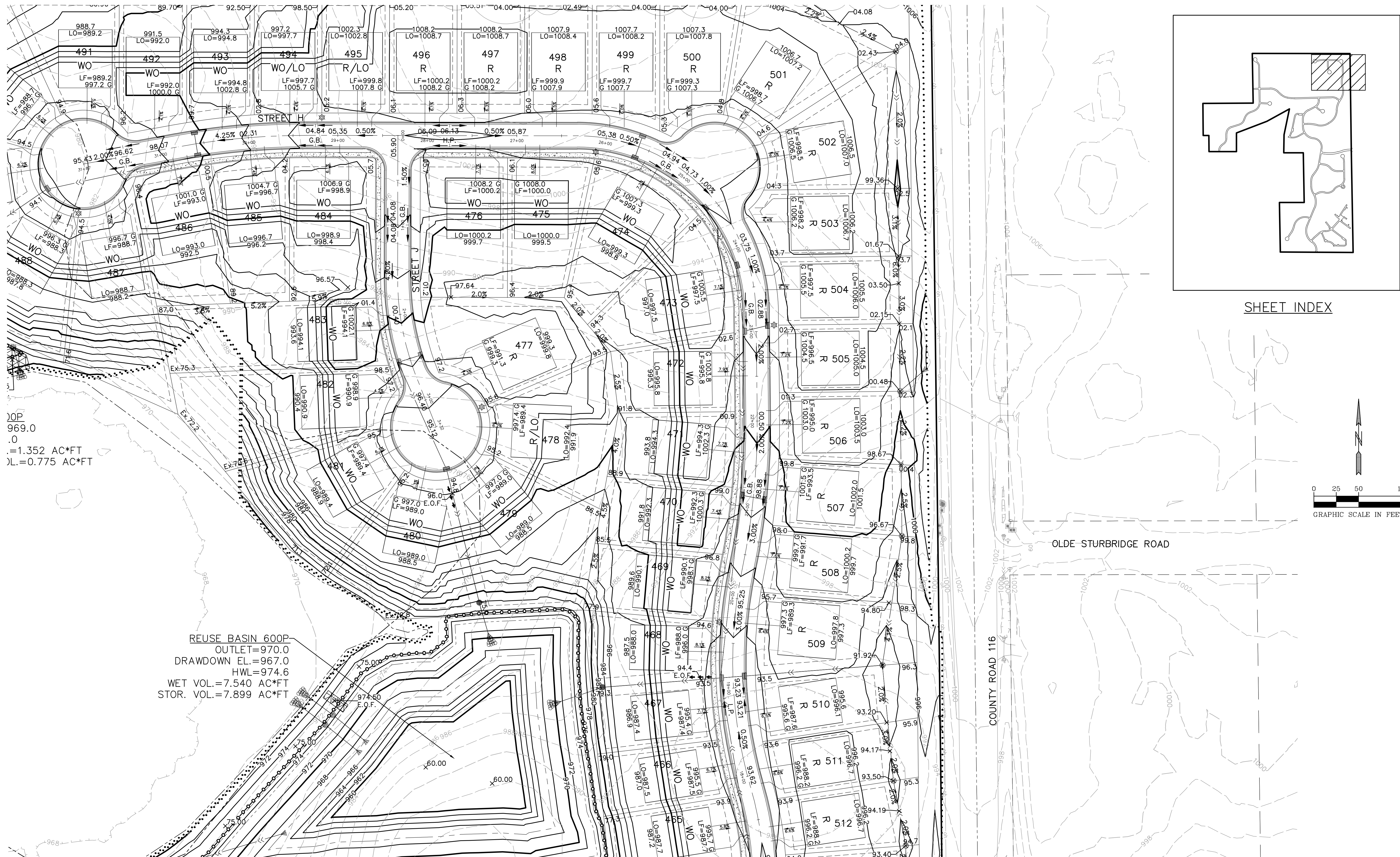
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 CORCORAN, MINNESOTA

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 6.08 OF 67

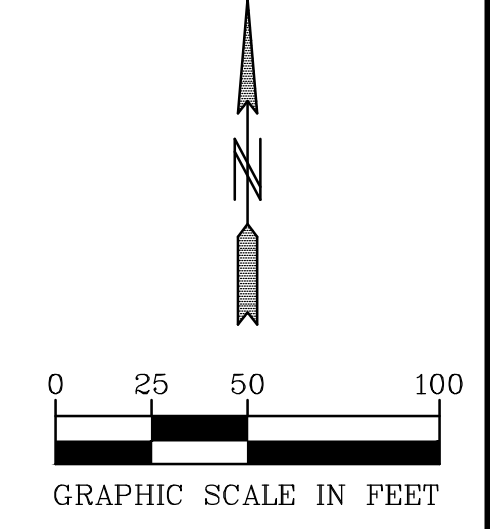
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SHEET INDEX

TOP  
969.0  
.0  
=1.352 AC\*FT  
L.=0.775 AC\*FT

REUSE BASIN 600P  
OUTLET=970.0  
DRAWDOWN EL.=967.0  
HWL=974.6  
WET VOL.=7.540 AC\*FT  
STOR. VOL.=7.899 AC\*FT



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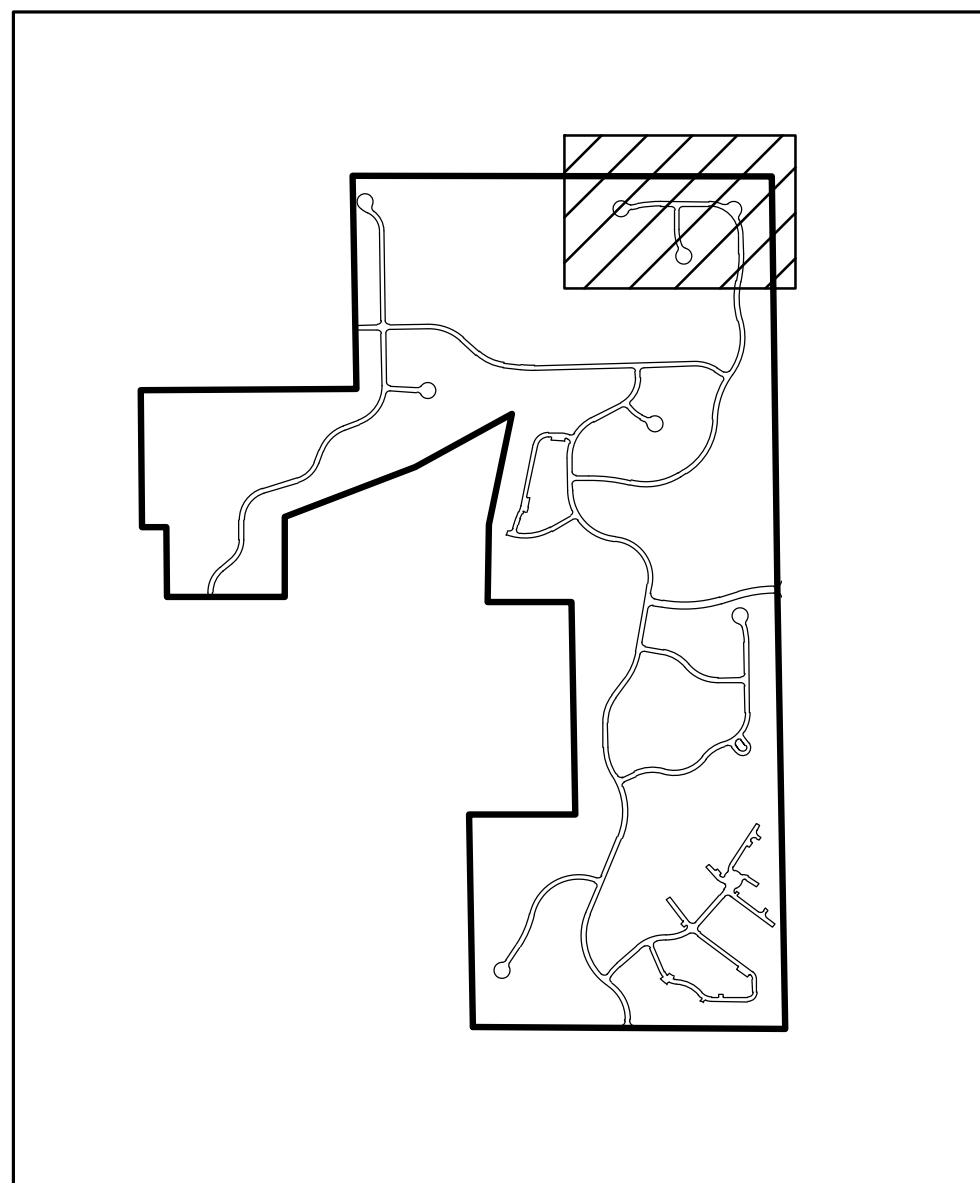
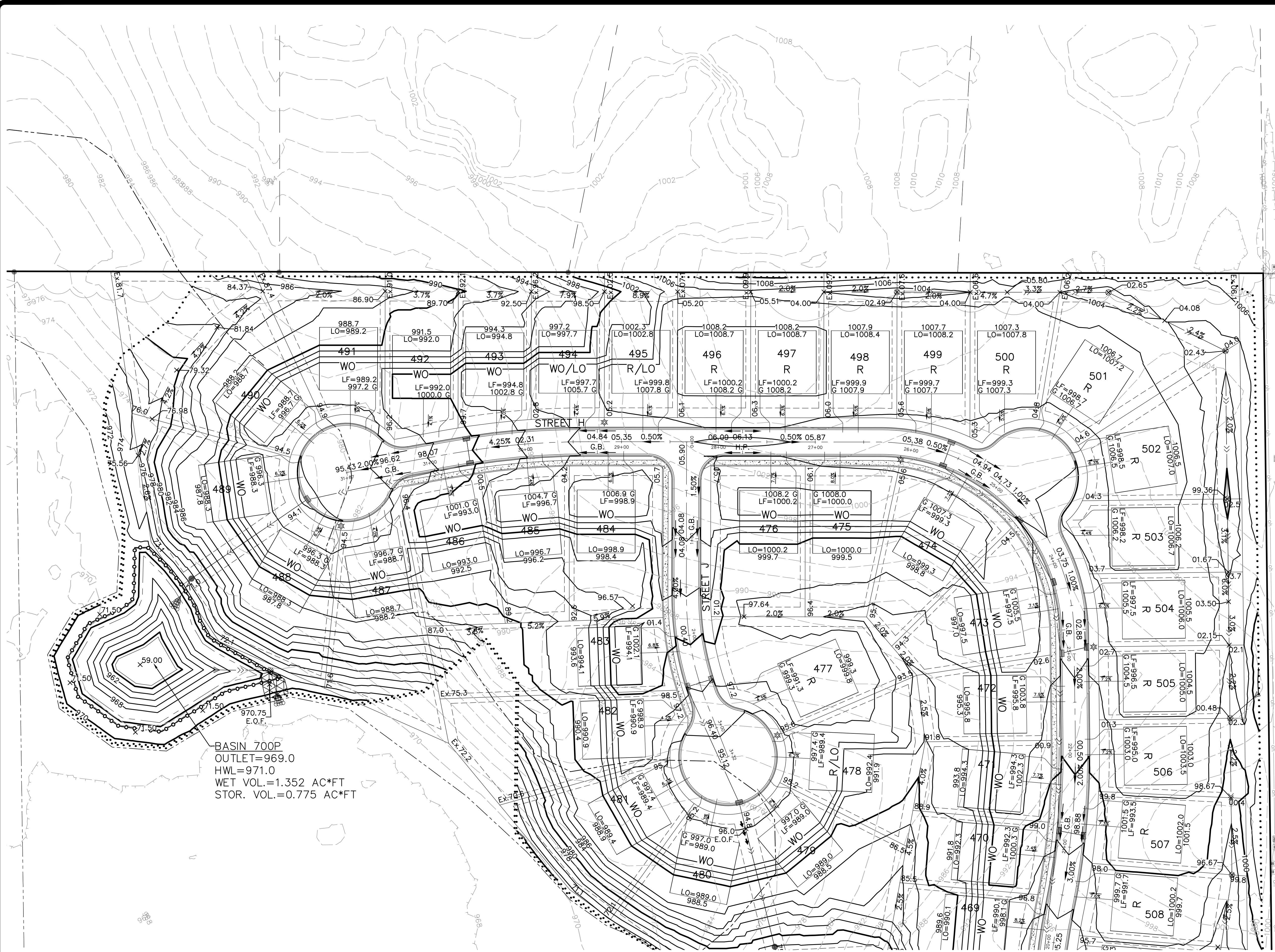
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Drawn: MPC/MSN

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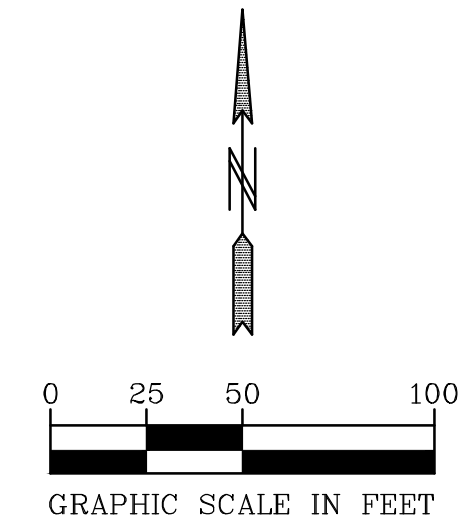
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**TAVERA**  
CORCORAN, MINNESOTA

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BASIN 700P  
 OUTLET=969.0  
 HWL=971.0  
 WET VOL.=1.352 AC\*FT  
 STOR. VOL.=0.775 AC\*FT



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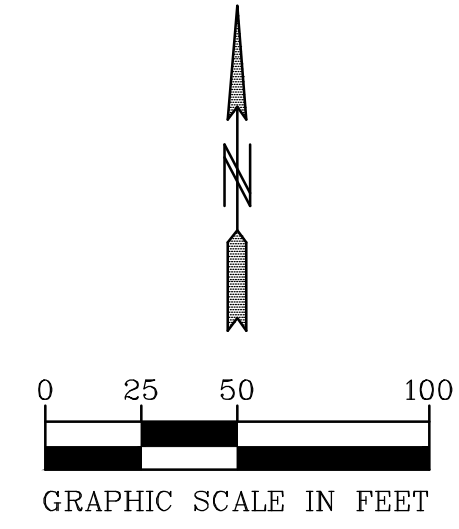
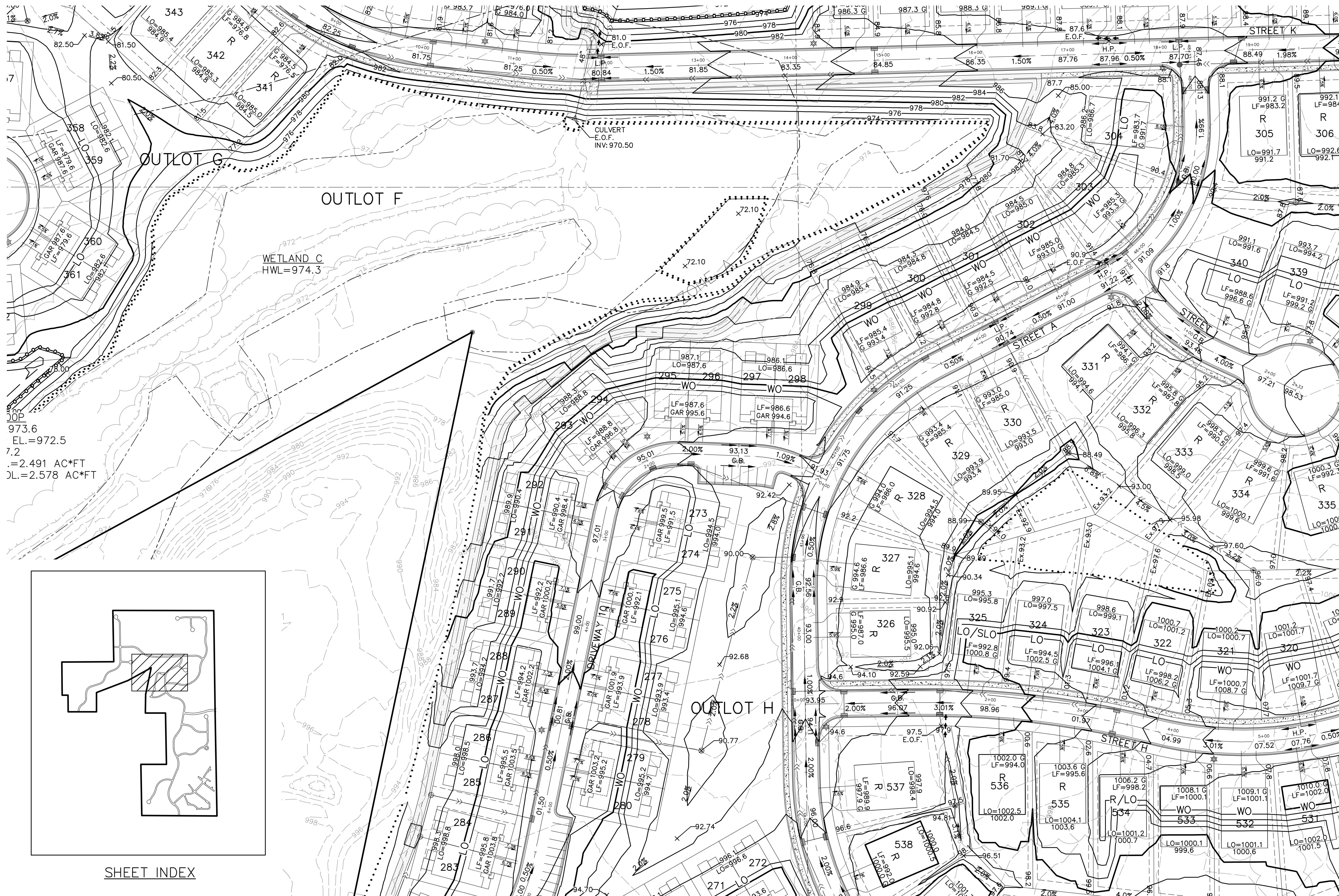
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 Name: *Paul J. Cherm*  
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 Reg. No. 19860 Date 4-21-2020

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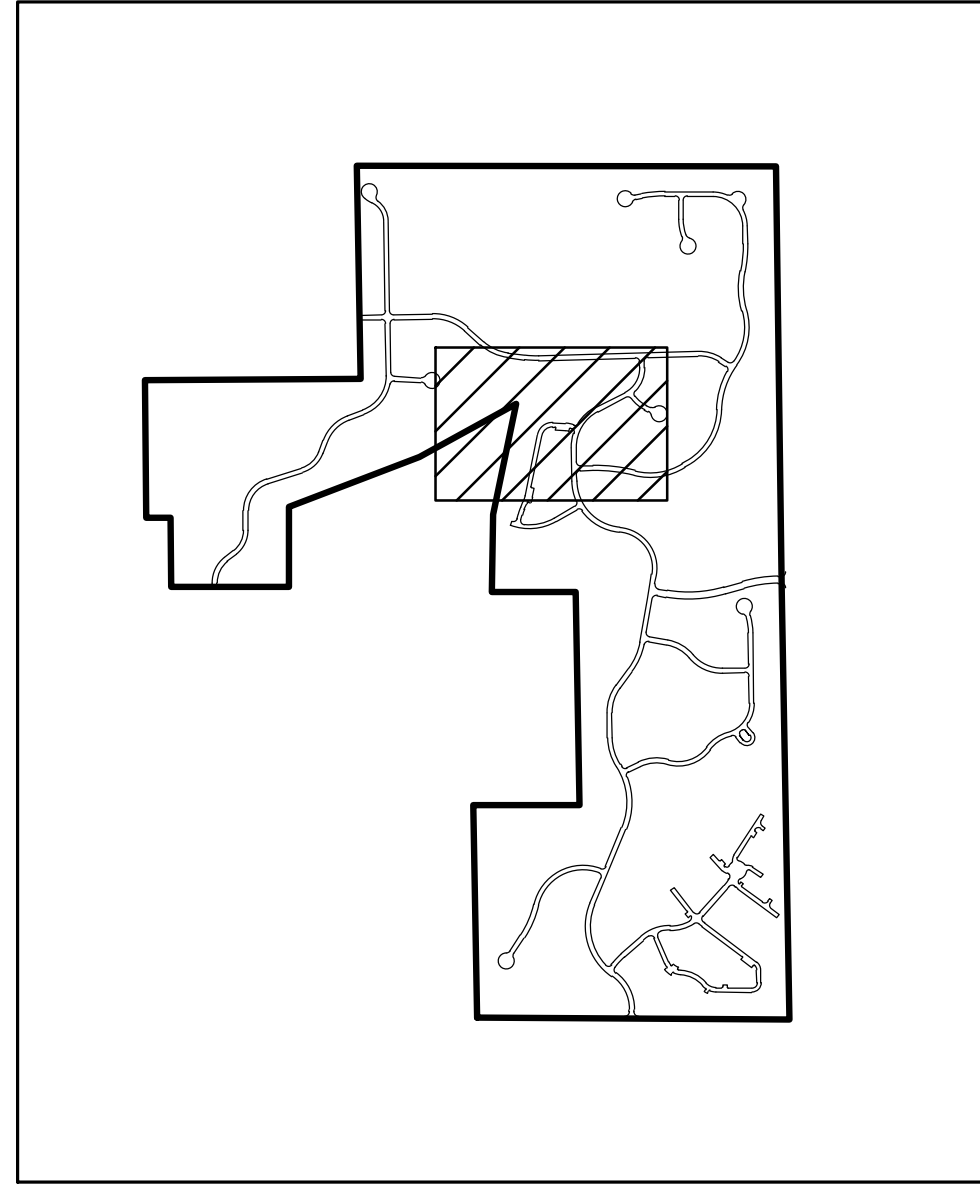
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JOP  
 973.6  
 EL.=972.5  
 7.2  
 =2.491 AC\*FT  
 DL.=2.578 AC\*FT



