AGENDA
CHASKA CITY COUNCIL
CHASKA CITY HALL - COUNCIL CHAMBERS & ZOOM
Monday, March 21, 2022
7:00 PM

1. Call to Order
2. Pledge of Allegiance
3. Roll Call
4. Adopt Agenda
5. Visitor Presentation
6. Approve Previous Meeting Minutes
    6.A. Approve the February 28, 2022 City Council Meeting Mintues
7. Consent Items
    7.A. Adopt Resolution 2022-22, Approving the Final Site & Building Plan for 212 Medical Center/Ridgeview Medical Center/PC #2022-13
    7.B. Adopt Resolution 2022-26, Approving the Annexation into Chaska of a portion of the Kelzer property currently in Laketown Township, per the Orderly Annexation Agreement
    7.C. Adopt Resolution 2022-27, Bond Sale Reimbursement
    7.D. Adopt Resolution 2022-28, Interfund Tax-Increment Project Financing
    7.E. Use of ARPA Funds
    7.F. Letter of Support - State Funding for Northern Ravine Trail
    7.G. Letter of Support - US HWY 212 Freight Mobility and Safety Project
8. Action Items

8.A. Adopt Ordinance 1012, Amend Chapter 2, Article 8, Sections 10 and 20 of the Chaska MN Code of Ordinances - Ward Boundaries and Polling Locations

8.B. Adopt Resolution 2022-23 and Ordinance 1009, Approving the Preliminary Site & Building Plan, Preliminary Plat and Rezoning for Chaska Creek Industrial Phase 3/Oppidan/PC #2022-14

8.C. Adopt Resolution 2022-24 and Ordinance 1010, Approving the Preliminary Plat and Rezoning for Ensconced Woods/Johnson-Reiland Builders and Remodelers/PC #2022-17

8.D. Adopt Resolution 2022-25 and Ordinance 1011, Approving the Preliminary Plat and Rezoning for Rivertown Heights/DR Horton/PC #2022-16

8.E. Adopt Resolution 2022-29, Approving the Concept Plan for Hazeltine Plaza Apartments/Trident Development/PC #2022-18

8.F. Adopt Resolution 2022-30, Public Improvement Hearing for the 2022 Street & Utility Reconstruction Project

9. Bills

9.A. ACCOUNTS PAYABLE COUNCIL ROSTER 3-21-2022

10. Other Business

10.A. City Administrator's Report

10.A.i. Biweekly 3/21/2022

10.B. Other Reports

10.B.i. Hawk Pride Update

11. Adjourn

- MINUTES -
CHASKA CITY COUNCIL
FEBRUARY 28, 2022

1. Call to Order
The meeting was called to order by Mayor Windschitl at 7:00 pm.

2.Pledge of Allegiance

3. Roll Call
Roll call was taken. Present: Councilmembers Grau, Hatfield, Hubbard, Huang, and Mayor Windschitl

Absent: None.

Also Present: Matt Podhradsky, City Administrator; Noel Graczyk, Administrative Services Director; Kevin Wright, Communication Director; Elise Durbin, Assistant Administrator; Parks and Recreation Director Marshall Grange; Nate Kabat, Community Development Director; Liz Hanson, City Planner; Jake Saufley, City Attorney; and Matt Clark, City Engineer.

4. Adopt the Agenda
Councilmember Hatfield noted that agenda item 7.C. needs to be corrected to read "Wetland Replacement Plan for Oak Ridge Commons".

Motion by Councilmember Hatfield, second by Councilmember Hubbard to adopt the agenda with the noted correction. Motion carried.

5. Visitor Presentation
City Administrator Podhradsky introduced Elise Durbin, the new Assistant Administrator.

Assistant Administrator Durbin addressed the Council and shared her background with them. She stated she previously worked for Carver County CDA as the Economic Development Director and she is excited to be working with the City of Chaska now.

Mayor Windschitl welcomed Assistant Administrator Durbin and stated he looks forward to working with her. The Council echoed his sentiments.

Mayor Windschitl stated he would like to recognize some Commission members who are no longer serving the City and thank them for their hard work. He noted the Commissions do a lot of work for the City and noted the following:

Aaron Saylor, Planning Commission
Jalen Destin, Parks and Recreation Commission
Seth Spreadbury, Human Rights Commission
Russell St. John, Heritage Preservation Commission

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6. Minutes

6.A. Approve February 7, 2022 City Council Meeting Minutes
Motion by Councilmember Hatfield, second by Councilmember Grau to approve the minutes of the February 7, 2022 City Council meeting.
Motion carried.

7. Consent Agenda
_Motion by Councilmember Hubbard, second by Councilmember Hatfield to approve the Consent Agenda Items A through H:

A. Temporary Liquor License for Southwest Chamber of Commerce
Motion to approve Temporary On-Sale Intoxicating License TW.22-01 and Temporary On-Sale 3.2% Malt Liquor License T32.22-01 for the SW Metro Chamber of Commerce at Taste of Chaska.

B. Adopt Resolution 2022-14, Standard Allowance under the Revenue Loss Provision of ARPA
Motion to adopt Resolution 2022-14 to Elect the Standard Allowance Available Under the Revenue Loss Provision of the Coronavirus Local Fiscal Recovery Fund Established Under the American Rescue Plan Act.

C. Wetland Replacement Plan for Oat Ridge Commons
Motion to approve the wetland replacement plan for Oak Ridge Commons Development.

D. Appointment of Human Rights Commission Chair and Vice-Chair
Motion to appoint Sarah Carlson as Human Rights Commission Chairperson and to appoint Celi Haga as Human Rights Commission Vice-Chairperson.

E. Adopt Resolution 2022-18, Local Decision Making Authority in Planning, Zoning & Housing
Motion to adopt Resolution 2022-18, supporting Local Decision Making Authority in Planning, Zoning and Housing.

F. 2022 LELS Union Contracts (SRGT_Officer)
Motion to approve employment contracts for 2022 between the City of Chaska and LELS Local 210, LELS Local 447 and LELS Local 385, with these agreements becoming effective January 1, 2022.

G. Adopt Resolution 2022-19, 2022 Downtown Reconstruction Project Feasibility Study
Motion to approve Resolution No. 2022-19 Accepting the Feasibility Study and Scheduling a Public Improvement Hearing for the 2022 Downtown Street Reconstruction Project.

H. Reserve at Autumn Woods Wetland Replacement Plan
Motion to approve the wetland replacement plan for Reserve at Autumn Woods Development.
Motion carried.

8. Action Items
8.A. Chaska Community Center Master Plan Citizen Task Force

City Administrator Podhradsky introduced this item.

Parks and Recreation Director Grange provided background and information on this item. He stated Kelsey McNutt, Community Center Manager is also present this evening. He reviewed the process and steps taken to date and now they are looking for the Council to appoint the Citizen

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Task Force to the Community Center Master Plan project. He stated the applicants they have for the 16 person Committee are a great representation of all areas of the community.

City Administrator Podhradsky stated they were very happy about the 37 applications that came in and it was made clear that the Community Center is a place most see as a central gathering location for them all and some stated they moved into Chaska because of the Community Center. He noted they will be following up with the people not chosen to be on the board to ensure they are aware that they will still have many other ways to provide input on the process.

Councilmember Hubbard noted the different viewpoints were so interesting and it solidified the need for a diverse board and it was very hard to rank all the applicants because they were all so great.

Councilmember Grau stated he was blown away by the number of applicants and noted it was nice to see so much passion for the Community.

Councilmember Huang stated he has to ask because it is something that will come up probably at some point and he wants to know if Councilmember Hubbard feels having her husband on the Board could be an issue.

Councilmember Hubbard stated she wasn't actually aware her husband had an interest in this board because they hadn't discussed it and because it was an internal Human Rights discussion and decision which she had no part in.

City Administrator Podhradsky stated they had all the Commissioners discuss this issue and they ultimately decided he was a good fit for the Board.

Mayor Windschitl stated all applicants appointed and not appointed will have a chance to be a part of the process and stated it shows how much people care about the Community.

Motion by Councilmember Hatfield, seconded by Councilmember Huang to appoint the Citizen Task Force to the Community Center Master Plan project.
Motion carried.

8.B. Recommend Consultant for the Community Center Master Plan Architectural Services

Parks and Recreation Director Grange provided background and information on this item. He noted John Slack with Perkins&Will is also present via Zoom tonight. He reviewed the process and steps taken to date and noted it was a unanimous decision to name Perkins&Will as the Architectural Services Consulting Company for the Community Center Master Plan.

Councilmember Huang asked if specific members of Perkins&Will such as John Slack will be named in the contract as members who will be working on the project for its entirety or is there potential for members to change at some point during the process.

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Parks and Recreation Director Grange stated all of the four named individuals verbally agreed to be part of the team and they can get it in writing as well.

John Slack, Perkins&Will, addressed the Council and stated Mr. King, Mr. Costellic, and himself all bring many different types of experience to this project and noted they will be the ones representing them at all of the meetings throughout the process and are very excited to be a part of it.

Motion by Councilmember Huang, second by Councilmember Grau to Motion to authorize City Administrator, Matt Podhradsky, to execute a service agreement with Perkins&Will for architectural services.
Motion carried.

8.C. Adopt Resolution 2022-15, Approving the Concept Plan for a Building Addition at Southwest Christian High School/Southwest Christian High School/PC #2022-10

City Planner Hanson provided a presentation on this item and reviewed the Concept Plan.

Dan Beckering of Southwest Christian High School addressed the Council and thanked them for the support they have received going back to the beginning of the process several years.

Councilmember Hubbard asked when construction will start pending approval.

City Planner Hanson stated they plan to start right away.

Councilmember Huang stated it is nice to see the vision coming to life, it looks great and he hears great things about the students coming from their school.

Motion by Councilmember Huang, second by Councilmember Hatfield to adopt Resolution No. 2022-15 approving the Concept Plan for the fieldhouse building addition at Southwest Christian High School (PC#2022-10).
Motion carried.

8.D. Adopt Resolution 2022-16, Approving the Concept Plan for Frenz & Worm Properties/Forestar Group - Midwest/PC #2022-09
City Administrator Podhradsky introduced this item.

Community Development Director Kabat provided a presentation on this item.

Councilmember Hatfield asked if there have been any conversations with Carver County regarding how the road connecting to Mt. Hope Road because she worries about the amount of traffic in that area as well as how the school will be impacted by traffic.

City Administrator Podhradsky stated they will do a full traffic analysis and make sure those points are safe for the community.

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Councilmember Huang stated he knows Elementary schools are usually planned for buses and staff mainly, but in this case he would suggest keeping that in mind because they don't want parent parking at events to take over the neighborhood to the south.

Councilmember Hubbard noted Clover Ridge is her road and the main complaint is the traffic flow into the school pick up and drop off areas so she would like to remind them to be conscientious of that and safe school crossing.

Mayor Windschitl stated he thinks they need to think about the athletic complex and plan for overflow parking that can be used for big events. He noted he would like to see a provision for any homes sold in the development that states there is a lighted ball field next door so home buyers are very clear on that and it isn't an issue later.

Councilmember Huang echoed Mayor Windschitl and added he would like to see large signs placed in that are saying lit ball fields will be going in so no one is under the impression that area is going to stay an open green pastoral farmland forever.

Councilmember Grau stated he would like to see them plan accordingly for the grading so there isn't a huge impact on the areas surrounding it because that has been an issue in the past due to construction.

City Admin stated they can put a condition in there that says they will address the concerns regarding marketing materials that state there will be lit ballfields in that space by this housing development and that they would like to have signs put up near the open green space indicating those will be lit ballfields at some point in the future.

Motion by Councilmember Hubbard, second by Councilmember Grau to adopt Resolution No. 2022-16 approving the approving the Concept Plan for the Frenz & Worm Properties development proposal by Forestar Group – Midwest (PC#2022-09) with the condition that home buys will be notified of the plans to have a lit ball field near the development and that there will be some sort of signage on or near the fields indicating it will be a lit ball field in the near future. Motion carried.

8.E. Adopt Resolution 2022-17, Approving the Concept Plan for the Chaska Tech Center/Amcon Construction/PC #2022-11

City Administrator Podhradsky introduced this item.

City Planner Hanson provided a presentation and overview of this concept plan.

Bruce Hellier with Amcon Construction addressed the Council. He stated they are looking to start construction this spring and summer and stated it should be completed within a year potentially. He noted they will move tenants in as spaces become available.

It was the consensus of the Council that this will be a great addition to the City and is something they see being in high demand.

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Motion by Councilmember Huang, second by Councilmember Hatfield to adopt Resolution No. 2022-17 approving the Concept Plan for Phase III of the Chaska Building Center (Chaska Tech Center) (PC #2022-11).
Motion carried.

8.F. Purchase of Property at 216 4th Street West
City Administrator Podhradsky introduced this item.

Motion by Councilmember Hubbard, second by Councilmember Huang to approve the Purchase Agreement for the purchase of the property at 216 4th Street West, authorizing the Mayor and City Administrator to enter into the purchase agreement with the seller of this property.
Motion carried.

9. Bills
9.A. Accounts Payable Council Roster 2-28-2022

Council requested further information on page 1, 8, and 19.

City Administrator Podhradsky provided further information regarding those bills.

Motion by Councilmember Huang, second by Councilmember Grau to approve the bills as presented. Roll call was taken. Voting aye: Councilmembers Grau, Hatfield, Hubbard, Huang, and Mayor Windschitl. Voting nay: None
Motion carried.

10. Other Business
10.A. City Administrator's Report
10.A.i. Bi-Weekly Report February 28, 2022
Councilmember Grau asked how the redistricting is done.

City Administrator Podhradsky provided an overview of how the process is done. He stated it happens two years after the census is done and it's a process that makes sure they have equal representation at the different levels of government. He noted Chaska will be divided in half in a way once the redistricting is completed.

10.B. Hawk Pride Recap

Councilmember Huang:
- Stated the Ice Sculptures were nice and thanked the Downtown Business Alliance
- SouthWest Transit CEO Len Simich officially retired and thanked him for all his hard work
- Noted they are working with KL2 Consulting to help with the CEO position search, they have several applications so far, however none have been from Minnesota yet
- Noted on February 18th there was a bus fire due to an electrical issue, and that it is being investigated further by insurance, he stated the fire happened while it was stored in a garage and it was taken care of by the fire department without causing damage to any people

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- He stated SouthWest Prime service is being expanded and noted they are looking at their data retention practices
- He noted he is concerned about the traffic at the stoplight heading south on 41at the light on Angler

Councilmember Hubbard:
- Stated the Communities of Belonging Group met and discussed the future of Chaska Cares and thanked City Staff
- Noted she used SouthWest Prime to and from the airport and it went really great
- Stated with break-ins that have happened recently she wanted to remind everyone to be vigilant
- Wished her son a Happy Birthday, noted they celebrated at the Community Center and it was great

Councilmember Hatfield:
- Noted she attended the Ice Gardens and it was beautiful outside
- Stated she is impressed by the Community Center staff and their attitudes in the morning they are always so kind
- Stated she has noticed a lot of speeding at certain times of the day and would like to make people aware

City Administrator Podhradsky:
- Noted he is appreciative of the Police Officers for checking in on him when his garage was open the other night with the break-ins occurring, he stated they go above and beyond

Mayor Windschitl:
- Congratulated SouthWest Transit CEO Len Simich on his retirement and thanked him for his service to the City
- Congratulated Zach Bonnema on becoming the first Chief of Training for Chaska Fire Department
- Noted he would like to change some of the Commission questions at some point
- Stated he got calls from both new Representatives for the City after the boundary changes occurred and stated it is nice they reached out
- Stated the situation in Ukraine is sad and wishes all involved the best, specifically Irina and Richard Fursman who help with the retreat
- Noted they are back to a normal meeting schedule for the Council meetings in March

11. Adjourn

Motion by Councilmember Hatfield, second by Councilmember Grau to adjourn the meeting at 10:09 pm.
Motion carried.

REQUEST FOR ACTION
CHASKA CITY COUNCIL
03/21/22

Subject: **212 Medical Center Building Addition: Final Site and Building Plan Review**

Applicant: Ridgeview Medical Center

Location: Southeast corner of the intersection of Highway 41 and Hundertmark Road (across from Super America); on the north side of Highway 212

Case No.: 2022-13

Synopsis: The applicant is requesting approval of a final site & building plan for the 212 Medical Center for the addition of a 5th story on their existing south building

Prepared By: Elizabeth Hanson

Staff Recommendation: Motion to adopt Resolution

BACKGROUND

In May of 2005, the property was rezoned to PCD-13 (Planned Commercial Development District No. 13). In January of 2009, the revised Concept Plan for the 212 Medical Center, the Preliminary and Final Plats, the Preliminary and Final Site/Building Plans, as well as a Zoning Ordinance Amendment to PCD-13 were approved. The proposal was revised at that time to include one large medical office building on the 16-acre site, with no additional buildings. Six stories were approved for the medical office building at this time, however, the first phase of construction only included the first four stories and approximately 159,000 square feet.

In August of 2012, the preliminary/final plat, and preliminary/final site plan requests were approved for an addition on the building. The building addition included 3-stories (plus a partial basement for storage) and 63,880 square feet added to the north side of the existing building; total square footage of the existing building amounts to approximately 223,000 square feet. The preliminary/final plat request included splitting the property into two separate lots; one lot to include the new northerly building addition as well as the northern parking lot areas, and one lot to include the, then, existing medical center, southern parking area, the heliport and eastern parking area. Staff added a condition to the 2012 approval that any request for expansion of the project beyond what is already in place (4 floors, south building), and what was approved in 2012 (3 floors, north addition), will be subject to formal review consistent with City Ordinances, including review and approval by Planning Commission and City Council. This was done primarily to evaluate the parking provisions and ensure they are adequate.

In January of 2022, the Preliminary Site & Building Plan was approved for the 5th Floor expansion on the south building.

CHANGES/UPDATES SINCE PRELIMINARY APPROVALS
The following were changes done after preliminary approvals to address comments made:

- **Traffic:** a Traffic Analysis was completed shortly after Preliminary approval to evaluate traffic for the medical center for existing conditions and for full-build out (all future additions included). Please refer to the Traffic section of this report for more information.
- **5th Floor Interior Lights:** a concern was raised in the neighborhood meeting that pertained to lighting coming from the proposed 5th floor expansion at nighttime hours. The applicant has addressed this concern in their narrative and stated that the 5th floor will only be occupied/open during normal business hours, and unoccupied at night. Because of this they don't foresee lighting to be an issue during nighttime hours.
- **Parking Ramp:** a concern was also raised at the neighborhood meeting pertaining to potential headlight glare from the future parking ramp's side (east) that faces Manuela Drive. The applicant has revised the eastern façade of the parking ramp to be completely opaque with no openings into the ramp. This revision would block any potential headlight glare on the east side. The ramp will still have to go through proper site planning approvals when the parking ramp is proposed to be built.

CURRENT REQUEST
Tonight the applicant is requesting approval of a final site & building plan for a fifth story building addition totaling 38,867 square feet to be added to the existing medical center facility.

SITE PLAN
The total site area is 14.26 acres and is located on the southeast corner of Hundertmark Road and Highway 41.

The existing site includes one large medical office building that is broken into two pieces; the original south portion at 4-stories tall, and the north portion at 3-stories tall. The total existing square footage is 223,000.

The proposal this evening is to add a fifth floor addition to the original south building totaling approximately 39,000 square feet. This addition will bring the building to approximately 262,000 square feet. The fourth floor will be remodeled with the fifth floor addition. This renovation and addition will expand clinical and surgical services in the building to support the growing needs of the community.

PARKING/ACCESS
Access to the site will remain the same, which is the signalized intersection at Hundertmark.

Currently the building is 223,000 square feet in size and the fifth-floor addition will be approximately 39,000 square feet in size, totaling the building at 262,000 square feet. Per the Zoning Ordinance, 1 parking space is required for every 250 square feet of medical office use, which translates to 1,048 parking spaces.

748 parking spaces are currently installed on the site with 98 additional "proof of parking" surface stall spaces, thus totaling 846 surface parking spaces. Though this number falls short of the 1,048 required by Ordinance, the applicant has prepared a parking study outlining the

patterns of parking at the 212 Medical Center. According to the "Two Twelve Medical Center Parking Study Update" prepared by Alliant Engineering, included in the packet this evening, their conclusions are:

- In September 2021, parking demand estimates were completed at the medical center based on vehicle ingress/egress observations at the site access over 3-plus days.
- Counts were done in 15 minute intervals and are displayed in Table 1 of the parking study.
- The maximum estimated parking demand was 432 vehicles in the late morning of Thursday, September 23, 2021. This peak parking demand equates to a rate of 1.93 parked vehicles per 1,000 square feet.
- Applying a peak parking demand rate of 1.93 parked vehicles per 1,000 square feet of building space to the proposed expanded total of 262,393 square feet yields a peak parking demand estimate of 507 vehicles. Dividing this estimate by 90 percent to account for potentially unoccupied leasable area inside the building produces a hypothetical maximum future parking demand of 564 vehicles.
- At this hypothetical maximum future parking demand of 564 vehicles, 184 parking stalls would still remain available within the 748-stall existing parking lot. The remaining available parking capacity would represent a 32 percent surplus over the estimated hypothetical maximum future parking demand. Therefore, expansion of the existing parking lot is not recommended and no parking impacts to surrounding properties and/or roadways are anticipated.