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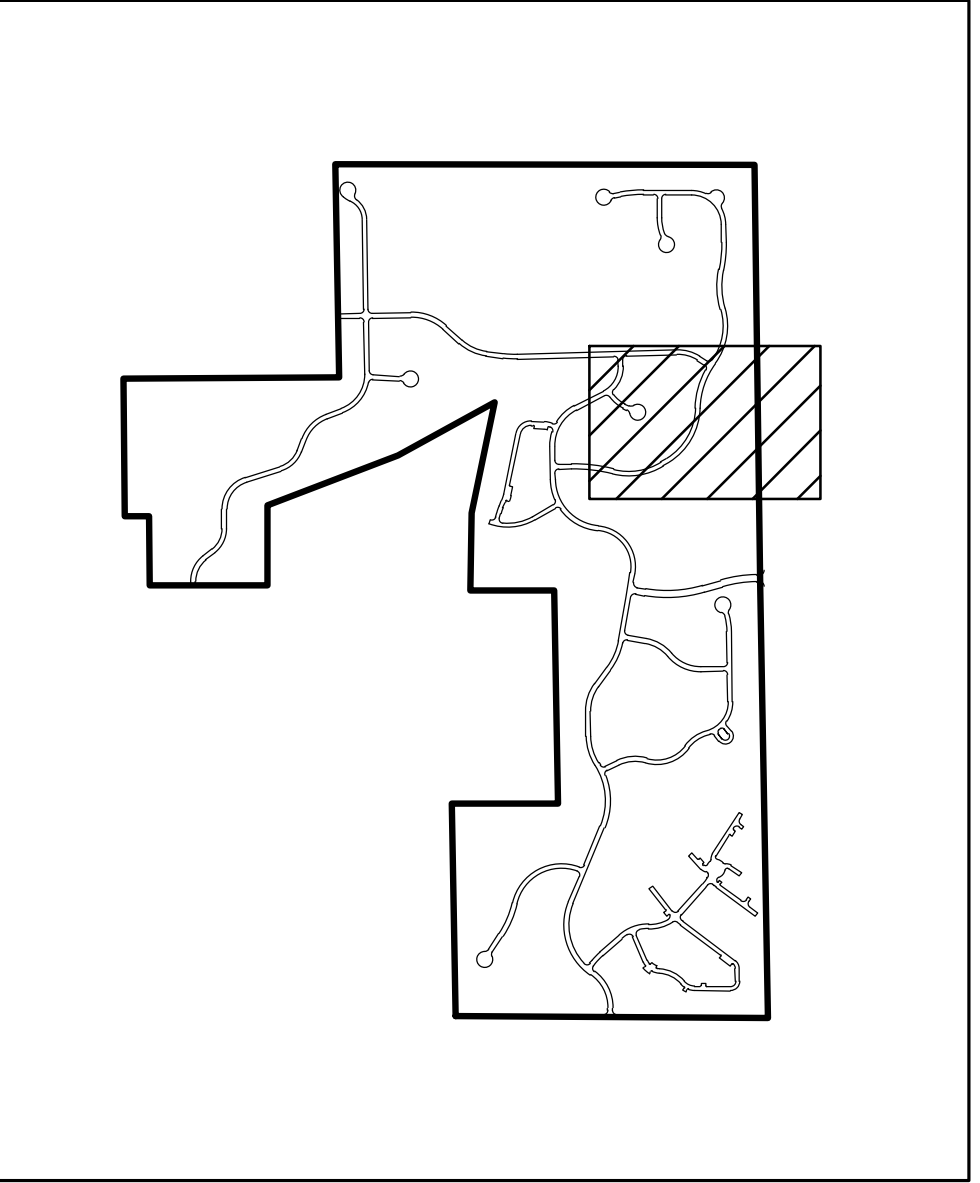
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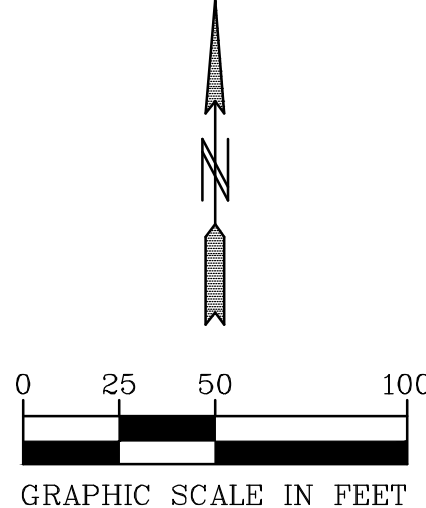
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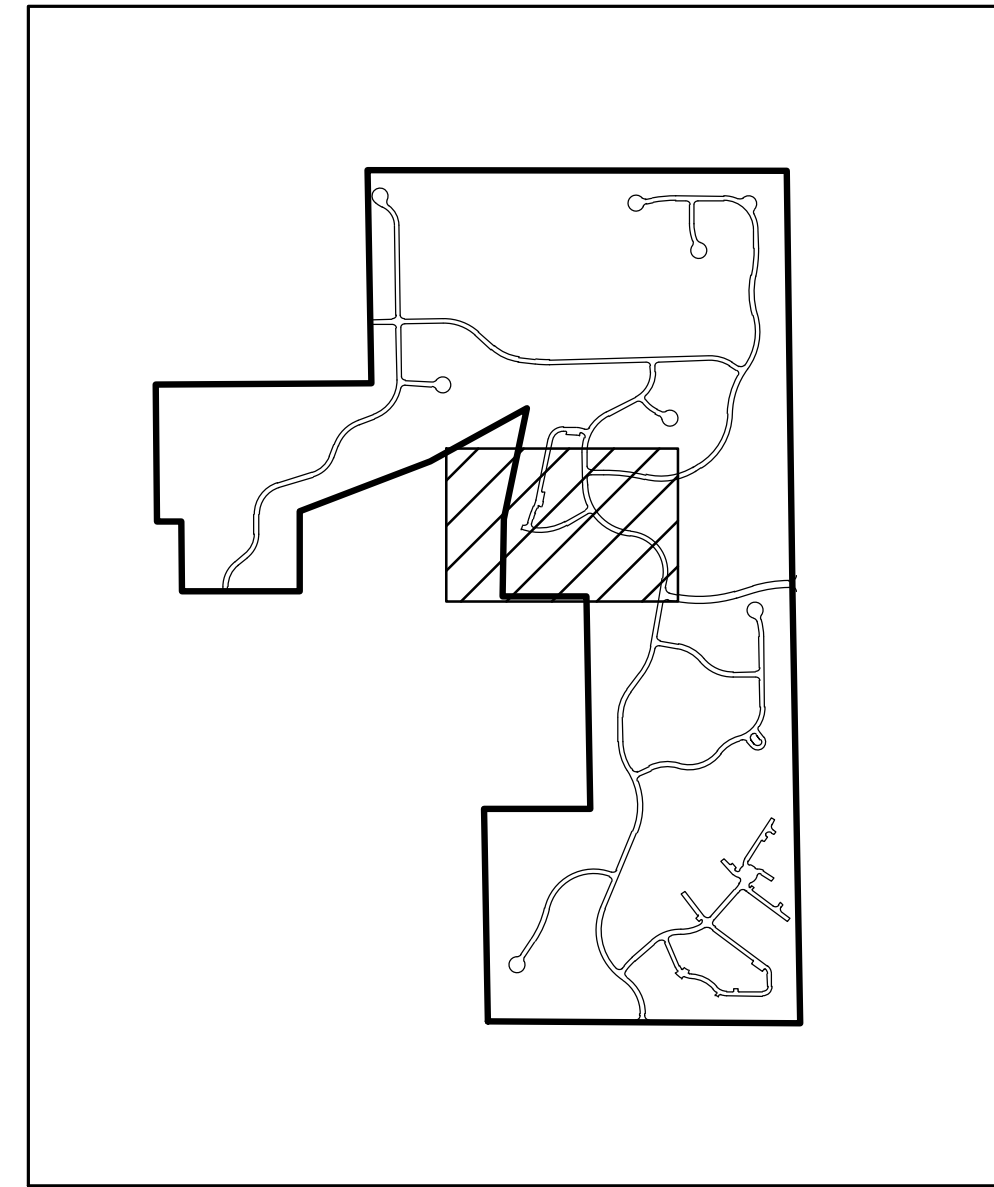
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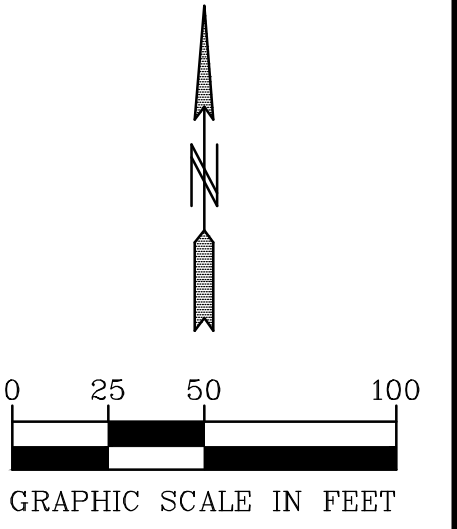
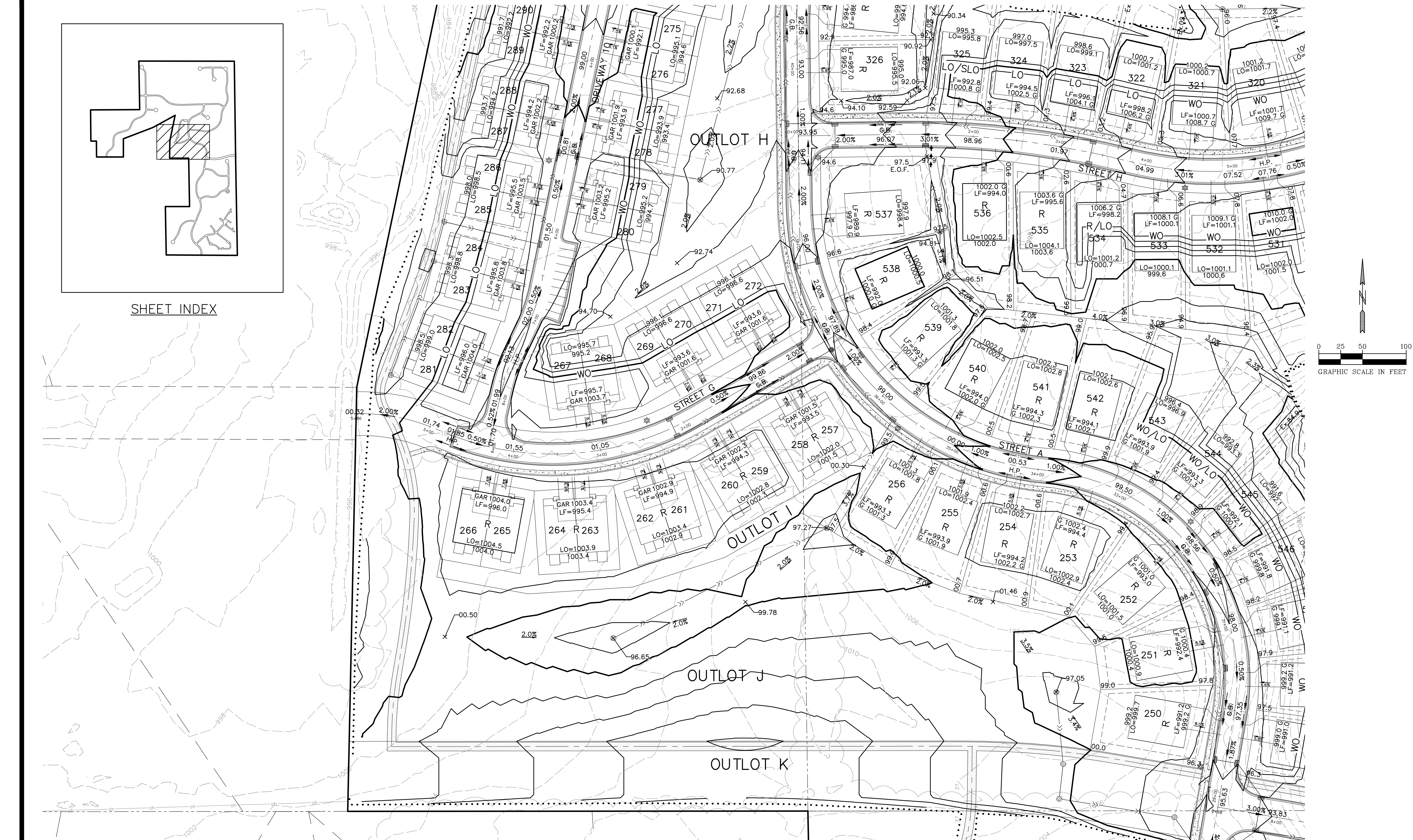
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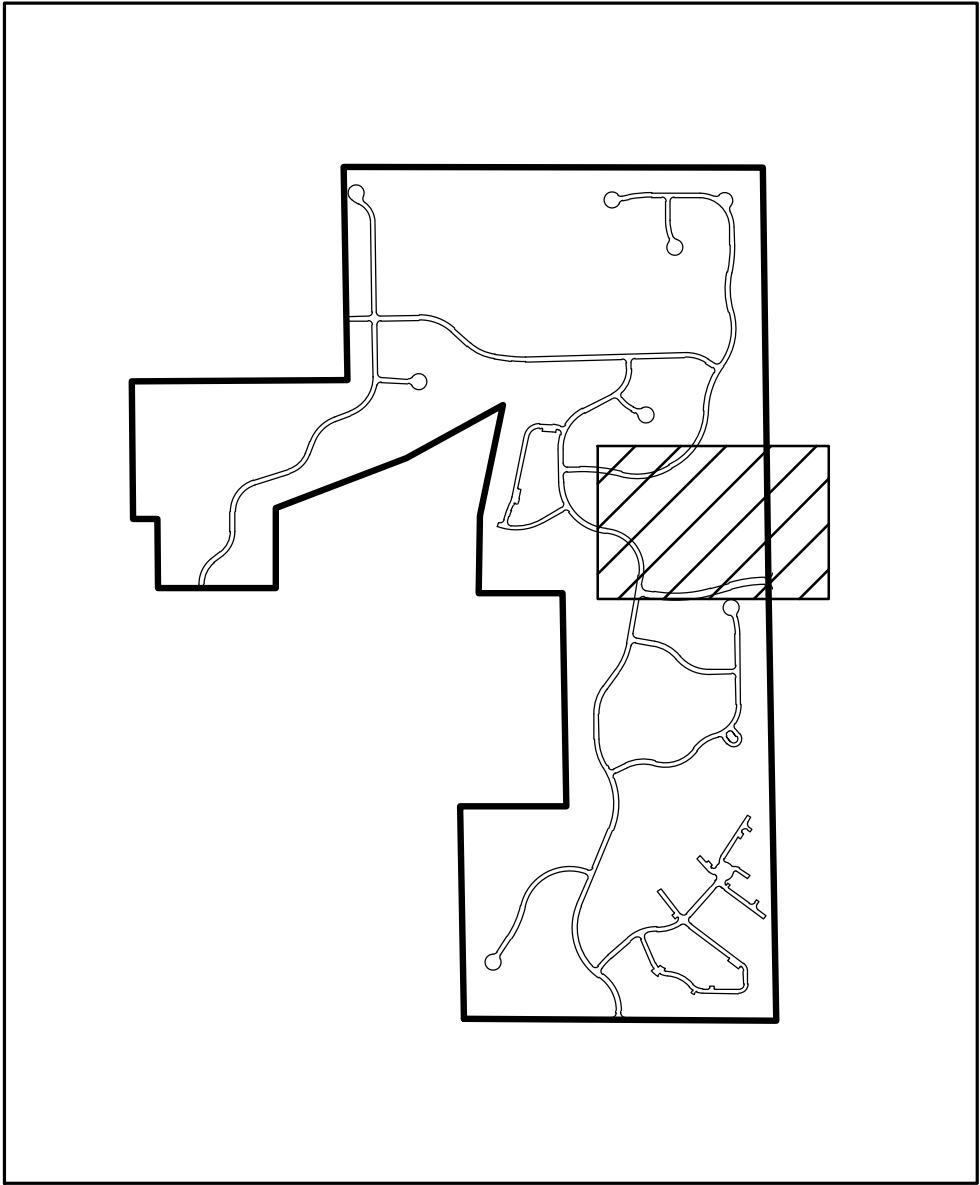
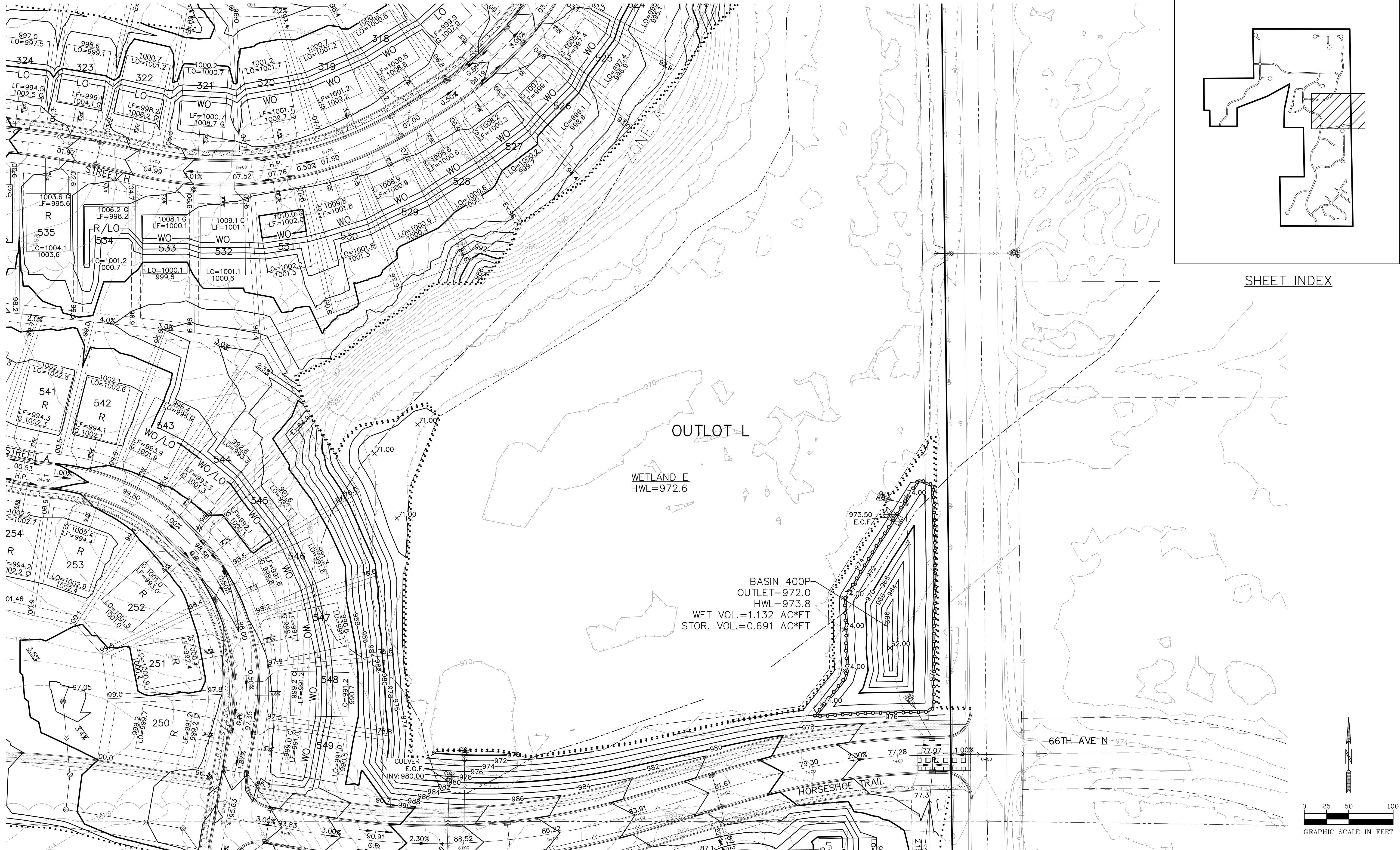
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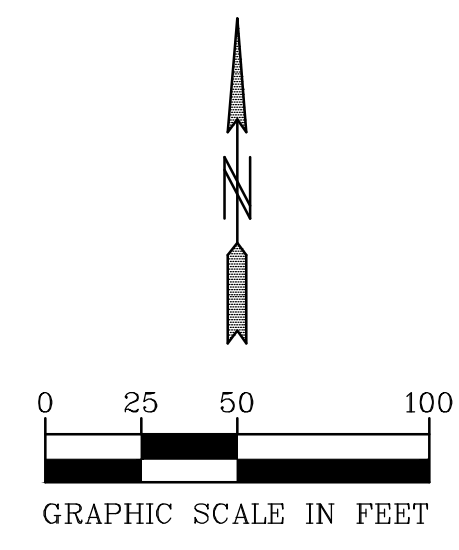
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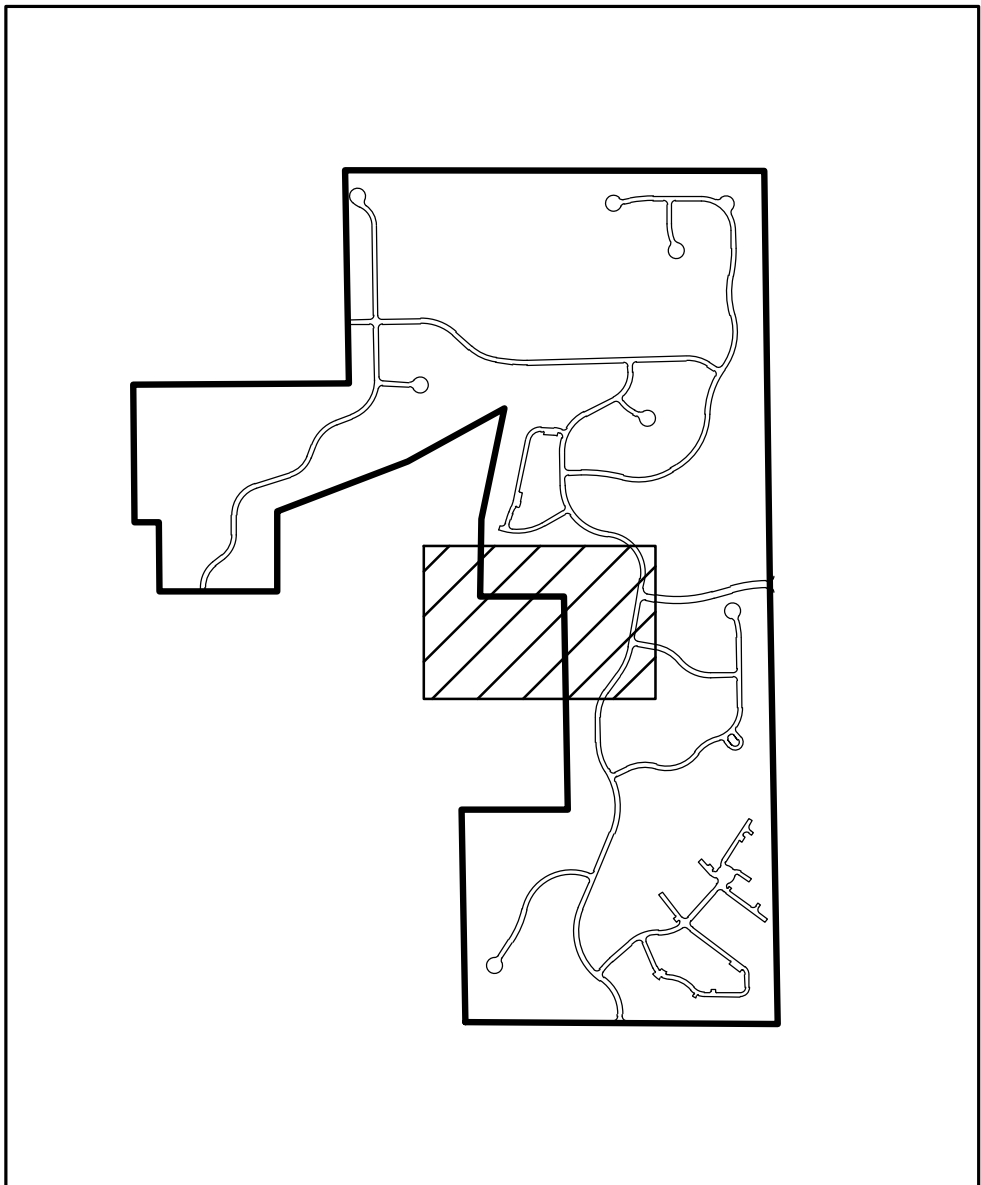
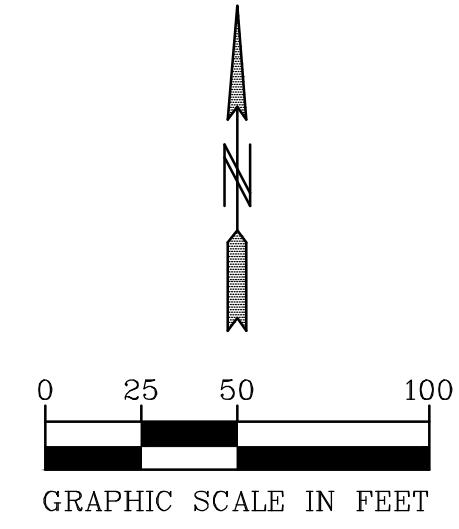
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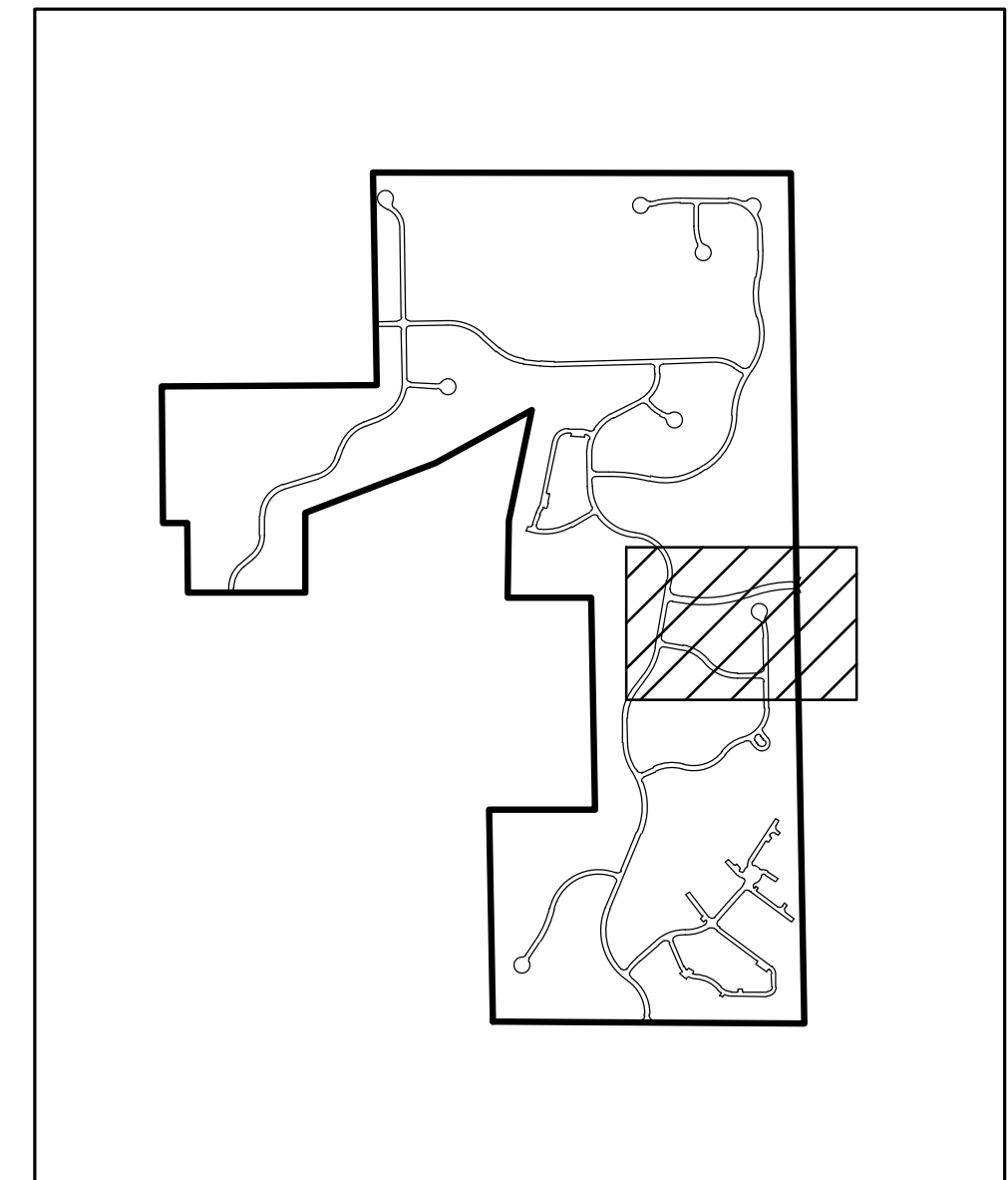
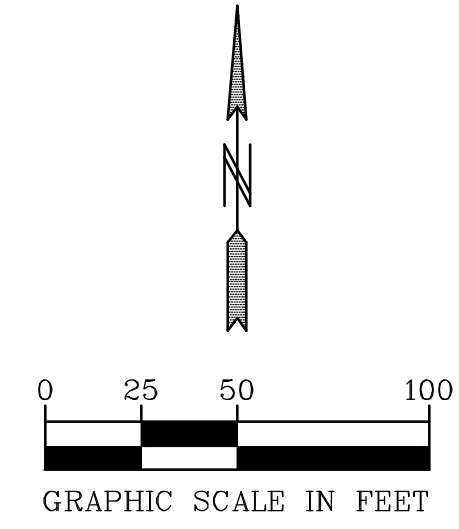
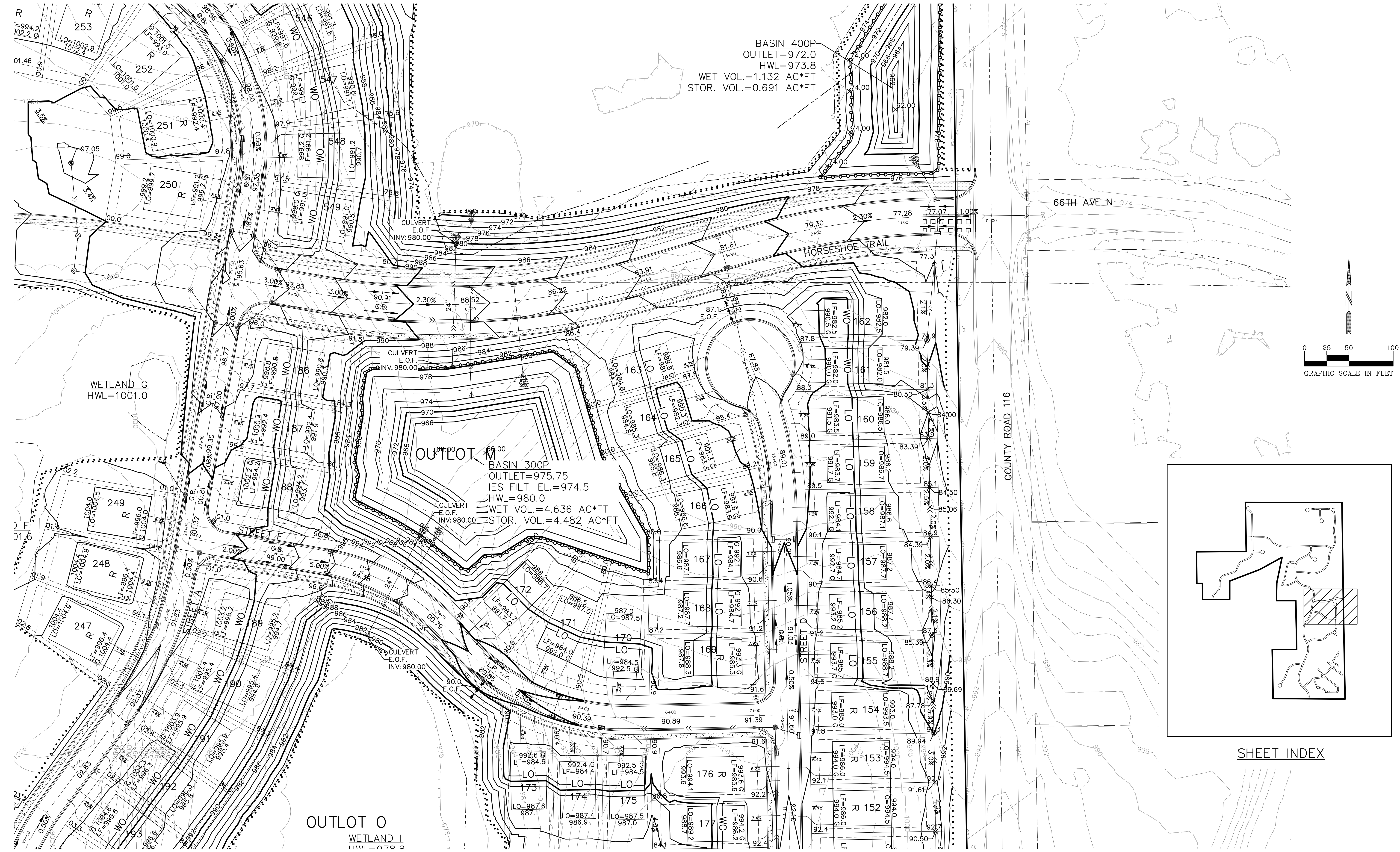
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PRELIMINARY GRADING PLAN

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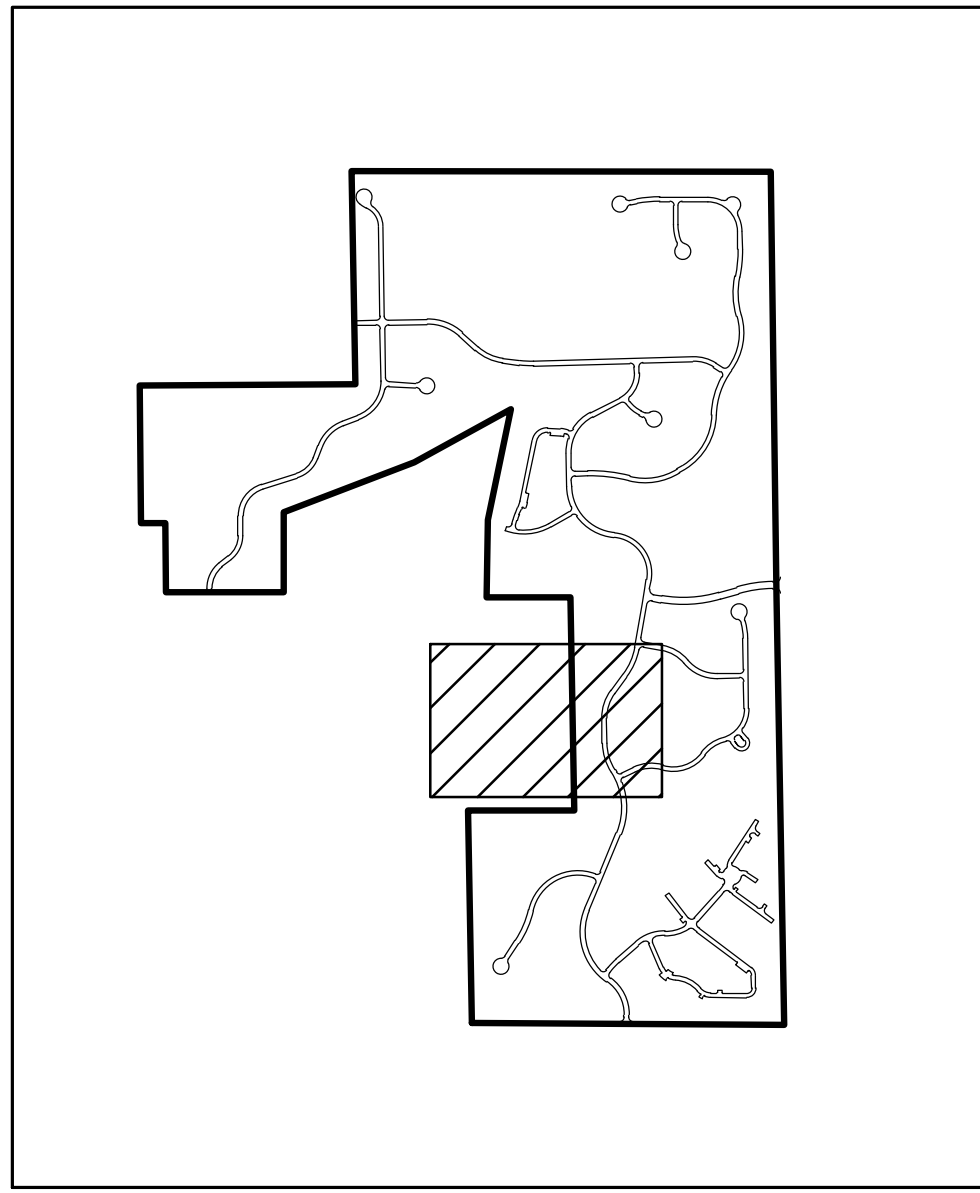
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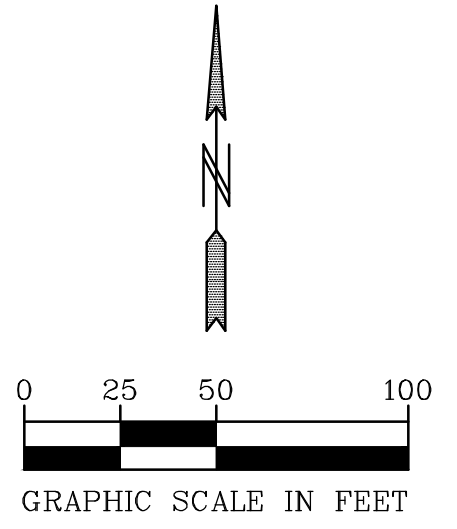
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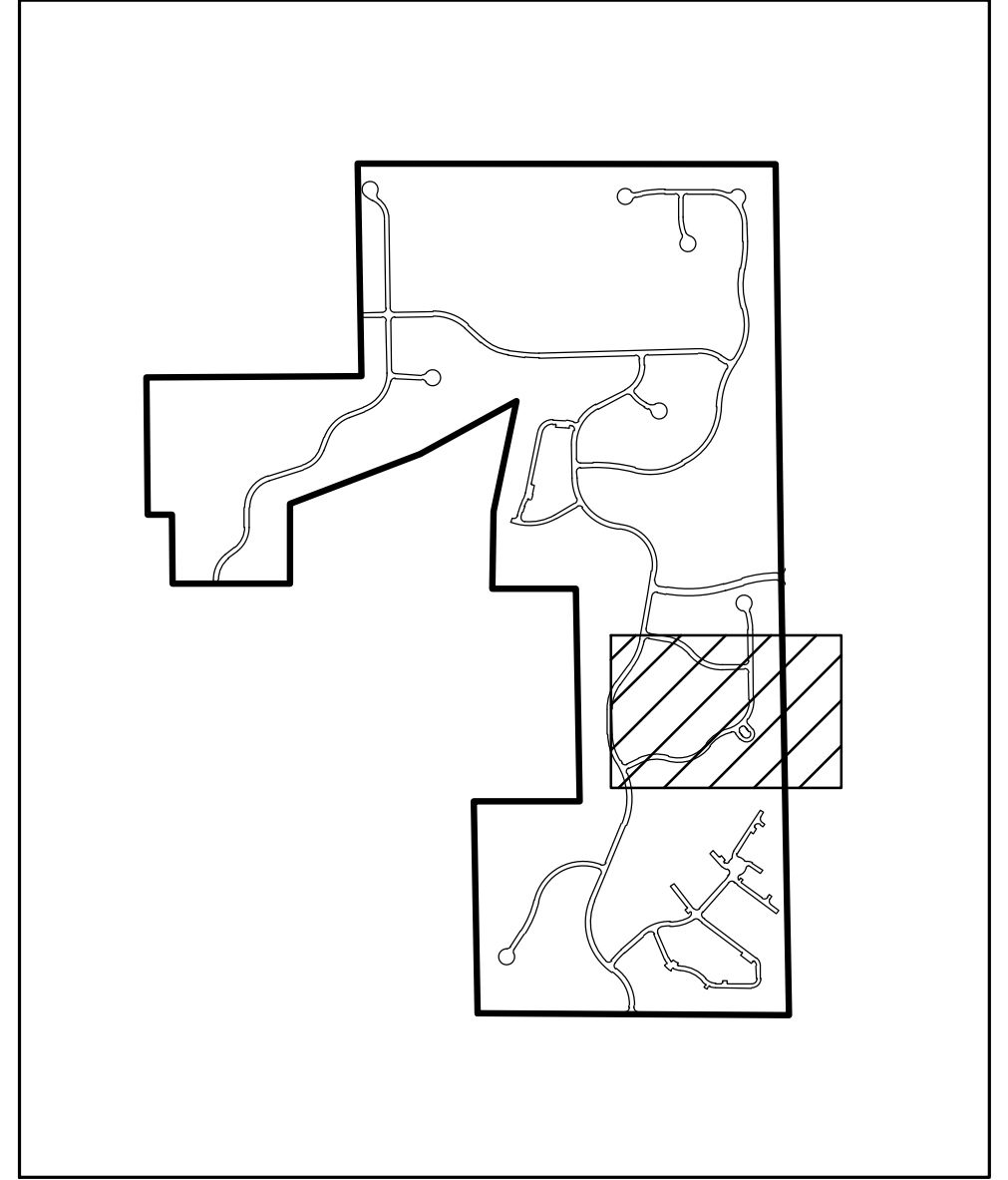
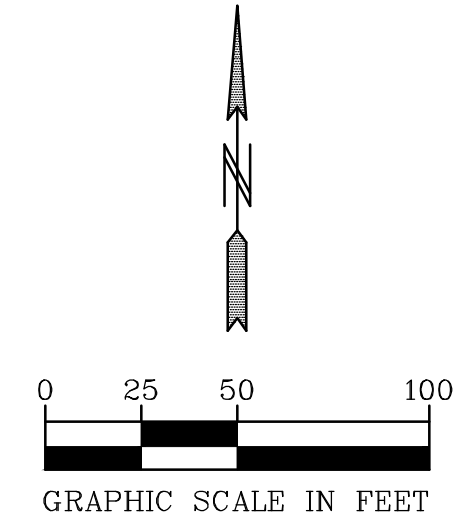
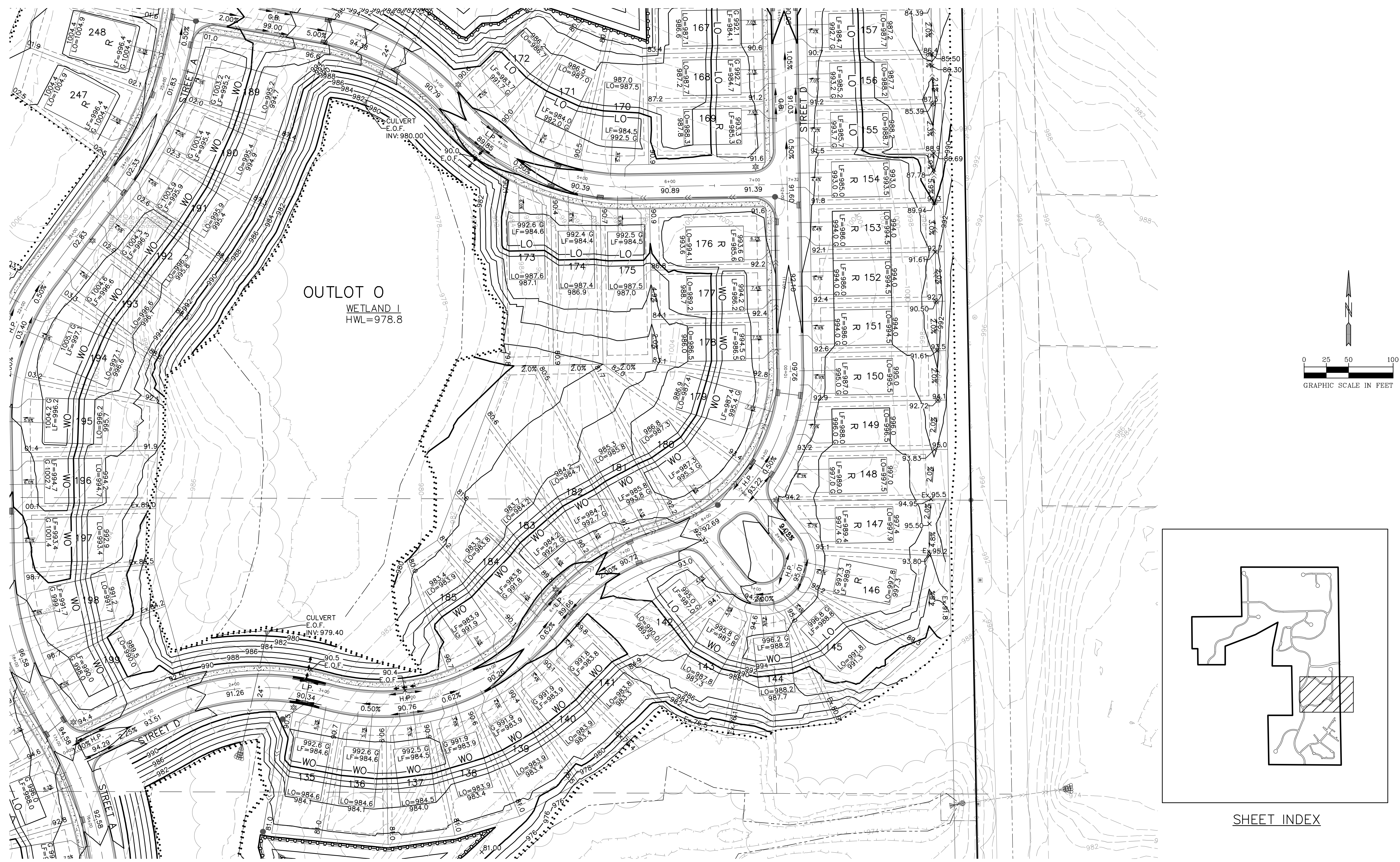
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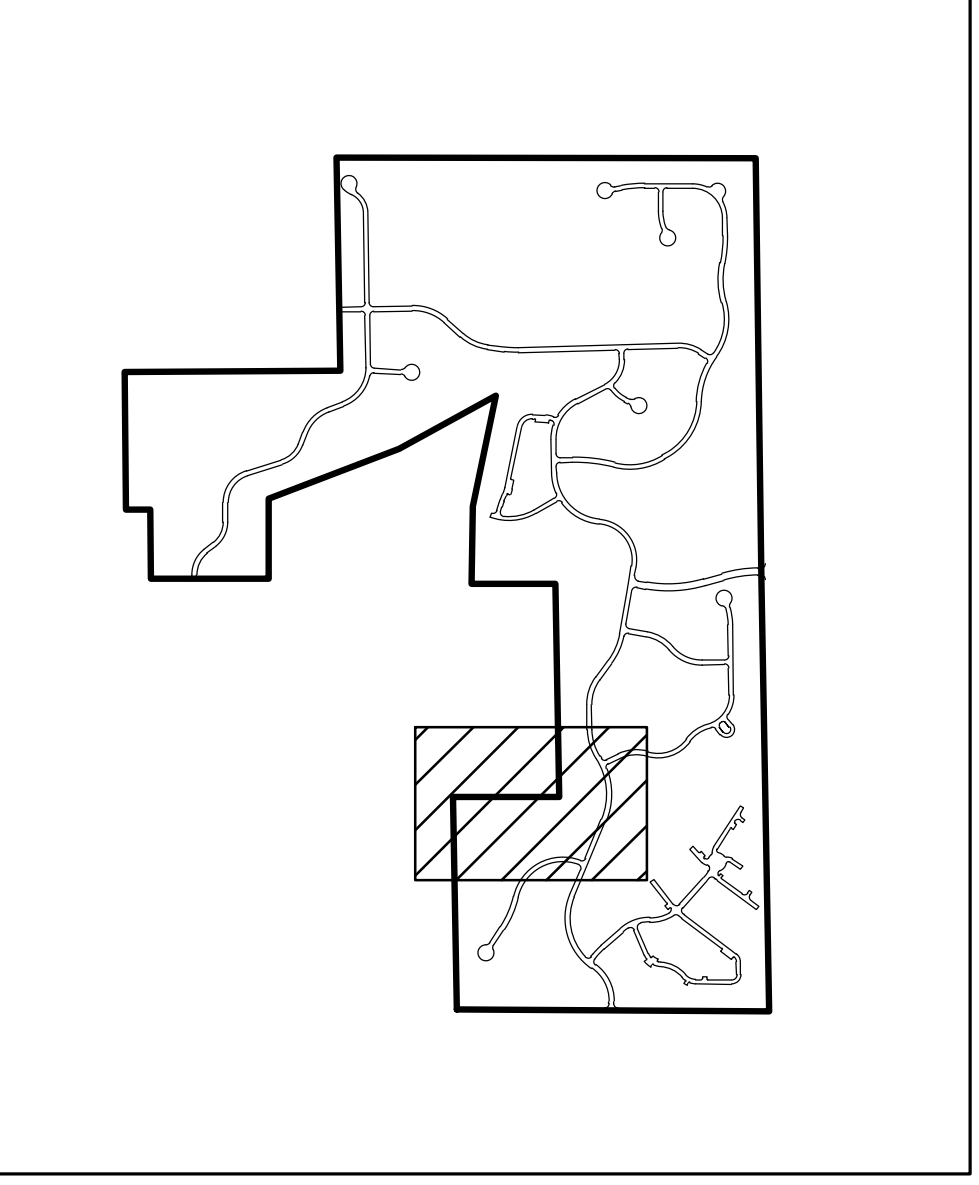
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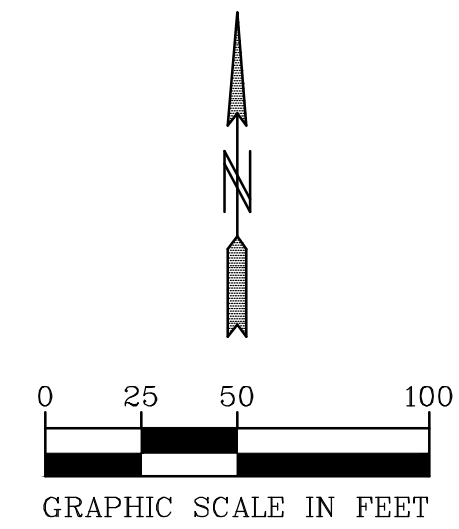
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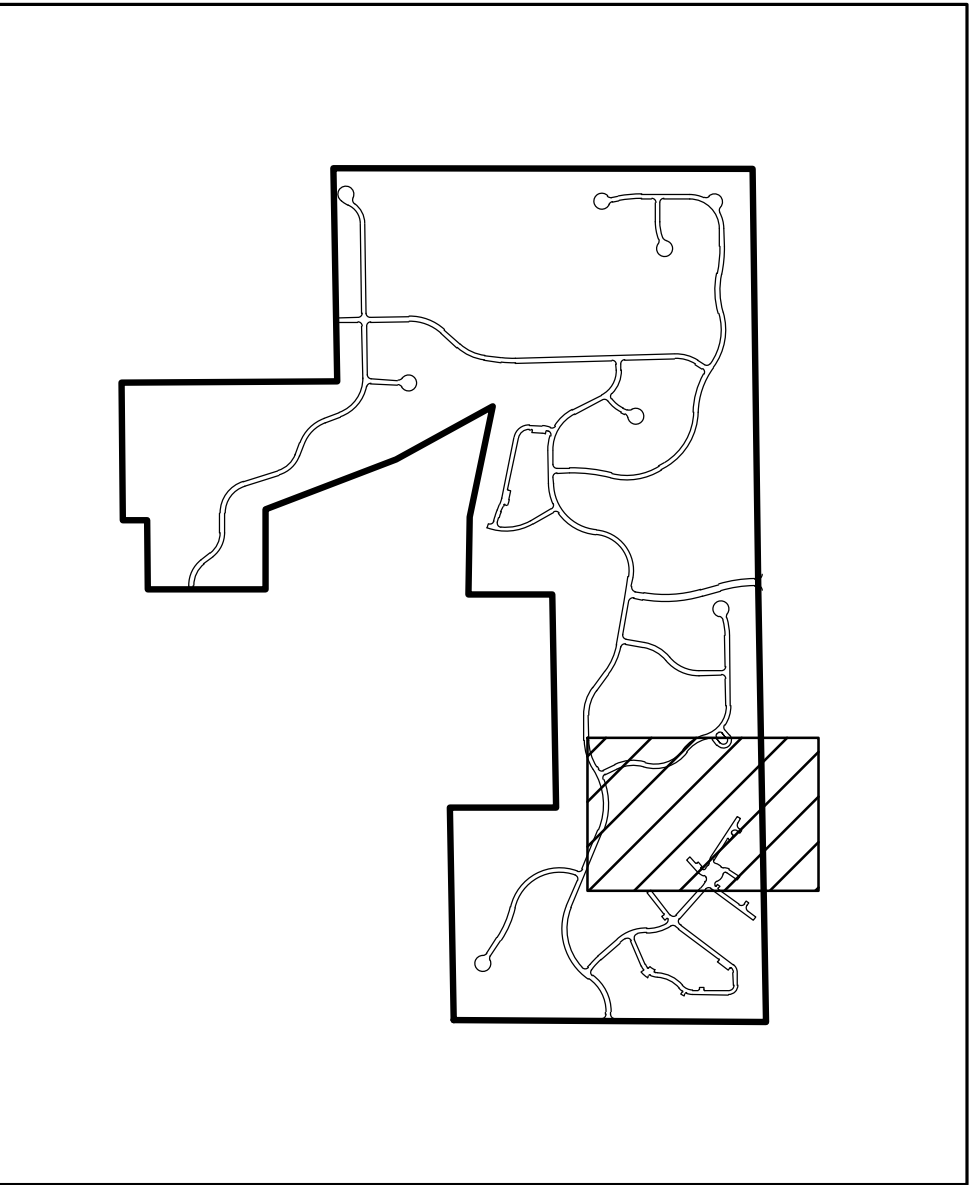
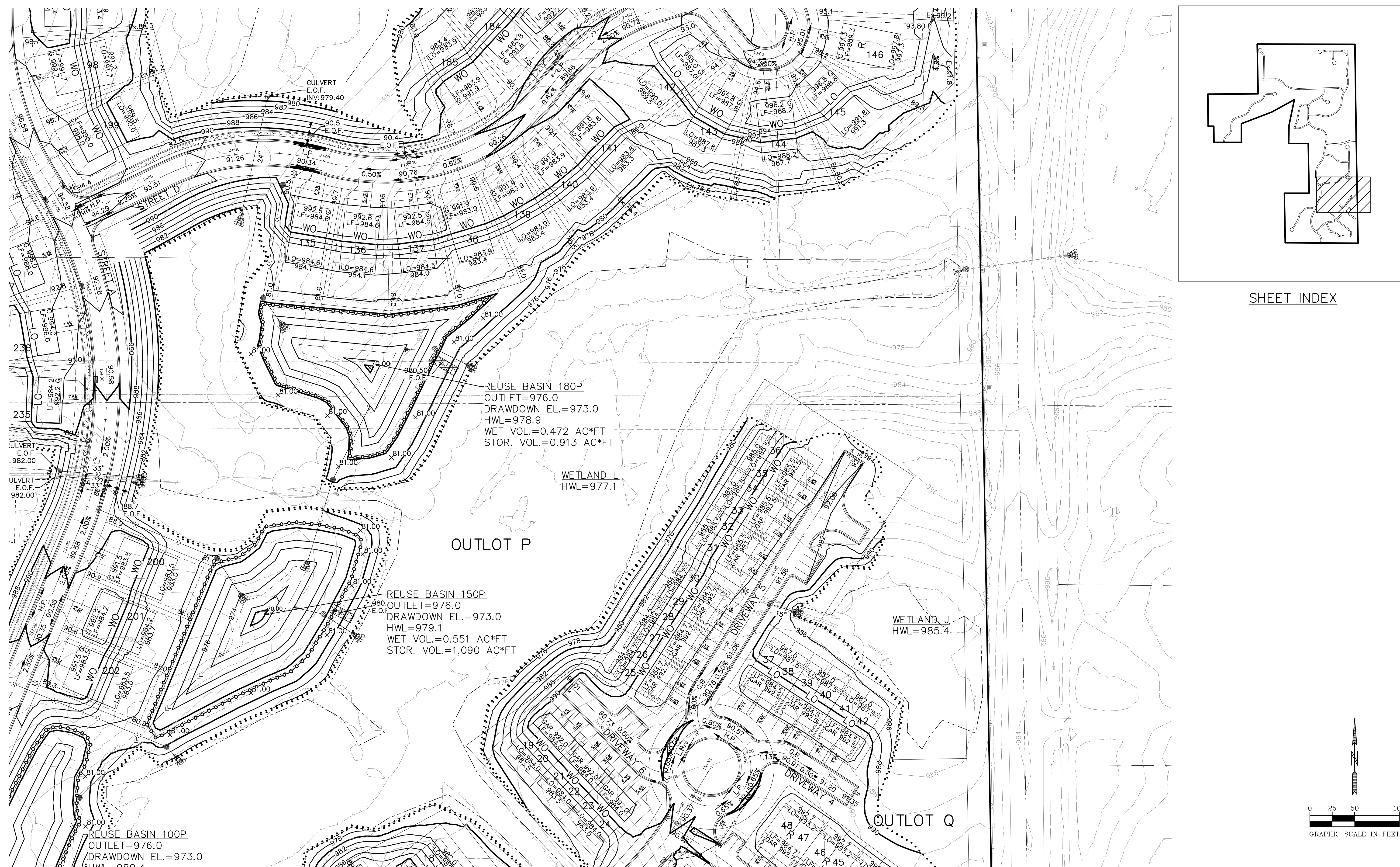
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REUSE BASIN 180P  
 OUTLET=976.0  
 DRAWDOWN EL.=973.0  
 HWL=978.9  
 WET VOL.=0.472 AC\*FT  
 STOR. VOL.=0.913 AC\*FT