That being said, staff is comfortable with the amount of parking provided with the existing building and the proposed fifth floor addition. The applicant has provided sufficient data through the parking study to conclude that there is sufficient parking at this time. In addition to that, they have also provided sufficient proof of parking shown in both surface stalls (98 stalls; 846 total for the site) and a future parking ramp implementation (551 stalls; 1,171 total for the site).

The applicant has also agreed to no more expansion on the site beyond the fifth floor addition until the parking situation is revisited again and any additional issues addressed. This may or may not include a parking ramp to accommodate parking needs, depending on the size/type of expansion proposed in the future.

Staff has added a condition to the approval this evening that any request for expansion of the project beyond what is already in place (4 floors on south building and 3 floors on north building), and what is being approved with this application (5th floor added to south building), will be subject to formal review consistent with City Ordinances, including review and approval by Planning Commission and City Council. The parking ramp will also require formal review/approval through Site Plan processes and Conditional Use Permit (CUP) should it be pursued.

TRAFFIC

A Traffic Analysis was completed for this project to evaluate the existing conditions as well as the future full-build conditions of the medical center. This analysis was required as a condition of the preliminary approval for the 5th floor expansion. The analysis concluded that neither the proposed 5th floor expansion or the full build-out of the medical center is expected to severely

impact the transportation network. There are also improvements that can be made to the transportation network that will mitigate the congestion experienced by medical staff and residents from the area. These improvements include pavement markings (i.e. striping) and median modifications at the intersection of 212 Medical Center and Hundertmark Road. The City will continue to work with the medical center staff on this, and execute an agreement that speaks to timing and cost sharing of these improvements with the future planned expansions of the medical center.

PARKING RAMP CONSIDERATIONS

As noted before the site shows the potential installation of a multi-story parking ramp. This ramp is not being approved this evening, however, it was important in showing for proof of parking.

Although there is no formal approval occurring at this time for this ramp, staff still finds it helpful to address some items related to the ramp should it come in for approvals at a later date. The multi-level (3 stories are shown) ramp is shown on the eastern portion of the site. The ramp appears to be located adjacent to the existing berm and landscaping that edges the parking lot. As noted below, this was put in with the original approvals as a significant screening mechanism for the residential areas to the east. It will be important in the approvals of the ramp that this area is not impacted. In addition to that, the ramp will more than likely impact the landscape islands that parking ramp will be located over. It will be important to understand the impacts to the landscape provisions for the site and if additional areas need to be looked at to make up for those losses. Screening this structure will also be important. Understanding if there will be added visual impacts to adjacent properties (specifically the residential). The southeast portion of the site should be evaluated more to see if this area is the least visually encumbering spot for a parking ramp. And lastly, understanding what lighting will be proposed with the parking ramp.

In sum, but not limited to, the applicant should take into consideration the screening/landscaping requirements, viewshed impacts, and lighting when the parking ramp comes in for formal approvals.

LANDSCAPING

The landscaping that has been installed as part of the first and second phases of construction goes above and beyond what is required by Ordinance. Overstory trees and ornamental trees are scattered generously throughout the site in parking lot islands and other landscaped areas. There are foundational plantings located around the building as well as substantial landscaping along Highway 41. The applicant also worked with City staff to create a "living hedge" on the east side of the site, next to the ravine, to help screen the project from the adjacent neighborhood to the east. This hedge is comprised of deciduous trees of varying heights from 10 to 14 feet, and has grown significantly since its implementation in 2009.

The new addition still stays within the landscape ordinance requirements provided on site. Should other additions (and/or parking ramp) be pursued the landscaping will have to be re-evaluated to see if additional landscaping/screening is required.

ELEVATIONS
The 5th Floor Addition will feature an upgraded façade expression using more glass than lower floors, plus champagne bronze-tone architectural metal panels. Both the glass and the metal panels match the same materials used before on the façade, complementing our generous use of Chaska brick as the predominant exterior material, as well as two additional brick colors (red and grey). Vertical brick 'tower' elements will continue up on the façade to anchor key corners and entry features. Rooftop mechanical equipment will continue to be screened behind metal louver panel wall systems, colored to match the building tones. Trash and recycling continue to be stored inside the loading dock area, located in the original portion of the building.

SIGNAGE & LIGHTING
As part of the original approvals, the applicant has installed several signs at the 212 Medical Center, including pylon signs, monument signs, wall signage (indicating the emergency room) and several directional signs. In 2012, an additional monument sign along Highway 41 was allowed with the north building addition. In 2014, a modification to the sign criteria for the medical center was approved to allow taller height on one of the monument signs. This was done to accommodate more signage for the tenants. The idea has always been that wall signage would be limited to signage needed to indicate an emergency room and that any tenant signage would be accommodated on the monument sign(s) (either the Pylon Sign at the southwest corner of the site or the proposed Monument Sign along TH 41).

No new site signs are proposed. The two existing "EMERGENCY" signs mounted on the upper parapet in the southwest building corner will be raised up to the new 5th Floor. All signage requires a separate application submittal and review by staff, and prior to installation, approval is required.

There are no site lighting changes occurring with this proposal.

CAMPUS MASTER PLAN
The applicant has also submitted a Campus Master Plan for information purposes (and is not part of the approval request this evening). The Master Plan shows:

- A future sixth floor on south Phase I building (totaling 38,867 sf)
- A future 3-story expansion on the north addition (totaling 54,962 sf)
- A future Imaging Expansion on the east side of Phase I (totaling 3,750 sf)
- A future Emergency Department expansion on the south side of Phase I (totaling 4,500 sf)
- A multi-level parking ramp; and

If the applicant pursues any of those possibilities, it will be necessary to go through the formal review process.

PLANNING COMMISSION ACTION TAKEN 03/09/2022:
Motion to recommend approval to City Council of the Final Site & Building Plan for the fifth floor building addition at 212 Medical Center, subject to the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Project Narrative (pgs 1-6), prepared by Edward Farr Architects, dated February 15, 2022

b. Two Twelve Medical Center Parking Study Update (pgs 1-12), prepared by Alliant Engineering, Inc., dated December 6, 2021
c. Cover Sheet (sheet A0), prepared by Edward Farr Architects, dated December 7, 2021
d. Existing Conditions Per Site Plan (sheet C1), prepared by Edward Farr Architects, dated November 23, 2021
e. Existing Tree Inventory Plan (sheet L1), prepared by Edward Farr Architects, dated December 7, 2021
f. Site Plan – Parking (sheet A1), prepared by Edward Farr Architects, dated December 7, 2021
g. Site Plan – Proof of Parking (sheet A2), prepared by Edward Farr Architects, dated December 7, 2021
h. Exterior Elevations (sheet A3), prepared by Edward Farr Architects, dated December 7, 2021
i. Renderings (sheet (A4), prepared by Edward Farr Architects, dated December 7, 2021
j. Floor Plan (sheet A5), prepared by Edward Farr Architects, dated December 7, 2021
k. Master Plan Full Build-Out (sheet A6), prepared by Edward Farr Architects, dated December 7, 2021
l. Proof-of-Parking Parking Deck (sheet A7), prepared by Edward Farr Architects, dated December 7, 2021 and revised January 29, 2022

2. Adherence to the requirement of the City Engineer's memo dated March 9, 2022.
3. Adherence to the PCD-13 Ordinance #829.
4. All signage shall comply with the City of Chaska Zoning Ordinance, the PCD-13 (Planned Commercial Development District No. 13) Ordinance and the 212 Medical Center Sign Criteria.
5. Submittal of a sign permit application for all signage, to be approved by staff prior to installation.
6. Provision that no new wall signs are installed.
7. All roof mechanicals shall be screened per Section 15.28.120H of the Zoning Ordinance.
8. Provision of a roof mechanical screening detail, to be approved by the Planning Department.
9. Any request for expansion of the project beyond what is already in place (3 floors north addition; 4 floors south building; total of approximately 262,000 square feet) and what is being approved with this application (5th floor south building; 38,867 square feet) shall be subject to formal site review consistent with City Ordinances, including review and approval by Planning Commission and City Council.
10. Provision that the multi-level parking ramp be subject to formal site review and Conditional Use Permit review consistent with City ordinances, including review and approval by Planning Commission and City Council.
11. Provision of an agreement to be executed between Ridgeview and the City on the road improvements for the intersection of the driveway entrance and Hundertmark Road.

CITY COUNCIL ACTION REQUESTED

Motion to adopt Resolution No. 2022-22 approving the Final Site & Building Plan for the fifth floor building addition at 212 Medical Center (PC #2022-13).

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 03/21/2022 RESOLUTION NO. 2022-22

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

Resolution approving the Final Site & Building Plan for the fifth floor building addition at 212 Medical Center /Ridgeview Medical Center/PC #2022-13

WHEREAS, the applicant is requesting approval of a final site & building plan for a fifth story building addition totaling 38,867 square feet to be added to the existing medical center facility; and

WHEREAS, the total site area is 14.26 acres and is located on the southeast corner of Hundertmark Road and Highway 41; and

WHEREAS, the existing site includes one large medical office building that is broken into two pieces; the original south portion at 4-stories tall, and the north portion at 3-stories tall, and the total existing square footage is 223,000; and

WHEREAS, this addition will bring the building to approximately 262,000 square feet; and

WHEREAS, per the Zoning Ordinance, 1 parking space is required for every 250 square feet of medical office use, which translates to 1,048 parking spaces; and

WHEREAS, 748 parking spaces are currently installed on the site with 98 additional "proof of parking" surface stall spaces, thus totaling 846 surface parking spaces; and

WHEREAS, though this number falls short of the 1,048 required by Ordinance, the applicant has prepared a parking study outlining the patterns of parking at the 212 Medical Center, and according to the "Two Twelve Medical Center Parking Study Update" prepared by Alliant Engineering their conclusions are:

- In September 2021, parking demand estimates were completed at the medical center based on vehicle ingress/egress observations at the site access over 3-plus days.
- Counts were done in 15 minute intervals and are displayed in Table 1 of the parking study.
- The maximum estimated parking demand was 432 vehicles in the late morning of Thursday, September 23, 2021. This peak parking demand equates to a rate of 1.93 parked vehicles per 1,000 square feet.
- Applying a peak parking demand rate of 1.93 parked vehicles per 1,000 square feet of building space to the proposed expanded total of 262,393 square feet yields a peak parking demand estimate of 507 vehicles. Dividing this estimate by 90 percent to account for potentially unoccupied leasable area inside the building produces a hypothetical maximum future parking demand of 564 vehicles.
- At this hypothetical maximum future parking demand of 564 vehicles, 184 parking stalls would still remain available within the 748-stall existing parking lot. The remaining available parking capacity would represent a 32 percent surplus over the estimated hypothetical maximum future parking demand. Therefore, expansion of the existing parking lot is not recommended and no parking impacts to surrounding properties and/or roadways are anticipated; and

WHEREAS, that being said, staff is comfortable with the amount of parking provided with the existing building and the proposed fifth floor addition; and

WHEREAS, in addition to that, they have also provided sufficient proof of parking shown in both surface stalls (98 stalls; 846 total for the site) and a future parking ramp implementation (551 stalls; 1,171 total for the site); and

WHEREAS, the applicant has also agreed to no more expansion on the site beyond the fifth floor addition until the parking situation is revisited again and any additional issues addressed; and

WHEREAS, this may or may not include a parking ramp to accommodate parking needs, depending on the size/type of expansion proposed in the future; and

WHEREAS, the parking ramp will also require formal review/approval through Site Plan processes and Conditional Use Permit (CUP) should it be pursued; and

WHEREAS, a Traffic Analysis was completed for this project to evaluate the existing conditions as well as the future full-build conditions of the medical center; and

WHEREAS, this analysis was required as a condition of the preliminary approval for the 5th floor expansion; and

WHEREAS, the analysis concluded that neither the proposed 5th floor expansion or the full build-out of the medical center is expected to severely impact the transportation network; and

WHEREAS, there are also improvements that can be made to the transportation network that will mitigate the congestion experienced by medical staff and residents from the area; and

WHEREAS, these improvements include pavement markings (i.e. striping) and median modifications at the intersection of 212 Medical Center and Hundertmark Road; and

WHEREAS, the applicant should take into consideration the screening/landscaping requirements, viewshed impacts, and lighting when the parking ramp comes in for formal approvals; and

WHEREAS, the new addition still stays within the landscape ordinance requirements provided on site, and should other additions (and/or parking ramp) be pursued the landscaping will have to be re-evaluated to see if additional landscaping/screening is required; and

WHEREAS, no new site signs are proposed; and

WHEREAS, the two existing "EMERGENCY" signs mounted on the upper parapet in the southwest building corner will be raised up to the new 5th Floor; and

WHEREAS, on March 9, 2022 the Planning Commission recommended approval to the City Council of the Final Site & Building Plan for the fifth floor building addition at 212 Medical Center (PC#2022-13); and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota, hereby approves the Final Site & Building Plan for the fifth floor building addition at 212 Medical Center (PC#2022-13), subject to the aforementioned stipulations and following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Project Narrative (pgs 1-6), prepared by Edward Farr Architects, dated February 15, 2022
    b. Two Twelve Medical Center Parking Study Update (pgs 1-12), prepared by Alliant Engineering, Inc., dated December 6, 2021
    c. Cover Sheet (sheet A0), prepared by Edward Farr Architects, dated December 7, 2021
    d. Existing Conditions Per Site Plan (sheet C1), prepared by Edward Farr Architects, dated November 23, 2021
    e. Existing Tree Inventory Plan (sheet L1), prepared by Edward Farr Architects, dated December 7, 2021
    f. Site Plan – Parking (sheet A1), prepared by Edward Farr Architects, dated December 7, 2021
    g. Site Plan – Proof of Parking (sheet A2), prepared by Edward Farr Architects, dated December 7, 2021
    h. Exterior Elevations (sheet A3), prepared by Edward Farr Architects, dated December 7, 2021
    i. Renderings (sheet (A4), prepared by Edward Farr Architects, dated December 7, 2021
    j. Floor Plan (sheet A5), prepared by Edward Farr Architects, dated December 7, 2021
    k. Master Plan Full Build-Out (sheet A6), prepared by Edward Farr Architects, dated December 7, 2021
    l. Proof-of-Parking Parking Deck (sheet A7), prepared by Edward Farr Architects, dated December 7, 2021 and revised January 29, 2022
    m. Two Twelve Medical Center and Hundertmark Road Traffic Study (pgs 1-100), prepared by Bolton & Menk, dated March 14, 2022
2. Adherence to the requirement of the City Engineer's memo dated March 9, 2022.
3. Adherence to the PCD-13 Ordinance #829.
4. All signage shall comply with the City of Chaska Zoning Ordinance, the PCD-13 (Planned Commercial Development District No. 13) Ordinance and the 212 Medical Center Sign Criteria.
5. Submittal of a sign permit application for all signage, to be approved by staff prior to installation.
6. Provision that no new wall signs are installed.
7. All roof mechanicals shall be screened per Section 15.28.120H of the Zoning Ordinance.
8. Provision of a roof mechanical screening detail, to be approved by the Planning Department.
9. Any request for expansion of the project beyond what is already in place (3 floors north addition; 4 floors south building; total of approximately 262,000 square feet) and what is being approved with this application (5th floor south building; 38,867 square feet) shall be subject to formal site review consistent with City Ordinances, including review and approval by Planning Commission and City Council.
10. Provision that the multi-level parking ramp be subject to formal site review and Conditional Use Permit review consistent with City ordinances, including review and approval by Planning Commission and City Council.
11. Provision of an agreement to be executed between Ridgeview and the City on the road improvements for the intersection of the driveway entrance and Hundertmark Road, and to be completed prior to issuance of a Certificate of Occupancy for the fifth floor.

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 21st day of March, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Chaska Deputy Clerk

City of Chaska
Memorandum

To: **Planning Commission**
From: **Matt Clark**
Date: **March 9, 2022**
Subject: **212 Medical Center Building Addition: Final Site and Building Plan**

As the ultimate development plan for the 212 Medical Center expands, traffic impacts to Hundertmark Road are the engineering issue. The recent improvements to Hundertmark were based on a projected maximum volume of traffic generated by the site. Traffic studies have concluded that while operations of the intersection meet standards, improvements to Hundertmark are recommended that would benefit both the Medical Center intersection and operations for Hundertmark. Based on current conditions, improvements are not warranted at this time. An agreement between Ridgeview and the City is in order to address timing and cost share with the future planned expansions of the medical center.

ONE CITY HALL PLAZA/CHASKA, MN 55318-1962/PH: (952) 448-2851/ FX: (952) 448-9300

Project Narrative
Two Twelve Medical Center – 5th Floor Addition
111 Hundertmark Road

Prepared By:
Edward Farr Architects
January 29, 2022 (*updated February 15, 2022*)

For Submission of:
Final Site Plan Review

Applicant

Ridgeview Medical Center	Telephone	952-777-4151
500 South Maple St.		
Waconia, MN 55387		
Paul Ham and	email	Paul.Ham@RidgeviewMedical.org
Sara Aulizia	email	Sara.Aulizia@RidgeviewMedical.org

Architect

Edward Farr Architects Inc.	Telephone	952-943-9660
7710 Golden Triangle Drive		
Eden Prairie, MN 55344		
Ed Farr	email	e.farr@edfarrarch.com

Parking Consultant

Alliant Engineering, Inc.	Telephone	612-758-3080
233 Park Avenue South, Suite 300		
Minneapolis, MN. 55415		
Jordan Schwarze	email	JSchwarze@Alliant-Inc.com

History
The original ***Two Twelve Medical Center*** (TTMC) project was approved in early 2009 and has been serving customers since early 2011. It has its own PCD-13 zoning district. As part of the original approval, the building was planned to extend up to a total of 6 stories tall; however only 4 stories are currently built, leaving the 5th and 6th floors for future development. In 2012, the ***North Addition*** project was approved and was completed in 2014. Like the original TTMC structure, the North Addition is planned to extend up to a total of 6 stories tall; however only 3 stories are currently built, leaving floors 4, 5 and 6 for future development.

New Project Overview
This application proposes to construct a new 5th floor, and to remodel the existing 4th floor, on top of the existing 4 story main building on the south end of the campus. This renovation and addition will expand clinical and patient care spaces in the building to support the growing needs of the community.

We are able to provide adequate surface parking for this vertical expansion without needing to construct a multi-level parking ramp, based on a thorough evaluation of actual parking counts for our unique mix of various types of medical uses. Refer to the enclosed Parking Analysis by Alliant Engineering, and a more detailed parking summary on the following pages.

The 14.26 acre net site is legally subdivided into two parcels for convenience of the two property ownership entities; but we continue to view the ***Two Twelve Medical Center*** building complex as one whole, including:

- same address (111 Hundertmark Rd),
- same / shared public and private utilities for many services,
- same building management / security / controls over the entire building,
- same / shared parking facilities on site,
- same / shared main entry lobby and reception,
- ability to walk between both portions of the building freely, on all floor levels,
- same / shared loading dock delivery area,
- same building façade design for continuity.

There are legal documents between both landowners for the shared facilities. Some building systems are purposely separated between the portions of the building, such as sanitary sewer service and water supply, including the wet-pipe fire suppression system & fire pump.

Compliance with PCD-13

We will remain in compliance with the existing PCD-13 regulations. (*all percentages calculated below use the overall site area of 15.56 ac that includes the 1.3 ac Outlot previously deeded to the city*)

- Land Coverage = 25% maximum. We are currently at 10% Coverage, and no changes are proposed.
- Open Area = 30% minimum. We are currently at 33.4% open, and no changes are proposed.
- Building Height = 6 stories maximum. We are not planning on building taller than 6 stories.
- Setbacks for parking and buildings. We are not planning on encroaching into the minimum required parking or building setbacks with this proposal.

Campus Master Plan

For informational purposes only, we have provided an updated Campus Master Plan showing Ridgeview Medical Center's long-range vision beyond this 5th Floor Addition. Specifically, this campus could continue to expand in the future, if/as demand calls for it, by adding the remaining upper floors to ***Two Twelve Medical Center;*** and if parking demand requires such, a multi-level parking structure could be built to support that growth. The Campus Master Plan is only conceptual; and is generally consistent with prior versions. The applicant is not seeking approval for this entire scope at this time.

5th Floor Addition

The proposal is to construct a fifth floor on top of the existing Two Twelve Medical Center building; plus a new elevator core on the east end of the building. TTMC currently has approx. 223,526 sq ft, plus a non-occupied basement level. The 5th Floor Addition project consists of 38,867 sq ft; so the total building complex will be approx. 262,393 sq ft for floors 1 – 5.