WETLAND L  
 HWL=977.1

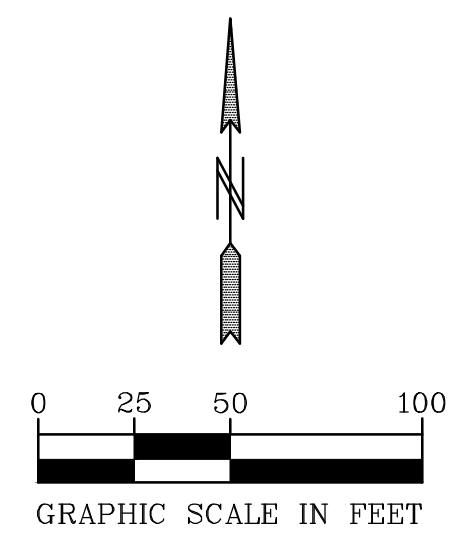
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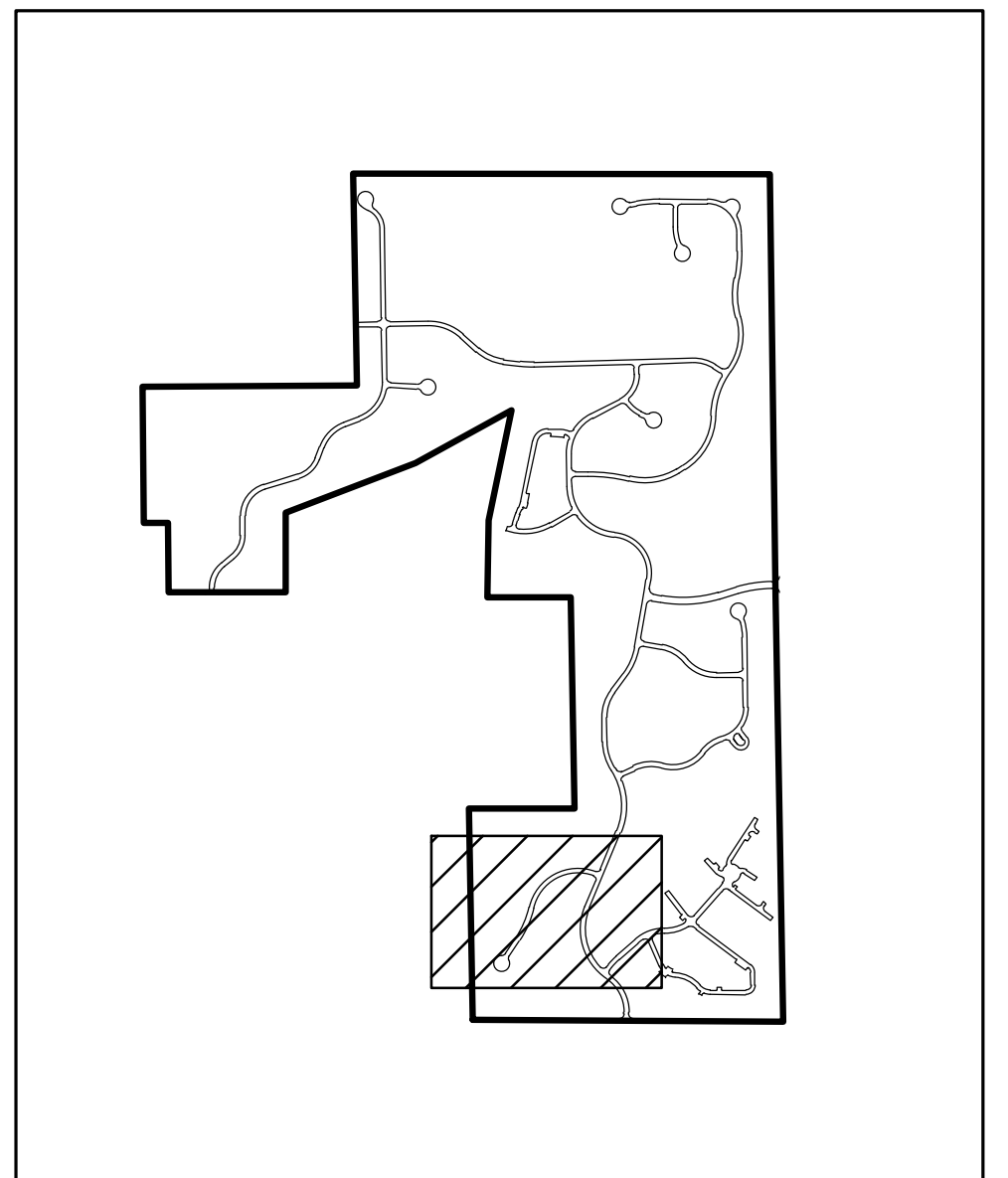
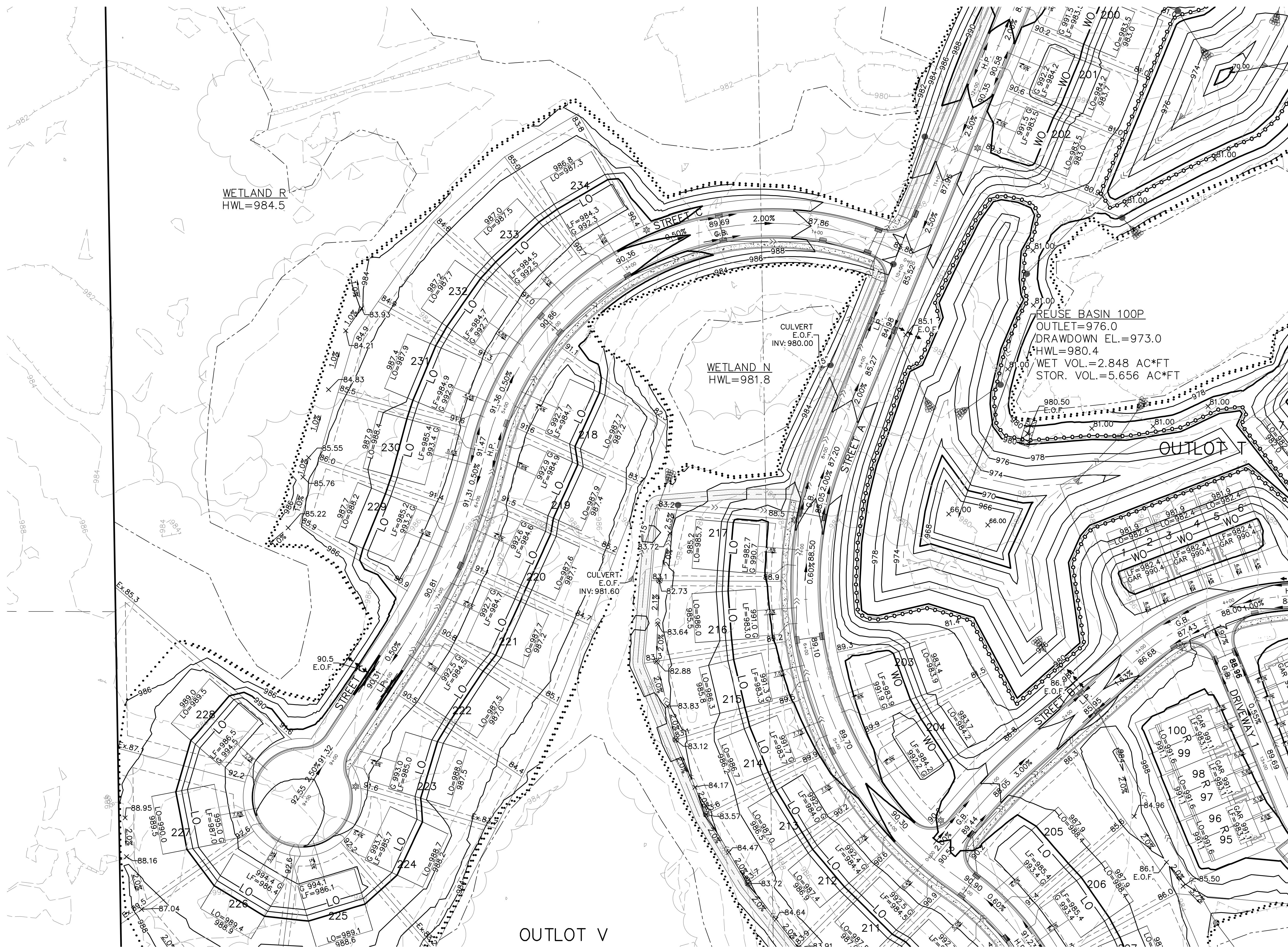
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 HWL=979.1  
 WET VOL.=0.551 AC\*FT  
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WETLAND J  
 HWL=985.4

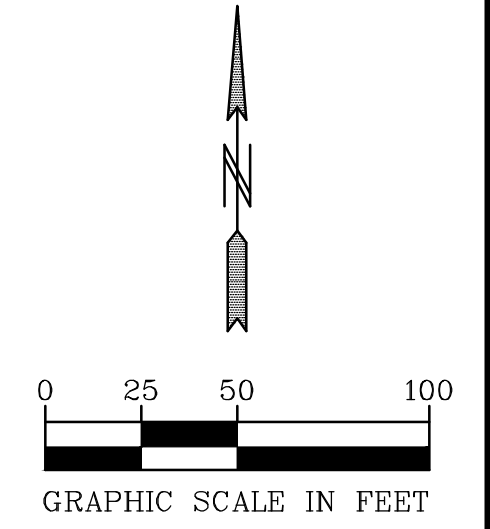
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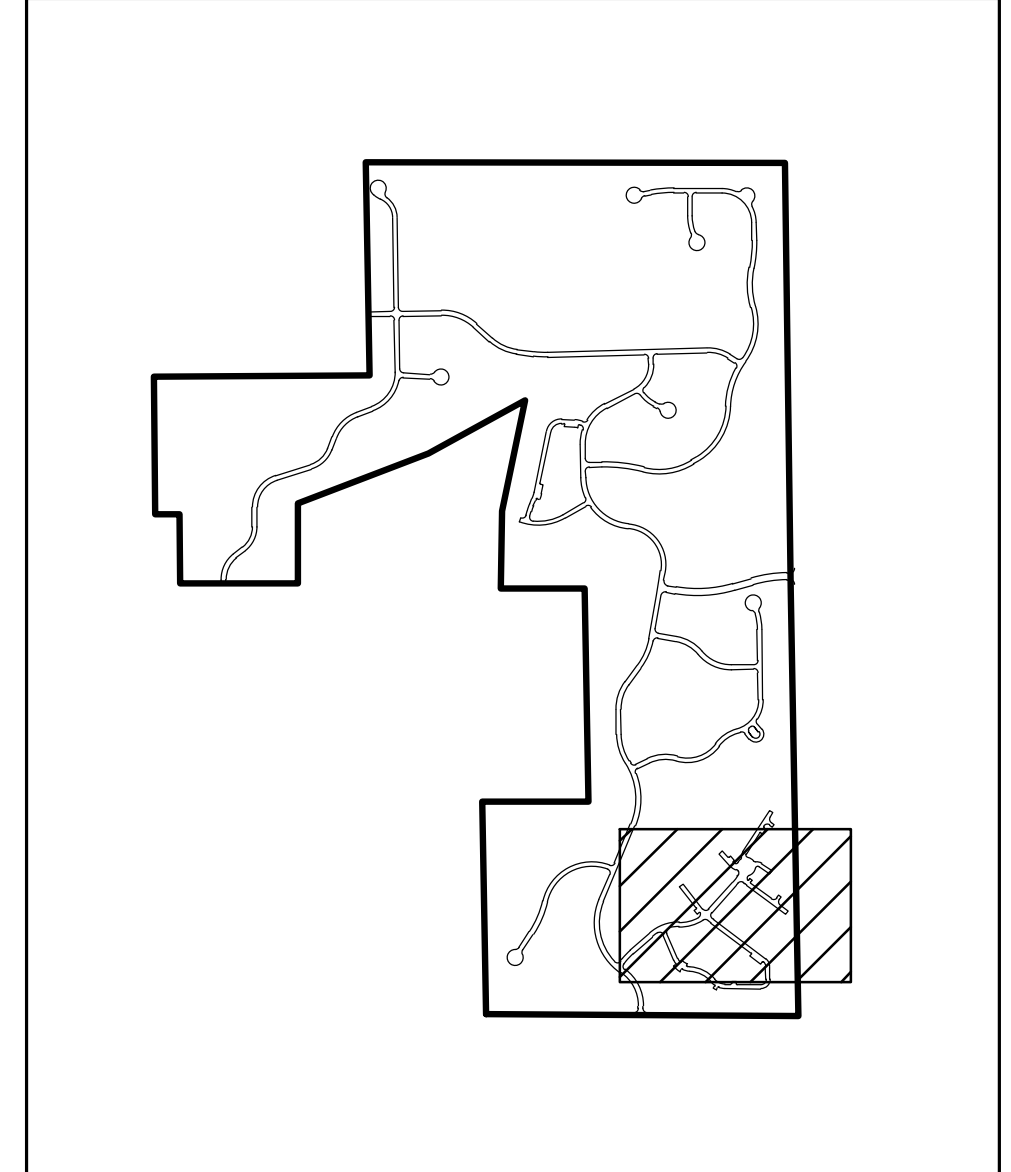
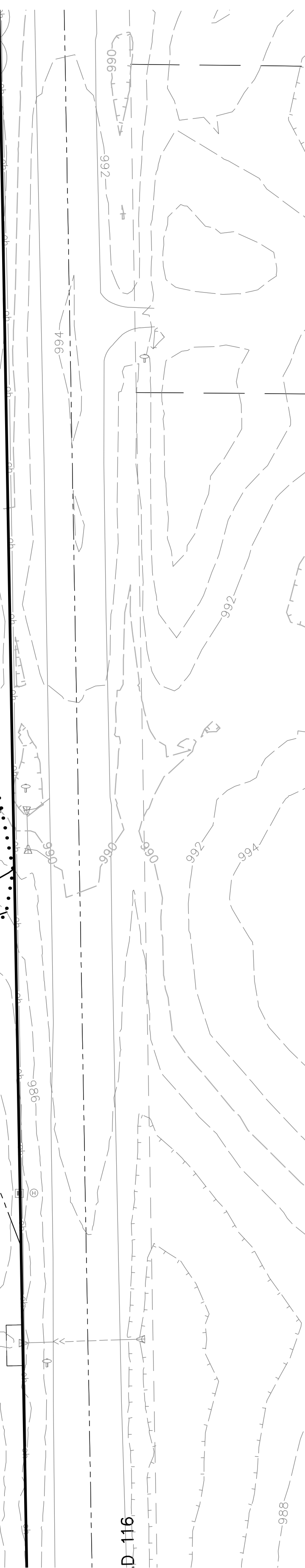
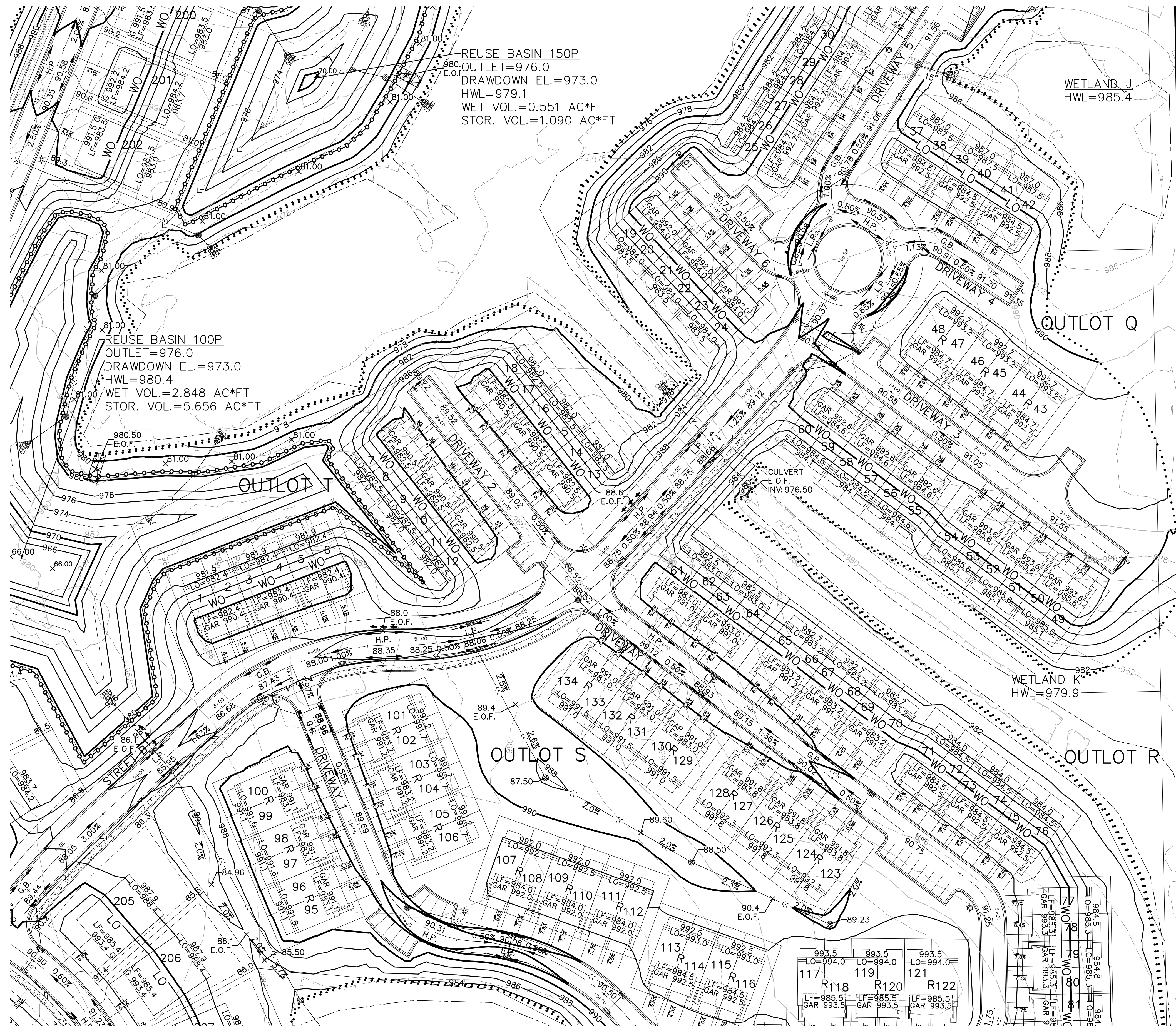
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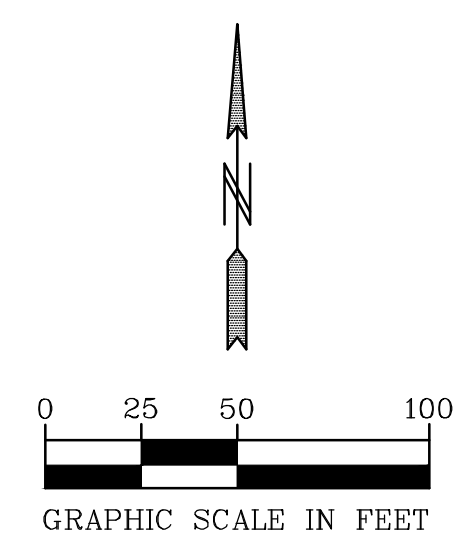
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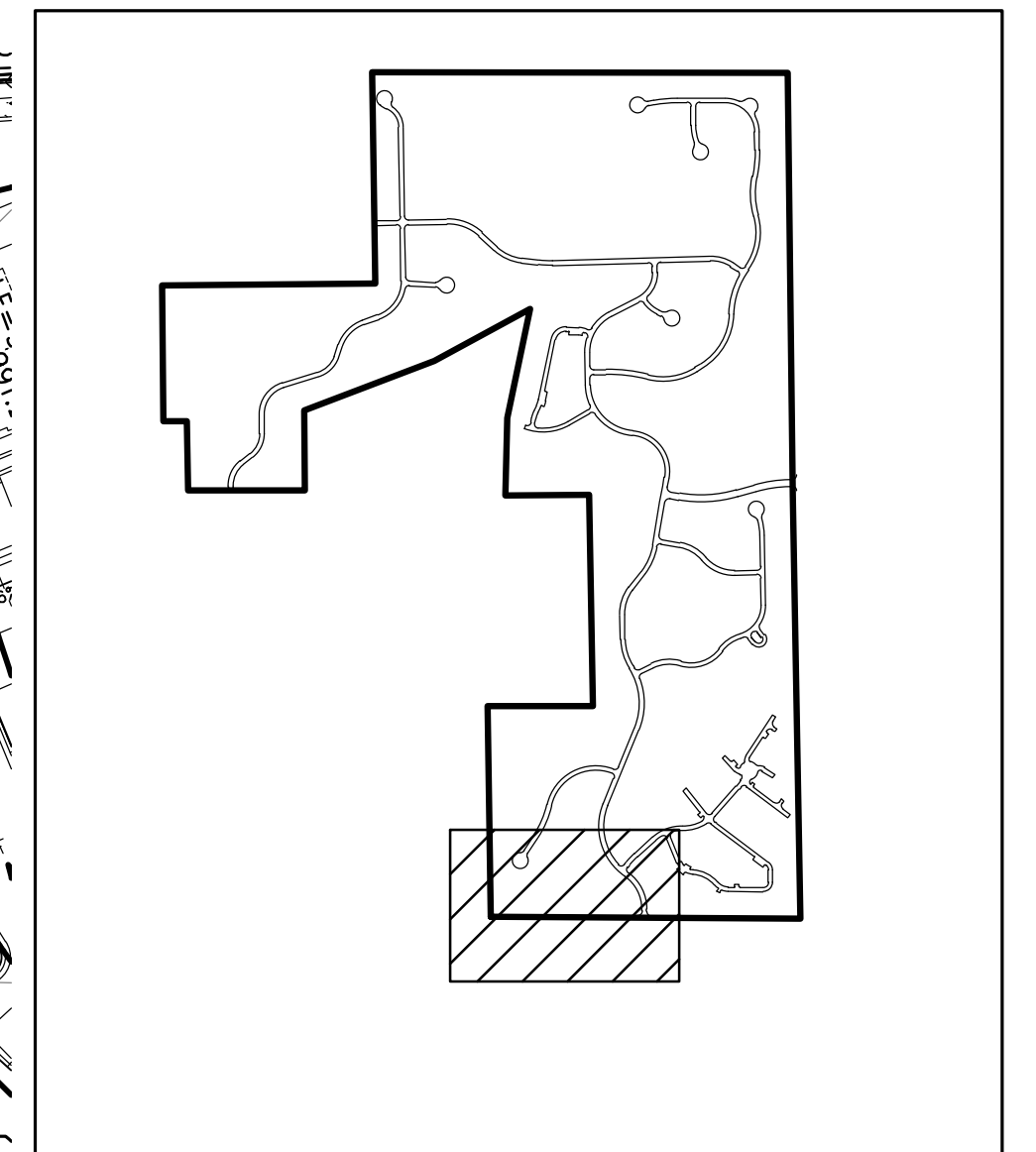
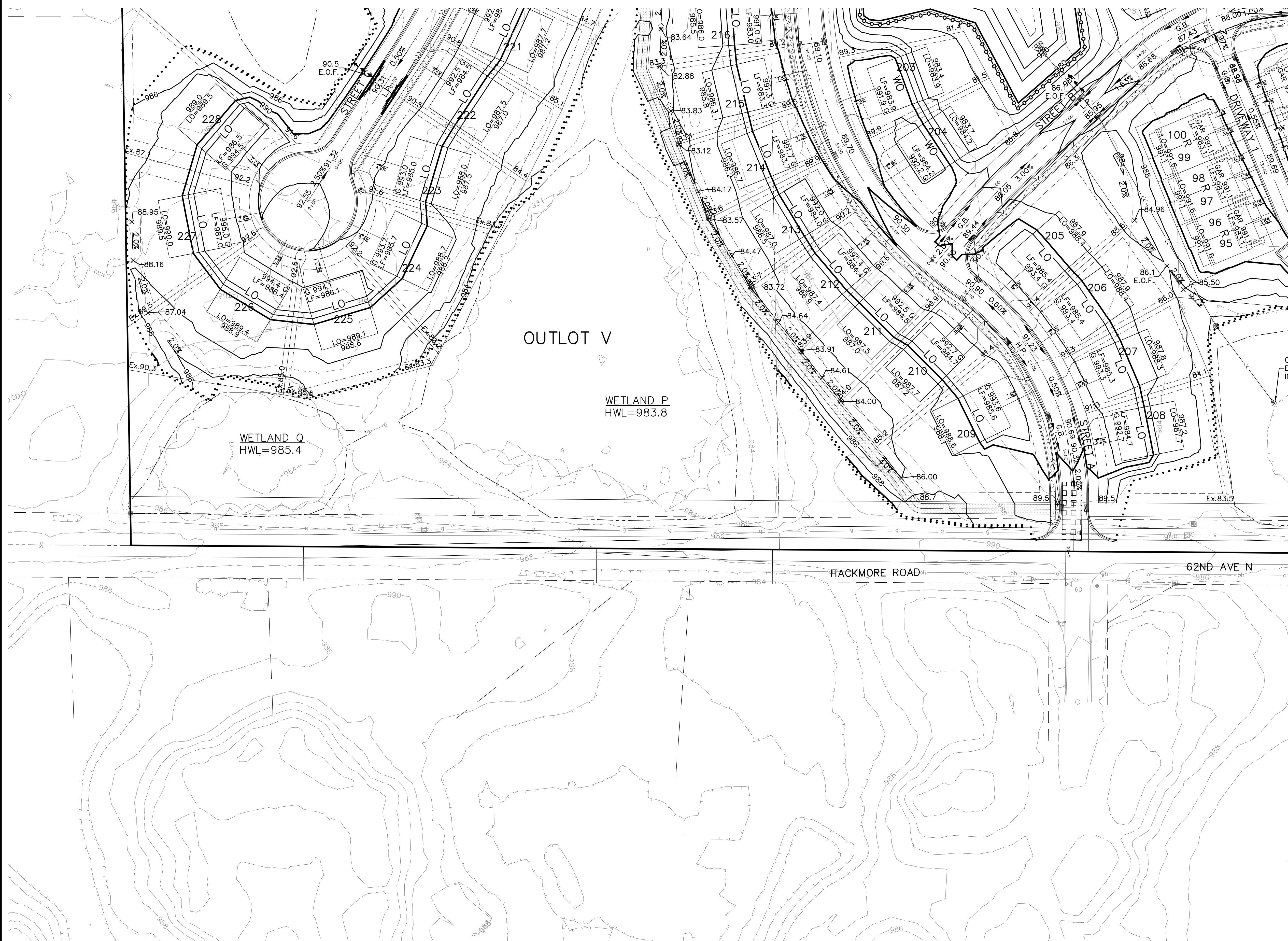
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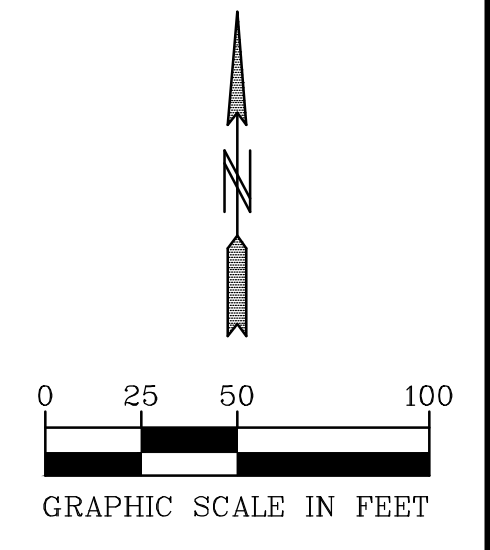
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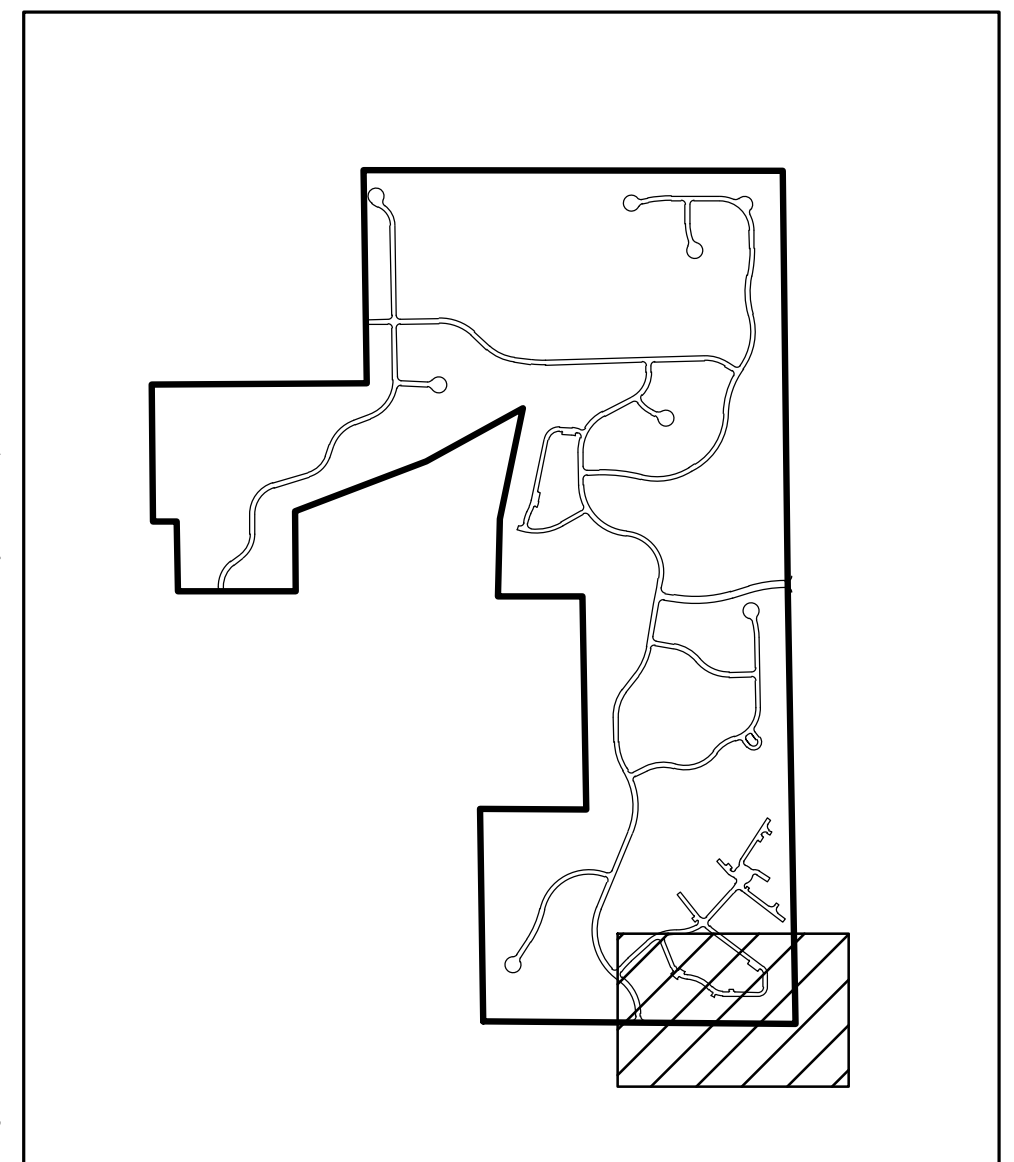
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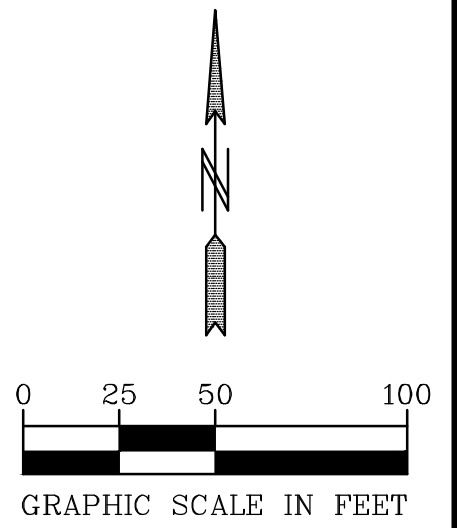
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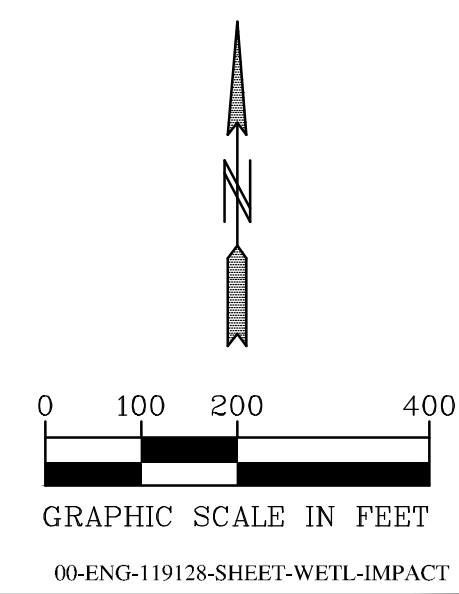
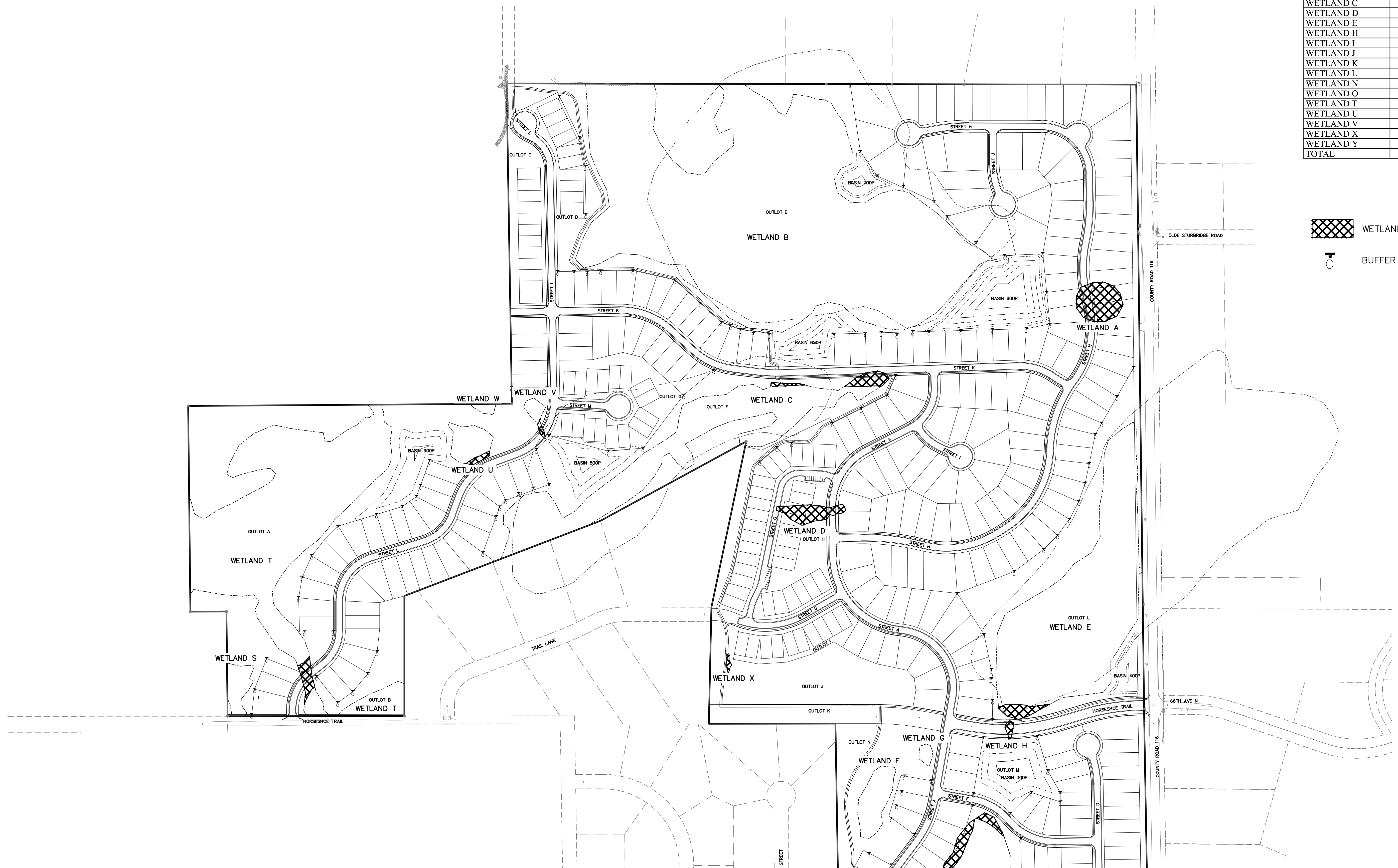
TAVERA  
CORCORAN, MINNESOTA

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WETLAND NAME	IMPACT AREA (SF)
WETLAND A	25,252
WETLAND C	8,994
WETLAND D	14,600
WETLAND E	7,447
WETLAND H	1,718
WETLAND I	25,710
WETLAND J	397
WETLAND K	230
WETLAND L	5,056
WETLAND N	15,411
WETLAND O	2,818
WETLAND T	6,127
WETLAND U	1,869
WETLAND V	965
WETLAND X	903
WETLAND Y	2,666
TOTAL	120,163

 WETLAND IMPACT

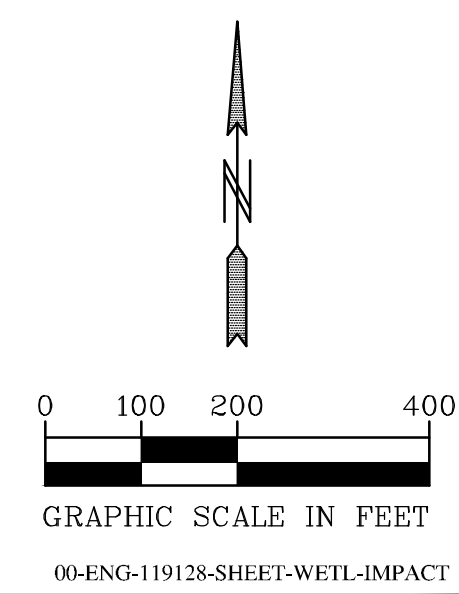
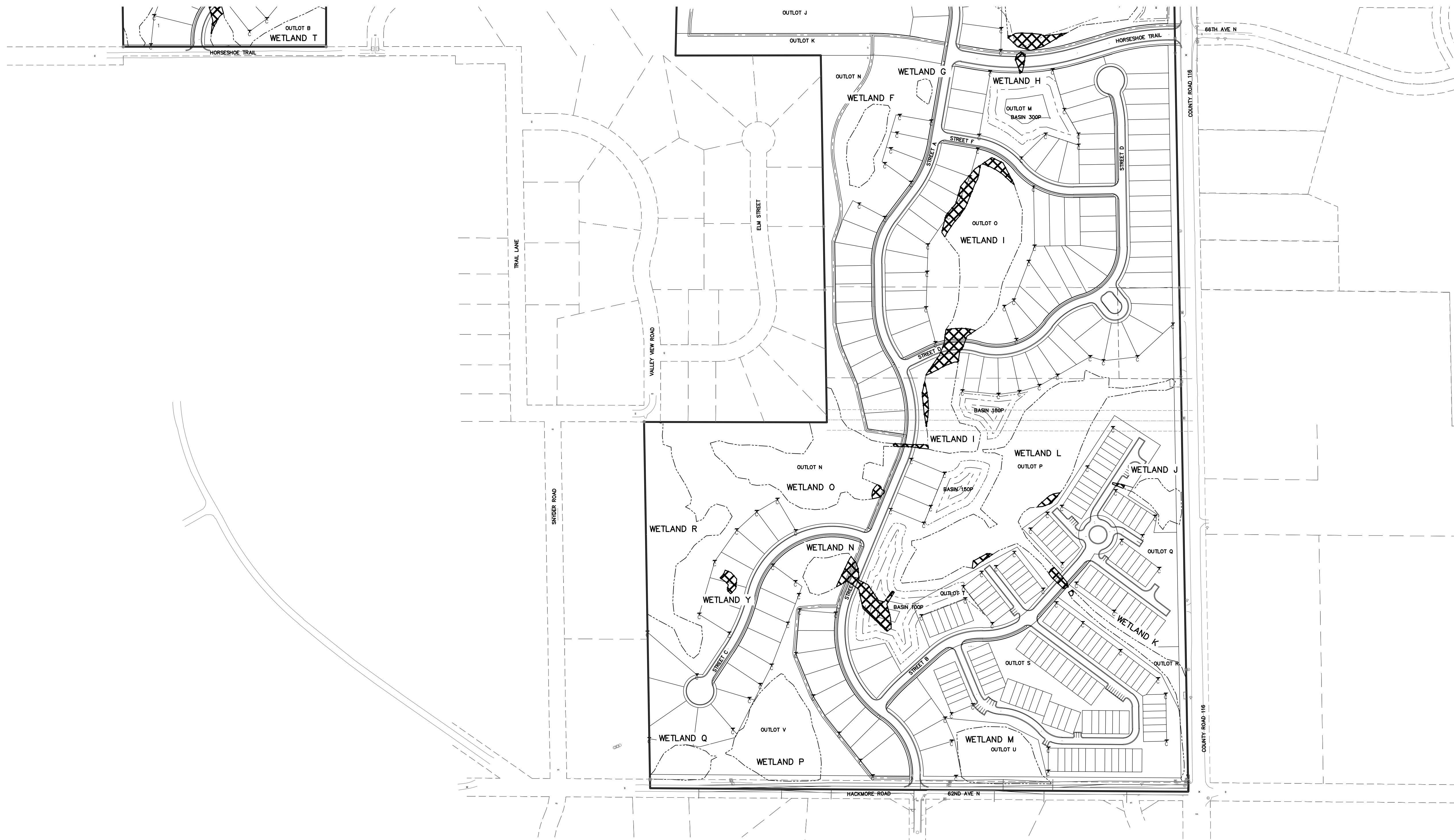
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WETLAND D	14,600
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 WETLAND IMPACT

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I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
Name: Paul J. Cherm  
Reg. No.: 19860 Date: 4-21-2020

Revisions  
Date: 4-21-20  
Designed: PJC/BNM  
Drawn: MPC/MSN





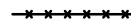

**WETLAND IMPACT**

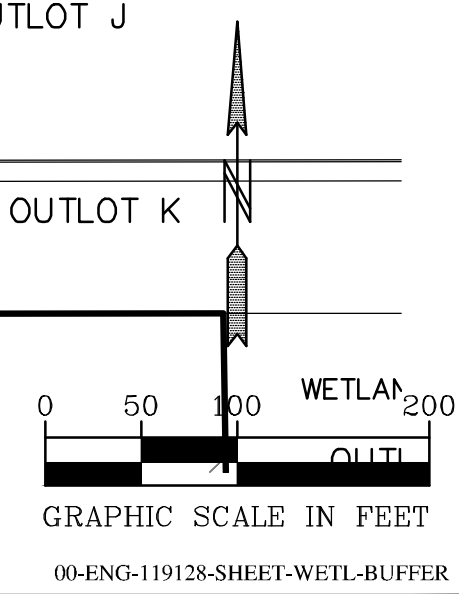
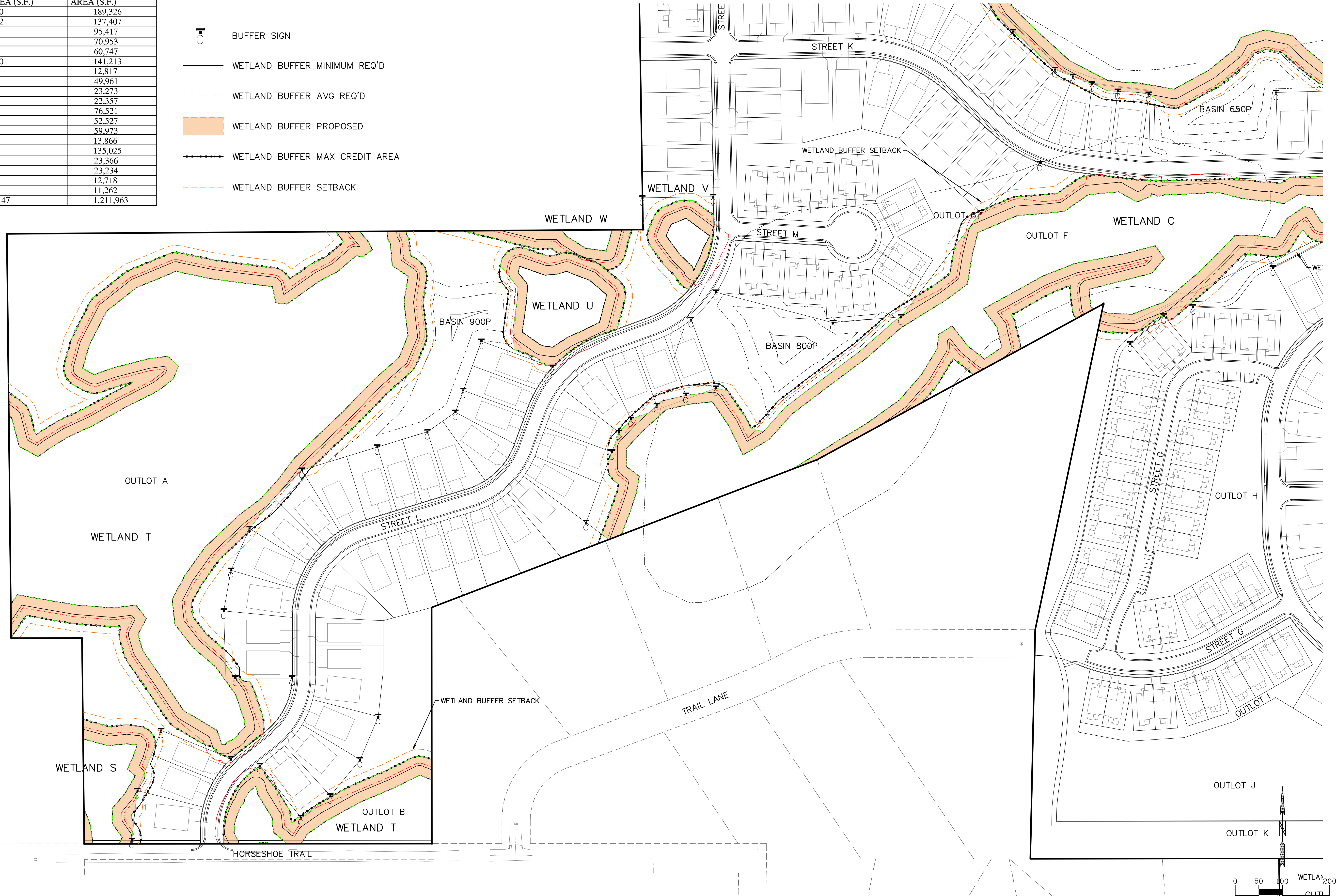
**LENNAR**  
16305 36TH AVENUE NORTH  
PLYMOUTH, MINNESOTA 55446

**TAVERA**  
CORCORAN, MINNESOTA

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WETLAND NAME	REQUIRED AVERAGE BUFFER AREA (S.F.)	PROVIDED BUFFER AREA (S.F.)
WETLAND B	160,550	189,326
WETLAND C	121,952	137,407
WETLAND E	89,661	95,417
WETLAND F&G	65,428	70,953
WETLAND I-N	53,026	60,747
WETLAND I-S&L	138,950	141,213
WETLAND J	11,397	12,817
WETLAND K	38,208	49,961
WETLAND M	20,699	23,273
WETLAND N	17,985	22,357
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WETLAND W	6,849	11,262
TOTAL	1,019,147	1,211,963

-  BUFFER SIGN
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 1. 05-21-2020 City Comments


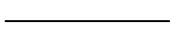

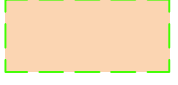
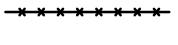

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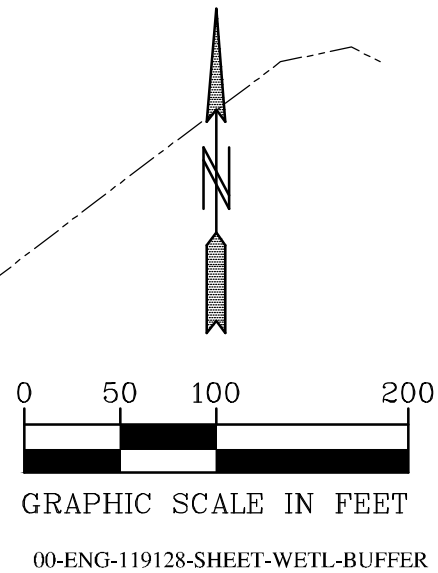
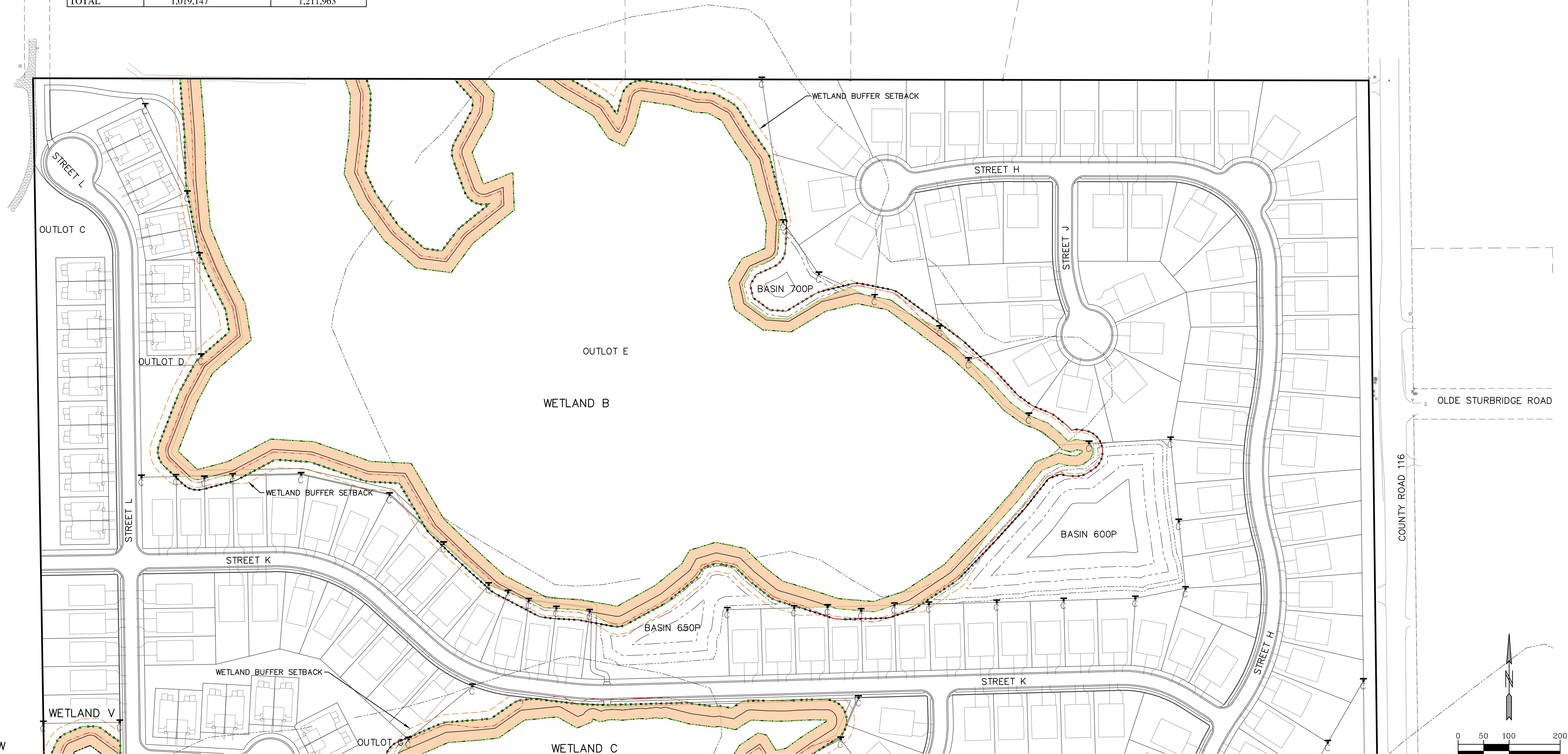
**WETLAND BUFFER PLAN**

**LENNAR**  
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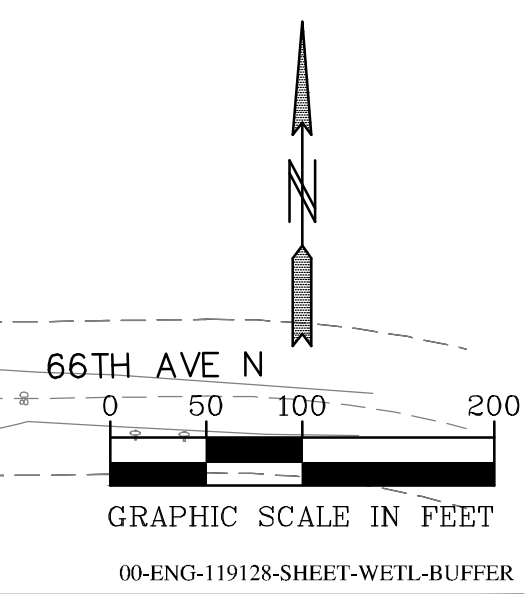
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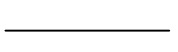