Landscaping and Greenspace

An Existing Tree Inventory Plan has been provided which depicts the existing trees on site that were planted in the previous two development phases. The previous landscape plans included a mix of overstory, coniferous and ornamental trees along with other plants/shrubbery. The trees planted with Phase 1 (2010-11) are now 10+ years older and those within Phase 2 (2012-2013) are now +/-8 years older. The plan indicates the total net caliper inches planted at completion of the second phase and the total trees planted onsite per the compiled landscape plans. In addition to the landscaping we provided, it should be noted that we deeded 1.3 acres of wooded, natural land (Outlot A) to the city as part of our original development

Parking

We currently have a total of 748 stalls, plus another 98 stalls available for Proof of Parking, for a total site maximum surface parking potential of 846 stalls. Due to our unique mix of medical provider uses and parking demands, we have recently completed an updated parking survey of the property. Refer to the Parking Analysis made part of our application, prepared by Alliant Engineering, for detailed results. Our findings include:

- Parking demand is spread out throughout the weekday, peaking in late morning and early afternoon hours. This pattern remains a consistent finding over the years, as earlier reported in Alliant's 2012 Parking Analysis.
- The blend of ordinary Medical Clinic uses, Emergency Dept, Urgent Care, Day Surgery Center and special medical uses result in significantly fewer parking stalls when benchmarked against ordinary Medical Clinic use. Specifically, a ratio of 1.93 cars / 1,000 sq ft of building area was reported; and after adjusting from a 90% occupied building up to 100% occupied; the hypothetical maximum parking ratio is 2.15 cars / 1,000 sq ft.
- For the proposed 5th Floor Addition, the total building area will be approx. 262,393 sq ft, which results in a hypothetical maximum parking demand of 564 cars.
- Existing surface parking facilities (748 stalls) adequately serve the existing and proposed building areas, with 184 excess stalls to spare.

In 2012, our Parking Analysis suggested the following conservative Proof of Parking Ratios, which we are still using to benchmark our ability to provide a Proof of Parking safety net:

- Medical Clinics 1 car / 250 sf (*also city ordinance ratio*)
- Emergency Dept & Urgent Care 1 car / 500 sf
- Day Surgery Use 1 car / 333 sf
- Hospital Use 1 car / 3 beds (*also city ordinance ratio*)

Our original zoning application in 2008 included the following chart, depicting the parking counts for our 2-phased approach to our 6-story building. Note that Required Parking was computed using 1 car / 250 sf parking ratio:

Building Area	City Req'd Pkg (1/250)	Provided Parking
1st phase (4 stories) – 156,560 sf*	627 stalls	885 stalls
2nd phase (6 stories) – 227,890 sf*	912 stalls	940 stalls

* *Areas are adjusted for basement storage area and open second story of lobby*

A recalculation of the building area (original 4 story TTMC, plus 3 story North Add'n, plus new 5th Floor Add'n) using our TTMC Proof of Parking Ratios above, result in the following tabulation:

Building Use	Area	Parking Ratios	Required / Proof of Parking	Provided Parking
Medical Clinics	148,203 sf	1 / 250 sf	593 stalls	
Emergency Dept & Urgent Care	23,000 sf	1 / 500 sf	46 stalls	
Retail	0 sf	1 / 500 sf	0 stalls	
Day Surgery Cntr	39,000 sf	1 / 333 sf	117 stalls	
Hospital	52,190 sf	1/3 beds x 20	7 stalls	
Totals	**262,393 sf**		**763 stalls**	**748 paved + 98 POP = 846 total**

We are proposing to continue using our 748 surface stalls, plus leaving room for our 98 Proof of Parking stalls, for a total surface parking potential of 846 stalls. The 748 stalls still provide us with a comfortable number, based upon our actual experience with the building's parking demands.

Site Access / Public Access
We are not requesting any changes for vehicular or pedestrian site access. The signalized entry driveway intersection with Hundertmark Rd functions well; and pedestrian sidewalks already offer welcoming connectivity to the site.

Architectural Design and Building Materials
The 5th Floor Addition will feature an upgraded façade expression using more glass than lower floors, plus champagne bronze-tone architectural metal panels. This improved façade expression:

- Increases the % of glass on the façade from 18% on a typical floor to 35% on 5th Floor,
- Increases the amount of natural daylighting,
- Allows greater interior design layout flexibility for windows within perimeter rooms,
- It establishes a prominent cap to the building, in scale with the proportions of the structure,
- The thinner metal panel system allows for thicker thermal insulation behind it, needed to comply with current MN Energy Code requirements.

Both the glass and the metal panels match the same materials used before on the façade, complementing our generous use of Chaska brick as the predominant exterior material, as well as two additional brick colors (red and grey). Vertical brick 'tower' elements will continue up on the façade to anchor key corners and entry features. Rooftop mechanical equipment will continue to be screened behind metal louver panel wall systems, colored to match the building tones. Trash and recycling continue to be stored inside the loading dock area, located in the original portion of the building.

Sustainability / Energy Performance
We are proposing several sustainable features for this project:

- The new 5th Floor exterior envelope will meet the new Minnesota Energy Code for higher thermal insulation values, to minimize energy costs.
- Natural daylighting will be increased with the higher percentage of glass.
- All new interior lighting will be LED lamp sources, which consume less energy than fluorescent.
- Use of sunscreens at our glass curtainwall minimizes unwanted glare.
- No additional asphalt pavement is required, so we are not increasing the heat-island effect.
- No additional site lighting is required, so we are not adding to neighborhood light pollution.
- The structural steel frame contains a high percentage of recycled steel content,
- The aluminum window framing contains recycled aluminum.

- The contractor will be sorting construction waste to minimize land fill impacts.
- We will use low VOC paints and sealants, etc, in the construction wherever possible.
- HVAC equipment will be high efficiency rated for energy conservation, while at the same time offering maximum levels of fresh air intake to maintain a clean indoor air environment. Careful design of HVAC zoning minimizes the risk of airborne contaminants being re-distributed back into other areas of the facility.

Utility Services
The 5th Floor Addition will be served by the same water service and sanitary sewer service as floors below.

Storm Water
No changes are needed to the existing storm water system, as no significant changes on grade are being proposed.

Snow Storage
Snow will continue to be stored in the proof-of-parking area, located in the SE corner of the site, until such time as further expansions may trigger construction of those remaining parking stalls. At that time, the owner will contract for excess snow removal service from the site as snowfall amounts require.

Site Lighting and Site Signage
No changes to site lighting are proposed; we will not be increasing light pollution. No new site signs are proposed. The two existing "EMERGENCY" signs mounted on the upper parapet in the southwest building corner will be raised up to the new 5th Floor.
For the purpose of addressing night time lighting coming through the new 5th floor windows that face north and east, towards the Manuela Drive neighborhood, that suite is only open during normal 'business hours'; it will be unoccupied at night.

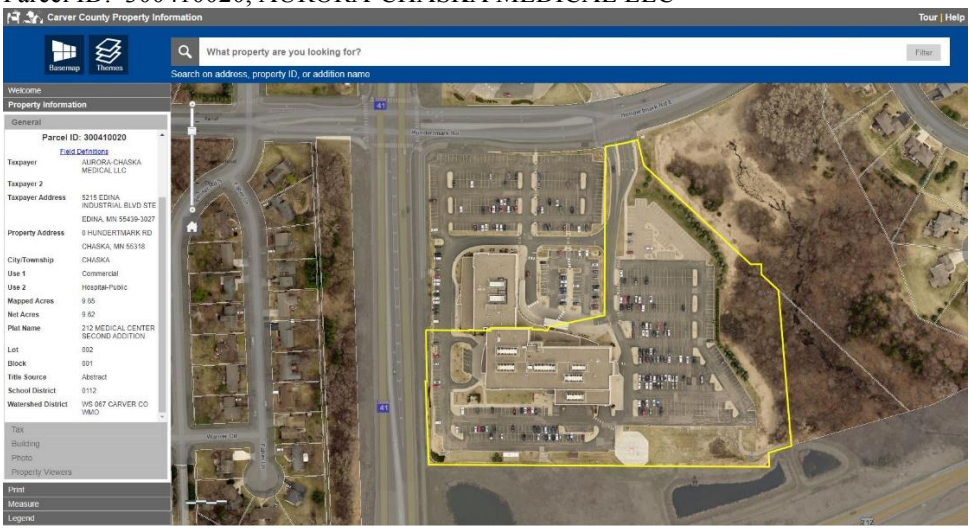
Building Code Compliance
The 5th Floor Addition, like the original TTMC structure, will be built to the same IBC Type I-A Construction level, as well as applicable NFPA 101, Chapter 18 provisions for Healthcare occupancies.

End of narrative

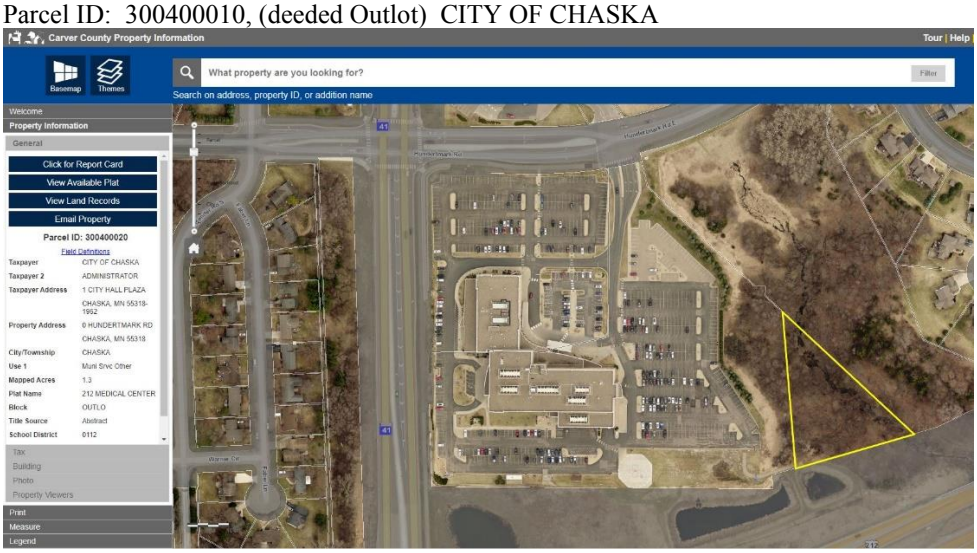
Attachment A – Property Ownership Maps

Parcel ID: 300410010, RIDGEVIEW TWO TWELVE NORTH ADDITION LLC

Parcel ID: 300410020, AURORA-CHASKA MEDICAL LLC



Parcel ID: 300400010, (deeded Outlot) CITY OF CHASKA



ALLIANT

MEMORANDUM

DATE: December 6, 2021

TO: Edward Farr Architects, Inc.

FROM: Jordan Schwarze, PE, Alliant Engineering
Todd Olson, PE, Alliant Engineering

SUBJECT: **Two Twelve Medical Center Parking Study Update**

Introduction

Alliant Engineering, Inc. has completed a parking study for the proposed expansion of the Two Twelve Medical Center located at 111 Hundertmark Road in Chaska, MN (see **Figure 1**). The proposed Two Twelve Medical Center expansion includes a one-story, 38,867-square-foot, vertical addition to the existing facility structure.

Study Purpose

This parking study will evaluate the viability of the existing parking supply against the parking demand expected to be generated by the expanded medical center facility. To achieve this, the following goals have been established:

- Establish the existing peak parking demand per 1,000 square feet of building space on a typical weekday.
- Compare the existing peak parking demand per 1,000 square feet of building space to the peak parking rate observed in a July 2012 parking study completed by Alliant Engineering (included in **Appendix A**) prior to the first expansion of the Two Twelve Medical Center.
- Utilize the maximum observed peak parking rate (from either 2012 or 2021) to estimate the maximum parking demand expected to be generated by the expanded medical center facility.
    - If necessary, identify any potential parking demand mitigation or alternative parking supply options that could be considered in the event of parking shortfalls.

Minneapolis, MN 55402
612.758.3099 FAX
www.alliant-inc.com

Two Twelve Medical Center Parking Study Update

Figure 1
Project Location

ALLIANT

Proposed Facility Expansion

Under the existing configuration, the Two Twelve Medical Center has 223,526 square feet of building space and 748 surface lot parking stalls. The proposed facility expansion would add 38,867 square feet of building space without affecting the existing parking supply. In total, the expanded Two Twelve Medical Center would consist of 262,393 square feet of building space. While additional surface parking could be constructed onsite (up to 98 additional proof of parking surface lot stalls or via the implementation of a multi-story parking ramp), the results of this parking study will dictate whether additional parking capacity will be needed. It should be noted that employees of the Two Twelve Medical Center are encouraged to park south of the facility, thus leaving more visible parking lots north and east of the facility for visitors.

Parking Demand Analysis

In September 2021, parking demand estimates were completed at the Two Twelve Medical Center based on vehicle ingress/egress observations at the site access over three-plus days. At the beginning of the vehicle ingress/egress observations, a parking lot occupancy baseline count was collected. The baseline parking demand was then adjusted by calculating the difference in observed vehicle ingress/egress over 15-minute intervals for the subsequent three-plus days. It should be noted that delivery and ambulance vehicles were excluded from the vehicle ingress/egress counts and parking demand estimates.

Table 1 summarizes the total estimated parking demand at the Two Twelve Medical Center over the September 2021 data collection window, while **Figure 2** illustrates the estimated parking demand versus the total parking supply across each observation day. The maximum estimated parking demand was 432 vehicles in the late morning of Thursday, September 23, 2021. This peak parking demand equates to a rate of 1.93 parked vehicles per 1,000 square feet of building space.

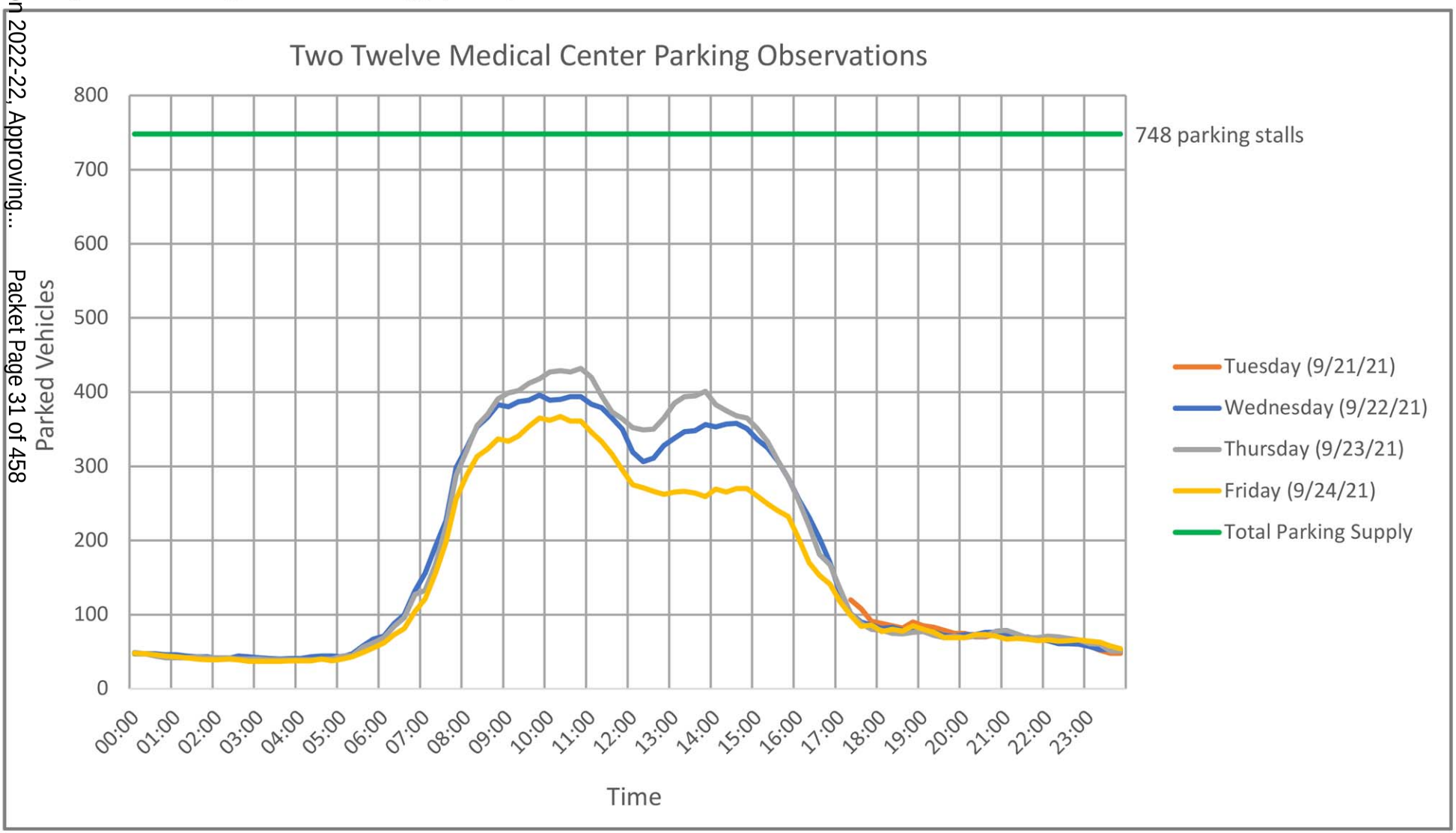
Results of the July 2012 parking study at the Two Twelve Medical Center indicate the maximum estimated parking demand was 235 vehicles. This peak parking demand equated to a rate of 1.47 parked vehicles per 1,000 square feet of building space. Therefore, the peak parking rate estimated based on observations of existing conditions represents a higher parking demand rate. However, it should be noted that leasable area within the Two Twelve Medical Center is currently only 90 percent occupied. Therefore, the maximum estimated parking demand of 432 vehicles under existing conditions was divided by 90 percent to estimate a hypothetical maximum parking demand of 480 vehicles at full building occupancy. This hypothetical maximum existing parking demand is well below the existing parking capacity of 748 parking stalls.

Table 1. Parking Count Summary

Time		Tuesday, September 21st, 2021		Wednesday, September 22nd, 2021		Thursday, September 23rd, 2021		Friday, September 24th, 2021	
00:00	12:00			47	319	49	352	48	275
00:15	12:15			47	306	47	349	47	271
00:30	12:30			47	311	44	350	46	266
00:45	12:45			46	328	42	365	44	262
01:00	13:00			46	338	42	385	43	265
01:15	13:15			44	347	42	394	42	266
01:30	13:30			43	348	43	395	40	264
01:45	13:45			43	356	42	401	39	259
02:00	14:00			41	353	42	383	39	269
02:15	14:15			41	357	42	375	40	265
02:30	14:30			44	358	40	368	39	270
02:45	14:45			43	351	40	365	37	270
03:00	15:00			42	336	40	351	37	260
03:15	15:15			41	325	39	333	37	249
03:30	15:30			40	306	39	307	37	240
03:45	15:45			41	284	39	284	38	232
04:00	16:00			41	255	39	253	38	202
04:15	16:15			43	231	39	219	38	170
04:30	16:30			44	203	40	181	40	153
04:45	16:45			44	170	40	167	38	141
05:00	17:00			43	129	44	134	40	117
05:15	17:15		120	47	101	45	101	43	99
05:30	17:30		108	58	90	56	88	49	84
05:45	17:45		91	67	86	62	80	55	86
06:00	18:00		88	71	81	69	79	62	77
06:15	18:15		85	88	83	84	75	73	80
06:30	18:30		82	100	79	96	74	81	78
06:45	18:45		90	132	79	127	76	104	85
07:00	19:00		85	156	80	133	77	121	80
07:15	19:15		83	193	76	169	72	157	76
07:30	19:30		79	227	72	219	69	198	69
07:45	19:45		75	298	71	288	71	256	69
08:00	20:00		75	325	73	321	69	288	69
08:15	20:15		70	353	73	355	71	313	73
08:30	20:30		70	366	76	370	71	323	73
08:45	20:45		74	383	76	391	78	337	71
09:00	21:00		73	380	75	399	79	334	67
09:15	21:15		72	387	69	402	74	341	68
09:30	21:30		67	389	70	412	69	354	67
09:45	21:45		67	396	67	418	69	365	65
10:00	22:00		67	389	65	427	71	362	66
10:15	22:15		67	390	61	429	70	367	64
10:30	22:30		66	394	61	427	68	361	65
10:45	22:45		63	394	60	432	66	361	66
11:00	23:00		58	384	57	420	61	346	64
11:15	23:15		52	379	53	395	60	333	63
11:30	23:30		48	365	53	373	51	316	58
11:45	23:45		48	350	53	364	51	295	54

Note: Parking counts at Two Twelve Medical Center (111 Hundertmark Road, Chaska, MN) derived from ingress/egress vehicle observations completed in 15-minute intervals from Tuesday, September 21, 2021, through Friday, September 24, 2021.

Figure 2. Parking Demand vs. Supply – September 2021



7.A. Adopt Resolution 2022-22, Approving...
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Applying a peak parking demand rate of 1.93 parked vehicles per 1,000 square feet of building space to the proposed expanded total of 262,393 square feet yields a peak parking demand estimate of 507 vehicles. Dividing this estimate by 90 percent to account for potentially unoccupied leasable area produces a hypothetical maximum future parking demand of 564 vehicles. At this hypothetical maximum future parking demand, 184 parking stalls would still remain available within the 748-stall existing parking lot at the Two Twelve Medical Center. The remaining available parking capacity would represent a 32 percent surplus over the estimated hypothetical maximum future parking demand. Results of this analysis indicate the existing parking lot has sufficient capacity to accommodate the additional parking generated by 100 percent occupancy of leasable area within the existing Two Twelve Medical Center as well as that of the proposed expansion. Therefore, expansion of the existing parking lot is not recommended and no parking impacts to surrounding properties and/or roadways are anticipated.

Summary and Conclusions

The following summary and conclusions are offered for consideration:

- The hypothetical maximum future parking demand at full occupancy of leasable area within the expanded Two Twelve Medical Center is estimated to be 564 vehicles. At this hypothetical maximum future parking demand, 184 parking stalls would still remain available within the 748-stall existing parking lot. The remaining available parking capacity would represent a 32 percent surplus over the estimated hypothetical maximum future parking demand. Therefore, expansion of the existing parking lot is not recommended and no parking impacts to surrounding properties and/or roadways are anticipated. A summary of peak parking demand estimates is shown in **Table 2**.

Table 2. Peak Parking Demand Estimates Summary

Observation/ Estimation Period	Two Twelve Medical Center Floor Area (Square Feet)	Peak Parking Demand Estimate (Vehicles)	Hypothetical Max Parking Demand Estimate @ 100% Leasable Occupancy (Vehicles)	Parking Surplus @ Existing 748-Stall Capacity (Stalls)
July 2012 (Original Facility)	159,646	235 (1)		
September 2021 (First Expansion)	223,526	432 (1)	480 (2)	
Future (Second Expansion)	262,393	507 (3)	564 (2)	184

(1) Peak parking demand estimate derived from ingress/egress vehicle observations completed in 15-minute intervals.

(2) Hypothetical maximum parking demand estimate based on 90 percent occupancy of existing leasable building area.

(3) Peak parking demand estimate based on a rate of 1.93 parked vehicles per 1,000 square feet of building space derived from September 2021 ingress/egress vehicle observations.

Appendix A
July 2012 Two Twelve Medical Center Parking Study

ALLIANT PROJ. NO. 12-0043

MEMORANDUM

DATE: July 3rd, 2012

TO: John Prondzinski – Ridgeview Medical Center

FROM: Katie Bruwelheide, PE – Traffic Engineer

SUBJECT: Two Twelve Medical Center – North Addition – Existing Parking Conditions

This memorandum was prepared to detail the existing parking characteristics of the Two Twelve Medical Center in Chaska, MN. The Two Twelve Medical Center (TTMC) opened in 2011 and contains four stories. It was approved for 6 stories, leaving the 5th and 6th floors for future medical office development which has not been built. The existing parking lot has 735 striped parking stalls.

A new addition to the TTMC is proposed with campus expansion to the north instead of vertically via the previously approved 5th and 6th floors. The expansion to the north consists of three floors of medical office space totaling 63,880 GSF. It is noted that the north addition is smaller in area (63,880 GSF) than the previously approved 5th & 6th floor vertical expansion option (70,484 GSF).

A study of the existing parking characteristics was completed to accompany the site plan application. The existing parking characteristics are helpful in determining the future parking operations of the proposed site. The following details the data collection process along with a summary of the existing parking conditions.

I. Existing Parking Data Collection

The existing parking lot activity was monitored by Alliant Engineering for the following 6-day period:

- Wednesday, June 20th, 2012 to Tuesday, June 26th, 2012.

To monitor the parking lot, a video camera was mounted at the signalized access intersection and the parking lot in/out movements were recorded and counted for these six days. It is noted that the signalized access is the only way in and out of the parking lot. At the time the video camera was installed and began recording a survey of the parking lot was conducted to determine a baseline number of parked vehicles. From this baseline count and the video counts the number of parked cars for the six day period was determined for 15-minute intervals. Emergency vehicles and delivery trucks were counted in a separate category and not included in the parking counts.

The 15-minute parking intervals for the study days are detailed in Table 1. Figure 1 presents a chart showing the daily fluctuations of the parking usage.

Additionally, the main entrance of the medical center was monitored for drop-off and pick-up of patients. The main entrance was observed from 11:45 to 12:45 on Monday, July 2nd, 2012. During this timeframe there was one patient drop-off and three patient pick-ups observed. Since the drop-off/pick-up operations are low and generally only occur during the weekday appointment hours, reductions to the parking usage were not calculated.

II. Summary of Existing Parking Characteristics

- The peak parking usage was 235 parked vehicles occurring on Monday at 3:15 PM.
- During the weekdays there are two parking peaks that occur, one during the morning around 10:30 AM and the other in the afternoon around 3:15 PM. This could coincide with the highest number of appointment times.
- During the weekends there are a steady number of parked vehicles (ranging from 50 to 75 vehicles) that can be attributable to employees of the first floor Emergency Department. This number of parked vehicles is also similar to the overnight parked numbers.
- The number of patient drop-offs and pick-ups are relatively low, around 4 per hour during appointment times. Reductions to the parking usage based on drop-offs and pick-ups were not calculated.

Table 1. 212 Medical Center Parking Count Summary

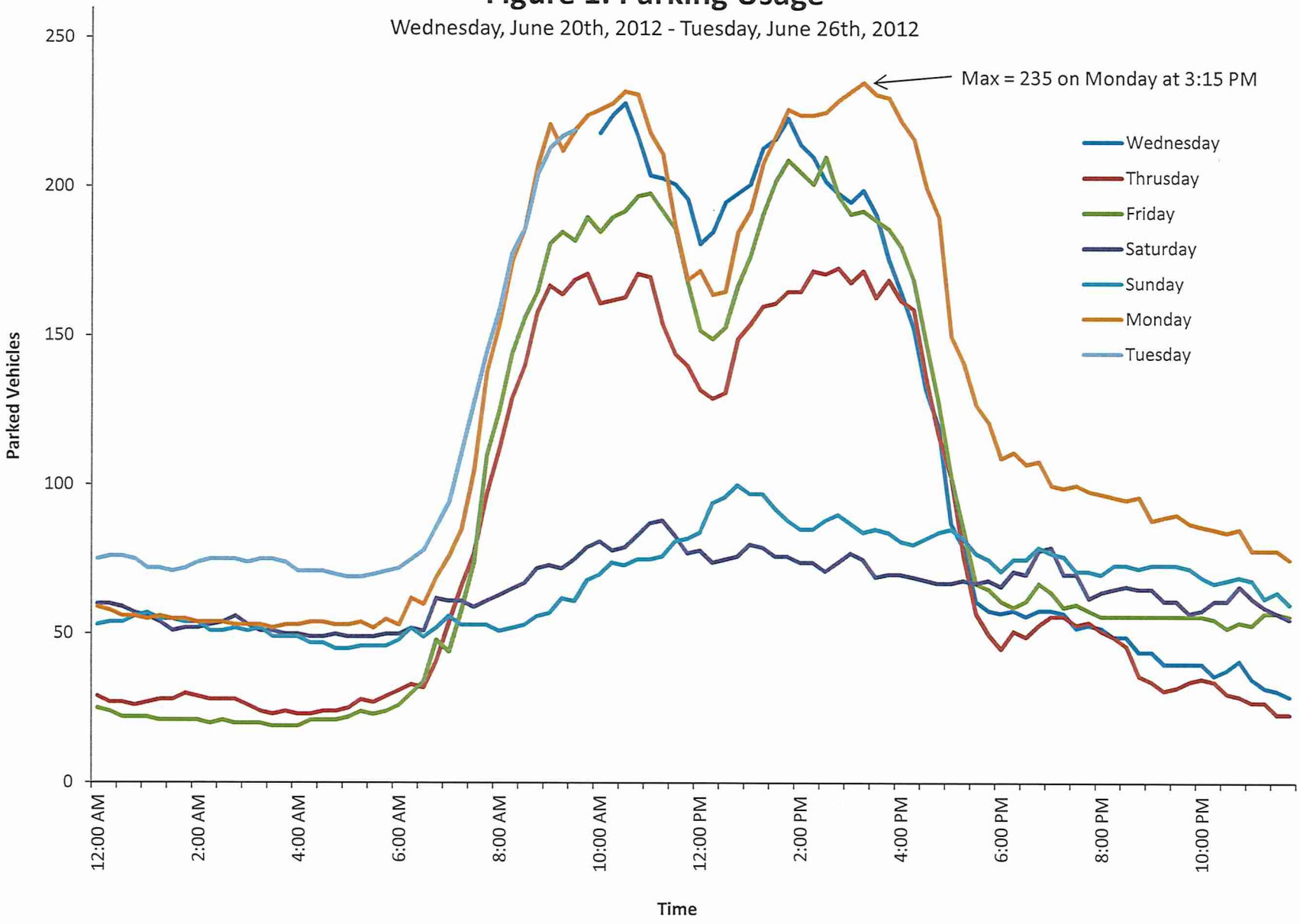
Time	Wednesday, June 20th, 2012	Thursday, June 21st, 2012	Friday, June 22nd, 2012	Saturday, June 23rd, 2012	Sunday, June 25th, 2012	Monday, June 26th, 2012	Tuesday, June 27th, 2012
12:30 PM	195	131	153	75	96	165	
12:45 PM	198	149	167	76	100	185	
1:00 PM	201	154	177	80	97	192	
1:15 PM	213	160	191	79	97	208	
1:30 PM	216	161	202	76	92	217	
1:45 PM	223	165	209	76	88	226	
2:00 PM	214	165	205	74	85	224	
2:15 PM	210	172	201	74	85	224	
2:30 PM	202	171	210	71	88	225	
2:45 PM	198	173	197	74	90	229	
3:00 PM	195	168	191	77	87	232	
3:15 PM	199	172	192	75	84	235	Peak Parking
3:30 PM	191	163	189	69	85	231	
3:45 PM	176	169	186	70	84	230	
4:00 PM	165	162	180	70	81	222	
4:15 PM	153	159	169	69	80	216	
4:30 PM	132	136	148	68	82	200	
4:45 PM	120	117	128	67	84	190	
5:00 PM	87	103	103	67	85	150	
5:15 PM	79	76	85	68	82	141	
5:30 PM	61	57	67	67	77	127	
5:45 PM	58	50	65	68	75	121	
6:00 PM	57	45	61	66	71	109	
6:15 PM	58	51	59	71	75	111	
6:30 PM	56	49	61	70	75	107	
6:45 PM	58	53	67	78	79	108	
7:00 PM	58	56	64	79	77	100	
7:15 PM	57	56	59	70	76	99	
7:30 PM	52	53	60	70	71	100	
7:45 PM	53	54	58	62	71	98	
8:00 PM	52	51	56	64	70	97	
8:15 PM	49	49	56	65	73	96	
8:30 PM	49	46	56	66	73	95	
8:45 PM	44	36	56	65	72	96	
9:00 PM	44	34	56	65	73	88	
9:15 PM	40	31	56	61	73	89	
9:30 PM	40	32	56	61	73	90	
9:45 PM	40	34	56	57	72	87	
10:00 PM	40	35	56	58	69	86	
10:15 PM	36	34	55	61	67	85	
10:30 PM	38	30	52	61	68	84	
10:45 PM	41	29	54	66	69	85	
11:00 PM	35	27	53	62	68	78	
11:15 PM	32	27	57	59	62	78	
11:30 PM	31	23	57	57	64	78	
11:45 PM	29	23	56	55	60	75	

Table 1. 212 Medical Center Parking Count Summary

Time	Wednesday, June 20th, 2012	Thursday, June 21st, 2012	Friday, June 22nd, 2012	Saturday, June 23rd, 2012	Sunday, June 25th, 2012	Monday, June 26th, 2012	Tuesday, June 27th, 2012
12:00 AM		29	25	60	53	59	75
12:15 AM		27	24	60	54	58	76
12:30 AM		27	22	59	54	56	76
12:45 AM		26	22	57	56	56	75
1:00 AM		27	22	56	57	55	72
1:15 AM		28	21	54	55	56	72
1:30 AM		28	21	51	55	55	71
1:45 AM		30	21	52	54	55	72
2:00 AM		29	21	52	54	54	74
2:15 AM		28	20	53	51	54	75
2:30 AM		28	21	54	51	54	75
2:45 AM		28	20	56	52	53	75
3:00 AM		26	20	53	51	53	74
3:15 AM		24	20	51	52	53	75
3:30 AM		23	19	51	49	52	75
3:45 AM		24	19	50	49	53	74
4:00 AM		23	19	50	49	53	71
4:15 AM		23	21	49	47	54	71
4:30 AM		24	21	49	47	54	71
4:45 AM		24	21	50	45	53	70
5:00 AM		25	22	49	45	53	69
5:15 AM		28	24	49	46	54	69
5:30 AM		27	23	49	46	52	70
5:45 AM		29	24	50	46	55	71
6:00 AM		31	26	50	48	53	72
6:15 AM		33	30	52	52	62	75
6:30 AM		32	34	51	49	60	78
6:45 AM		41	48	62	52	69	86
7:00 AM		54	44	61	56	76	94
7:15 AM		66	58	61	53	85	111
7:30 AM		77	74	59	53	105	128
7:45 AM		97	110	61	53	138	145
8:00 AM		112	125	63	51	154	159
8:15 AM		129	144	65	52	175	178
8:30 AM		140	156	67	53	186	186
8:45 AM		158	165	72	56	207	204
9:00 AM		167	181	73	57	221	213
9:15 AM		164	185	72	62	212	217
9:30 AM		169	182	75	61	219	219
9:45 AM		171	190	79	68	224	
10:00 AM	218	161	185	81	70	226	
10:15 AM	224	162	190	78	74	228	
10:30 AM	228	163	192	79	73	232	
10:45 AM	217	171	197	83	75	231	
11:00 AM	204	170	198	87	75	218	
11:15 AM	203	154	192	88	76	211	
11:30 AM	201	144	186	83	81	187	
11:45 AM	196	140	168	77	82	169	
12:00 PM	181	132	152	78	84	172	
12:15 PM	185	129	149	74	94	164	

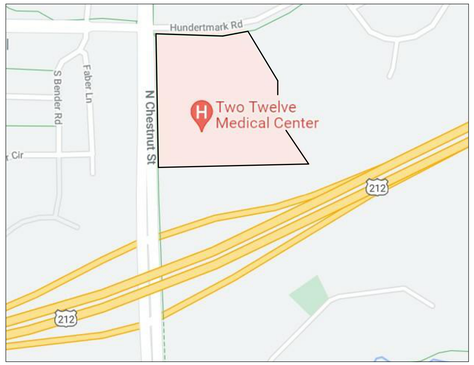
Figure 1. Parking Usage

Wednesday, June 20th, 2012 - Tuesday, June 26th, 2012



Alliant Engineering, Inc.
7/3/2012

212 Medical Center
Existing Parking Data



TWO TWELVE MEDICAL CENTER EXPANSION

111 HUNDERTMARK ROAD

CHASKA, MN.

OWNER:

RIDGEVIEW MEDICAL CENTER
dba
RIDGEVIEW REAL ESTATE II, LLC
500 SOUTH MAPLE STREET
WACONIA, MN 55387

CONTACT:
PAUL HAM (952) 777-4543
paul.ham@ridgeviewmedical.org

SARA AULIZIA (952) 777-4151
sara.aulizia@ridgeviewmedical.org

ARCHITECT:

EDWARD FARR ARCHITECTS
7710 GOLDEN TRIANGLE DR.
EDEN PRAIRIE, MN 55334

CONTACT:
DON ANDERSEN (952) 697-1084
d.andersen@edfarrarch.com

PARKING CONSULTANT:

ALLIANT ENGINEERING, Inc.
233 PARK AVE. SOUTH, SUITE 300
MINNEAPOLIS, MN 55415

CONTACT:
JORDAN SCHWARZE (612) 767-9334
jschwarze@allaint-inc.com

SHEET INDEX:

TITLE

A0 COVER SHEET

SITE INFORMATION

C1 EXISTING CONDITIONS
L1 EXISTING TREE INVENTORY PLAN

ARCHITECTURAL

A1 SITE PLAN - PARKING
A2 SITE PLAN - PROOF of PARKING
A3 EXTERIOR ELEVATIONS
A4 RENDERINGS
A5 FLOOR PLAN
A6 MASTER PLAN FULL BUILD-OUT
A7 PROOF-OF-PARKING PARKING DECK

I hereby certified that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota

Edward A. Farr
Date Date Reg. No. 16362
Project Manager
DLA
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EDWARD FARR ARCHITECTS INC
7710 Golden Triangle Drive Tel: 952.943.9660
Eden Prairie, Minnesota 55344 www.edfarrarch.com

Client
two twelve MEDICAL CENTER

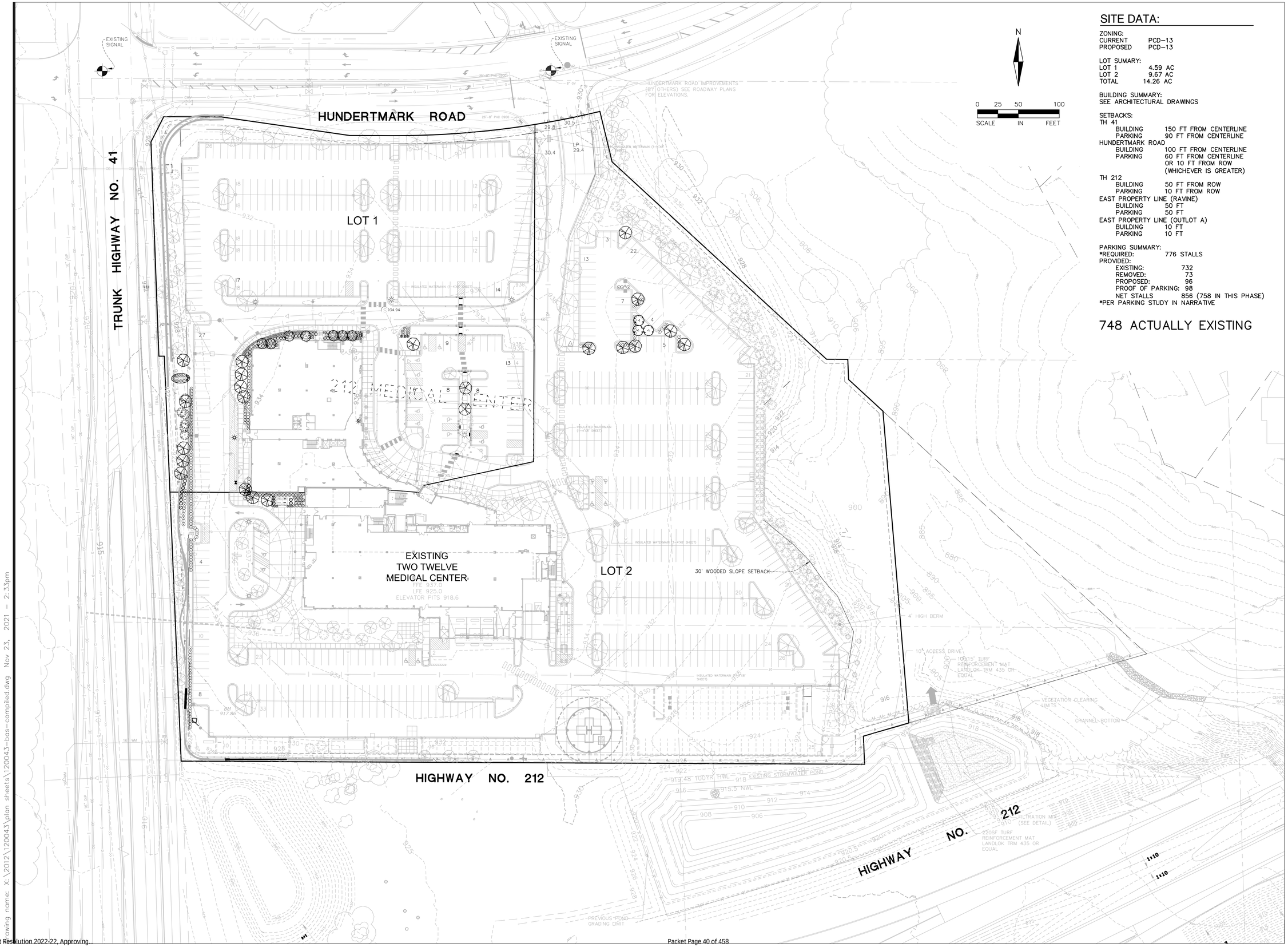
Project
Two Twelve Medical Center Expansion

Location
111 Hundertmark Rd
Chaska, MN 55318

Issued For	*Date*
SITE PLAN REVIEW	12-07-2021

Sheet Title
COVER SHEET

Project Number 21.040
Sheet Number A0



SITE DATA:

ZONING:
CURRENT PCD-13
PROPOSED PCD-13

LOT SUMARY:
LOT 1 4.59 AC
LOT 2 9.67 AC
TOTAL 14.26 AC

BUILDING SUMMARY:
SEE ARCHITECTURAL DRAWINGS

SETBACKS:
TH 41
BUILDING 150 FT FROM CENTERLINE
PARKING 90 FT FROM CENTERLINE
HUNDERTMARK ROAD
BUILDING 100 FT FROM CENTERLINE
PARKING 60 FT FROM CENTERLINE OR 10 FT FROM ROW (WHICHEVER IS GREATER)
TH 212
BUILDING 50 FT FROM ROW
PARKING 10 FT FROM ROW
EAST PROPERTY LINE (RAVINE)
BUILDING 50 FT
PARKING 50 FT
EAST PROPERTY LINE (OUTLOT A)
BUILDING 10 FT
PARKING 10 FT