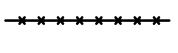

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9.13 OF 67









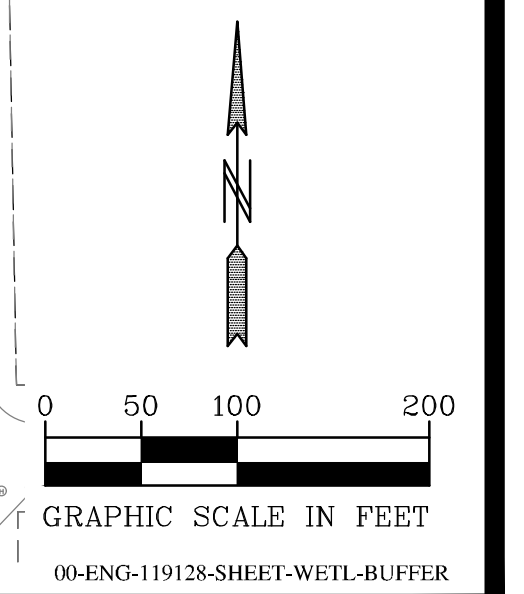
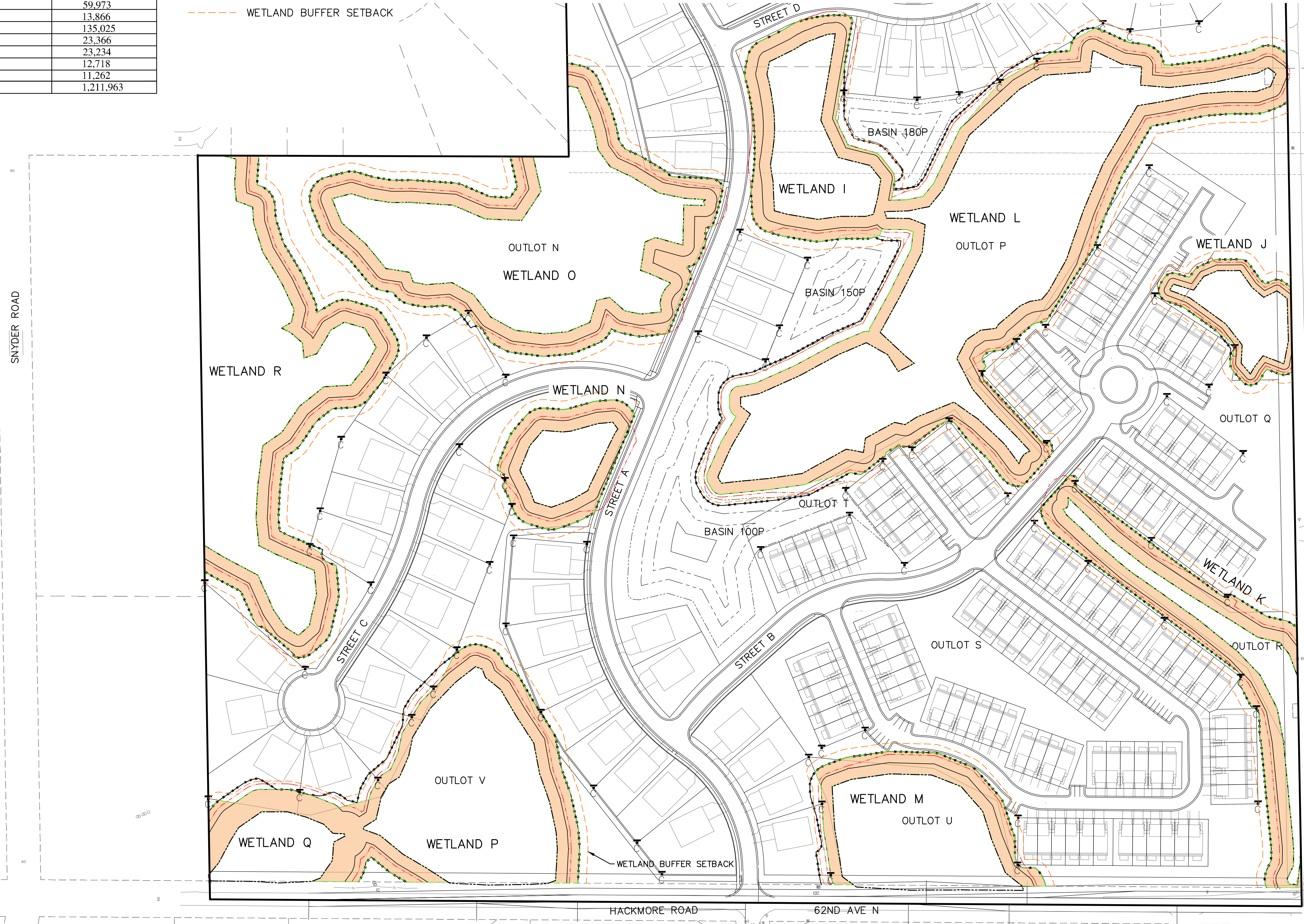
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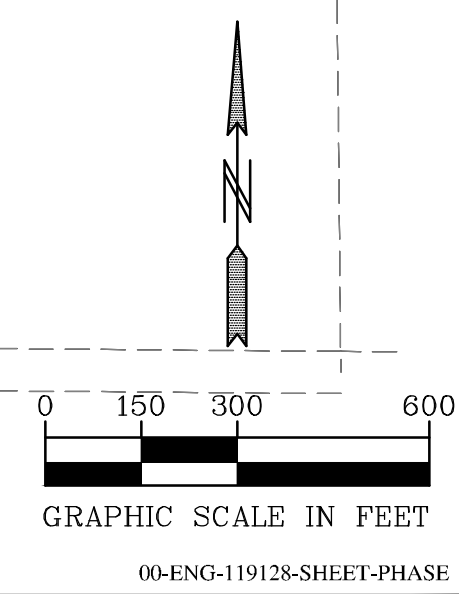
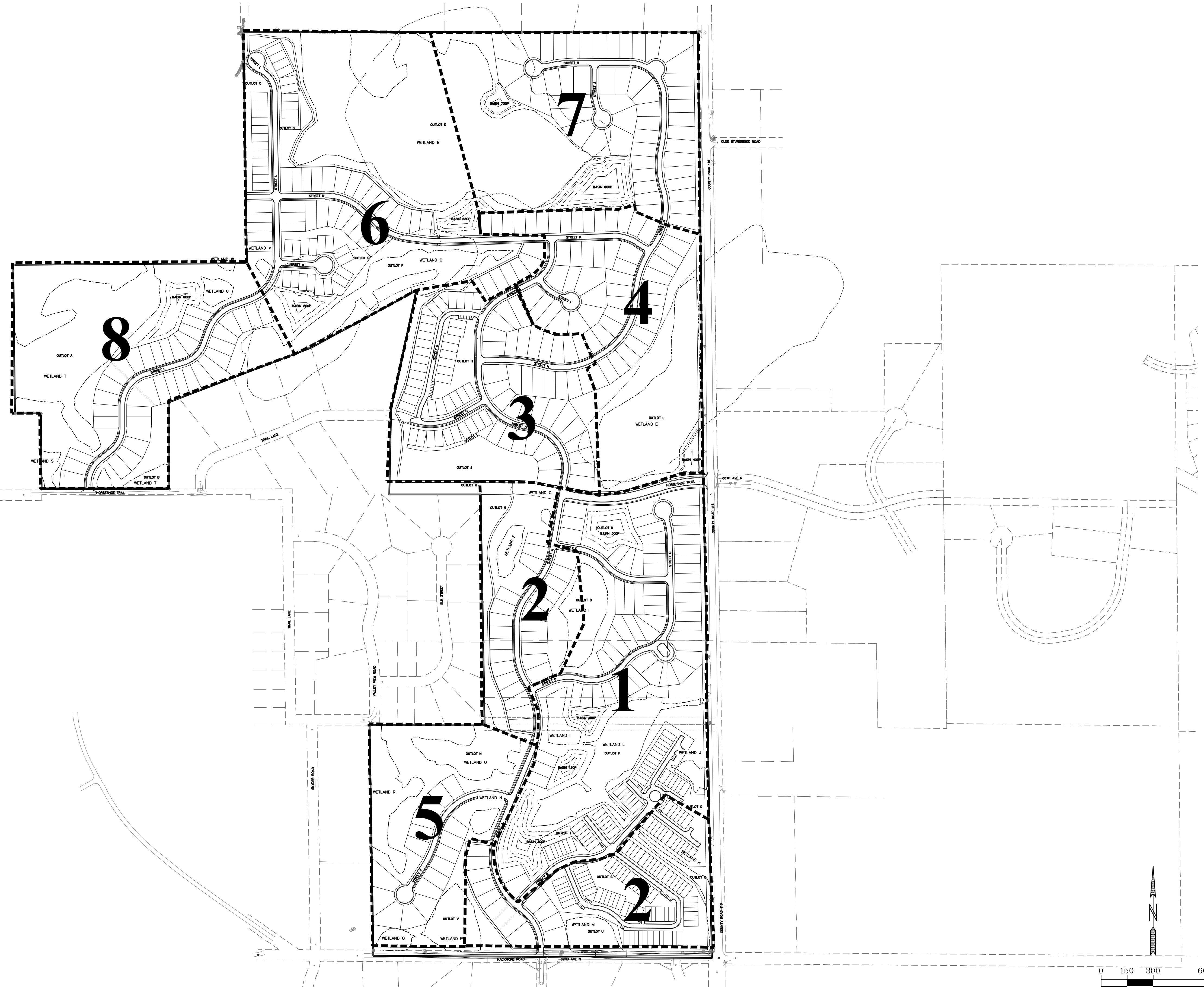
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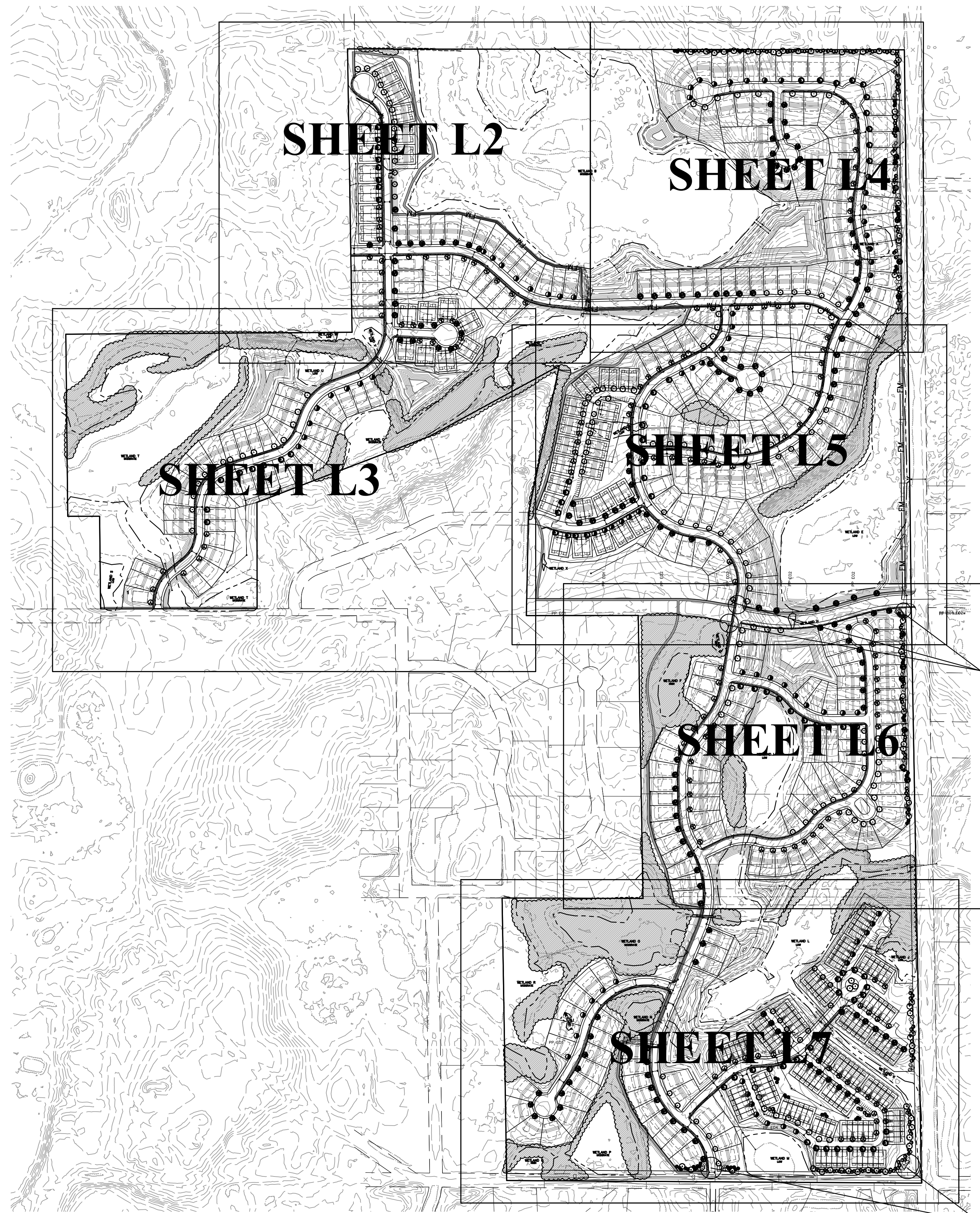
Revisions

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**PRELIMINARY PHASING PLAN**

**LENNAR**  
 16305 36TH AVENUE NORTH  
 PLYMOUTH, MINNESOTA 55446

**TAVERA**  
 CORCORAN, MINNESOTA



**CITY LANDSCAPE REQUIREMENTS**

ONE TREE/DWELLING UNIT (549 UNITS): 549 TREES

LANDSCAPE BUFFER ALONG COUNTY ROAD 116 (FOR SETBACK REDUCTION AREAS):

A MINIMUM OF 1 OVERSTORY TREE, 1 CONIFEROUS TREE, 2 ORNAMENTAL TREES, AND 10 SHRUBS PER 100'

2,900 LF OF BUFFER PROPOSED ALONG COUNTY ROAD 116

**REQUIRED TREES:**  
 29 OVERSTORY TREES  
 29 CONIFER TREES  
 58 ORNAMENTAL TREES  
 290 SHRUBS

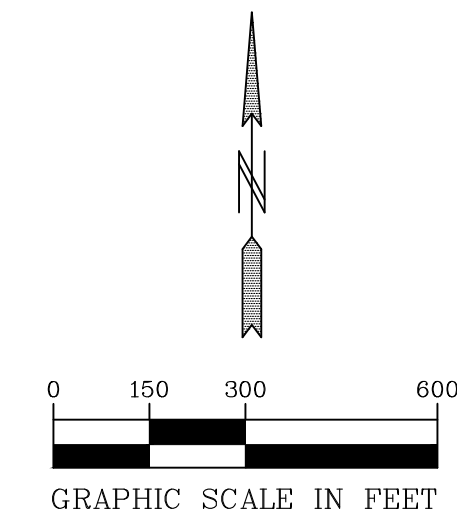
**PROPOSED TREES:**  
 47 OVERSTORY TREES  
 96 CONIFER TREES  
 48 ORNAMENTAL TREES

TOTAL REQUIRED TREES: 665  
 TOTAL PROPOSED TREES: 944

TREE LOCATIONS MAY BE ADJUSTED TO ACCOMMODATE FINAL HOME DESIGNS AND DRIVEWAY LOCATIONS.

MONUMENT LOCATIONS

MONUMENT LOCATIONS



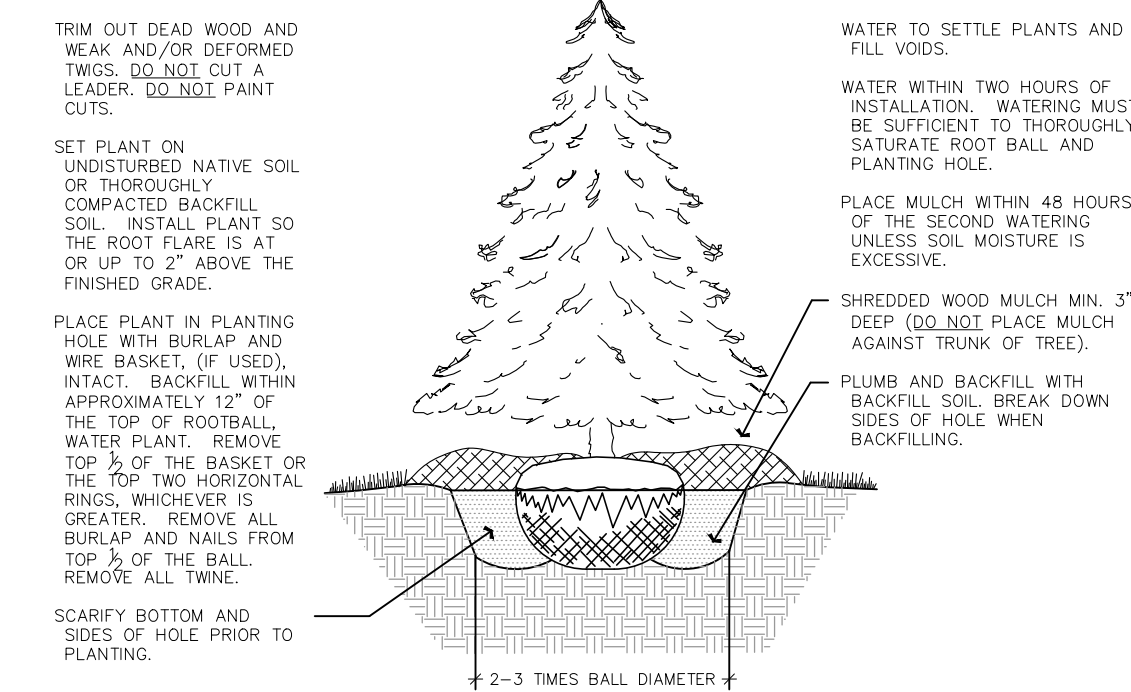
**LANDSCAPE NOTES**

- THE LANDSCAPE CONTRACTOR SHALL VISIT THE PROJECT SITE TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID.
- THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF PROPOSED PHYSICAL START DATE AT LEAST 7 DAYS IN ADVANCE.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FIELD VERIFICATION OF ALL EXISTING UTILITY LOCATIONS ON THE PROJECT SITE WITH Gopher State One Call 1-800-252-1166 PRIOR TO COMMENCING WORK. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF EXISTING UTILITIES DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
- GRADING TO BE PERFORMED BY OTHERS.
- NO PLANT MATERIAL SHALL BE INSTALLED UNTIL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
- ALL PLANT MATERIAL SHALL MEET THE STANDARDS FOUND IN THE AMERICAN ASSOCIATION OF NURSERYMEN-AMERICAN STANDARD FOR NURSERY STOCK.
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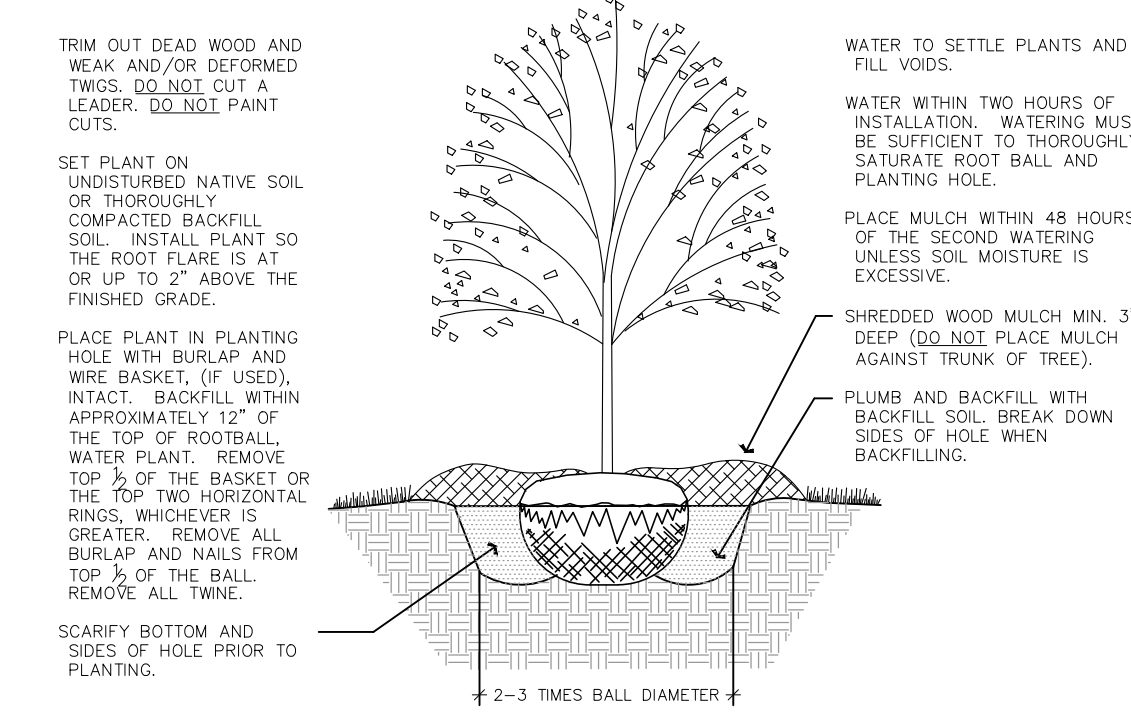
**PLANTING SCHEDULE**

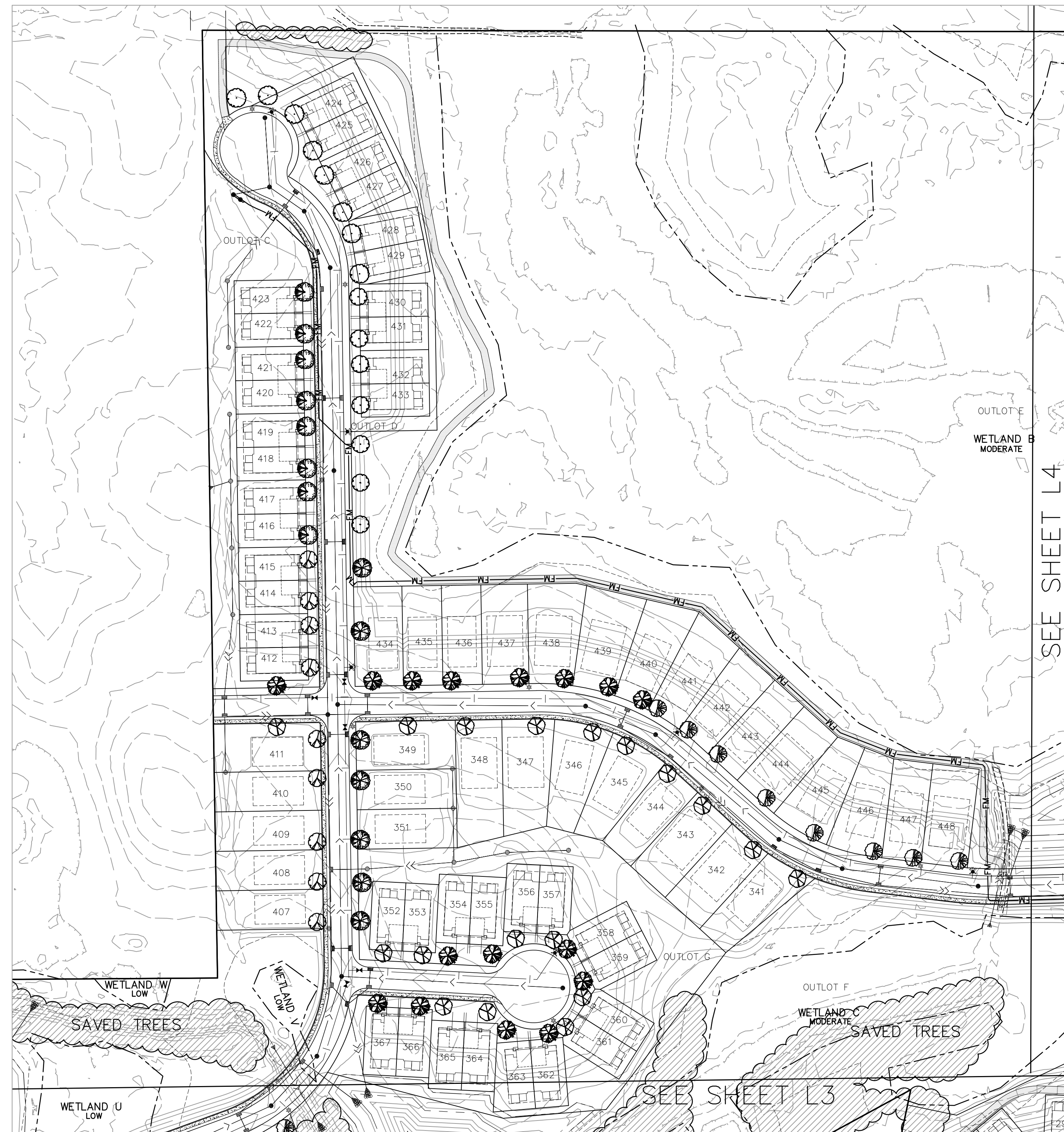
KEY	COMMON NAME/SCIENTIFIC NAME	ROOT	QUANTITY
OVERSTORY TREES			
	SIENNA GLEN MAPLE/ACER FREEMANII 'SIENNA GLEN'	2.5" B&B	80
	AUTUMN BLAZE MAPLE/ACER X FREEMANII	2.5" B&B	80
	HACKBERRY/CELTIS OCCIDENTALIS	2.5" B&B	75
	SENTRY LINDEN/TILIA AMERICANA 'SENTRY'	2.5" B&B	72
	RED OAK/QUERCUS RUBRA	2.5" B&B	83
	THORNLESS HONEYLOCUST/GLEDITSIA TRIACANTHOS VAR INEMIS	2.5" B&B	74
	RIVER BIRCH/BETULA NIGRA 'HERITAGE' (CLUMP)	10-12' B&B	49
	NORTHWOOD MAPLE/ACER RUBRUM 'NORTHWOOD'	2.5" B&B	81
	KENTUCKY COFFEETREE/GYMNOCALDUS DIOICUS	2.5" B&B	73
	SWAMP WHITE OAK/QUERCUS BICOLOR	2.5" B&B	14
EVERGREEN TREES			
	WHITE PINE/PINUS STROBUS	6' B&B	59
	NORWAY SPRUCE/PICEA ABIES	6' B&B	66
	BLACK HILLS SPRUCE/PICEA GLUACA VAR DENSATA	6' B&B	90
ORNAMENTAL TREES			
	JAPANESE TREE LILAC/SYRINGA RETICULATA	1.5" B&B	27
	SERVICEBERRY/AMELANCHIER LAEVIS	1.5" B&B	21

**CONIFEROUS TREE PLANTING DETAIL**



**DECIDUOUS TREE PLANTING DETAIL**





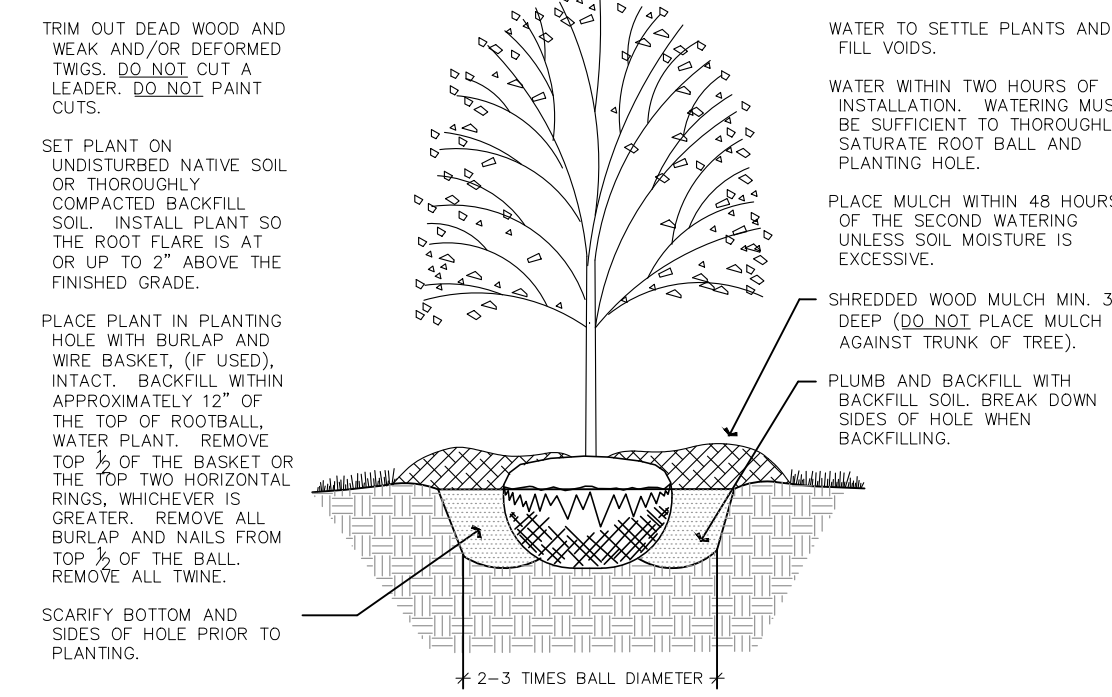
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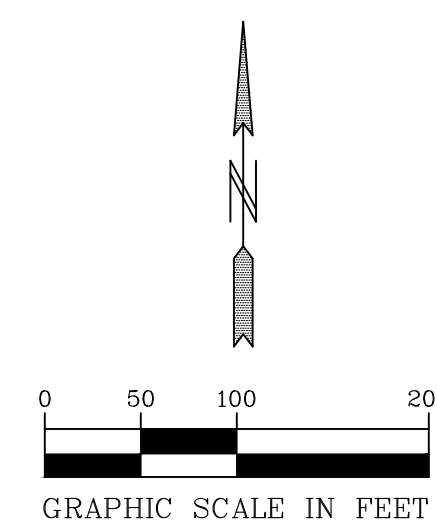
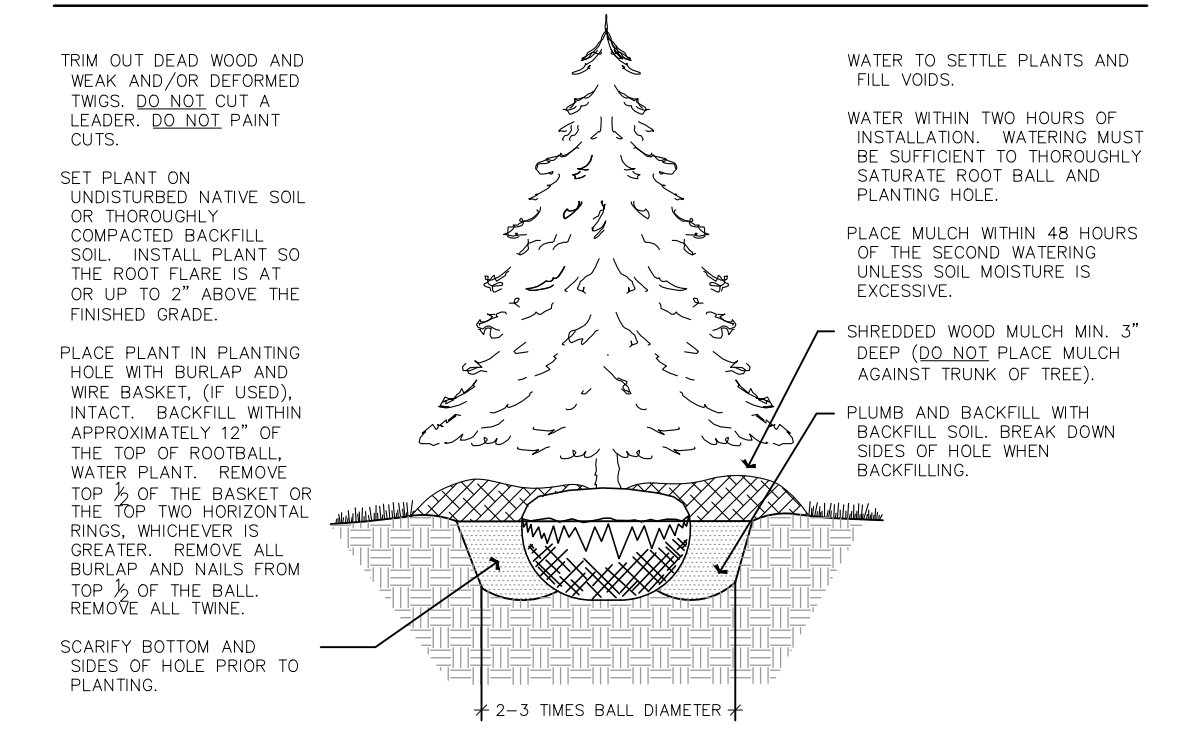
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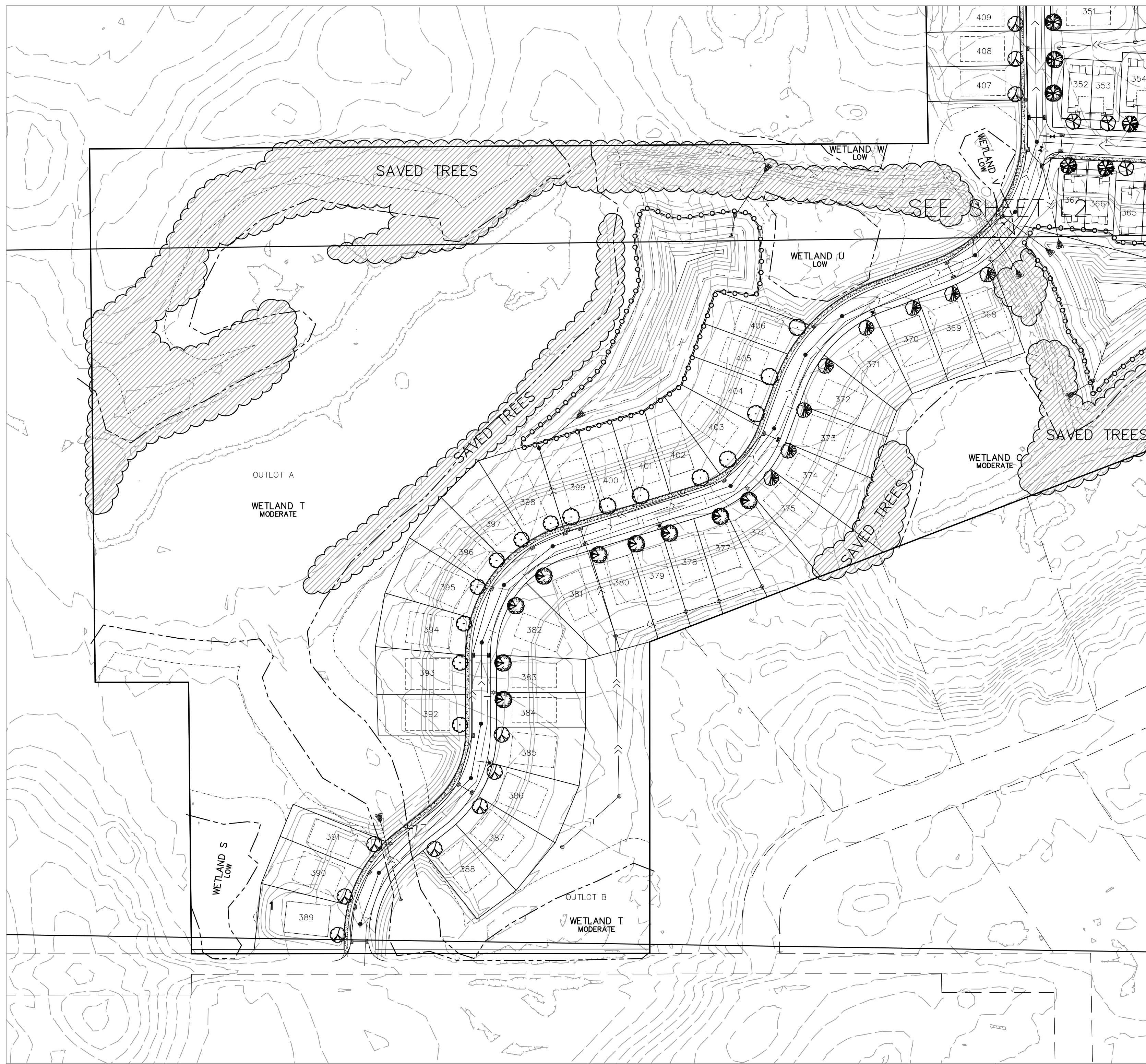
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	SERVICEBERRY/AMELANCHIER LAEVIS	1.5" B&B	21