PARKING SUMMARY:
*REQUIRED: 776 STALLS
PROVIDED:
EXISTING: 732
REMOVED: 73
PROPOSED: 96
PROOF OF PARKING: 98
NET STALLS 856 (758 IN THIS PHASE)
*PER PARKING STUDY IN NARRATIVE

748 ACTUALLY EXISTING

I hereby certified that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

MARK RAUSCH
Date _____ Reg. No. 43480
Project Manager

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Client
two twelve MEDICAL CENTER

Project
Two Twelve Medical Center Expansion

Location
111 Hundertmark Rd
Chaska, MN 55318

Issued For	*Date*

Sheet Title
EXISTING CONDITIONS PER SITE PLAN

Project Number 21.040
Sheet Number C1

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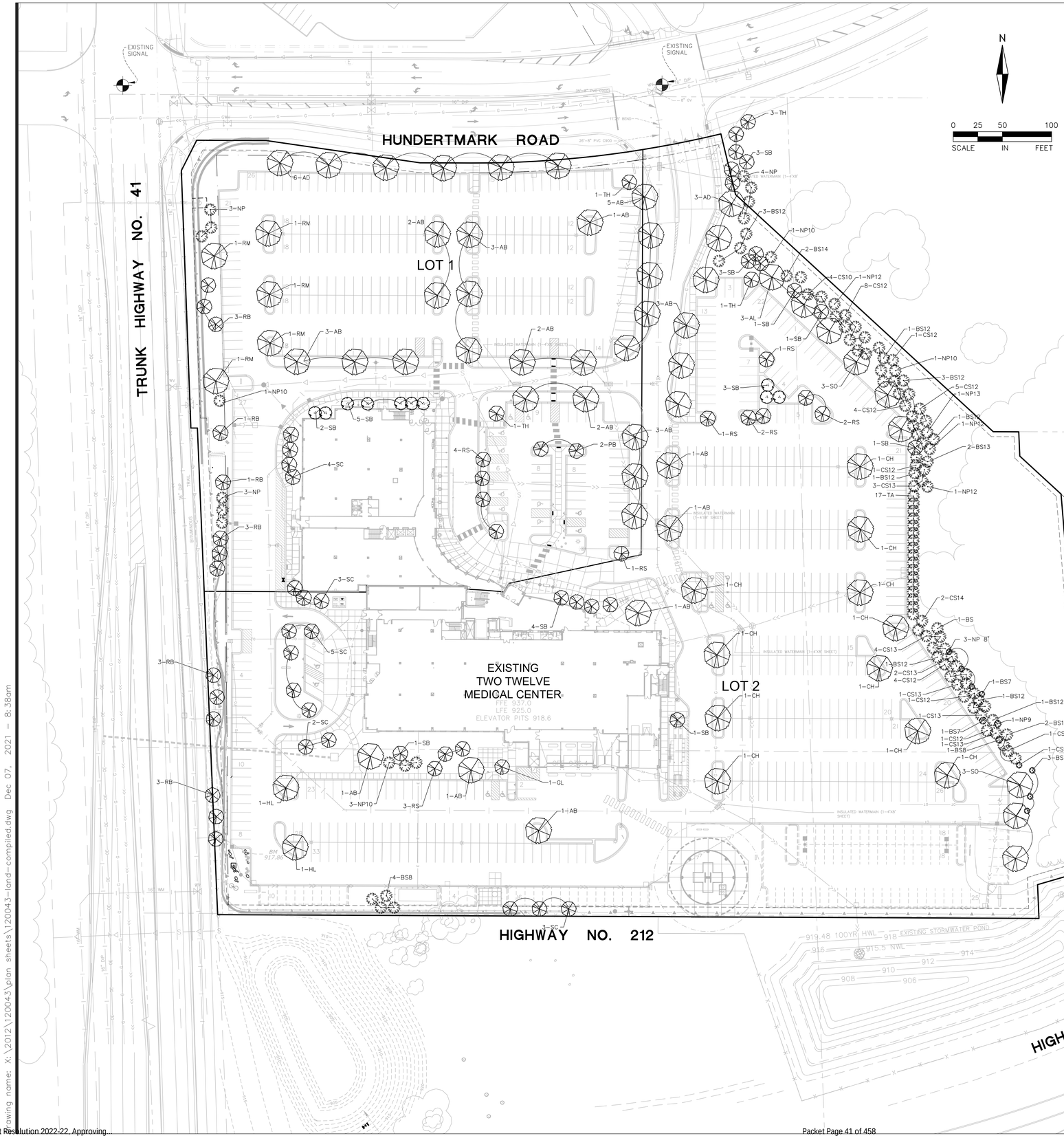

LANDSCAPE SCHEDULE

QTY.	KEY	COMMON NAME / BOTANICAL NAME
		OVERSTORY TREES
33	AB	AUTUMN BLAZE MAPLE Acer x freemanii 'Jeffersred'
9	AD	AUTUMN BLAZE MAPLE Acer x freemanii 'Jeffersred'
3	AL	AMERICAN LINDEN Tilia americana
11	CH	COMMON HACKBERRY Celtis occidentalis
2	GL	GREENSPIRE LINDEN Tilia cordata 'Greenspire'
9	HL	SKYLINE HONEYLOCUST G. triacanthos var. inermis 'Skycole'
4	PB	CLUMP RENAISSANCE BIRCH Betula papyrifera 'Renei'
20	RB	CLUMP RIVER BIRCH Betula nigra
5	RM	NORTHWOODS RED MAPLE Acer rubrum 'Northwood'
6	SO	SWAMP WHITE OAK Quercus Alba
		ORNAMENTAL TREES
19	RS	PRAIRIFIRE FLOWERING CRAB Malus 'Prairifire'
26	SB	CLUMP SERVICEBERRY A. x grandiflora 'Autumn Brilliance'
21	SC	SPRING SNOW FLOWERING CRAB Malus 'Spring Snow'
9	TH	THORNLESS HAWTHORN Crataegus crus-galli var. inermis
		CONIFEROUS TREES
8	BS	BLACK HILLS SPRUCE Picea glauca densata
4	BS8	BLACK HILLS SPRUCE Picea glauca densata
9	BS12	BLACK HILLS SPRUCE Picea glauca densata
2	BS14	BLACK HILLS SPRUCE Picea glauca densata
4	CS	COLORADO BLUE SPRUCE Picea pungens glauca
4	CS10	COLORADO BLUE SPRUCE Picea pungens glauca
17	NP	NORWAY PINE Pinus resinosa
12	NP10	NORWAY PINE Pinus resinosa
16	TA	TECHNY ARBORVITAE Thuja occidentalis 'Techny'

TREES PLANTED TO DATE

OVERSTORY TREES	102
CONIFEROUS TREES	75
ORNAMENTAL TREES	76
TOTAL =	253

NET TREE CALCULATION AT COMPLETION OF PHASE 2:

TYPE	TOTAL CALIPER INCH. PROVIDED	REQUIRED CALIPER INCH. (EX. 4-STORY, 163,085 S.F.) (PROPOSED 3-STORY ADD., 63,880 S.F.) (TOTAL BUILDING AREA, 226,965 S.F.)
DECIDUOUS OVERSTORY AND CONIFEROUS TREES	811.5	709.3
ORNAMENTAL TREES	179.8	177.3

I hereby certified that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

MARK RAUSCH

Date _____ Reg. No. 43480

Project Manager

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Client

two twelve MEDICAL CENTER

Project

Two Twelve Medical Center Expansion

Location

111 Hundertmark Rd
Chaska, MN 55318

Issued For	*Date*

Sheet Title

EXISTING TREE INVENTORY PLAN

Project Number	*Sheet Number*
21.040	L1

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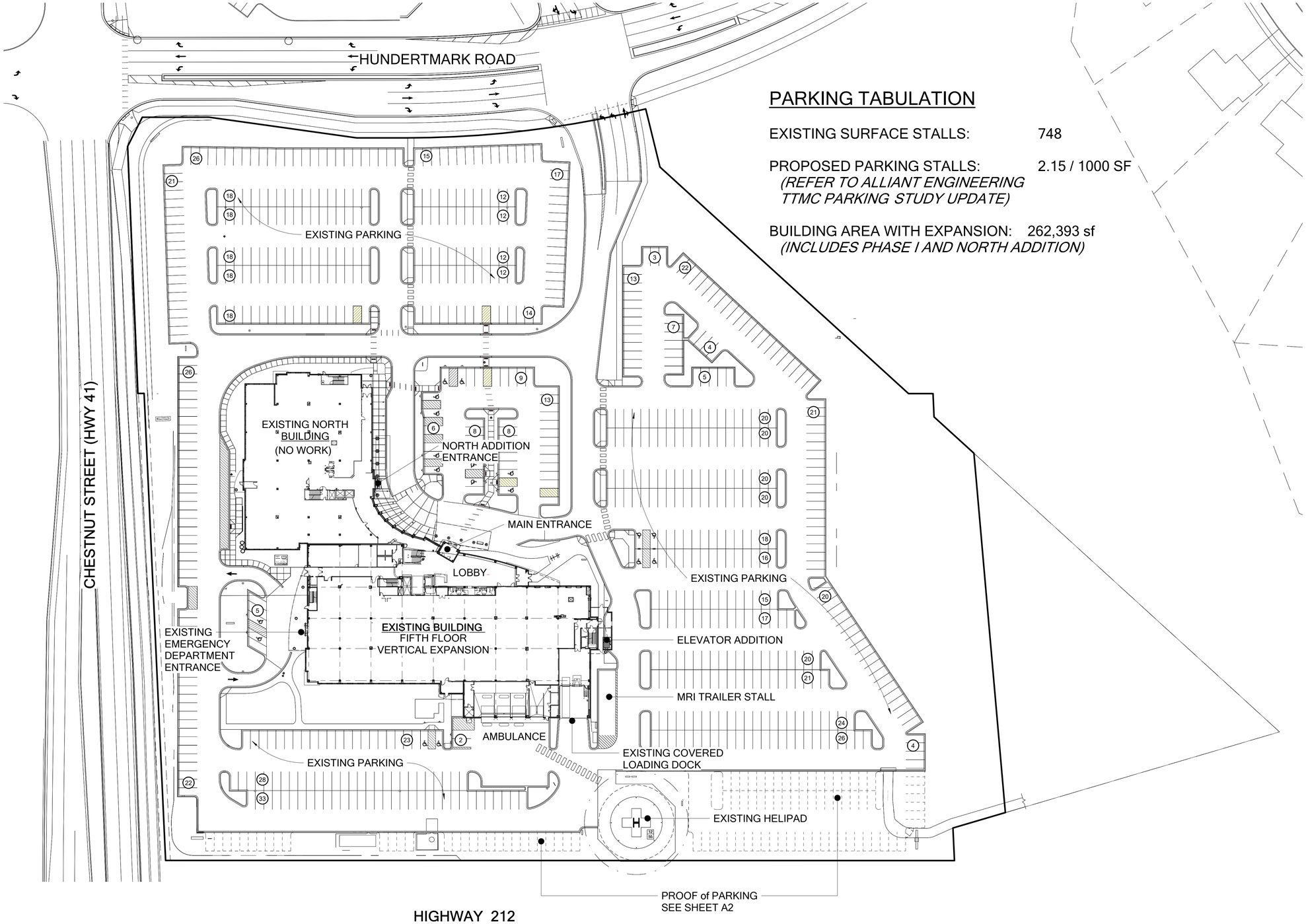

PARKING TABULATION

EXISTING SURFACE STALLS: 748

PROPOSED PARKING STALLS: 2.15 / 1000 SF
(REFER TO ALLIANT ENGINEERING TTMC PARKING STUDY UPDATE)

BUILDING AREA WITH EXPANSION: 262,393 sf
(INCLUDES PHASE I AND NORTH ADDITION)

1 SITE PLAN
A1 SCALE: 1" = 50'-0"

0' 25' 50' 100'

N

I hereby certified that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota

Edward A. Farr
Date Date Reg. No. 16362
Project Manager
DLA
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Client
two twelve MEDICAL CENTER

Project
Two Twelve Medical Center Expansion

Location
111 Hundertmark Rd
Chaska, MN 55318

Issued For	*Date*
SITE PLAN REVIEW	12-07-2021

Sheet Title
SITE PLAN - PARKING

Project Number 21.040
Sheet Number A1

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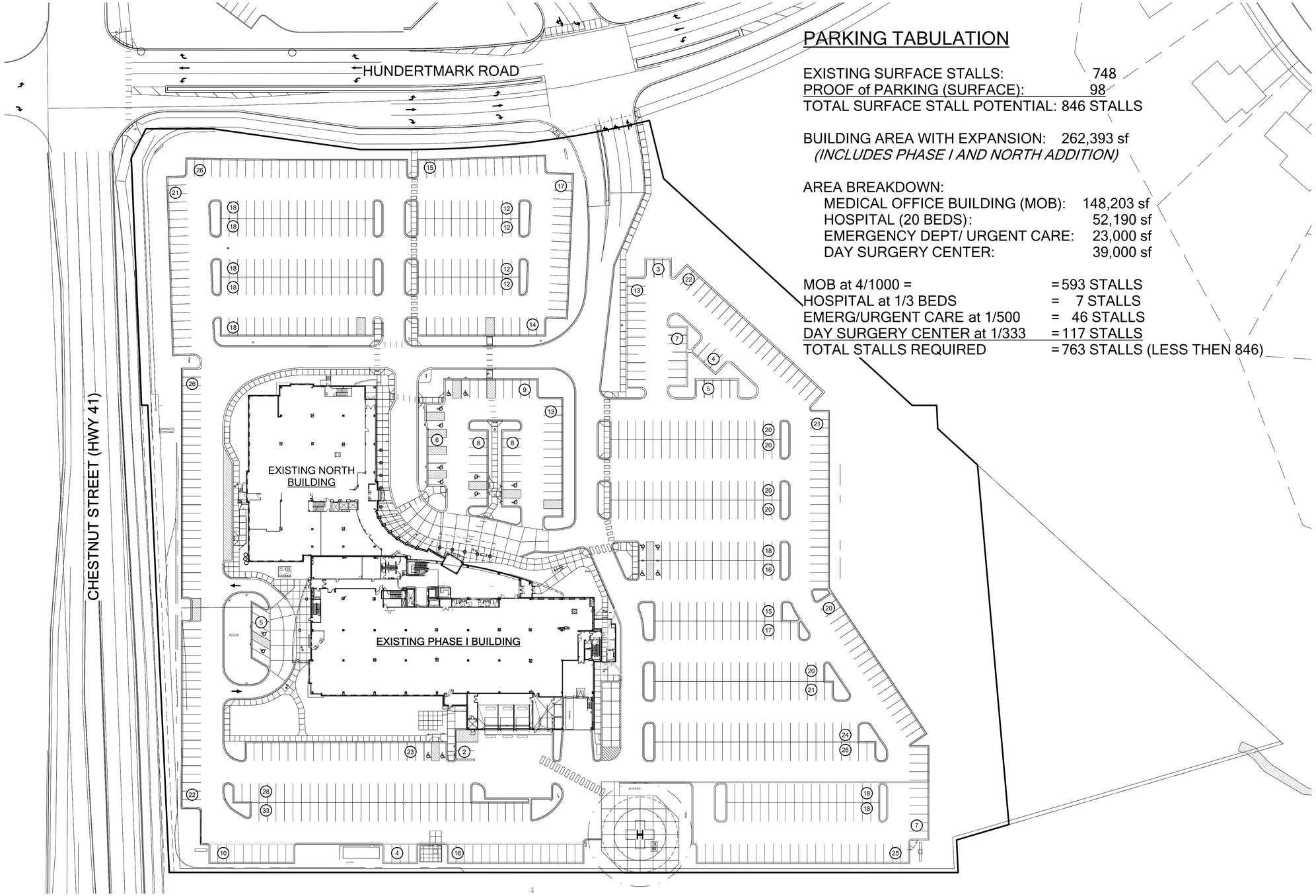

PARKING TABULATION

EXISTING SURFACE STALLS: 748
PROOF of PARKING (SURFACE): 98
TOTAL SURFACE STALL POTENTIAL: 846 STALLS

BUILDING AREA WITH EXPANSION: 262,393 sf
(INCLUDES PHASE I AND NORTH ADDITION)

AREA BREAKDOWN:
- MEDICAL OFFICE BUILDING (MOB): 148,203 sf
- HOSPITAL (20 BEDS): 52,190 sf
- EMERGENCY DEPT/ URGENT CARE: 23,000 sf
- DAY SURGERY CENTER: 39,000 sf

MOB at 4/1000 = = 593 STALLS
HOSPITAL at 1/3 BEDS = = 7 STALLS
EMERG/URGENT CARE at 1/500 = = 46 STALLS
DAY SURGERY CENTER at 1/333 = 117 STALLS
TOTAL STALLS REQUIRED = 763 STALLS (LESS THEN 846)

1 A2 PROOF of PARKING
SCALE: 1" = 50'-0"

0' 25' 50' 100'

N

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Edward A. Farr
Date Date Reg. No. 16362
Project Manager
DLA
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Client
two twelve MEDICAL CENTER

Project
Two Twelve Medical Center Expansion

Location
111 Hundertmark Rd
Chaska, MN 55318

Issued For	*Date*
SITE PLAN REVIEW	12-07-2021

Sheet Title
SITE PLAN - PROOF of PARKING

Project Number 21.040
Sheet Number A2

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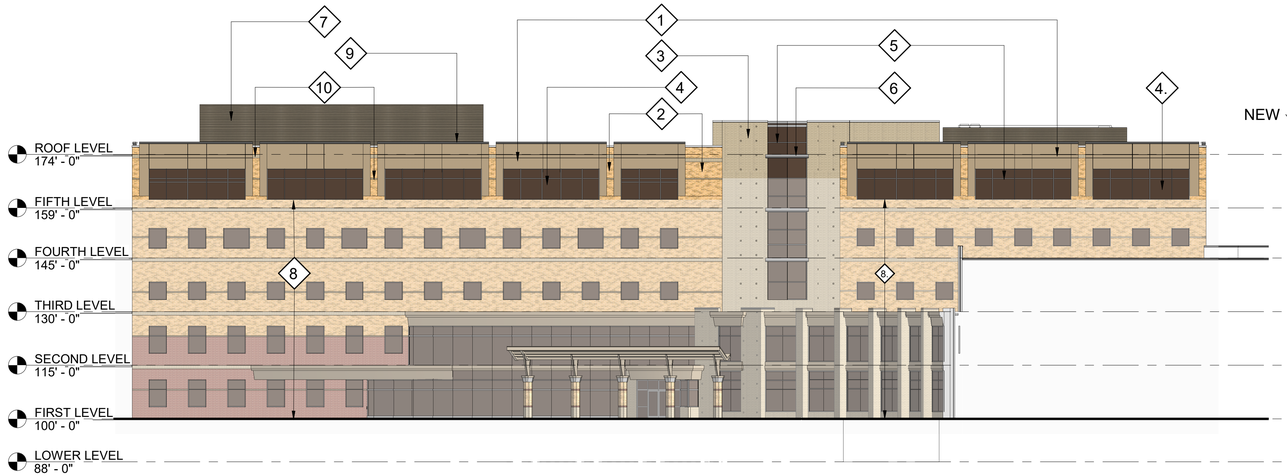
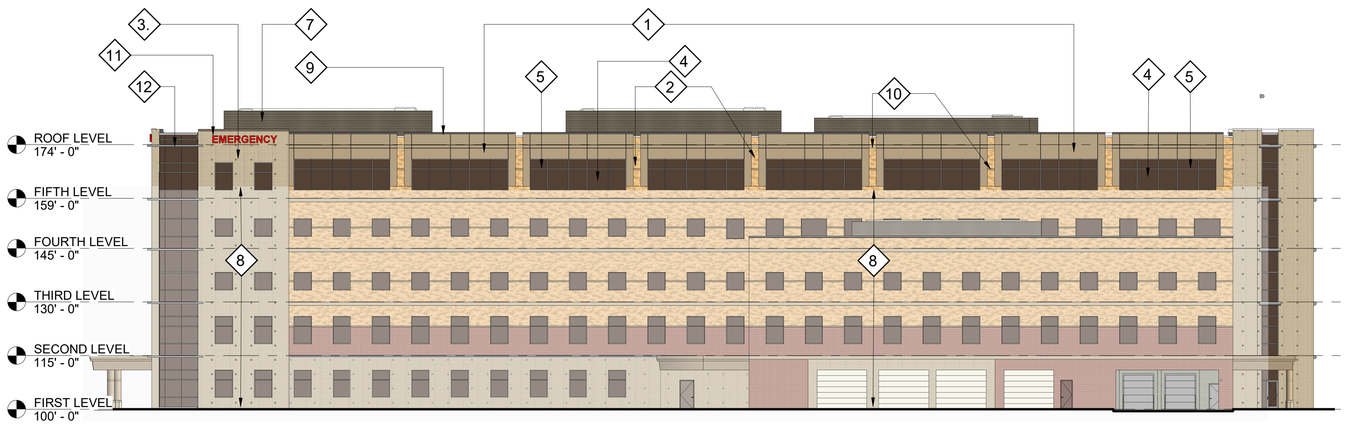


1 A3 NORTH ELEVATION
SCALE: 1" = 20'-0"

0' 10' 20' 40'

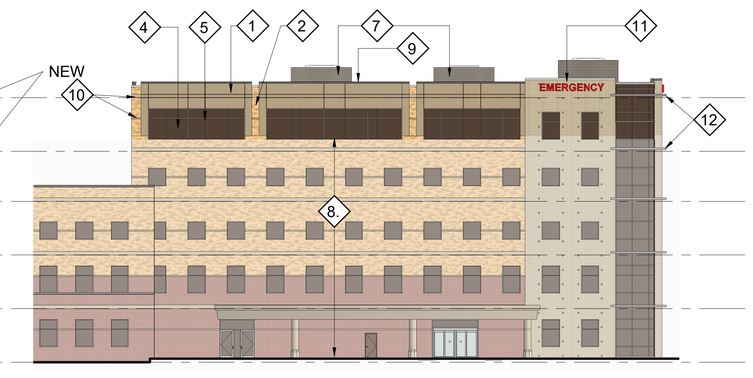
3 A3 EAST ELEVATION
SCALE: 1" = 20'-0"

0' 10' 20' 40'



2 A3 SOUTH ELEVATION
SCALE: 1" = 20'-0"

0' 10' 20' 40'



4 A3 WEST ELEVATION
SCALE: 1" = 20'-0"

0' 10' 20' 40'

212 MEDICAL CENTER

Wall Area	Total Area	Glass	Glass %	Brick	Brick %	Metal MCM	Metal MCM %	HM Doors	HM Doors %	OH Doors	OH Door %	Total
North - Existing	22,131	7,347	33.2%	13,669	61.8%	1,088	4.9%	27	0.1%	0	0.0%	100.0%
South - Existing	21,000	4,043	19.3%	16,042	76.4%	239	1.1%	60	0.3%	616	2.9%	100.0%
East - Existing	19,210	4,858	25.3%	13,341	69.4%	1,011	5.3%	0	0.0%	-	0.0%	100.0%
West - Existing	19,434	4,430	22.8%	14,473	74.5%	507	2.6%	24	0.1%	-	0.0%	100.0%
North - New 5th Level	5,850	2,034	34.8%	1,802	30.8%	2,014	34.4%	0	0.0%	0	0.0%	100.0%
South - New 5th Level	6,024	2,236	37.1%	1,688	28.0%	2,100	34.9%	0	0.0%	0	0.0%	100.0%
East - New 5th Level	2,843	699	24.6%	1,522	53.5%	622	21.9%	0	0.0%	-	0.0%	100.0%
West - New Fifth Level	2,740	1,076	39.3%	819	29.9%	845	30.8%	0	0.0%	-	0.0%	100.0%
Total Area	**99,232**	**26,723**	**26.9%**	**63,356**	**63.8%**	**8,426**	**8.5%**	**111**	**0.1%**	**616**	**0.6%**	**100.0%**

EXTERIOR MATERIAL KEYNOTES

1	PRE-FINISHED ARCHITECTURAL METAL WALL PANEL
2	BRICK COLOR #1 (CHASKA BRICK)
3	BRICK COLOR #2 (GRAY BRICK)
4	REFLECTIVE LOW E GLASS
5	ANODIZED ALUMINUM WINDOW FRAMES
6	ANODIZED ALUMINUM BAND MULL COVER
7	MECHANICAL RTU SCREEN - HORIZONTAL RIBBED
8	EXISTING CONSTRUCTION
9	PRE-FINISHED METAL COPING
10	BRICK COLOR #2 ACCENT BANDS (GRAY BRICK)
11	EXISTING SIGN RELOCATED
12	ALUMINUM SUNSCREEN

I hereby certified that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota

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Date Date Reg. No. 16362
Project Manager
DLA
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Client
two twelve MEDICAL CENTER

Project
Two Twelve Medical Center Expansion

Location
111 Hundertmark Rd
Chaska, MN 55318

Issued For	*Date*
SITE PLAN REVIEW	12-07-2021

Sheet Title
EXTERIOR ELEVATIONS

Project Number 21.040
Sheet Number A3

NORTHEAST PERSPECTIVE

SOUTHEAST PERSPECTIVE

VIEW FROM HIGHWAY 41 & 212 BRIDGE

VIEW FROM HUNDERTMARK ROAD AND HIGHWAY 41 INTERSECTION

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Project Manager

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Issued For	*Date*
SITE PLAN REVIEW	12-07-2021

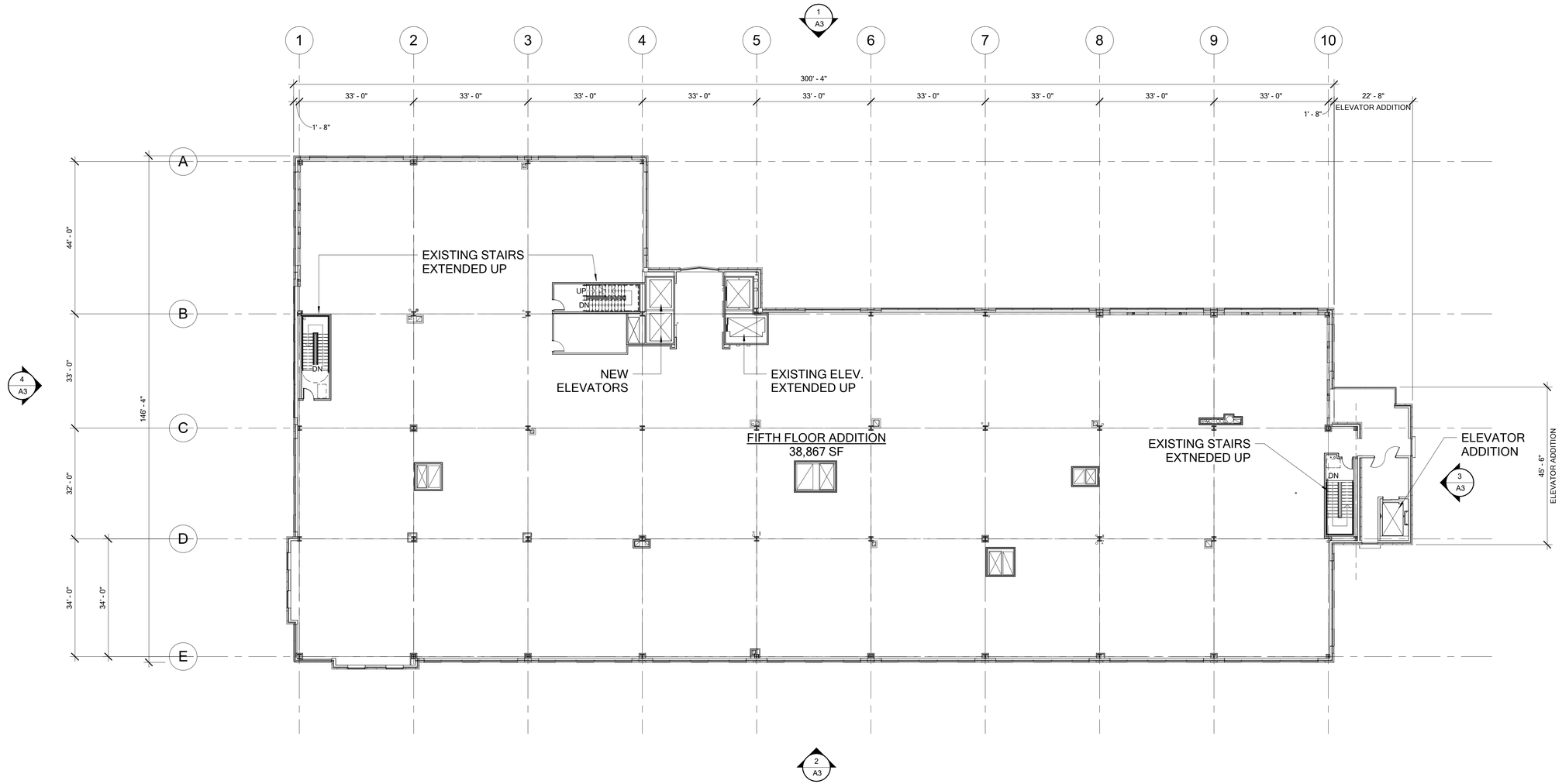
Sheet Title

RENDERINGS

Project Number 21.040

Sheet Number A4

12/7/2021 10:45:03 AM



1 FIFTH LEVEL SPR
A5 SCALE: 1/16" = 1'-0"

0' 8' 16' 32'

N

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Issued For	*Date*
SITE PLAN REVIEW	12-07-2021

Sheet Title

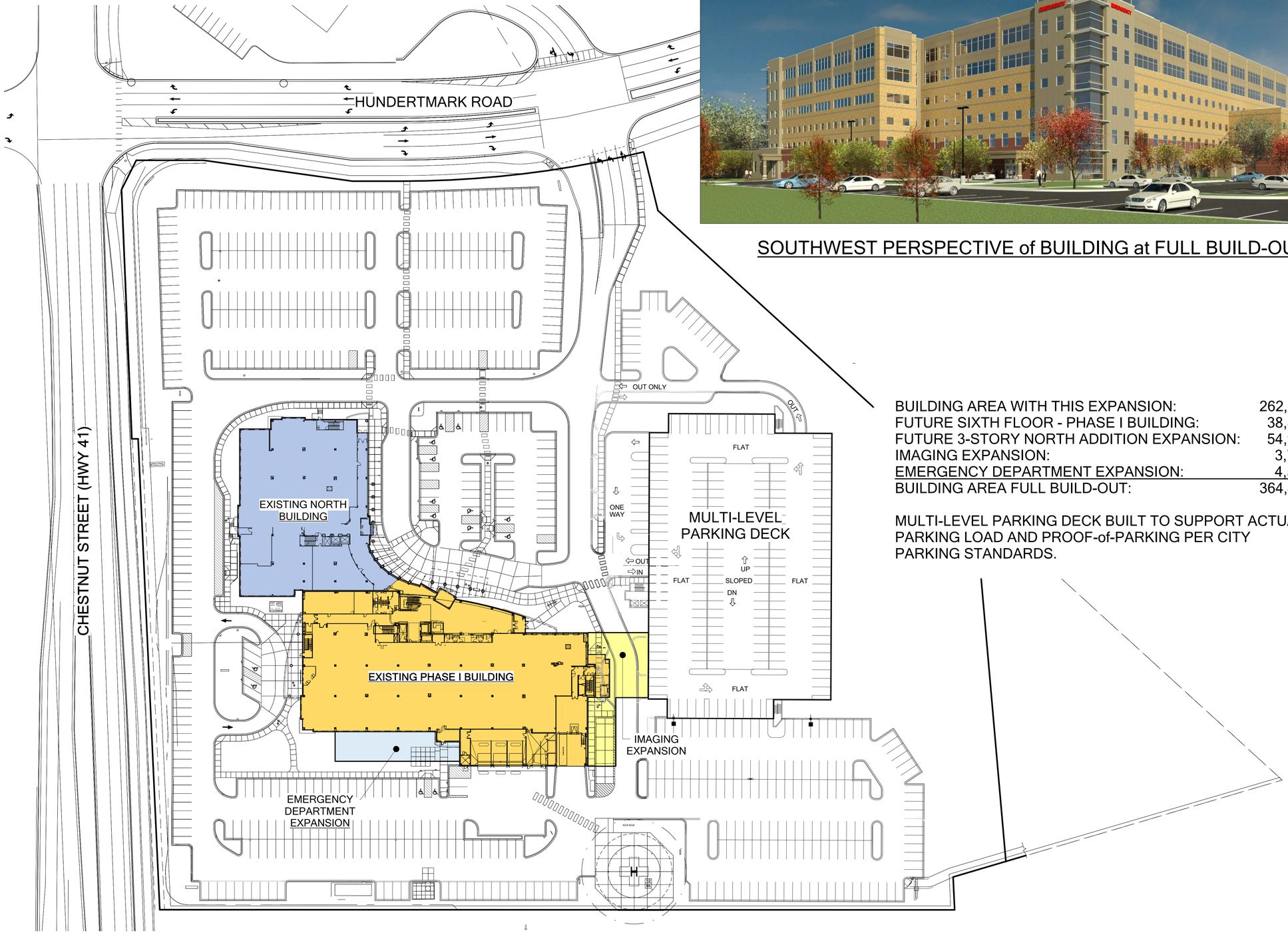
FLOOR PLAN

Project Number 21.040

Sheet Number A5

12/7/2021 10:45:04 AM

SOUTHWEST PERSPECTIVE of BUILDING at FULL BUILD-OUT



BUILDING AREA WITH THIS EXPANSION:	262,393 sf
FUTURE SIXTH FLOOR - PHASE I BUILDING:	38,867 sf
FUTURE 3-STORY NORTH ADDITION EXPANSION:	54,962 sf
IMAGING EXPANSION:	3,750 sf
EMERGENCY DEPARTMENT EXPANSION:	4,500 sf
BUILDING AREA FULL BUILD-OUT:	364,473 sf

MULTI-LEVEL PARKING DECK BUILT TO SUPPORT ACTUAL PARKING LOAD AND PROOF-of-PARKING PER CITY PARKING STANDARDS.

1 A6 MASTER PLAN - FULL BUILD-OUT
SCALE: 1" = 50'-0"

0' 25' 50' 100'

N

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Client
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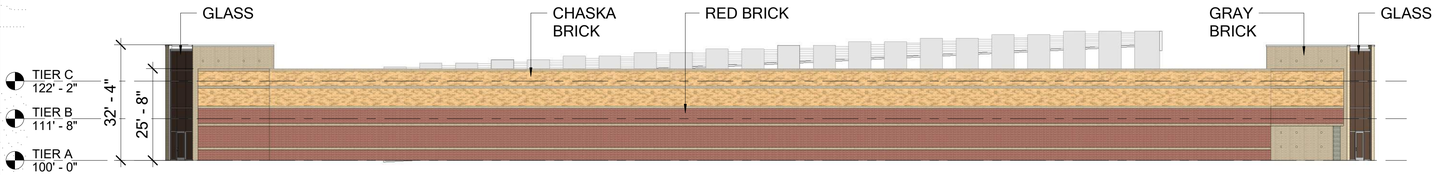
Location
111 Hundertmark Rd
Chaska, MN 55318

Issued For	*Date*
SITE PLAN REVIEW	12-07-2021

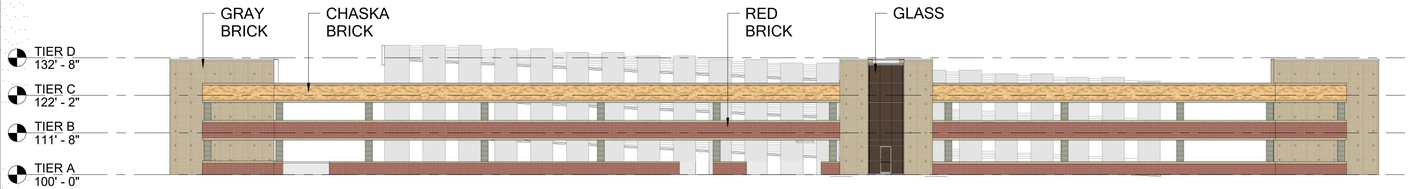
Sheet Title
MASTER PLAN FULL BUILD-OUT

Project Number 21.040
Sheet Number A6

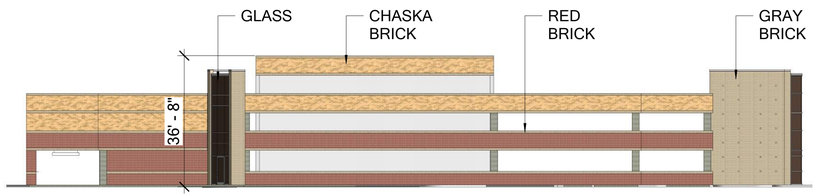
12/7/2021 10:45:05 AM



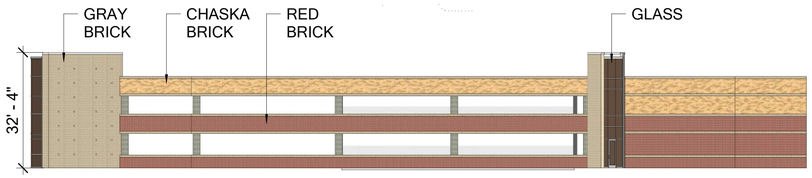
1 A7 PARKING DECK EAST
SCALE: 1" = 20'-0"



3 A7 PARKING DECK WEST
SCALE: 1" = 20'-0"



2 A7 PARKING DECK NORTH
SCALE: 1" = 20'-0"



4 A7 PARKING DECK SOUTH
SCALE: 1" = 20'-0"

PROOF-of-PARKING TABULATION
FULL BUILD-OUT

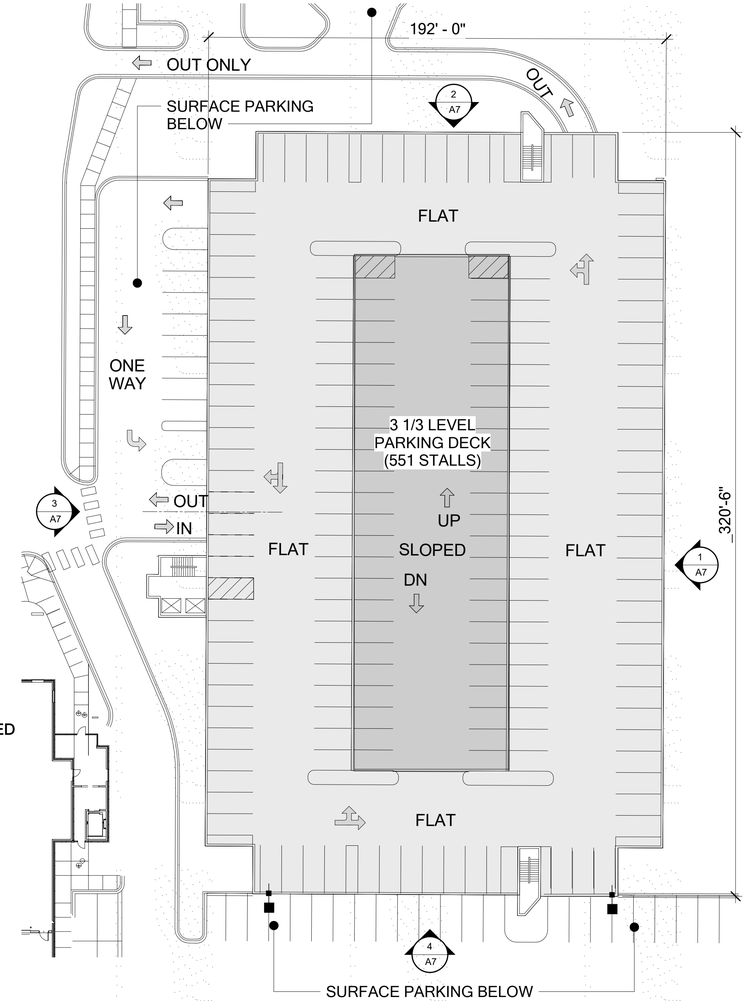
BUILDING AREA W/ THIS EXPANSION *(SEE BREAKDOWN ON SHEET A2)*	262,393 sf	763 STALLS

PARKING TABULATION FOR FUTURE BUILD-OUT

6TH FLOOR TTMC (MOB)	38,867 sf	
4TH, 5TH & 6TH FLOORS NA (MOB)	54,962 sf	
MEDICAL OFFICE BLDG (MOB) TOTAL	93,829 sf	375 STALLS (4/1000)
IMAGING EXPANSION (4/1000)	3,750 sf	15 STALLS
EMERGENCY DEPARTMENT (3/1000)	4,500 sf	14 STALLS
TOTAL FUTURE BUILD-OUT	**364,472 sf**	**1,167 STALLS REQUIRED**

PARKING DECK PARKING CALCULATION

TIER A (ON GRADE)	143 STALLS
TIER B	181 STALLS
TIER C	181 STALLS
1/3 TIER	46 STALLS
TOTAL PARKING DECK	**551 STALLS**
NET SURFACE PARKING NOT INCLUDING TIER A	620 STALLS
TOTAL PROOF-of-PARKING	**1,171 STALLS**



5 A7 PARKING DECK PLAN
SCALE: 1" = 30'-0"

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Client
two twelve MEDICAL CENTER

Project
Two Twelve Medical Center Expansion

Location
111 Hundertmark Rd
Chaska, MN 55318

Issued For	*Date*
SITE PLAN REVIEW	12-07-2021
SPR REVISED	01/29/2022

Sheet Title
PROOF-of-PARKING
PARKING DECK

Project Number 21.040
Sheet Number A7

BOLTON & MENK
Real People. Real Solutions.

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MEMORANDUM

Date: 3/16/2022

To: Matt Clark, PE

From: Ross Tillman, PE

Aaron Cook, PE

Subject: Two Twelve Medical Center and Hundertmark Road Traffic Study – Chaska, MN
Project No.: 0T4.126610

This traffic impact study was prepared to document analyses that were performed to understand existing traffic congestion along Hundertmark Road, and potential traffic impacts associated with the proposed Two Twelve Medical Center addition.