**DECIDUOUS TREE PLANTING DETAIL**



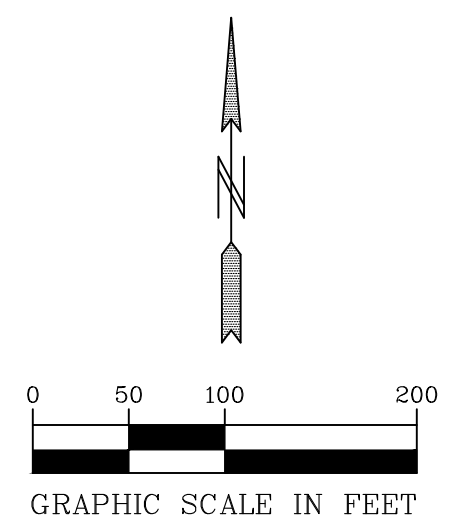
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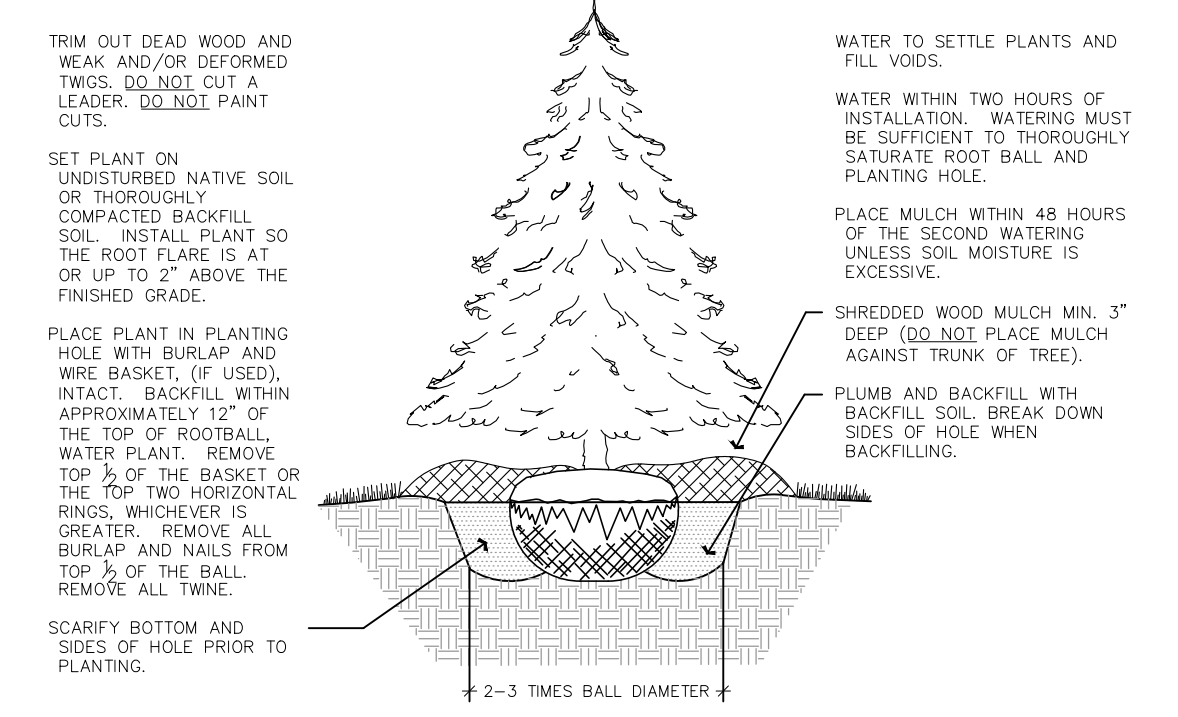
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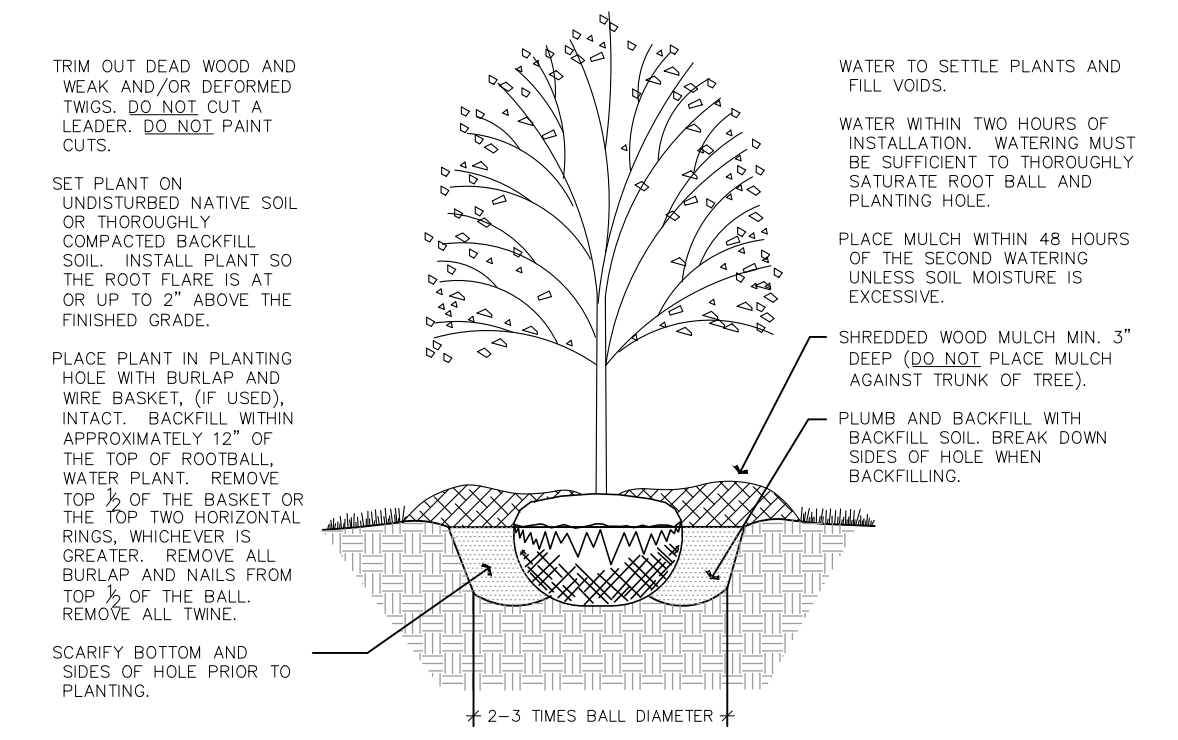


PLANTING SCHEDULE			
KEY	COMMON NAME/SCIENTIFIC NAME	ROOT	QUANTITY
OVERSTORY TREES			
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	AUTUMN BLAZE MAPLE/ACER X FREEMANII	2.5" B&B	80
	HACKBERRY/CELTIS OCCIDENTALIS	2.5" B&B	75
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**CONIFEROUS TREE PLANTING DETAIL**



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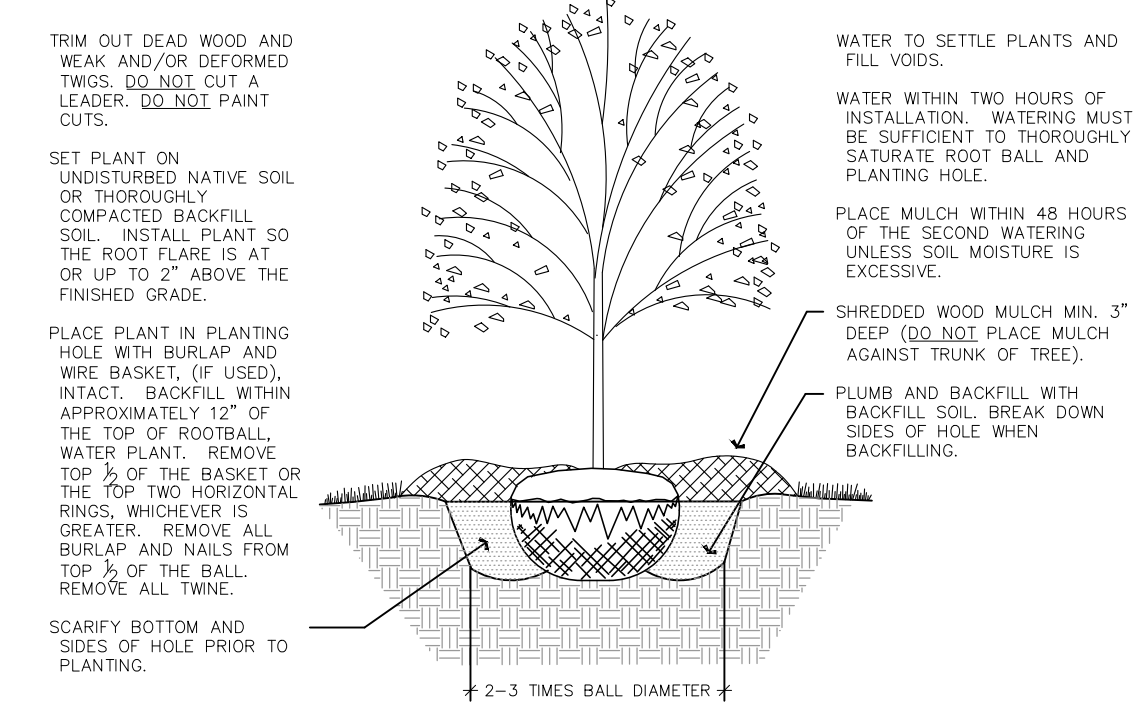
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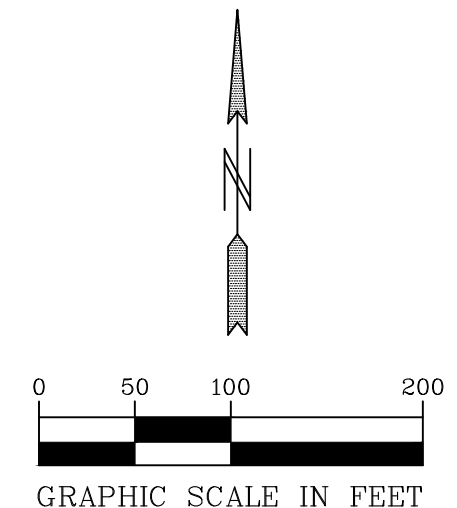
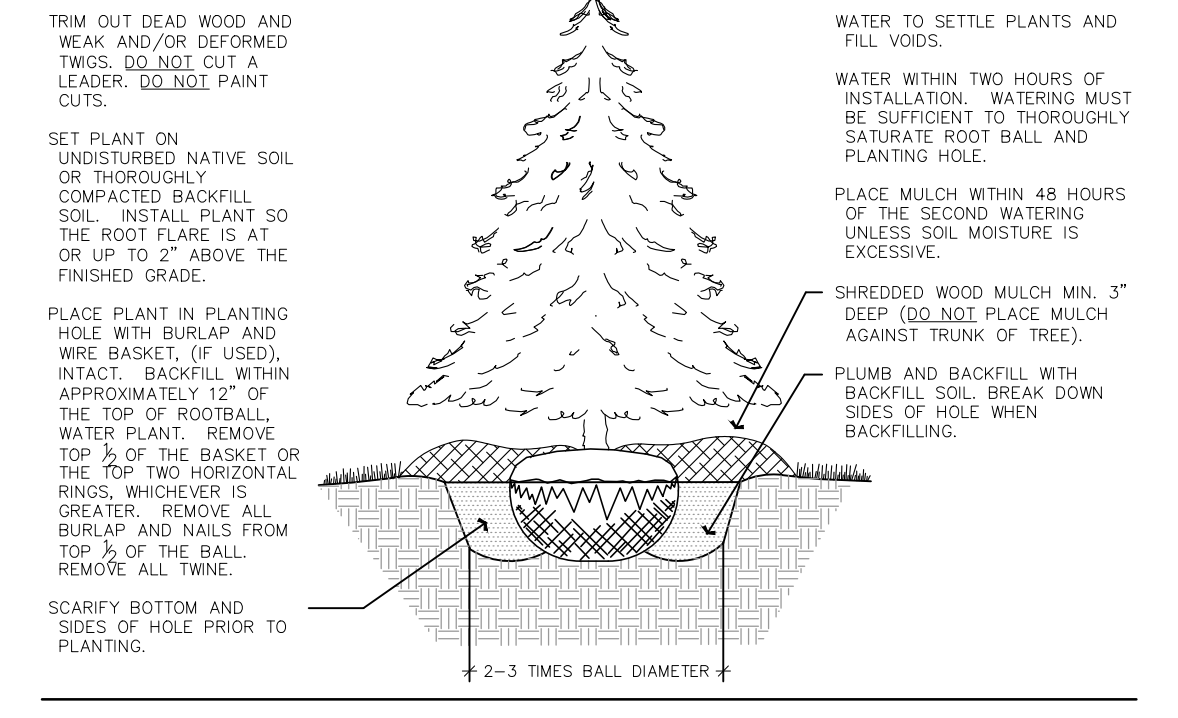
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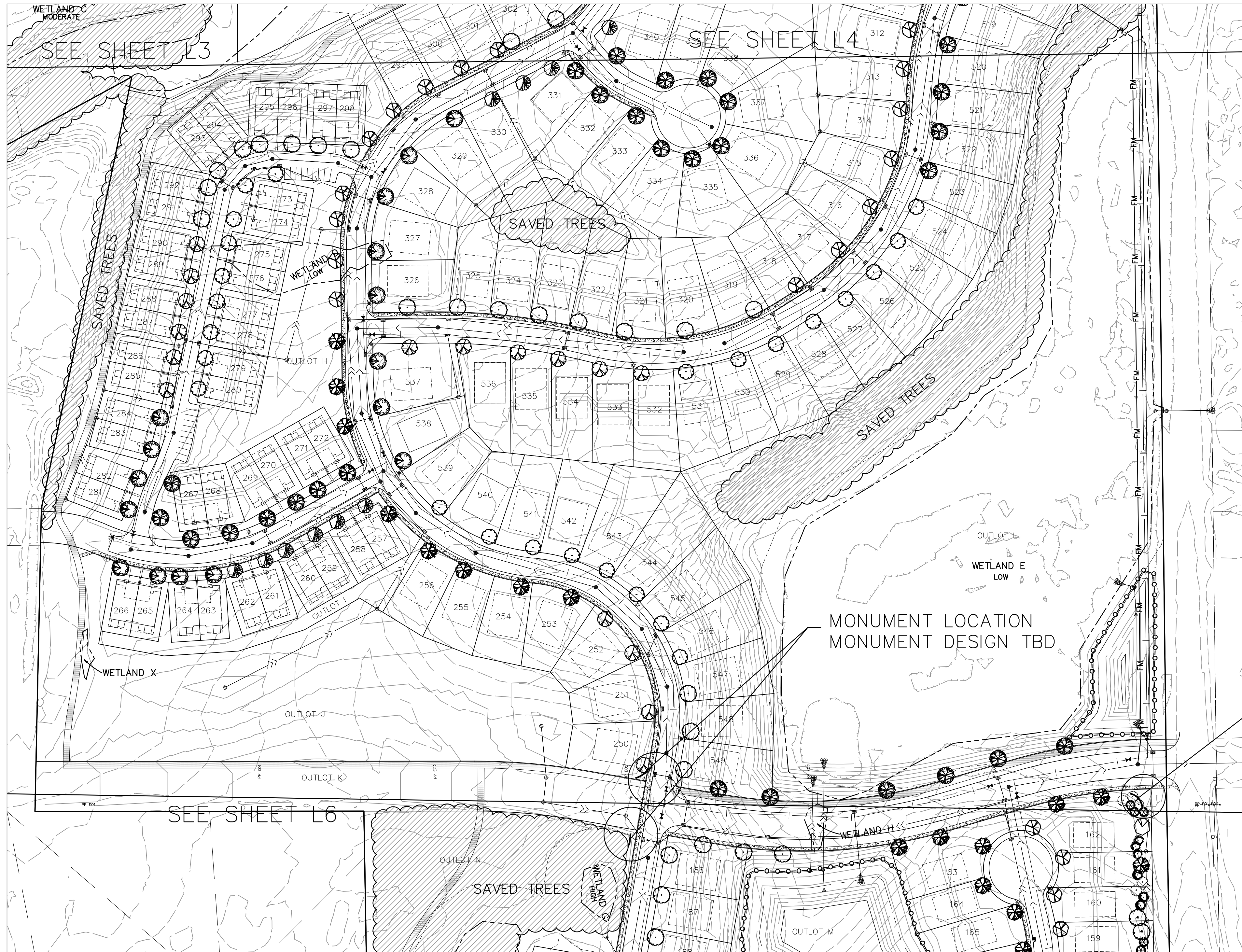
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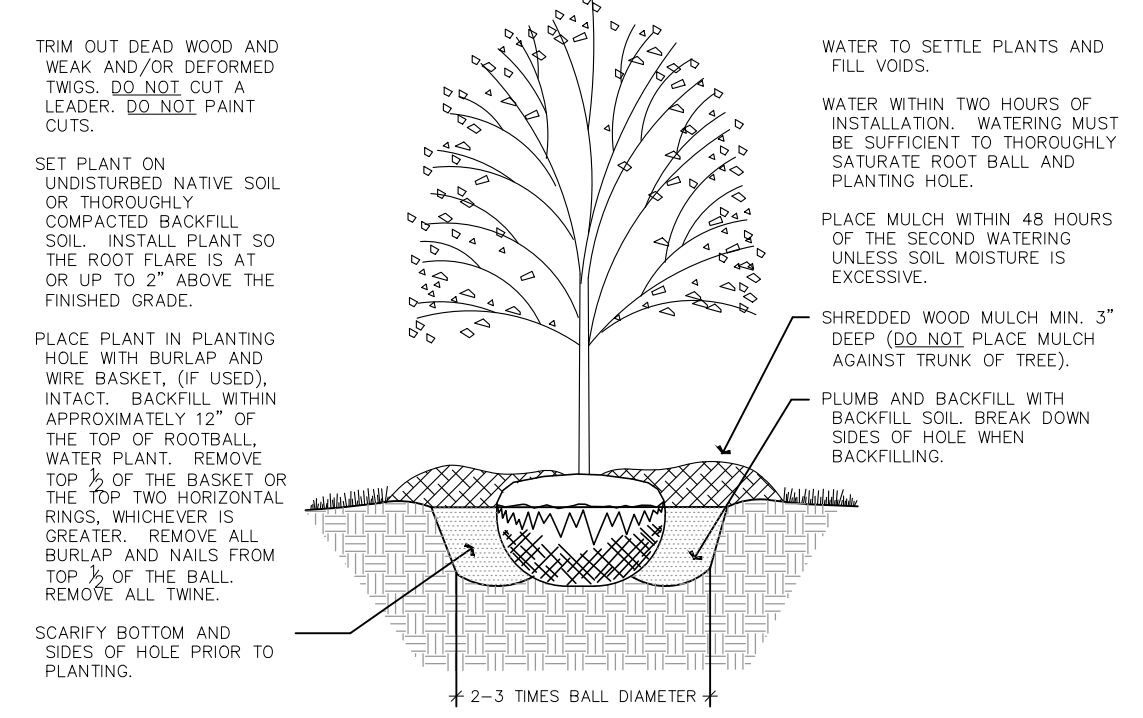


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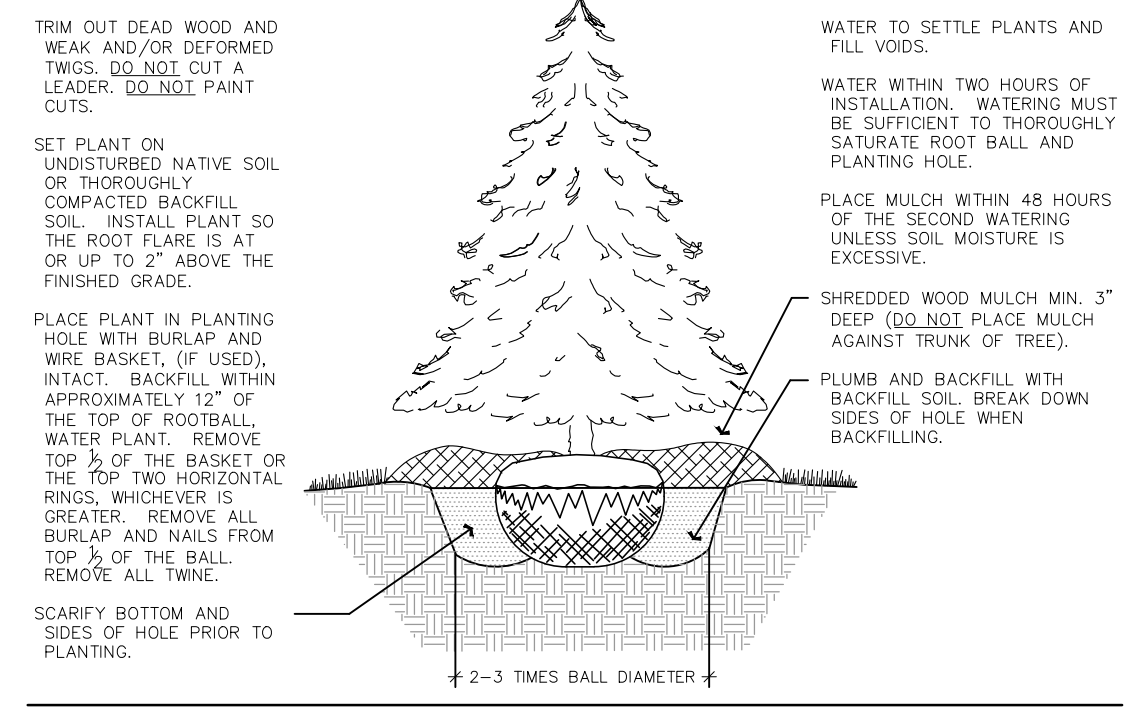
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MONUMENT LOCATION  
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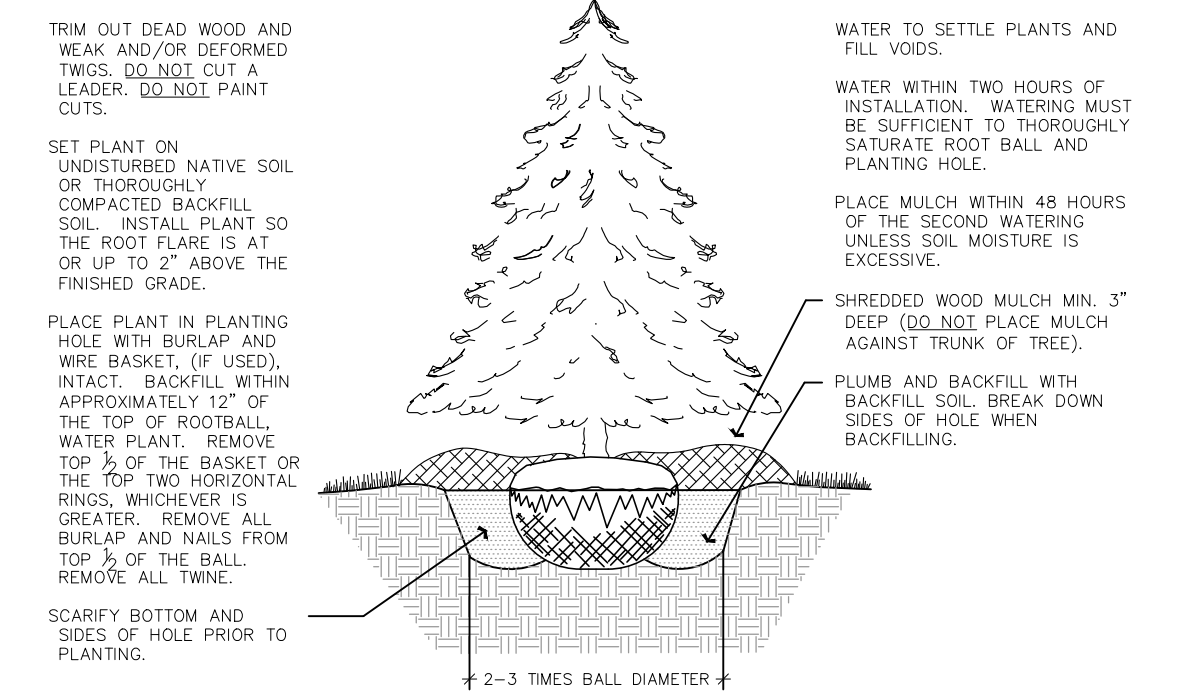


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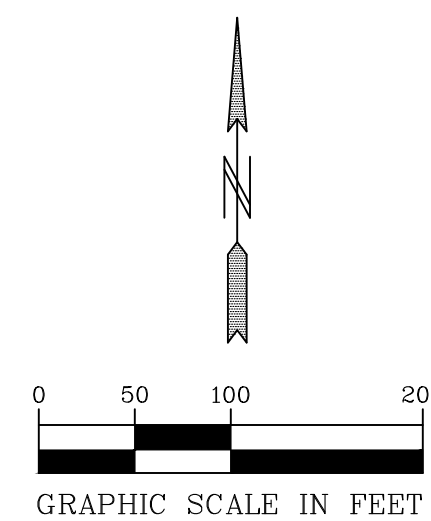
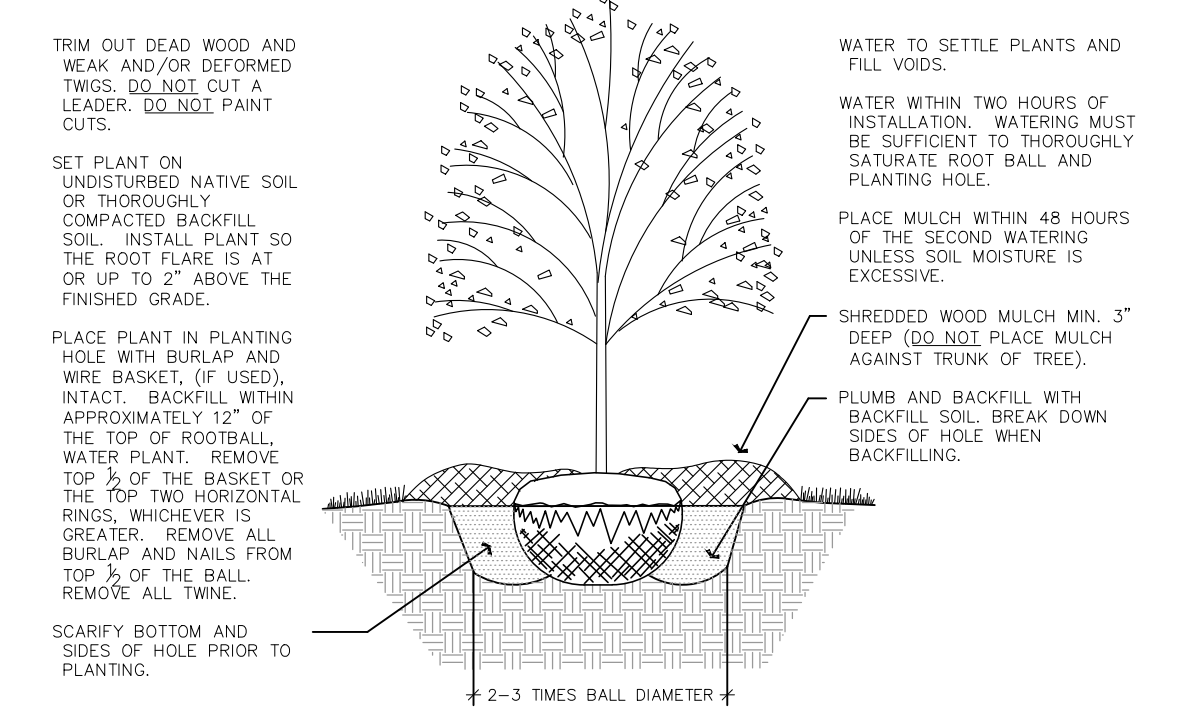
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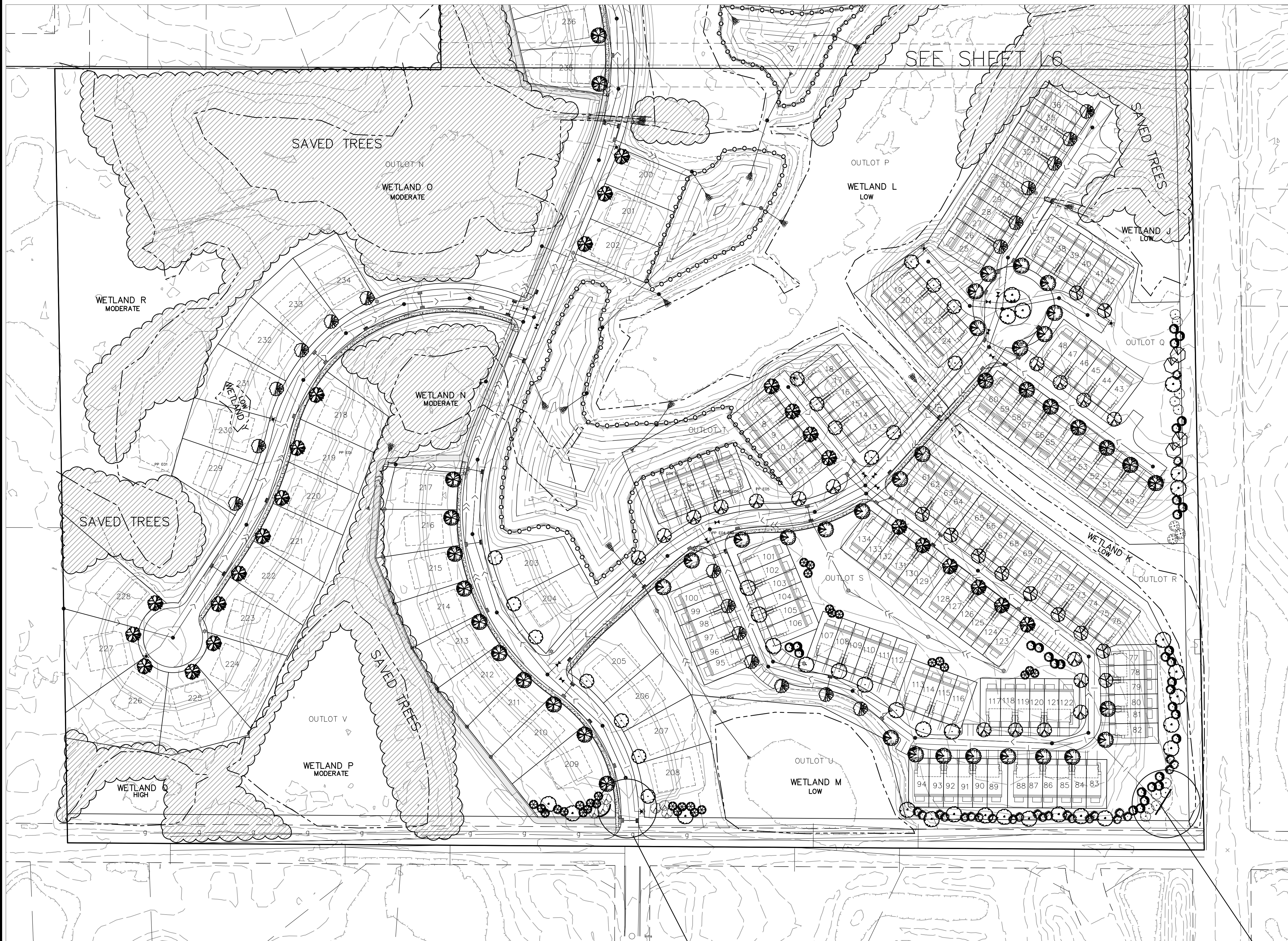
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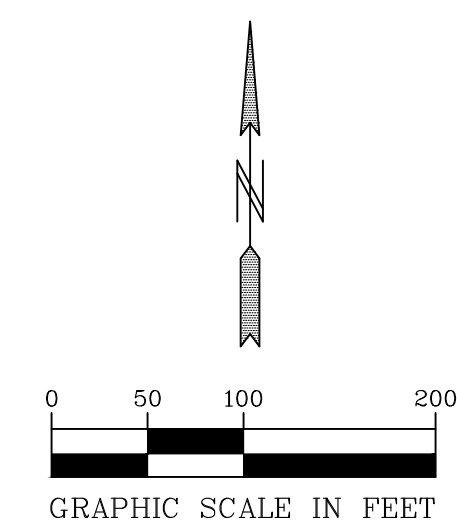
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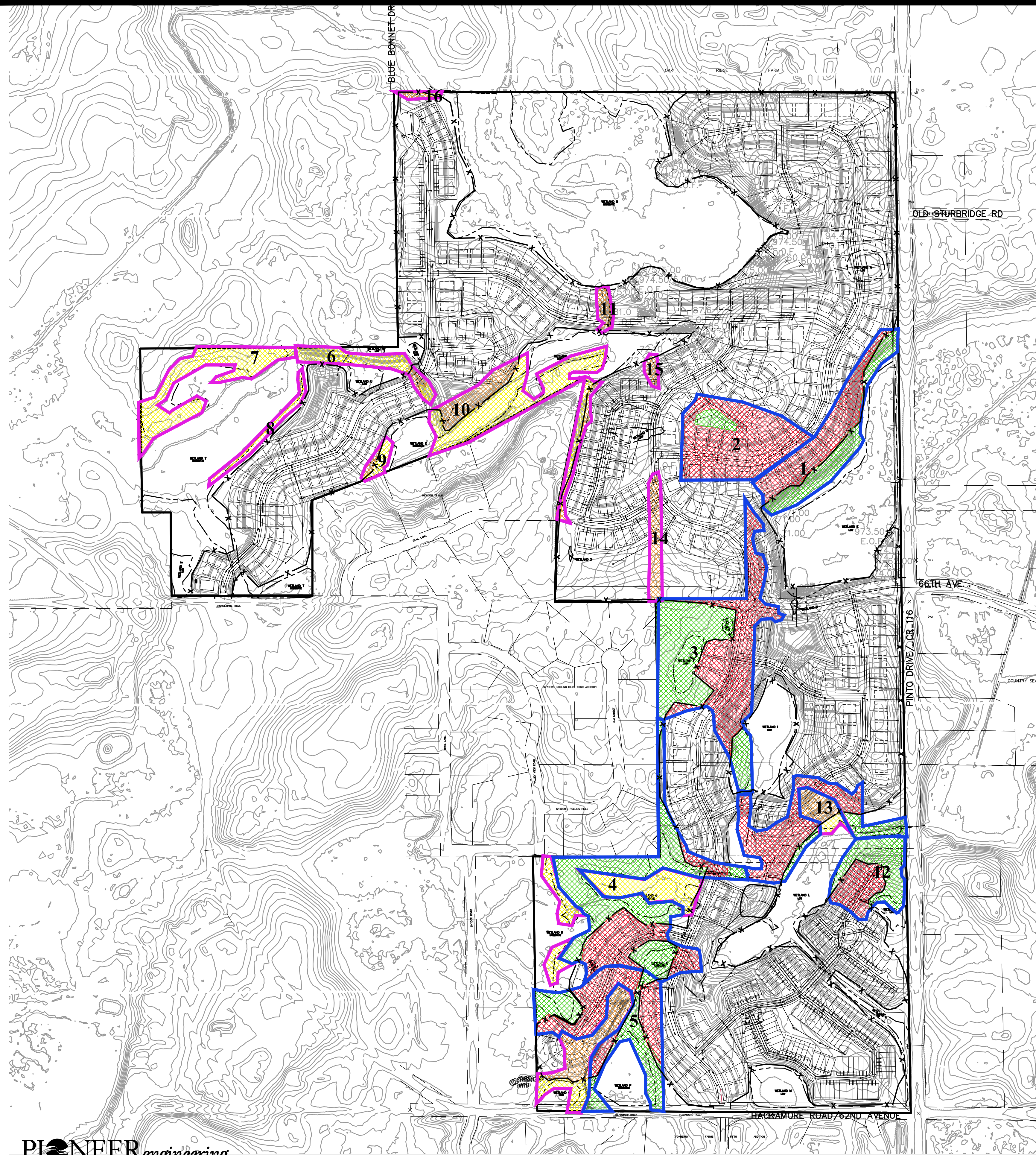
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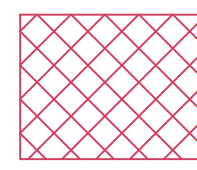
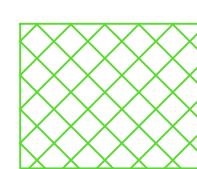

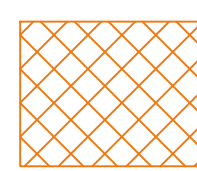
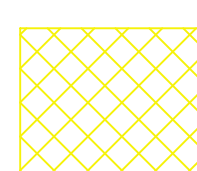
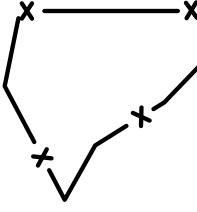
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- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FIELD VERIFICATION OF ALL EXISTING UTILITY LOCATIONS ON THE PROJECT SITE WITH Gopher State One Call 1-800-255-1168 PRIOR TO COMMENCING WORK. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF EXISTING UTILITIES DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
- GRADING TO BE PERFORMED BY OTHERS.
- NO PLANT MATERIAL SHALL BE INSTALLED UNTIL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
- ALL PLANT MATERIAL SHALL MEET THE STANDARDS FOUND IN THE AMERICAN ASSOCIATION OF NURSERMEN-AMERICAN STANDARD FOR NURSERY STOCK.
- ALL CONTAINER MATERIAL TO BE GROWN IN THE CONTAINER A MINIMUM OF SIX (6) MONTHS PRIOR TO PLANTING ON SITE.
- DECIDUOUS AND CONIFEROUS TREES SHALL NOT BE STAKED, BUT THE LANDSCAPE CONTRACTOR MUST GUARANTEE STABILITY TO A WIND SPEED OF 60 M.P.H.
- THE LANDSCAPE CONTRACTOR SHALL PROVIDE A MINIMUM GUARANTEE OF ONE YEAR ONE TIME REPLACEMENT ON NEW PLANT MATERIALS. GUARANTEE SHALL BE AGREED UPON BY DEVELOPER/BUILDER AND LANDSCAPE CONTRACTOR.
- THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING OR AFTER INSTALLATION.
- IF THERE IS A DISCREPANCY BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLAN AND THE NUMBER SHOWN ON THE PLANT LIST, THE NUMBER SHOWN ON THE PLAN WILL TAKE PRECEDENCE.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES AND PLANTING SOIL QUANTITIES TO COMPLETE WORK SHOWN ON THE PLAN. THE LANDSCAPE CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN ON THE PLANT SCHEDULE.
- COMMERCIAL GRADE POLY LAWN EDGING SHALL BE INSTALLED WHERE NOTED.
- THE LANDSCAPE CONTRACTOR SHALL REPAIR ALL DAMAGE TO THE SITE CAUSED BY THE PLANTING OPERATION AT NO COST TO THE OWNER.
- THE LANDSCAPE CONTRACTOR SHALL KEEP PAVEMENTS CLEAN UNSTAINED. ALL PEDESTRIAN AND VEHICLE ACCESS TO BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD. ALL WASTES SHALL BE PROMPTLY REMOVED FROM THE SITE. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS AND PERMITS GOVERNING THE WORK.
- STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED.