Existing Conditions

Existing roadway and traffic conditions in the study area were used to assess existing congestion and as basis for comparison to conditions that can be expected with the addition of the Two Twelve Medical Center.

Existing Roadway Configuration

- TH 41
  - Four-lane, median divided section
  - Minor arterial
- Hundertmark Road
  - Three-lane section
  - Major collector
- Intersection of TH 41 & Hundertmark Road
  - Signalized full movement intersection
  - Reconfigured in 2018 with the widening of TH 41
- Intersection of Hundertmark Road & Two Twelve Medical Center Driveway
  - Signalized full movement intersection, with left and right turn lanes for the eastbound and westbound approaches.

The signal timing for the TH 41 intersection was provided by MnDOT, and the timing for the Medical Center signal was obtained from the field. The existing timing information can be found in **Appendix A**.

Data Collection

48-hour turning movement counts were completed on February 1st and 2nd, 2022 at the following intersections:

- TH 41 & Hundertmark Road
- Hundertmark Road & Two Twelve Medical Center Driveway
- Hundertmark Road & Manuela Drive / Christian Drive
- Hundertmark Road & Purple Brick Road

Video Observation

Bolton & Menk reviewed the 48-hour video collected for the turning movement counts to understand peak times of congestion, queues, and split failures at the study intersections.

- TH 41 & Hundertmark Road
  - The TH 41 approaches are prioritized in the signal timing of the intersection.
  - The northbound and westbound left turn movements are heaviest turning movements during the PM peak hour and both signal phases lag, meaning the movement receives a green indication after the opposing through movement.
  - The westbound left queue has potential to reach the adjacent Medical Center signal, especially after Chaska High School dismisses; however, this was not experienced during the data collection period.
  - All vehicles are typically served during one signal cycle.
- Hundertmark Road & Two Twelve Medical Center Driveway
  - All vehicles are served during one signal cycle.
  - The northbound dual left turn lanes are not well utilized. Vehicles typically queue in the inside left turn lane to westbound dual left turn lanes at the TH 41 signal.

Origin-Destination Analysis

Utilizing the StreetLight Insight probe data platform, Bolton & Menk was able to estimate the amount of traffic on Hundertmark Road that could be considered "cut through" traffic, or traffic that does not originate or have a destination along Hundertmark. StreetLight is a data aggregation tool that collects GPS and location information from cell phones and other GPS devices.

The analysis found that approximately 1,500 vehicles per day travel along Hundertmark Road between TH 41 and Pioneer Trail that do not originate or terminate a trip on Hundertmark. Refer to **Appendix B** for the detailed StreetLight analysis.

Comparison to TH 41 Expansion Study

2022 traffic volumes at the intersection of TH 41 and Hundertmark Road are generally the same, if not lower than the volume projections completed during planning work for the TH 41 expansion project. A comparison of the volumes can be found in Figure 1.

Existing signal timings were compared to the signal timings assumed in the TH 41 expansion planning project. The Hundertmark Road approaches are receiving similar green times as what were assumed during the planning of the TH 41 expansion. The planning project, completed in 2016, assumed the Hundertmark approaches would receive more green time than what they were receiving before the TH 41 expansion. Also, since the westbound left turn lane lags, it has potential to receive unused green time from other phases than what is currently programmed.

Figure 1 – Traffic Volumes Comparison

	SBR	SBT	SBL	App. Total
2018*	50	575	30	655
2022	55	429	31	515

North

2018*	2022		
130	100	EBL	
230	182	EBT	
410	340	EBR	
770	622	App. Total	

TH 41 & Hundertmark Road Movements
AM Peak Hour

	2018*	2022
WBR	20	15
WBT	80	81
WBL	155	133
App. Total	255	229

	NBL	NBT	NBR	App. Total
2018*	165	805	380	1350
2022	136	644	377	1157

NB/SB: TH 41
EB/WB: Hundertmark

*2018 volumes from the TH 41 Reconstruction Traffic Anlysis Report

	SBR	SBT	SBL	App. Total
2018*	80	750	32	862
2022	118	748	20	886

North

2018*	2022		
78	84	EBL	
130	113	EBT	
223	257	EBR	
431	454	App. Total	

TH 41 & Hundertmark Road Movements
PM Peak Hour

	2018*	2022
WBR	73	40
WBT	230	167
WBL	287	311
App. Total	590	518

	NBL	NBT	NBR	App. Total
2018*	389	788	362	1539
2022	332	765	277	1374

NB/SB: TH 41
EB/WB: Hundertmark

*2018 volumes from the TH 41 Reconstruction Traffic Anlysis Report

Existing Traffic Operations

AM and PM peak hour traffic operations at study intersections were evaluated under existing conditions. This analysis was performed using the intersection level of service methodology from Highway Capacity Manual (6th Edition).

Intersection level of service is a letter grade between "A" and "F" that is used to describe the quality of traffic flow at an intersection. LOS "A" indicates near free-flow traffic conditions with little delay and LOS "F" indicates a breakdown of traffic flow with major delays. This analysis will consider operations at LOS "E" or worse deficient, in accordance with typical design standards for the area.

Existing Analysis results that guide the discussion below are summarized in **Table 1** and the Synchro reports are provided in **Appendix C**.

Traffic Operations – Existing Conditions

- TH 41 & Hundertmark Road – The intersection operates at LOS C during the AM peak hour and LOS D during the PM peak hour. All movements operate at an acceptable LOS D or better during the AM peak hour. The westbound approach experiences the longest delays of any approach and operates at LOS E during the PM peak hour. These results align with the results and recommendations from the TH 41 expansion study.
- Hundertmark Road & Two Twelve Medical Center Driveway – The Hundertmark Road approaches operate at LOS B or better during both peak hours. The northbound approach, exiting the Medical Center, operates at LOS C during both peak hours.
- Hundertmark Road & Manuela Drive / Christian Drive – The main street left turn movements operate at LOS "A" during both peak hours and the stop-controlled approaches operate at LOS "B" during both peak hours.
- Hundertmark Road & Purple Brick Drive – The main street left turn movement operates at LOS "A" during both peak hours and the stop-controlled approach operates at LOS "B" during both peak hours. While the reported delay is an average during the peak hour, it is possible the westbound approach experience heavier delays during the peak 15 minutes of school dismissal.

Potential Mitigation Options

While the study intersections currently operate at levels of service that are typically deemed acceptable, there are several improvements that may be considered that would improve operations and driver experience along Hundertmark Road and reduce the risk of westbound queue spillback from TH 41 to the Medical Center signal. The improvements were included in the *2022 Existing Improved* analysis scenario and include the following:

- TH 41 & Hundertmark Road
  - Coordinate with MnDOT to modify signal timing to further increase green time for the westbound left turn movement. If green time is added to the westbound approach, delay will increase for the remaining intersection approaches; however, the delay could be decreased by more than 10% for the westbound approach while maintaining existing level of service for the main street approached during the PM peak hour.
- Hundertmark Road & Two Twelve Medical Center Driveway
  - Modify the median on the western leg of the intersection to increase storage for the westbound dual lefts at the TH 41 intersection. This will provide an additional 90 feet of stacking to ensure the queues do not spill back into the intersection.
  - Restripe the westbound right turn lane to become a thru-right lane. This will allow vehicles wanting to the right onto TH 41 to by-pass vehicles potentially queued back to

this intersection and turning left onto TH 41. An exhibit of these improvements is provided in Figure 2.

- Bolton & Menk reviewed the current signal timing at this intersection and evaluated it for improvements. All phases of the intersection are currently receiving adequate green time and all vehicular demand is served in a single cycle; therefore, no signal timing changes are recommended.
- Bolton & Menk analyzed an additional scenario to determine the benefit of coordinating this signal with the TH 41 signal system. This would improve progression along Hundertmark but would increase delay on the side street approached due to the required minimum cycle length. Due to the off-setting effects on traffic operations, this was not recommended.

- Hundertmark & Manuela Drive / Christian Drive & Hundertmark & Purple Brick Road
  - Restripe the stop-controlled approaches at the unsignalized intersections to include a thru-left lane and an exclusive right turn lane. Providing the dedicated right turn lane will reduce the probability of right turning vehicles having to wait to turn onto Hundertmark Road. Exhibits of these improvements is provided in Figures 3 and 4.

Figure 2 – Hundertmark Road & Two Twelve Medical Center Improvements

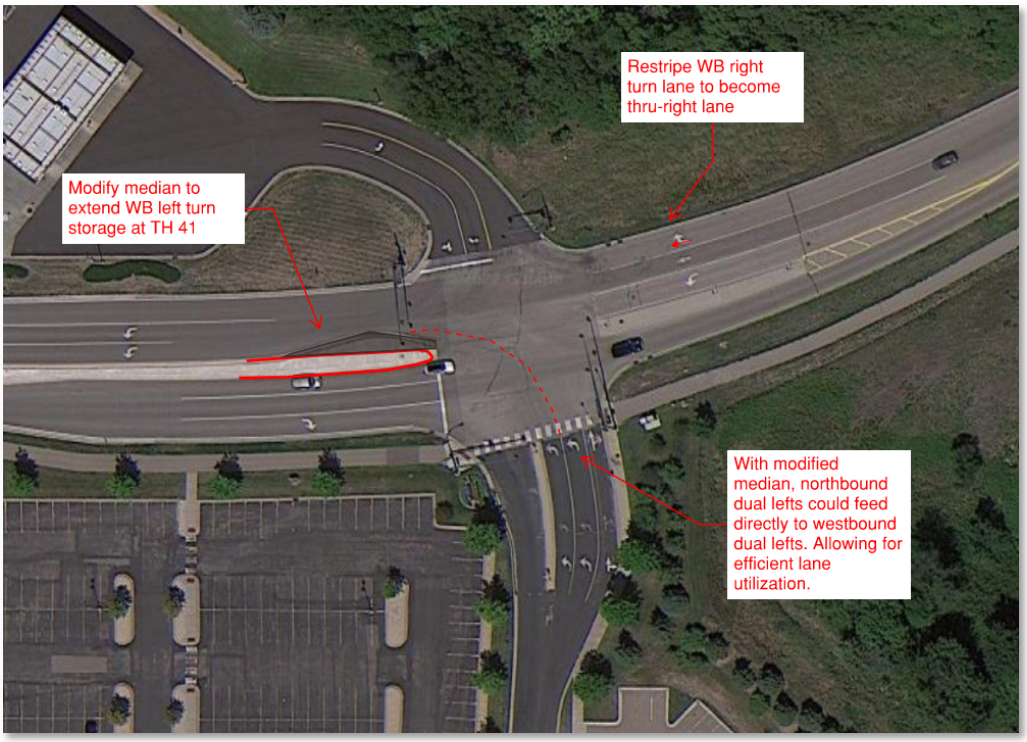


Figure 3 – Hundertmark Road & Manuela Drive Improvements

Figure 4 – Hundertmark Road & Manuela Drive Improvements

Table 1 – Existing Conditions Traffic Operations

		2022 Existing				2022 Existing Improved			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection	**Approach**	**Approach (Delay - LOS)**	**Intersection (Delay - LOS)**	**Approach (Delay - LOS)**	**Approach (Delay - LOS)**	**Approach (Delay - LOS)**	**Intersection (Delay - LOS)**	**Approach (Delay - LOS)**	**Approach (Delay - LOS)**
TH 41 & Hundertmark Road	EB	38.3 – D	26.4 - C	44.2 – D	40.2 - D	38.3 – D	26.4 - C	41.9 – D	39.8 - D
	WB	51.3 - D		79.1 – E		51.3 - D		70.3 – E	
	NB	16.7 - B		24.1 – C		16.7 - B		29.4 – C	
	SB	22.8 - C		40.2 - D		22.8 - C		36.9 - D	
Hundertmark Road & Two Twelve Medical Center	EB	9.5 – A	11.2 - B	13.8 – B	16.8 - B	9.5 – A	11.2 - B	13.8 – B	16.1 - B
	WB	12.8 – B		17.6 – B		12.8 – B		16.0 – B	
	NB	20.9 – C		24.2 – C		20.9 – C		23.3 – C	
	SB	18.0 - B		14.4 - B		18.0 - B		13.9 - B	
Hundertmark Road & Manuela Drive	EB[1]	10.6 – B	-	13.9 – B	-	10.6 – B	-	13.6 – B	-
	WB[1]	12.6 – B		11.8 – B		12.6 – B		11.4 – B	
	NB[2]	7.6 – A		8.0 – A		7.6 – A		8.0 – A	
	SB[2]	8.2 – A		8.0 – A		8.2 – A		8.0 – A	
Hundertmark Road & Purple Brick Drive	WB[1]	12.1 – B	-	13.0 – B	-	12.1 - B	-	13.0 – B	-
	NB	-		-		-		-	
	SB[2]	8.3 - A		7.9 - A		8.3 - A		7.9 - A	

1 – Indicates stop-controlled approach
2 – Indicates main street left turn movement

Two Twelve Medical Center Impact Analysis

The Two Twelve Medical Center is located on the northeast corner of the intersection of TH 41 and Hundertmark Road. The existing site is 223,400 square feet. Access to the site is provided via a full movement signal on Hundertmark Road. Bolton & Menk conducted a traffic impact study to determine what effect the additional traffic from the planned additions will have on the surrounding transportation network.

Hospital Addition (Build Phase 1)

The currently proposed addition will consist of 39,000 square feet. Along with the addition, the existing uses inside the medical center will consolidate, and a hospital use consisting of 52,190 square feet will be introduced.

For the purposes of traffic analysis, it is assumed the 39,000 square foot addition is completed in 2023. The development concept plan is provided in **Appendix D**.

Full Buildout

The full buildout of the site is expected to consist of an additional 141,100 square feet and is assumed to be completed by 2033.

Study Intersections

Traffic impacts from development-related traffic were evaluated at the following intersections:

- TH 41 & Hundertmark Road
  - Signalized intersection
- Hundertmark Road & Two Twelve Medical Center Driveway
  - Signalized intersection
- Hundertmark Road & Manuela Drive / Christian Drive
  - Unsignalized intersection
- Hundertmark Road & Purple Brick Road
  - Unsignalized intersection

Projected Traffic Volumes

Using traffic forecast information from the Chaska 2040 Comprehensive Plan, a background annual growth of .5% was calculated to project the existing peak hour traffic volumes the build years 2023 and 2033. Volume forecasts from the Comprehensive Plan can be found in **Table 2**.

Table 2 – Projections From Chaska 2040 Comprehensive Plan

Roadway Segment	Year	
	2018	2040
Hundertmark E of TH 41	8,300	9,000
Hundertmark W of TH 41	9,100	9,900
TH 41 S of Hundertmark	21,100	22,000
TH 41 N of Hundertmark	18,200	21,000

Traffic Generated by Development

Hospital Addition

The amount of traffic generated by the proposed 39,000 addition was estimated using data in the Institute of Transportation Engineers' *Trip Generation, 11th Edition*. *Trip Generation* is an industry standard for estimating traffic growth as part of new developments. The following traffic volumes are expected to be added to the surrounding roadway network on a typical weekday:

- 43 trips in the AM peak hour
- 45 trips in the PM peak hour
- Approximately 562 trips over an entire day

Full Buildout

The exact uses of the full buildout of the medical center have yet to be determined; therefore, it was assumed the proposed additional square footage would generate traffic proportionally to the existing site. The following traffic volumes are expected to be added to the surrounding roadway network on a typical weekday:

- 173 trips in the AM peak hour
- 127 trips in the PM peak hour
- Approximately 1,542 trips over an entire day

It is important to note, the peak hours for traffic currently entering and exiting the site differ from the peak hours of traffic volumes along TH 41 and Hundertmark Road. For example, the AM peak hour for traffic currently entering the site is from 8:00-9:00 AM and the AM peak hour for traffic along TH 41 is 7:00-8:00 AM. To analyze the worse case scenario, it was assumed the newly generated trips would occur during the peak hour of the adjacent roadways.

Detailed trip generation information is shown in **Table 3 and 4**.

Table 3 – Hospital Addition Trip Generation

Land Use (ITE Code)	Density	Daily	AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
Hospital (610)	52 KSF	562	29	14	43	16	29	45

Table 4 – Full Build Trip Generation (New Trips)

Land Use (ITE Code)	Density	Daily	AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
212 Medical Center	141.1 KSF	1542	124	49	173	27	100	127

Distribution of Site-Generation Traffic

The origins and destinations of traffic generated by the proposed development were estimated based on prevailing traffic patterns and engineering judgement. The following assumptions were made:

- Existing daily traffic volumes and engineering judgement were used to proportionally split site-generated traffic across the origin/destination locations:
  - 15 percent of traffic will travel to or from the east on Hundertmark Road.
  - 5 percent of traffic will travel to or from the west on Hundertmark Road.
  - 30 percent of traffic will travel to or from the north on TH 41.
  - 50 percent of traffic will travel to or from south on TH 41.

Traffic Operations Analysis

AM and PM peak hour traffic operations at study intersections were evaluated with and without the inclusion of site-generated traffic from the new development. This analysis was performed using the intersection level of service methodology from Highway Capacity Manual (6th Edition).

Intersection level of service is a letter grade between "A" and "F" that is used to describe the quality of traffic flow at an intersection. LOS "A" indicates near free-flow traffic conditions with little delay and LOS "F" indicates a breakdown of traffic flow with major delays. This analysis will consider operations at LOS "E" or worse deficient, in accordance with typical design standards for the area.

The following scenarios were included in the analysis:

- 2023 No-Build
- 2023 Phase 1 Build (39,000 SF)
- 2033 No-Build
- 2033 Full Build

Analysis results that guide the discussion below are summarized in **Table 6** (2023 analysis results) and **Table 7** (2033 analysis results). More detailed analysis results are provided in **Appendix E.**

Traffic Operations Without Development

Traffic operations analysis without the new development (Existing and No-Build) evaluated the four existing intersections with existing intersection geometry. Due to the relatively low amount of background growth, the Existing 2022 scenario, No-Build 2023, and No-Build 2033 scenario shared similar results.

Traffic Operations 2023

- TH 41 & Hundertmark Road – The intersection is expected to operate at LOS C during the AM peak hour and LOS D during the PM peak hour for both the No-Build and Build scenarios. All movements are expected to operate at an acceptable LOS D or better during the AM peak hour. The westbound approach degrades from a LOS E to LOS F with the addition of site traffic; however, the approach delay only increases by less than 2 seconds.
- Hundertmark Road & Two Twelve Medical Center Driveway – The Hundertmark Road approaches are expected to operate at LOS B or better during both peak hours. The northbound approach, exiting the Medical Center, is expected to operate at LOS C during both peak hours.

- Hundertmark Road & Manuela Drive / Christian Drive – The main street left turn movements are expected to operate at LOS "A" during both peak hours and the stop-controlled approaches are expected to operate at LOS "B" during both peak hours.
- Hundertmark Road & Purple Brick Drive – The main street left turn movement is expected to operate at LOS "A" during both peak hours and the stop-controlled approach is expected to operate at LOS "B" during both peak hours. While the reported delay is an average during the peak hour, it is possible the westbound approach experience heavier delays during the peak 15 minutes of school dismissal.

Overall, the addition of site traffic for the first phase in 2023 is expected to have minimal impact on the surrounding transportation network.

Traffic Operations 2033

- TH 41 & Hundertmark Road – The intersection is expected to operate at LOS C during the AM peak hour and LOS D during the PM peak hour for both the No-Build and Build scenarios. The westbound approach is expected to operate at LOS F during the PM peak hour in 2033. With the addition of site traffic, the westbound approach delay is expected to increase by 5.5 seconds during the PM peak hour
- Hundertmark Road & Two Twelve Medical Center Driveway – The Hundertmark Road approaches are expected to operate at LOS B or better during both peak hours in 2033 No-Build scenario and the northbound approach, exiting the Medical Center, is expected to operate at LOS C during both peak hours. With the addition of site traffic, the westbound approach is expected to degrade from LOS B to LOS C during the PM peak hour and the approach delay is expected to increase by 2.3 seconds.
- Hundertmark Road & Manuela Drive / Christian Drive – The main street left turn movements are expected to operate at LOS "A" during both peak hours and the stop-controlled approaches are expected to operate at LOS "B" during both peak hours.
- Hundertmark Road & Purple Brick Drive – The main street left turn movement is expected to operate at LOS "A" during both peak hours and the stop-controlled approach is expected to operate at LOS "B" during both peak hours. While the reported delay is an average during the peak hour, it is possible the westbound approach experience heavier delays during the peak 15 minutes of school dismissal.

Overall, the addition of site traffic for the full buildout in 2033 is expected to have minimal impact on the surrounding transportation network.