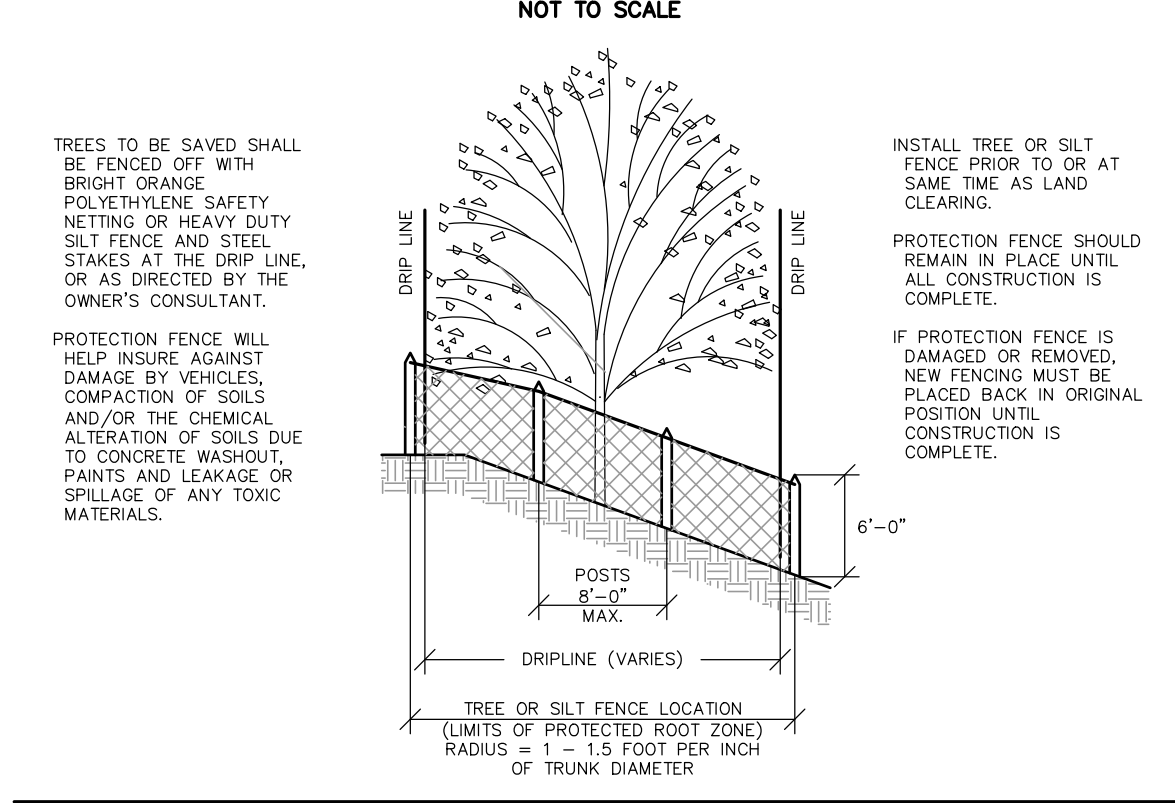


TOTAL TREE AREAS OUTLINED IN BLUE AND PINK: 57.5 ACRES  
 TOTAL SAVED TREES HATCHED IN YELLOW AND GREEN: 30.1 ACRES (52%)

SEE "WOODLAND ASSESSMENT COUNTY ROAD 116 PROPERTIES" DOCUMENT COMPLETED OCTOBER 28, 2019 FOR A FORESTER'S INVENTORY AND ANALYSIS OF EXISTING WOODLANDS ON SITE.

-  ECOLOGICALLY SIGNIFICANT AREAS (2040 COMPREHENSIVE PLAN)  
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-  REMOVED ECOLOGICALLY SIGNIFICANT AREAS (POST DEVELOPMENT AS PROPOSED)  
22.0 ACRES (56%)
-  SAVED ECOLOGICALLY SIGNIFICANT AREAS (POST DEVELOPMENT AS PROPOSED)  
17.5 ACRES (44%)
-  ADDITIONAL WOODLAND AREAS (NOT NOTED IN COMP PLAN)  
18 ACRES
-  REMOVED ADDITIONAL WOODLAND AREAS (POST DEVELOPMENT AS PROPOSED)  
5.4 ACRES (30%)
-  SAVED ADDITIONAL WOODLAND AREAS (POST DEVELOPMENT AS PROPOSED)  
12.6 ACRES (71%)
-  EROSION CONTROL/TREE PRESERVATION FENCING
- 2** WOODLAND AREA NUMBER AS PER WOODLAND ASSESSMENT DOCUMENT

**TREE PROTECTION DETAIL**



**TREE PRESERVATION NOTES**

BEFORE LAND CLEARING BEGINS, CONTRACTOR SHOULD MEET WITH THE CONSULTANT ON SITE TO REVIEW ALL WORK PROCEDURES, ACCESS ROUTES, STORAGE AREAS, AND TREE PROTECTION MEASURES.

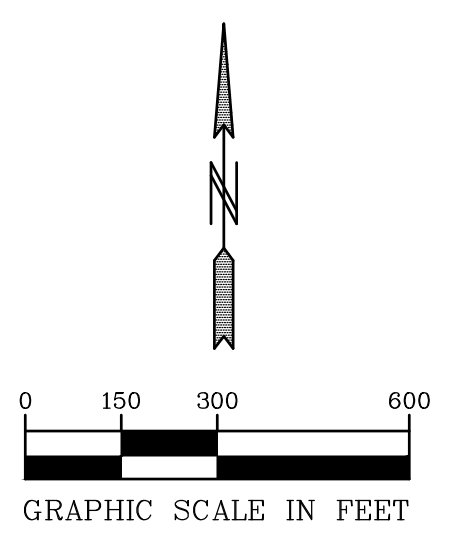
NO FILL SHOULD BE PLACED AGAINST THE TRUNK, ON THE ROOT CROWN, OR WITHIN THE DRIP LINE AREA OF ANY TREES THAT ARE TO BE SAVED.

NO GRADING, TRENCHING OR PLACEMENT OF EQUIPMENT IS ALLOWED IN THE TREE PROTECTION AREA.

WORK PERFORMED WITHIN THE TREE PROTECTION AREA SHOULD BE DONE BY HAND AND UNDER THE SUPERVISION OF THE CONSULTING ARBORIST.


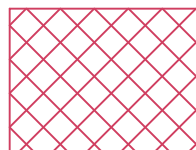

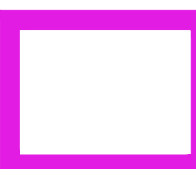

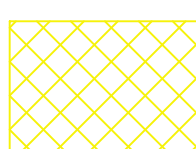
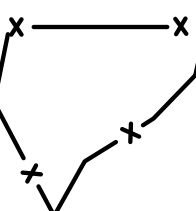
PRUNING OF OAK TREES MUST NOT TAKE PLACE FROM APRIL 15 TO JULY 15 TO PREVENT THE SPREAD OF OAK WILT DISEASE.

IF WOUNDING OF OAK TREES OCCUR ANYTIME BETWEEN APRIL TO AUGUST, A NON-TOXIC WOUND DRESSING MUST BE APPLIED IMMEDIATELY; (EXCAVATORS MUST HAVE A NON-TOXIC TREE WOUND DRESSING WITH THEM ON DEVELOPMENT SITES).

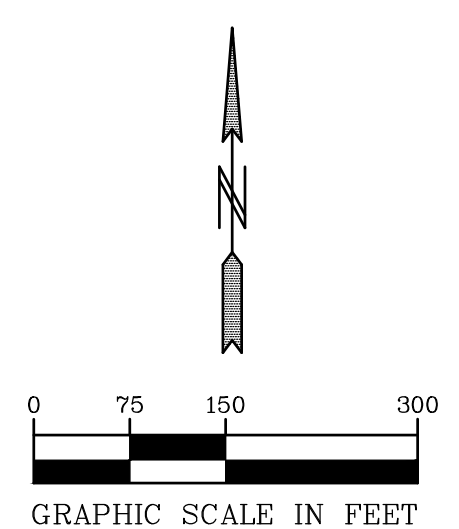
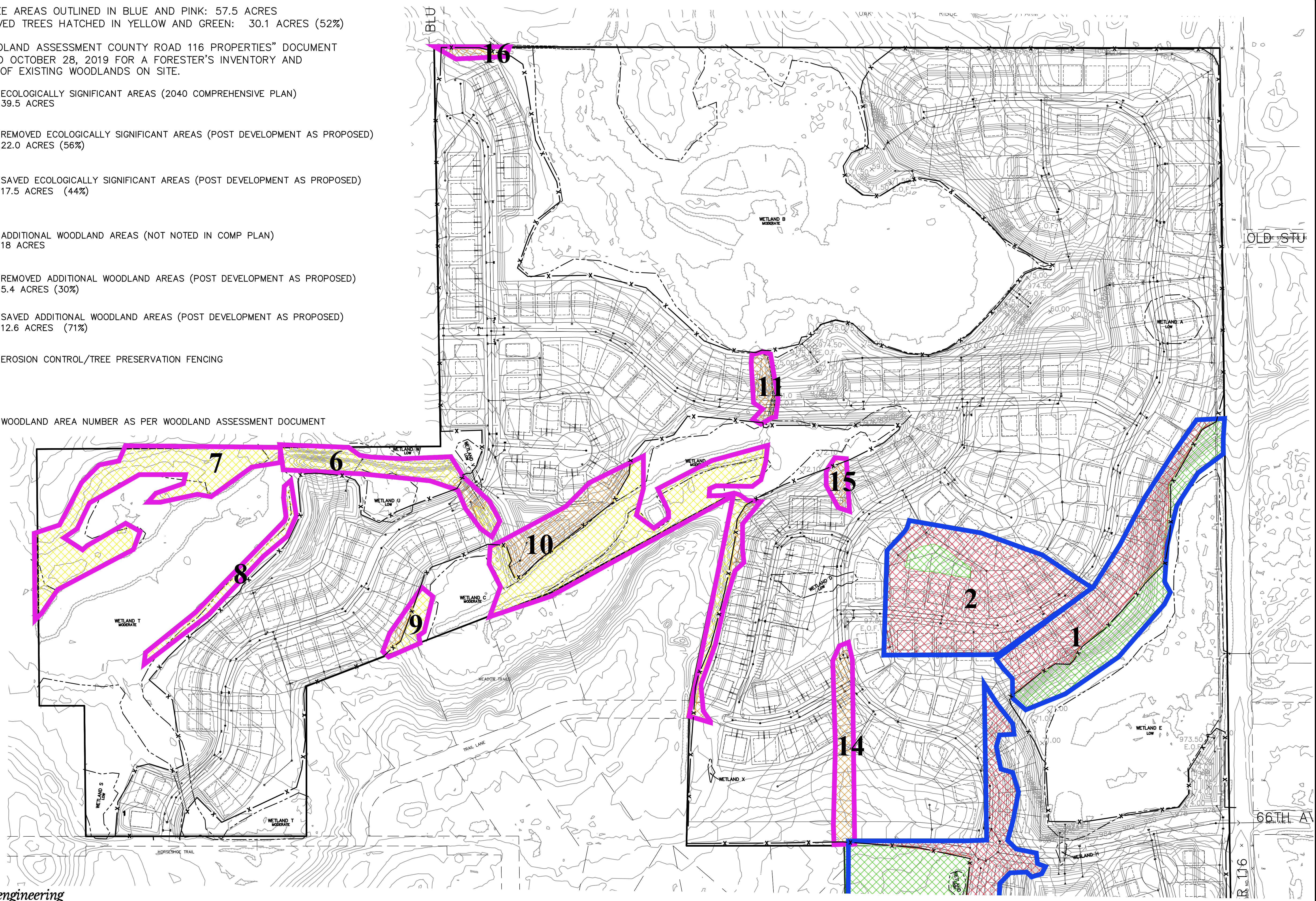


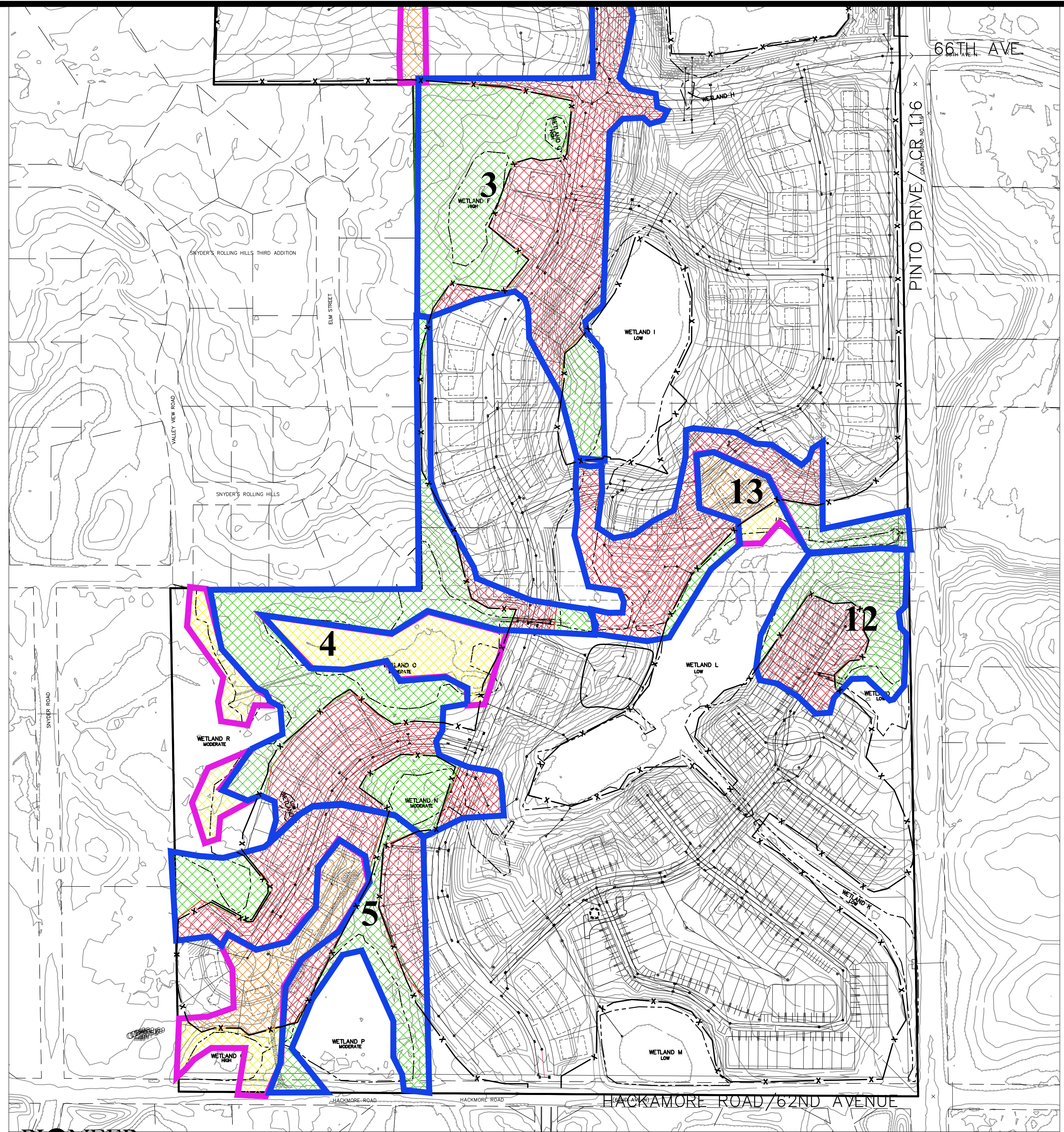
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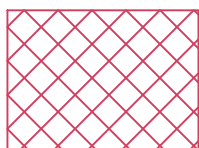
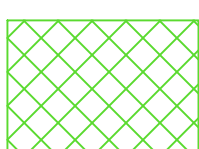


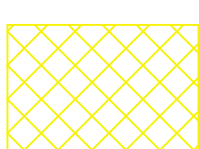
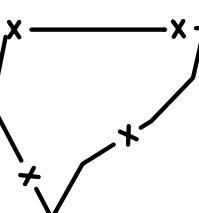

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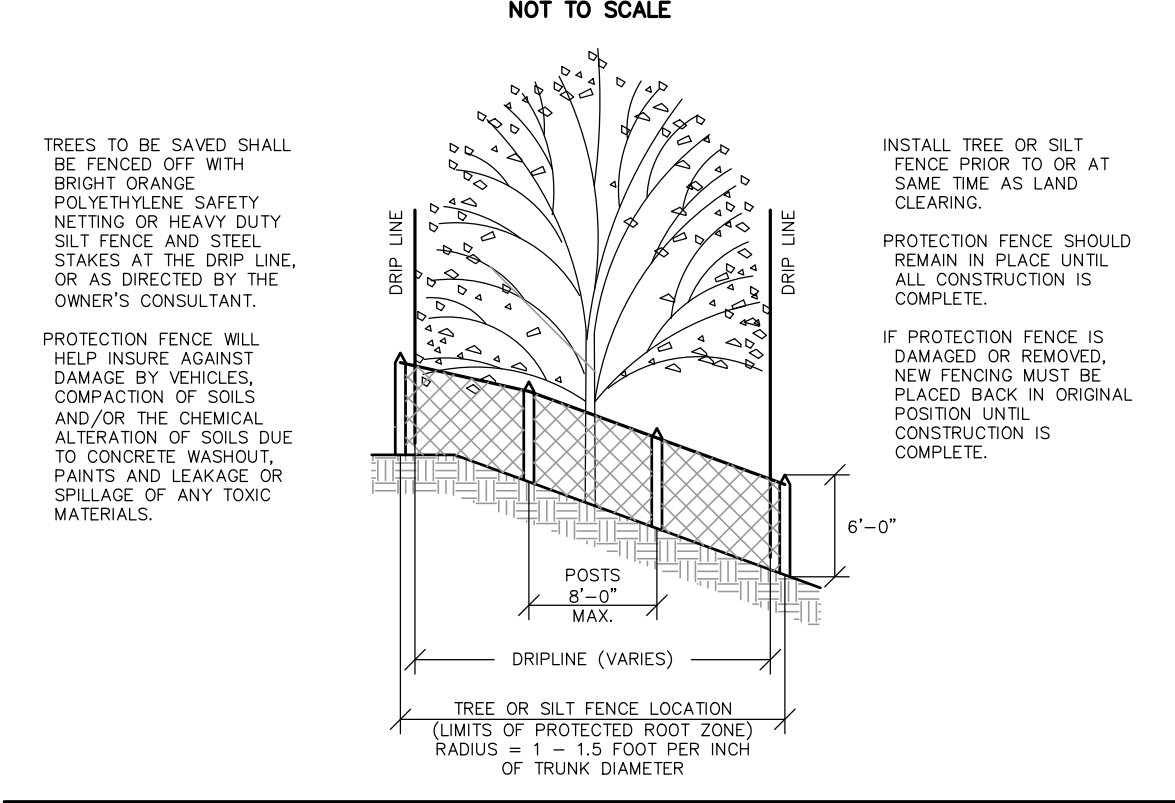


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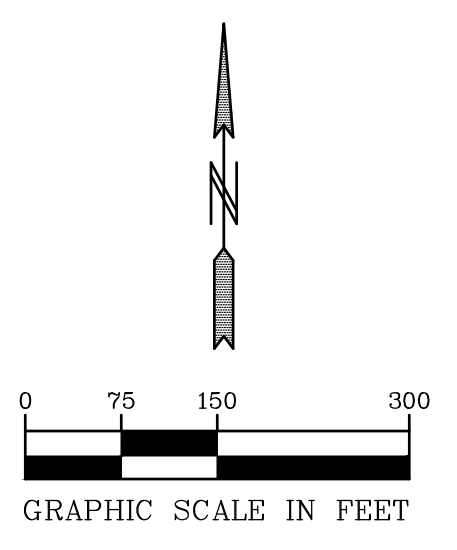
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**TREE PROTECTION DETAIL**



**TREE PRESERVATION NOTES**

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October 28, 2019

Paul Tabone  
Lennar  
16305 36<sup>th</sup> Ave. N.  
Plymouth MN 55446

RE: Woodland Assessment County Rd. 116 Properties, Corcoran, MN

Mr. Tabone,

Midwest Natural Resources, Inc. (MNR) conducted a woodland assessment on October 23<sup>rd</sup> and 24<sup>th</sup> for the approximate 270.3 acre survey area located west of County Rd. 116 and north of Hackamore Road in Corcoran, Hennepin County, Minnesota. The purpose of this woodland assessment is to provide to the City of Corcoran accurate information pertaining to the composition and condition of the woodlands that are located throughout the site. For this assessment, sixteen separate woodland areas and a few areas of large individual trees were evaluated (**Figure 1**).

In general, within the site are two types of woodland and include an *oak & other hardwood deciduous dominant woodland* and an *altered, mixed hardwood & softwood deciduous dominant woodland*. Within both types of woodland, the invasive, non-native shrub common buckthorn was observed at varying levels from low to high in all sixteen woodland areas that were evaluated. On figures 2 and 3 of this report the boundary of each woodland area is delineated and categorized as either one of the two general woodland types. Also included in this report are representative photos for each of the tree areas that depict the typical make-up of each area.

The following is a general description for each of the sixteen tree areas that were evaluated and includes information about the general make up, topography, and condition of each wooded area along with a list of tree species observed within the overstory and understory.

### **Tree Area 1**

Tree Area 1 is located in the northeast part of the overall site and is approximately 4.4 acres in size. This area is bordered by agricultural land and Tree Area 2 to the northwest and a large wetland to the east. Steeper slopes with roughly 20-30' of elevation change occur within the eastern part of the area where large oak trees were observed along the hillside.

Tree Area 1 is an oak dominated woodland with a mix of other common hardwood deciduous trees typical of a mesic oak forest. Common buckthorn, an invasive, non-native shrub/small tree occurs at low to moderate levels throughout this woodland area. In general the area consists of scattered large oaks with DBH's ranging in size from 18-30" with a mix of other hardwood and softwood trees that range in size from 6-16" in DBH. Oak trees make up nearly all of the trees that are over 20" in DBH. Sugar maple make up a very small component of this woodland and are typically small trees in a couple areas within the understory.

Tree species observed within the overstory of Tree Area 1 include: bur oak, white oak, red oak, black cherry, bitternut hickory, basswood, sugar maple, ironwood, box elder, green ash, and American elm. Common

understory trees and shrubs observed within Tree Area 1 include: American elm, common buckthorn, choke cherry, basswood, and sugar maple.

### **Tree Area 2**

Tree Area 2 is located in the northeast part of the overall site and is approximately 4.8 acres in size. This area is bordered by agricultural land on three sides (north, west & south sides) and Tree Area 2 to the east. The area has approximately 10' of elevation change from east to west where it slopes down toward the surrounding fields.

Tree Area 2 is an altered, hardwood & softwood deciduous dominated woodland with a mix of tree species that are typical of woodland areas that have been influenced by past land uses. Barbed wire fencing was observed surrounding most of this area which would indicate the area had been used as pasture sometime in the past. In general, the area is dominated by young green ash, box elder and American elm trees that range in size from 6-20" in DBH along with a few scattered large oak and basswood trees that are over 20" in DBH. Common buckthorn, an invasive, non-native shrub/small tree occurs at moderate levels throughout this woodland area.

Tree species observed within the overstory of Tree Area 2 include: bur oak, red oak, basswood, box elder, green ash, and American elm. Common understory trees and shrubs observed within Tree Area 2 include: box elder, common buckthorn, green ash, prickly-ash, elderberry, and currant.

### **Tree Area 3**

Tree Area 3 is located in the central part of the overall site and is approximately 8.7 acres in size. This area is bordered by agricultural land on three sides (north, east & south sides) and a large wetland also to the east. The area has approximately 25' of elevation change from west to east where it slopes down toward the adjacent field and Wetland I. The western part of this area is relatively level with less change in elevation compared to the eastern part where a moderately steep slope occurs.

Tree Area 3 is an altered, hardwood & softwood deciduous dominated woodland with a mix of tree species that are typical of woodland areas that have been influenced by past land uses. Barbed wire fencing was observed in a few areas which would likely indicate the area had been used as pasture sometime in the past. In general, the area is dominated by a mix of hardwood and softwood trees that range in size from 6-22" in DBH. Common buckthorn, an invasive, non-native shrub/small tree occurs at moderate to high levels throughout this woodland area with buckthorn very heavy within the nearly level area surrounding Wetlands F and G.

Tree species observed within the overstory of Tree Area 3 include: basswood, bur oak, red oak, box elder, bitternut hickory, black cherry, quaking aspen, red maple, sugar maple, green ash, and American elm. Common understory trees and shrubs observed within Tree Area 3 include: box elder, common buckthorn, basswood, bitternut hickory, and American elm.

### **Tree Area 4**

Tree Area 4 is located in the southern part of the overall site and is approximately 10.6 acres in size. This area is bordered by existing homes to the north, open grassland to the east and Tree Area 5 to the south. The area is relatively level with approximately 10' of elevation change from one side to the other.

Tree Area 4 is an altered, hardwood & softwood deciduous dominated woodland with a mix of tree species that are typical of woodland areas that have been influenced by past land uses. In general, the area is dominated by a mix of hardwood and softwood trees that range in size from 6-20" in DBH. Common buckthorn, an invasive, non-native shrub/small tree occurs at moderate to high levels throughout this woodland area with buckthorn very heavy within the northern 2/3's of the area.

Tree species observed within the overstory of Tree Area 4 include: basswood, box elder, green ash, American elm, black cherry, and bur oak. Common understory trees and shrubs observed within Tree Area 4 include: common buckthorn and American elm.

### **Tree Area 5**

Tree Area 5 is located in the southern part of the overall site and is approximately 7.6 acres in size. This area is bordered by an existing home to the west, pasture to the east, Hackamore Road to the south, and Tree Area 4 to the north. An existing home and garage occur within Tree Area 5 and there is roughly 10' of elevation change from one side to the other. About a quarter of this woodland has maintained turf grass growing at the ground layer under mature hardwood trees.

Tree Area 5 is an oak dominated woodland with a mix of other common hardwood deciduous trees typical of a mesic oak forest. Common buckthorn, an invasive, non-native shrub/small tree occurs at moderate to high levels within the part of the woodland that is not currently being used as yard. In general the area consists of many large oaks with DBH's ranging in size from 18-30" with a mix of other hardwood and some softwood trees that range in size from 6-20" in DBH. Oak trees make up nearly all of the trees that are over 20" in DBH. Sugar maple make up a very small component of this woodland and are typically small trees that range in size from 6-14" in DBH.

Tree species observed within the overstory of Tree Area 5 include: bur oak, white oak, red oak, black cherry, bitternut hickory, basswood, sugar maple, red maple, ironwood, box elder, cottonwood, and American elm. Common understory trees and shrubs observed within Tree Area 5 include: box elder, common buckthorn, choke cherry, and bitternut hickory.

### **Tree Area 6**

Tree Area 6 is located in the northwest part of the overall site along the northern property boundary and is approximately 1.2 acres in size. This area is bordered by agricultural land and a wetland to the south, upland grassland to the east, and Tree Area 7 to the west. A waterbody channel flows through this woodland where spoil piles flank each side of the channel. Tree Area 6 has approximately 10' of elevation change from side to side with most elevation change occurring from the water body channel up to the top of the spoil piles.

Tree Area 6 is an altered, hardwood & softwood deciduous dominated woodland with a mix of tree species that are typical of woodland areas that have been influenced by past land uses. Cottonwood trees were the most common tree observed within the woodland. In general, the area is dominated by young cottonwood, green ash, box elder, and black cherry trees that range in size from 6-20" in DBH. Common buckthorn, an invasive, non-native shrub/small tree occurs at low levels throughout this woodland area.

Tree species observed within the overstory of Tree Area 6 include: cottonwood, box elder, black cherry, bur oak, and green ash. Common understory trees and shrubs observed within Tree Area 6 include: American elm, common buckthorn, green ash, and gray dogwood.

### **Tree Area 7**

Tree Area 7 is located in the northwest part of the overall site along the northern and western property boundaries and is approximately 2.9 acres in size. This area is bordered by a large wetland to the south and Tree Area 6 to the east. Tree Area 7 has approximately 10' of elevation change from the northern side to the southern side located next to the wetland.

Tree Area 7 is an altered, hardwood & softwood deciduous dominated woodland with a mix of tree species that are typical of woodland areas that have been influenced by past land uses. Young box elder trees were the most common tree observed within the woodland. In general, the area is dominated mainly by young box elder, with some green ash, quaking aspen, and cottonwood trees that range in size from 6-14" in DBH.



Common buckthorn, an invasive, non-native shrub/small tree occurs at low levels throughout this woodland area.

Tree species observed within the overstory of Tree Area 7 include: box elder, cottonwood, green ash, and quaking aspen. Common understory trees and shrubs observed within Tree Area 7 include: green ash, common buckthorn, box elder, cottonwood, and smooth sumac.

### **Tree Area 8**

Tree Area 8 is located in the northwest part of the overall site and is approximately 0.6 acres in size. This area is bordered by a large wetland to the north and an agricultural field to the south. Tree Area 8 has roughly 2' of elevation change from the southern side to the northern side of the tree line.

Tree Area 8 is an altered, hardwood & softwood deciduous dominated woodland with just box elder trees occurring within a very narrow area between the wetland and fallow field. Young box elder trees are the only tree species that occurs within this woodland. Some common buckthorn were observed within this woodland but at low levels.

### **Tree Area 9**

Tree Area 9 is located in the northwest part of the overall site and is approximately 0.4 acres in size. This area is bordered by a large wetland to the east and a fallow agricultural field to the west. Tree Area 9 has roughly 8' of elevation change from the western side to the eastern side next to the wetland.

Tree Area 9 is an altered, hardwood & softwood deciduous dominated woodland with box elder trees and common buckthorn occurring throughout the woodland. Young box elder trees are the only tree species that occurs within this woodland. Heavy levels of common buckthorn were observed within this woodland along with young box elder and a few small black cherry saplings.

### **Tree Area 10**

Tree Area 10 is located in the north-central part of the overall site and is approximately 4.0 acres in size. This area is positioned on both sides of a large wetland and has a fallow agricultural field bordering it to the north. Tree Area 10 has roughly 6' of elevation change from both sides down to the wetland that is in the middle of the woodland.

Tree Area 10 is an altered, hardwood & softwood deciduous dominated woodland with a nearly complete overstory cover of box elder trees occurring as an even-aged stand. Young box elder trees are the only dominant tree species within the woodland with a couple of young silver maple trees also observed. Common buckthorn occurs at moderate to high levels throughout this woodland with elderberry also very common.

### **Tree Area 11**

Tree Area 11 is located in the northern part of the overall site and is approximately 0.4 acres in size. This small woodland area is bordered by upland grassland to the east and west and two wetland areas to the north and south. Tree Area 11 has roughly 6' of elevation change from one side to the other. Two water body channels intersect this woodland in a north-south orientation.

Tree Area 11 is an oak dominated woodland with a mix of common hardwood deciduous trees. Common buckthorn, an invasive, non-native shrub/small tree occurs at low to moderate levels within the woodland.

Tree species observed within the overstory of Tree Area 11 include: red oak, basswood, green ash, and American elm. Common understory trees and shrubs observed within Tree Area 11 include: common

buckthorn, green ash, bur oak, and American elm. In general the area consists of a mix of hardwood trees with DBH's ranging in size from 6-16". Oak and basswood trees were the most common tree species observed within this woodland.

### **Tree Area 12**

Tree Area 12 is located in the southern part of the overall site and is approximately 2.8 acres in size. This area is bordered by agricultural land and a small wetland to the south, a large wetland to the west, and Tree Area 13 to the north. Within this woodland area there is roughly 20' of elevation change from the high point in the eastern part down to the woodland edge next to the wetland on the western side.

Tree Area 12 is an oak dominated woodland with a mix of other common hardwood deciduous trees typical of a mesic oak forest. Common buckthorn, an invasive, non-native shrub/small tree occurs at low to moderate levels throughout this woodland area. In general the area consists of scattered large oaks with DBH's ranging in size from 18-30" with a number of bitternut hickory and black cherry trees that range in size from 6-12" in DBH. Most of the understory is covered with box elder saplings and young buckthorn.

Tree species observed within the overstory of Tree Area 12 include: bur oak, red oak, black cherry, bitternut hickory, ironwood, basswood, green ash, and American elm. Common understory trees and shrubs observed within Tree Area 12 include: common buckthorn, ironwood, box elder, elderberry, bitternut hickory, and American elm.

### **Tree Area 13**

Tree Area 13 is located in the southern part of the overall site and is approximately 4.3 acres in size. This area is bordered by fallow agricultural land to the north, an existing home to the east, and a large wetland to the south. The area has approximately 20' of elevation change from the north and west sides down toward the wetland along the south side of the woodland.

Tree Area 13 is an altered, hardwood & softwood deciduous dominated woodland with a mix of tree species that are typical of woodland areas that have been influenced by past land uses. Barbed wire fencing was observed within this area which would indicate the area had been used as pasture sometime in the past. In general, the area is dominated by young green ash, box elder and American elm trees that range in size from 6-22" in DBH along with a few scattered large oak and basswood trees that are over 20" in DBH. Common buckthorn, an invasive, non-native shrub/small tree occurs at moderate levels throughout this woodland area.

Tree species observed within the overstory of Tree Area 13 include: bur oak, red oak, basswood, box elder, green ash, black cherry, and American elm. Common understory trees and shrubs observed within Tree Area 13 include: box elder, common buckthorn, and basswood.

### **Tree Area 14**

Tree Area 14 is located in the northern part of the overall site and is approximately 1.7 acres in size. This area consists of two narrow strips of woodland that border agricultural fields and a horse pasture within the site.

Tree Area 14 is an altered, hardwood & softwood deciduous dominated woodland with mostly box elder trees and some cottonwood, green ash, and American elm trees. Other trees observed include black cherry and a few younger basswood. In general the range in size of trees within this woodland is from 6-20" in DBH. Some common buckthorn was also observed within this woodland but at low levels.

### **Tree Area 15**

Tree Area 15 is located in the northern part of the overall site and is approximately 0.2 acres in size. This small woodland area is bordered by agricultural land all around it. Tree Area 15 has roughly 15' of elevation change from the northern side to its southern side.

Tree Area 15 is an oak dominated woodland with a mix of other common hardwood deciduous trees. Common buckthorn, an invasive, non-native shrub/small tree occurs at low levels only around the perimeter of the woodland and not within its interior. In general the area consists of trees that range in size from 6-19" in DBH.

Tree species observed within the overstory of Tree Area 15 include: bur oak, red oak, basswood, green ash, bitternut hickory, and box elder. Common understory trees and shrubs observed within Tree Area 15 include: common buckthorn, bitternut hickory, choke cherry, and American elm.

### **Tree Area 16**

Tree Area 16 is located in the northern part of the overall site along the northern boundary line and is approximately 0.2 acres in size. This small woodland area is bordered by fallow agricultural land to the south. Tree Area 16 has roughly 10' of elevation change from its western side down to its eastern side.

Tree Area 16 is an oak dominated woodland with a mix of other common hardwood deciduous trees. Common buckthorn, an invasive, non-native shrub/small tree occurs at moderate levels within the part of the woodland located on-site. In general the area consists of trees that range in size from 6-18" in DBH.

Tree species observed within the overstory of Tree Area 16 include: red oak, basswood, green ash, bitternut hickory, and American elm. Common understory trees and shrubs observed within Tree Area 16 include: common buckthorn, green ash, bitternut hickory, basswood, bur oak, and American elm.

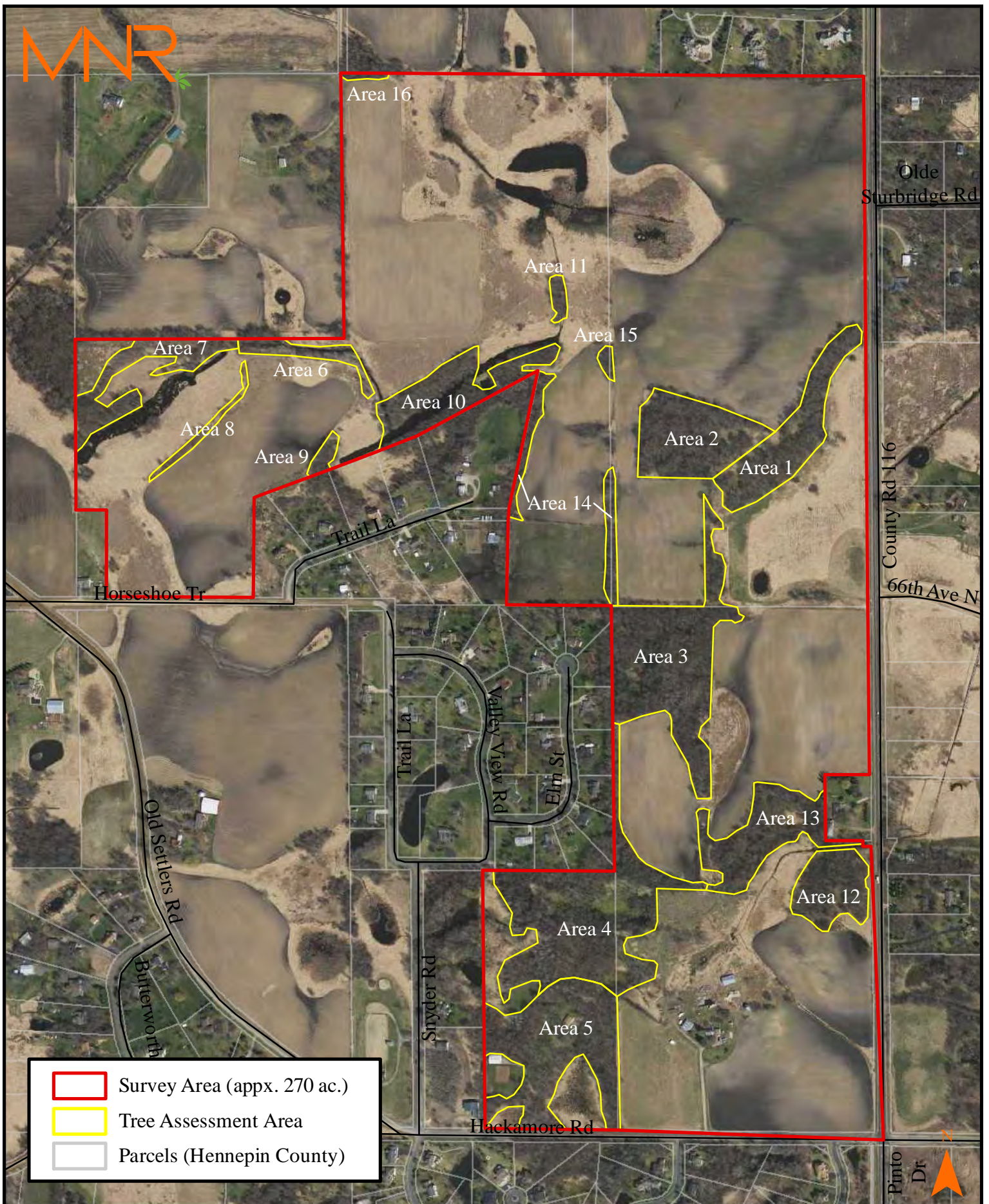
MNR appreciates the opportunity to provide this woodland assessment to assist Lennar and your project planning team. If you have any questions regarding this woodland assessment, feel free to contact me.

Respectfully submitted,

**Midwest Natural Resources, Inc.**



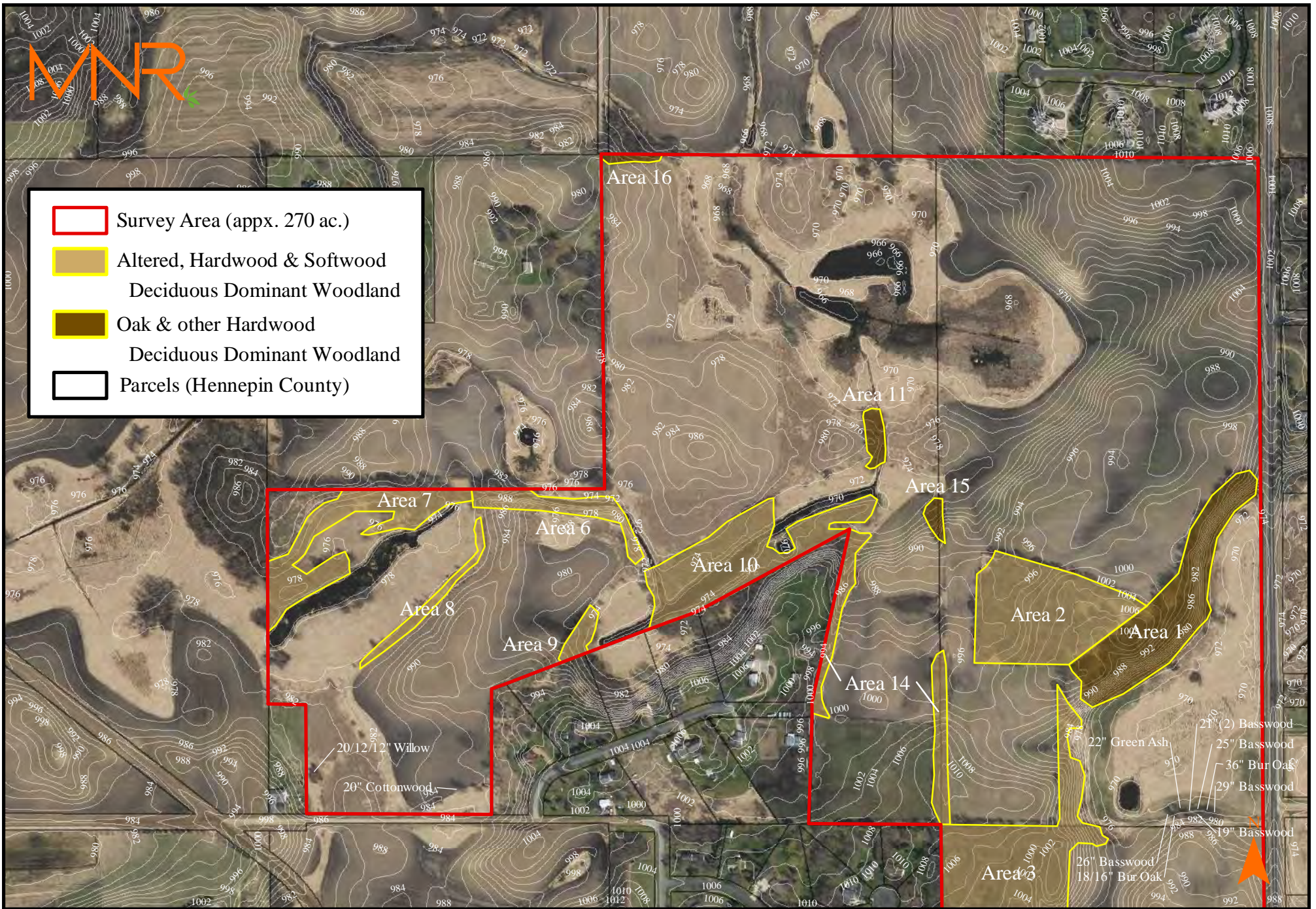
Ken Arndt  
Sr. Forest Ecologist  
Certified Arborist MN4033A



Source: 2016 color 7-county

**Tree Assessment Areas  
County Rd. 116 Properties  
Corcoran, MN**

**Figure 1**

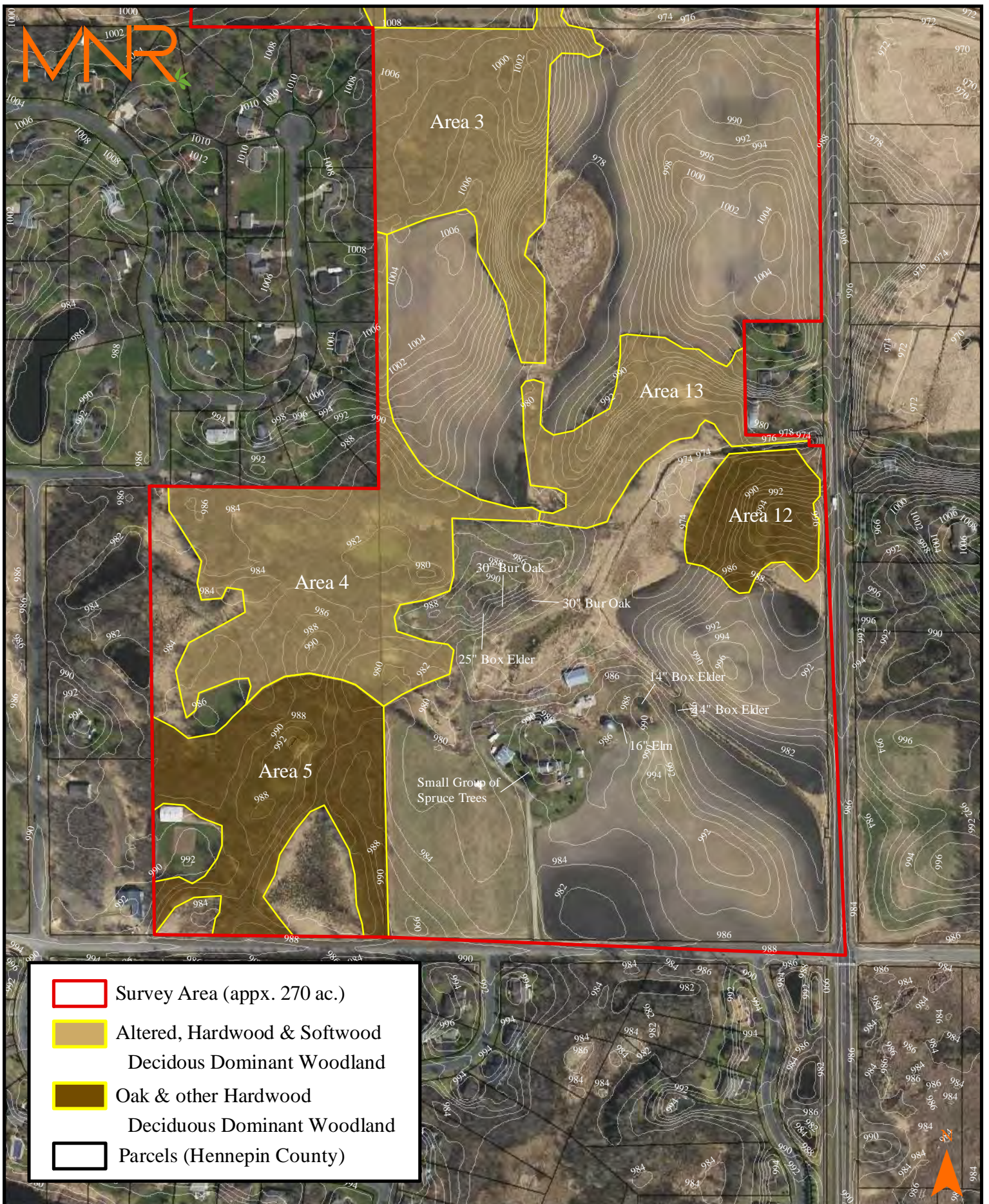


Source: 2016 color 7-county



**Tree Assessment Areas - North  
County Rd. 116 Properties  
Corcoran, MN**

**Figure 2**



**Tree Assessment Areas - South  
County Rd. 116 Properties  
Corcoran, MN**

**Figure 3**

# **Woodland Assessment**

## **Representative Photos**

*Woodland Assessment, Representative Photos*

**Tree Area 1**



Photo of Tree Area 1 of large oaks that are typical of the sloped hillside.

**Tree Area 1**



Photo of Tree Area 1 of upper area above hillside where trees are younger in age.

**Tree Area 2**



Photo of Tree Area 2 of typical composition of scattered large oak and basswood with younger box elder, elm and green ash.

**Tree Area 2**



Photo of Tree Area 2 of young box elder trees which are found throughout the area.



*Woodland Assessment, Representative Photos*

**Tree Area 3**



Photo of Tree Area 3 of area with deciduous hardwood trees common within the eastern part of the area. Moderate to heavy levels of buckthorn (green foliage).

**Tree Area 3**



Photo of Tree Area 3 of area with deciduous softwood trees common within the central and western parts of the area. Heavy levels of buckthorn (green foliage).

**Tree Area 4**



Photo of Tree Area 4 of softwood deciduous species like box elder and green ash with buckthorn which is typical for much of the woodland area.

**Tree Area 4**



Photo of Tree Area 4 of mixed area of softwood and hardwood deciduous species which is more common in the southern part of the woodland area.

*Woodland Assessment, Representative Photos*

**Tree Area 5**



Photo of Tree Area 5 that is typical of area around house and out buildings where large open areas are present.

**Tree Area 5**



Photo of Tree Area 5 that is typical of area where woodland is still intact (eastern and southern part of Tree Area 5).

**Tree Area 6**



Photo of Tree Area 6 of woodland on both sides of channel that flows through area.

**Tree Area 6**



Photo of Tree Area 6 of typical cottonwood trees common throughout the area.

*Woodland Assessment, Representative Photos*

**Tree Area 7**



Photo of Tree Area 7 of young box elder trees which are common throughout the area.

**Tree Area 7**



Photo of Tree Area 7 of north western part of woodland which transitions to very young trees and open grassland.

**Tree Area 8**



Photo of Tree Area 8 of young box elder trees which are common throughout the whole area.

**Tree Area 9**



Photo of Tree Area 9 of box elder and green ash trees which are common throughout area. Buckthorn is heavy in this area (dark green foliage).

*Woodland Assessment, Representative Photos*

**Tree Area 10**



Photo of Tree Area 10 of young, even-aged box elder trees which comprise nearly all of this woodland area.

**Tree Area 11**



Photo of Tree Area 11 of most of the woodland area.

**Tree Area 12**



Photo of Tree Area 12 of typical mix of oak, hickory, basswood and ironwood that is found throughout woodland area.

**Tree Area 12**



Photo of Tree Area 12 of part of the woodland that slopes down to Wetland L where basswood is common and lower of levels of buckthorn are present.

*Woodland Assessment, Representative Photos*

**Tree Area 13**



Photo of Tree Area 13 of young box elder trees which are common throughout the woodland.

**Tree Area 13**



Photo of Tree Area 13 of young box elder trees with scattered large hardwood trees which are less common throughout the woodland.

**Tree Area 14**



Photo of Tree Area 14 of the western side of area along property line.

**Tree Area 14**



Photo of Tree Area 14 of the eastern part of the area where the woodland is a tree line between two fields.

*Woodland Assessment, Representative Photos*

**Tree Area 15**



Photo of Tree Area 15 of the whole woodland.

**Tree Area 16**



Photo of Tree Area 16 of nearly all of the woodland with oak to the left and American elm and green ash to the right.



From Site to Finish

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# MEMORANDUM

**DATE** May 20, 2020  
**TO** Brad Martens  
**CC** City Council, Planning Commission, Parks & Trails Commission  
**FROM** Kendra Lindahl, City Planner  
**RE** Active Corcoran Planning Applications

*Projects/Comments in blue italics are new*

Project marked with an \* have moved from active to approved

The following is a summary of project status for current, active projects:

1. **Park Dedication Ordinance Update (city file no. 20-004).** The park dedication fees are based on the comprehensive plan. The 2040 Comprehensive Plan was adopted in November and included some changes that require us to reevaluate our park dedication fee formula and make some minor edits to the ordinance. *The Parks Commission will review on May 21<sup>st</sup>, the Planning Commission will hold a public hearing on June 4<sup>th</sup> and Council action is expected on June 11<sup>th</sup>.*
2. **Corcoran Self Storage PUD Amendment (city file no. 20-009).** The applicant is requesting an amendment to the phasing plan for the project. Staff is currently reviewing the application for completeness, but it appears that the request may be administratively approved. *The application is incomplete pending additional information from the applicant.*
3. **Paulsen Farms OSP Preliminary Plat (09-119-23-34-0001) (city file no. 20-011).** The applicant has submitted an Open Space & Preservation Plat for the 88 acres on County Road 30. The plat would include 20 lots and preservation of 47 acres of open space. Staff is currently reviewing this application for completeness. *The Planning Commission held a public hearing on May 7<sup>th</sup>, Parks and Trails Commission will review on May 21<sup>st</sup> and Council action is expected on May 28<sup>th</sup>.*
4. **M/I Homes Concept Plan for a modification of the approvals for “Sawgrass” on the 103-acre parcel at 20400 County Road 10 (PID 23-119-23-42-0003) (City file no. 20-012).** The Council approved an extension to the 2014 preliminary approvals so that the applicant could proceed with a final plat, final PUD development and PUD amendment. This concept plan is to outline the PUD amendments required for the new plan and ensure Council support before submitting a formal submittal. *The Council was expected to review this item at their April 23<sup>rd</sup> meeting, but the applicant asked that the item be pulled to allow them more time to review the details.*
5. **Corcoran Crossroads Administrative Permit at 7625 County Road 116 (city file 20-014).** The new owner of Corcoran Crossroads has applied for an administrative permit for expansion of the existing legal, non-conforming canopy structure. Staff will review the application and if it complies with the ordinance, it may be administratively approved. *The applicant is currently incomplete, but we expect it to be placed on the July meetings.*
6. *Laura Gibson has requested approval of a Special Home Occupation License at 7105 County Rd 19 (PID 30-119-23-31-0001) (city file 20-015). The applicant is requesting an Administrative Permit for a Special Home Occupation License to operate a hair salon business. There will be no employees and up to 28 clients per week. Staff has reviewed and sent notices of intent to surrounding*

property owners. Upon expiration of the comment period the City Administrator shall determine if a permit should be issued, denied or forwarded to the City Council for review.

7. **Karineimi Addition Preliminary Plat at 6780 Rolling Hills Road and 6855 Willow Drive (PID 33-119-23-22-0004 and 33-119-23-21-0001) (City file 20-0016).** The applicant has submitted a preliminary plat to create four lots from the newly created Lot 1, Block 1, Rolling Hills Acres and the adjacent 40 acres to the east. The 40-acre parcel have four development rights which will be used for the subdivision. The application is scheduled for a public hearing at the Planning Commission on June 4<sup>th</sup> and City action on June 25<sup>th</sup>.
8. **Comprehensive Plan Amendment, Rezoning, Preliminary Plat and Preliminary PUD Development Plan for "Tavera" at the property at the northwest corner of Hackamore Road and County Road 116 (PID 35-119-23-44-0001, 35-119-23-11-0001, 35-119-23-12-0002, 35-119-23-41-0001 and 35-119-23-43-0001) (City File 20-017).** The applicant has submitted an application for development of 549 homes on the 273.57-acre site. The Council reviewed an EAW and Concept plan for the site earlier this year. The project includes a mix of single-family, villa, twinhome and townhome units. The concept shows development in 10 phases over 10 years. The application is scheduled for Parks and Trails Commission review on May 21<sup>st</sup>, a public hearing at the Planning Commission on June 4<sup>th</sup> and City action on June 25<sup>th</sup>.
9. **Tabor Request for Metropolitan Agricultural Preserve Initiation of Expiration for 42.09 acres of land at 19450 Gleason Road (PID 36-119-23-12-0001) (City file 20-018).** The landowner is requesting expiration of the Agricultural Preserve designation effective immediately as allowed under the 2019 changes to Minnesota Statute. This item is scheduled for the May 28<sup>th</sup> Council agenda.
10. **Conditional Use Permit and Variance for the Tom Spanier property located at 10580 Cain Road (PID 02-119-23-23-004) (city file no. 20-019) (City File 20-019).** The applicant has requested approval of a conditional use permit and variance for an accessory building. This project was reviewed and approved in 2015 and was never built. The approvals expired after one year on November 23, 2016. The applicant is now ready to move forward with the project and is requesting approval again with no changes. The application is scheduled for a public hearing at the Planning Commission on June 4<sup>th</sup> and City action on June 25<sup>th</sup>.
11. **Sign Variance for the Marathon/Tom Thumb at 9350 County Road (PID 07-119-23-43-0004) (City File 20-020).** The applicant has submitted a variance application to allow the number of and square footage of freestanding and wall signage to exceed what is allowed by ordinance. The application is scheduled for review at the Planning Commission on June 4<sup>th</sup> and City action on June 25<sup>th</sup>.

Also, there are several projects that have been approved, but are still not filed and closed out:

1. **Corcoran Business Park (City file 06-005).** The City Council granted a one-year extension to the final plat approval, which expired on April 12, 2011. Staff has spoken to the applicant and is still working to close out this project. Staff has spoken to the applicant and will schedule a meeting when more information is available on the Loretto sewer project.
2. **Hope Ministries Conditional Use Permit for Cemetery and Vacation of Drainage & Utility Easement at 19951 Oswald Farm Road (City file 12-002).** Hope Ministries submitted a request for a conditional use permit to allow a cemetery west of the existing church. The application was approved by the City Council on March 22<sup>nd</sup> and site work had begun. The letter of credit for site improvements has been released, but we are holding the escrow pending completion of the approved landscaping. The applicant has indicated that they are considering a site plan amendment application to modify the approved plans. Staff met again with Pastor Brian Lothar in July 2017 to discuss the outstanding issues and future expansion plans on the property.
3. **Sawgrass Preliminary Plat, Preliminary PUD Development Plan and Rezoning for Schendel property at 20400 County Road 10 (City file 14-027).** The City Council approved the request on December 11, 2014 and granted the applicant 2 years to apply for the final plat and final PUD development plan. Peachtree Partners did not buy the property, but a different developer could still proceed with the approved plan. Several extensions have been approved. The landowner is requesting another extension to the preliminary plat approval, which was previously granted



extensions that expire in February. M/I Homes is proposing to take over the project with a few amendments to the proposed plan. Council reviewed the request at the February 27<sup>th</sup> meeting.

4. **Commercial Door Addition at 7670 Commerce Street (City file 15-010).** The City received an application for approval of a building addition, which required a conditional use permit, interim use permit, variance and site plan approval. The project was reviewed at a public hearing at the June 4<sup>th</sup> Planning Commission meeting and was approved by the City Council on June 25<sup>th</sup>. The required landscaping will be finalized and constructed after the downtown infrastructure project is completed. The City will release the remaining escrow when the planting is completed. Staff is working with the landowner to complete the outstanding items.
5. **Comlink Midwest Site Plan, CUP, Variance and Rezoning at 23405 CR 10 (City file 19-011).** The request is to allow construction of a contractor's yard in the Rural Commercial (CR) district over 3-5 years. Phase 1 is for the 20,000 square foot Utility Construction building. This item was reviewed at a public hearing at the July 9<sup>th</sup> Planning Commission and Council approved on July 25<sup>th</sup> meeting. The approval included changes to the building architecture were approved by the Council at the August 22<sup>nd</sup> meeting.
6. **Wessel Property PUD Sketch Plan and EAW for 22020 Hackamore Road (PID 35-119-23-43-0001, 35-119-23-44-0001, 35-119-23-11-0001 and 35-119-23-12-0002) (City File 19-018).** The sketch plan was reviewed by the Council on September 26<sup>th</sup> and staff was directed to begin the Environmental Assessment Worksheet. The EAW was acted on by the Council in January 2020.
7. **Savoie Minor Subdivision at 21801 Homestead Trail (City file 19-021).** This two-lot subdivision is was approved by the Council on October 24<sup>th</sup>. The council had previously approved this subdivision, but the applicant let it expire and an extension was approved.
8. **Sketch Plan for "Nelson International" at 10409 County Road 101 (city file 19-023).** The applicant submitted a sketch plan for an approximately 33,000-sq. ft. truck sales/repair operation. The Council reviewed this item on January 23<sup>rd</sup>.
9. **Annual Ordinance Codification (city file no. 20-005).** Staff prepares and annual codification to incorporate all of the previous year's ordinance amendments into the City Code. The new PDF of the Code is now complete and available at City Hall and online.
10. **Request for Variance, Preliminary and Final Plat for St. Jane Chantel cemetery (PID 21-119-23-33-0004) (city file no. 20-001).** Gene Kissner is requesting approval of a Preliminary Plat, Final Plat and Variance to subdivide the 3.76-acre St. Jane Chantel parcel owned by Church of St. Thomas the Apostle. The portion north of County Road 50 contains the cemetery and will be retained by the church and Kissners will purchase the portion south of County Road 50. The Planning Commission held a public hearing on March 5<sup>th</sup> and recommended approval. Council approved the request on March 26<sup>th</sup>.
11. **Bellwether 4<sup>th</sup> Final Plat and Final PUD (city file no.20-002).** Pulte Homes of Minnesota, LLC (applicant) has submitted a request for approval of a Final Plat and Final PUD plan application for "Bellwether 4th Addition", a residential development of 74 new single-family homes and one outlot on 45.49 acres of property. The Planning Commission reviewed on March 5<sup>th</sup> and recommended approval. Council approved the request on March 26<sup>th</sup>.
12. **Zoning Map Changes (city file no. 20-003).** Minnesota statues require cities to update their zoning map to bring it into compliance with the comprehensive plan within 9 months of adoption. The 2040 Comprehensive Plan was adopted in November and these map amendments will ensure consistency. The Planning Commission held a public hearing on March 5<sup>th</sup> and recommended approval. Council approved the request on March 26<sup>th</sup>.
13. **Tessmer Topo/Wetland Waiver (PID 07-119-23-21-0002) (city file no.20-007).** The applicant is requesting a waiver of the topography and wetland delineation requirements for this parcel. This parcel will be platted with the property to the west for a small division, but no development is proposed for this parcel. Council approved the request on March 26<sup>th</sup>.

14. **Vollrath request for Ag Preserve designation and initiate expiration for 42.09 acres of land south of County Road 50 (PID 29-119-23-24-0001) (City File 20-010).** The Council approved the request on March 26th.
  
15. **\*Eagle Brook Church Concept Plan at the NW quadrant of Hackamore Road and County Road 101 (city file 20-013).** Eagle Brook Church has submitted a concept plan for a new church on this site. The City Engineer is completing a feasibility study. *The Council reviewed the plan at the April 23<sup>rd</sup> meeting.*



## MEMO

Meeting Date:      June 4, 2020  
To:                      Planning Commission  
From:                  Brad Martens, City Administrator  
Re:                      City Council Report

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The Planning Commission last met on May 7, 2020. The following is a recap of some of the items discussed at City Council meetings since that time. A full recap can be found by reviewing the approved City Council minutes on the website

### **May 14, 2020 Council Meeting**

- Southeast Corcoran Watermain Improvements – Award Bid
  - Authorized contingent notice of award to C & L Excavating, Inc. for the southeast watermain improvement project
- Core Strategies, Short-Term Goals, and Action Steps
  - Approved the items as presented
- City Hall Remodel
  - Authorized staff to obtain bids for the City Hall remodel project
- City Hall Closure Extension
  - Extended the closure of City Hall through May 29, 2020
- Utility Installation and Service Agreement – 8025 Ridge Court
  - Approved the agreements as presented
- 2019 Budget Transfers
  - Approved the resolution authorizing transfers as presented
- Set Sale Resolution and Finance Plan – Bond 2020A
  - Adopted the resolution providing for the issuance and sale of approximately \$2,110,000 for the 2020-2021 Capital Improvement Plan and 2020 watermain improvements

- Financial Process Review and Software Implementation
  - Authorized staff to proceed with a financial management process evaluation and software search with Bergan KDV in an amount not to exceed \$20,000
- City Assessor Update
  - Directed staff to obtain quotes for assessing services
- Pandemic Response Update
  - Staff provided an overview of the continued response to the pandemic

### **May 28, 2020 Council Meeting**

- 2019 Audit Presentation – Justin Nilson & Tyler See, Abdo Eick & Meyers
  - Heard the audit presentation; accepted the 2019 audit as presented
- Request for Metropolitan Agricultural Preserve Initiation and Expiration for 49 acres of land owned by Kevin and Denise Tabor
  - Approved the request as presented
- Northeast Corcoran Water Supply – Work Plan Update
  - Heard an update on the planning process, authorized completion of a Feasibility Study for Water Treatment and Tower Design
- City Hall Closure Extension
  - Authorized the closure to extend through June 12, 2020
- Public Hearing – 2020 Dust Control Project
  - Held the public hearing; ordered the improvement to proceed with removal of a portion of Homestead Trail if a petition is received or removal by June 4<sup>th</sup>.
- 2021 Budget Expectations
  - Provided staff expectations in advance of drafting the 2021 budget
- Absentee Voting for Statewide Primary Election
  - Established the seven days prior to the State Primary election for absentee in-person voting
- Resolution Authorizing the Granting of Regulatory Flexibility to Local Businesses
  - Approved the resolution authorizing the City Administrator authority to grant regulatory flexibility
- 2020 Staffing – City Planner and Maintenance Worker positions
  - By consensus affirmed the hiring processes for the City Planner and Maintenance Worker positions
- Open Space and Preservation Plat for “Paulsen Farms”
  - Approved the preliminary plat for the 20 lots as presented
- Pandemic Response Update
  - Director of Public Safety Gottschalk provided an update on the pandemic response

Attachments:  
None