Table 5 – Analysis Summary of 2023 Traffic Operations

		2023 No-Build				2023 Build Phase 1			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection	**Approach**	**Approach (Delay - LOS)**	**Intersection (Delay - LOS)**	**Approach (Delay - LOS)**	**Approach (Delay - LOS)**	**Approach (Delay - LOS)**	**Intersection (Delay - LOS)**	**Approach (Delay - LOS)**	**Approach (Delay - LOS)**
TH 41 & Hundertmark Road	EB	38.3 – D	26.4 - C	44.2 – D	40.2 - D	38.6 – D	26.8 - C	44.4 – D	41.0 - D
	WB	51.3 - D		79.1 – E		51.6 - D		80.9 – F	
	NB	16.7 - B		24.1 – C		16.8 - B		24.2 – C	
	SB	22.8 - C		40.2 - D		23.4 - C		40.8 - D	
Hundertmark Road & Two Twelve Medical Center	EB	9.5 – A	11.2 - B	13.8 – B	16.8 - B	10.3 – B	12.3 - B	13.9 – B	17.1 - B
	WB	12.8 – B		17.6 – B		14.3 – B		17.8 – B	
	NB	20.9 – C		24.2 – C		21.9 – C		24.2 – C	
	SB	18.0 - B		14.4 - B		18.7 - B		14.5 - B	
Hundertmark Road & Manuela Drive	EB[1]	10.6 – B	-	13.9 – B	-	10.7 – B	-	14.0 – B	-
	WB[1]	12.6 – B		11.8 – B		12.7 – B		11.9 – B	
	NB[2]	7.6 – A		8.0 – A		7.6 – A		8.0 – A	
	SB[2]	8.2 – A		8.0 – A		8.2 - A		8.0 – A	
Hundertmark Road & Purple Brick Road	WB[1]	12.1 – B	-	13.0 – B	-	12.1 - B	-	13.1 – B	-
	NB	-		-		-		-	
	SB[2]	8.3 - A		7.9 - A		8.3 - A		7.9 - A	

1 – Indicates stop-controlled approach
2 – Indicates main street left turn movement

Table 6 – Analysis Summary of 2033 Traffic Operations

		2033 No-Build				2033 Full Build			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection	**Approach**	**Approach (Delay - LOS)**	**Intersection (Delay - LOS)**	**Approach (Delay - LOS)**	**Approach (Delay - LOS)**	**Approach (Delay - LOS)**	**Intersection (Delay - LOS)**	**Approach (Delay - LOS)**	**Approach (Delay - LOS)**
TH 41 & Hundertmark Road	EB	39.6 – D	27.0 - C	44.8 – D	41.4 - D	40.7 – D	28.4 - C	44.9 – D	43.7 - D
	WB	51.8 - D		81.4 – F		52.1 - D		86.9 – F	
	NB	17.1 - B		24.9 – C		18.0 - B		25.2 – C	
	SB	23.1 - C		41.7 - D		25.7 - C		43.0 - D	
Hundertmark Road & Two Twelve Medical Center	EB	9.4 – A	11.5 - B	14.0 – B	17.1 - B	10.7 – B	13.3 - B	15.2 – B	18.9 - B
	WB	13.7 – B		17.9 – B		15.9 – B		20.2 – C	
	NB	22.0 – C		24.5 – C		23.5 – C		24.4 – C	
	SB	18.5 - B		14.7 - B		19.8 - B		15.3 - B	
Hundertmark Road & Manuela Drive	EB[1]	10.8 – B	-	14.4 – B	-	11.0 – B	-	14.7 – B	-
	WB[1]	13.0 – B		12.0 – B		13.3 – B		12.2 – B	
	NB[2]	7.6 – A		8.1 – A		7.7 – A		8.1 – A	
	SB[2]	8.2 – A		8.0 – A		8.2 - A		8.0 – A	
Hundertmark Road & Purple Brick Road	WB[1]	12.5 – B	-	13.5 – B	-	12.7 - B	-	13.7 – B	-
	NB	-		-		-		-	
	SB[2]	8.3 - A		8.0 - A		8.4 - A		8.0 - A	

1 – Indicates stop-controlled approach
2 – Indicates main street left turn movement

Conclusion

Existing Conditions

- Generally limited operational concerns overall, however westbound left turn from Hundertmark onto TH 41 can queue back to 212 Medical Center signal

Two Twelve Medical Center Expansion

- The future Build scenarios were analyzed using the existing intersection geometry and signal timing.
- Neither the currently proposed 39,000 expansion or the full buildout of the medical center is expected to severely impact the transportation network. The signalized intersections have additional capacity during periods of the day when medical center traffic is the highest.
- The traffic growth potential has been accounted for in the Chaska 2040 Comprehensive Plan and the TH 41 Expansion Study.

Recommendations

Based on the existing operational issues potential on the east leg of the TH 41 intersection, the following elements are recommended to be implemented:

1. Modify the median on the western leg of the intersection of Hundertmark Road and the Medical Center driveway to increase storage for the westbound dual lefts at the TH 41 intersection. This will provide an additional 90 feet of stacking and create three westbound receiving lanes.
2. Restripe the westbound right turn lane to become a thru-right lane at the intersection of Hundertmark Road and the Medical Center driveway. This will allow vehicles wanting to turn right onto TH 41 to by-pass vehicles potentially queued back to this intersection and turning left onto TH 41. An exhibit of these improvements is provided in Figure 2.
3. Restripe the stop-controlled approaches at the unsignalized intersections along Hundertmark to include a thru-left lane and an exclusive right turn lane. Providing the dedicated right turn lane will reduce the probability of right turning vehicles having to wait to turn onto Hundertmark Road.
4. Coordinate with the MnDOT Metro District Traffic Engineering Signal Operations team to allot additional green time for the westbound approach at the intersection of TH 41 and Hundertmark Road.

Appendix A

Signal Timing Information

TOD and Local Controller Timebase Schedule

		TH 41					CR 61				
		Hazeltine to 2nd Street					CR 61 at Walnut				
Type	Operation	Timebase Start Time	COVID	Action Plan	Coord Pattern	Cycle Length (s)	Timebase Start Time	COVID	Action Plan	Coord Pattern	Cycle Length (s)
Weekday (Prog 1)	TOD	12:00 AM	1/51/55	1	254	0	12:00 AM	1	1	254	0
		6:00 AM	4	4	4	90	6:00 AM	1	1	254	0
		6:30 AM	2	2	2	114	6:30 AM	1	2	2	57
		7:00 AM	2	3	3	150	7:00 AM	2	3	3	75
		8:10 AM	2	2	2	114	8:10 AM	1	2	2	57
		8:45 AM	4	2	2	114	8:45 AM	1	2	2	57
		9:45 AM	4	4	4	90	9:45 AM	1	1	254	0
		11:15 AM	5	5	5	110	11:15 AM	1	5	5	55
		2:30 PM	6	6	6	130	2:30 PM	6	6	6	65
		3:45 PM	7	7	7	150	3:45 PM	6	7	7	75
		6:00 PM	6	6	6	130	6:00 PM	5	6	6	65
		6:30 PM	5	5	5	110	6:30 PM	1	5	5	55
		7:00 PM	8	8	8	90	7:00 PM	1	1	254	0
		9:30 PM	1/51/55	1	254	0	9:30 PM	1	1	254	0
Saturday/Sunday (Prog 2)	TOD	12:00 AM	1/51/55	1	254	0	12:00 AM	1	1	254	0
		8:00 AM	4	4	4	90	8:00 AM	1	1	254	0
		10:00 AM	5	5	5	110	10:00 AM	1	5	5	55
		6:00 PM	4	4	4	90	6:00 PM	1	1	254	0
		7:30 PM	8	8	8	90	7:30 PM	1	1	254	0
		9:30 PM	1/51/55	1	254	0	9:30 PM	1	1	254	0

AP 51: Free Mode Operation at Pioneer Dr (Prot/Perm Left Turns)

Signal Timing Data

City / County: Chaska

Intersection: Hundertmark Rd at Medical Center driveway

	Phase							
	1	2	3	4	5	6	7	8
Direction	EBL	WB		SB	WBL	EB		NB
Min. Green	7.0	20.0		~~10.0~~	7.0	20.0		10.0
Walk		7.0		7.0				
Ped Clear		22.0						
Veh. Ext.	3.0	4.0		3.0	3.0	4.0		3.0
Max 1	15.0	45.0		20.0	15.0	45.0		20.0
Max 2		65.0				65.0		
Yellow	3.0	4.0		3.5	3.0	4.0		3.5
All Red	1.0	1.5		1.5	1.0	1.5		1.5
Red Revert	2.0	2.0		2.0	2.0	2.0		2.0
Act Before	0.0	6.0		0.0	0.0	6.0		0.0
Sec/Act	0.0	2.0		0.0	0.0	2.0		0.0
Time Before Reduce	0.0	15.0		0.0	0.0	15.0		0.0
Time To Reduce	0.0	15.0		0.0	0.0	15.0		0.0
Min Gap	0.0	2.0		0.0	0.0	2.0		0.0
Recall		X				X		

Note -
Split Phasing -->

1	2	4	
5	6		8

Detectors
Delay call Immed extend — D4-2 — D8-1
Call and extend — all others

2/24/11
CHANGED PH 4 MIN GR TO 7.0
D4-1 STOP BAR DETECTION - CALLS ACCEPTED ONLY DURING RED.

DETECTOR HOOKUP

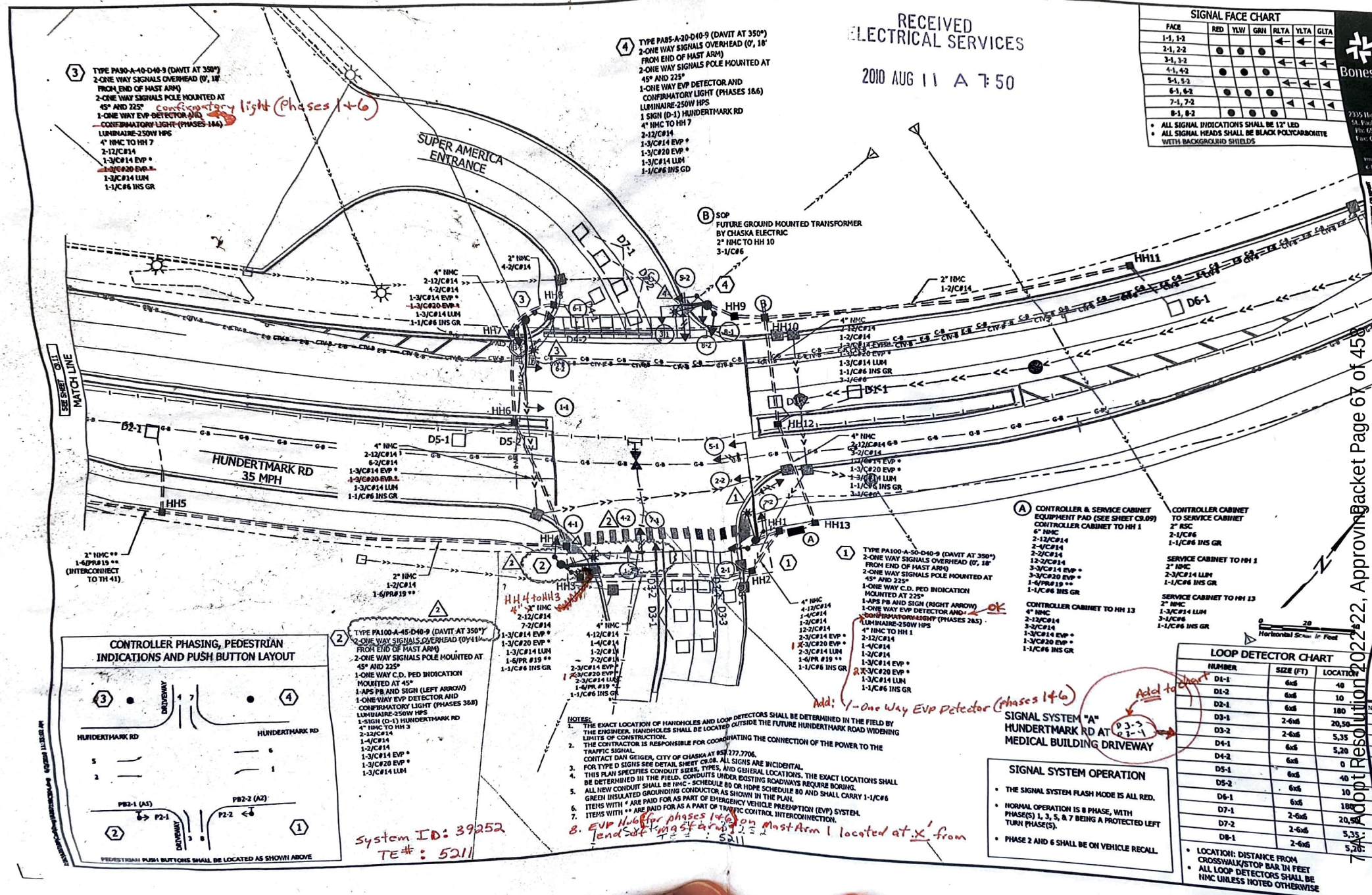
TE 5211

CABLE #	TS2 #	LOOP	TERMINAL	
			LEAD IN	BARE
13	1	D1-1	303A,304A	305A
14	2	D1-2	306A,307A	305A
23	3	D5-1	308A,309A	310A
24	4	D5-2	311A,312A	310A
25	5	D2-1	313A,314A	315A
7	6	D6-1	316A,317A	315A
	7		318A,319A	320A
36	8	D8-1	321A,322A	320A
32	9	D3-1	323A,324A	325A
33	10	D3-2	326A,327A	325A
34	11	D3-3	328A,329A	330A
35	12	D3-4	331A,332A	330A
17	13	D7-1	333A,334A	335A
18	14	D7-2	336A,337A	335A
15	15	D4-1	338A,339A	340A
16	16	D4-2	341A,342A	340A

VEHICLE SIGNALS

CABLE #	SIGNAL HEAD	TERMINAL					
		← G	← Y	← R	G	Y	R
19	1-1	201	203	205			
27	1-2	202	204	206			
38	2-1				207	209	211
37	2-2				208	210	212
8	3-1	213	215	217			
20	3-2	214	216	218			
27	4-1				219	221	223
26	4-2				220	222	224
37	5-1	225	227	229			
9	5-2	226	228	230			
20	6-1				231	233	235
19	6-2				232	234	236
26	7-1	237	239	241			
38	7-2	238	240	242			
9	8-1				243	245	247
8	8-2				244	246	248

TERMINATE ALL SIGNAL HEAD NEUTRALS ON FNB1



7A Adopt Resolution 2022-22, Approving Packet Page 67 of 458
68 of ...

6-19-11
3:45 pm

1	2	3	4	5	6	7	8
R		R	R	R		R	R
	G				C		

R	G	R	R	R	G	RR
		~~R~~ Y				

9	10	11	12	13	14	15	16
R				R	R	R	R
	—	—	—	R	R	R	R

Ht Reset

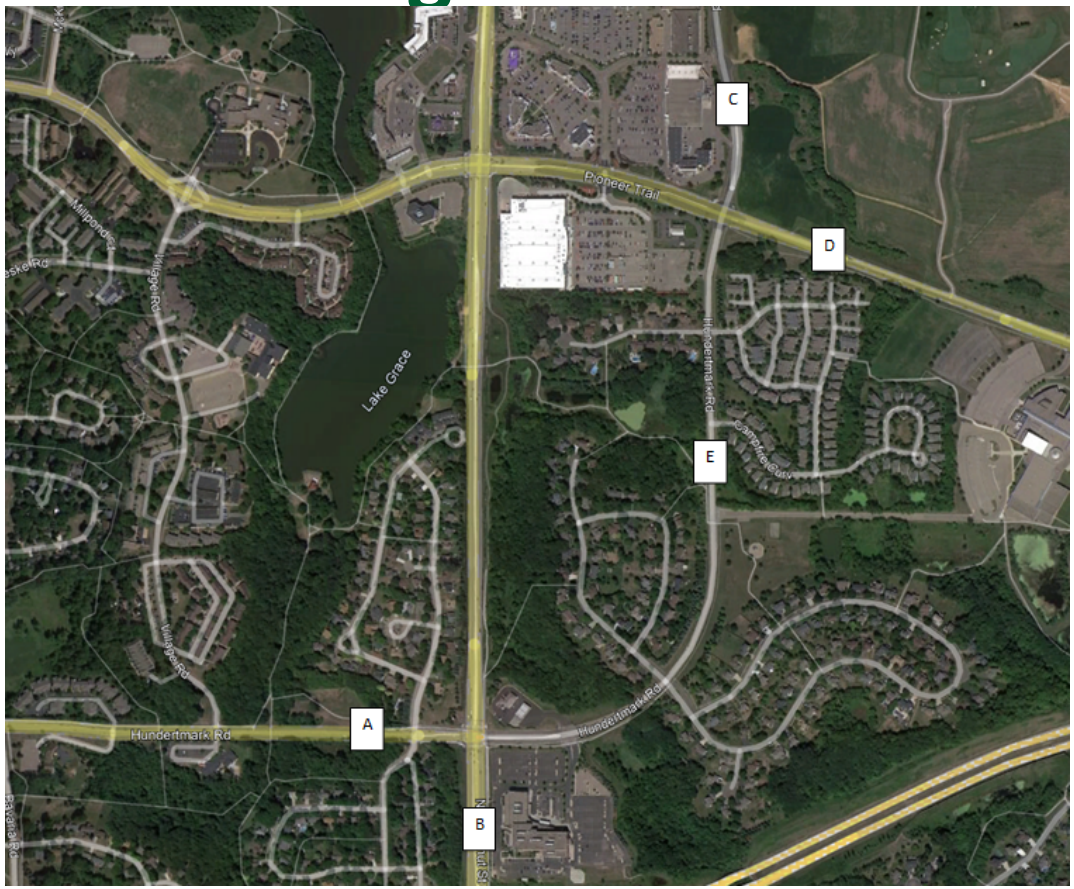
6-21-11 8:30 Am
DAN - EIM
RED FLASH
REPLACED Ø4 LOAD SWITCH + O.K.

Appendix B

StreetLight Analysis

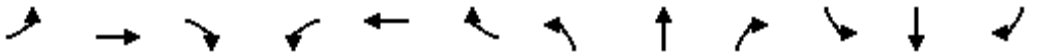
Existing Conditions – Cut Through Traffic

- Origin-destination data gathered using StreetLight Insight probe data platform
- ~1500 vehicles per day travel between points A/B and C/D via Hundertmark Road
- This equates to 16% of the daily traffic along Hundertmark
- Approximately 1200 vehicles per day along Hundertmark Road are school related

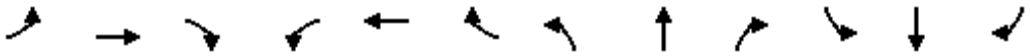


Appendix C

Synchro Reports – 2022 Existing



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	182	340	133	81	15	136	644	377	31	429	55
Future Volume (vph)	100	182	340	133	81	15	136	644	377	31	429	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		135	335		335	315		315	200		240
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.977				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	3400	1802	0	1752	3505	1568	1752	3505	1568
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	3400	1802	0	1752	3505	1568	1752	3505	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			340		7				377			148
Link Speed (mph)		40			35			50			50	
Link Distance (ft)		535			532			2187			3637	
Travel Time (s)		9.1			10.4			29.8			49.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	100	182	340	133	81	15	136	644	377	31	429	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	100	182	340	133	96	0	136	644	377	31	429	55
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6



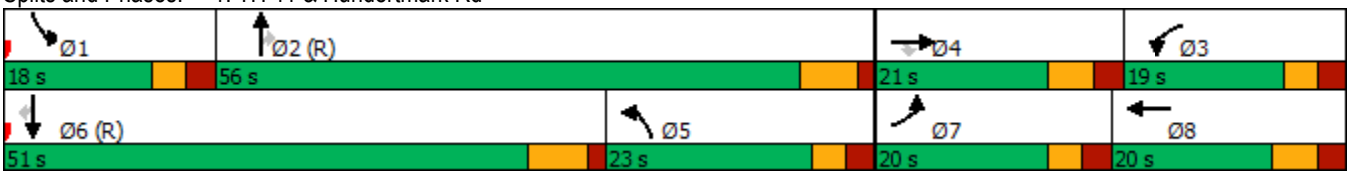
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	13.5	42.5	42.5	13.5	41.5		14.5	34.5	34.5	12.5	37.5	37.5
Total Split (s)	20.0	21.0	21.0	19.0	20.0		23.0	56.0	56.0	18.0	51.0	51.0
Total Split (%)	17.5%	18.4%	18.4%	16.7%	17.5%		20.2%	49.1%	49.1%	15.8%	44.7%	44.7%
Maximum Green (s)	14.5	14.5	14.5	13.5	13.5		17.5	49.5	49.5	12.5	44.5	44.5
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5		2.5	1.5	1.5	2.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag		Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		8.0	8.0		8.0			7.0	7.0		9.0	9.0
Flash Dont Walk (s)		28.0	28.0		27.0			21.0	21.0		22.0	22.0
Pedestrian Calls (#/hr)		0	0		0			0	0		0	0
Act Effct Green (s)	12.2	14.0	14.0	11.1	13.0		17.5	61.3	61.3	8.5	47.3	47.3
Actuated g/C Ratio	0.11	0.12	0.12	0.10	0.11		0.15	0.54	0.54	0.07	0.41	0.41
v/c Ratio	0.54	0.80	0.69	0.40	0.45		0.51	0.34	0.37	0.24	0.29	0.07
Control Delay	58.5	74.4	13.1	51.4	51.0		51.7	17.3	3.0	53.4	23.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.5	74.4	13.1	51.4	51.0		51.7	17.3	3.0	53.4	23.4	0.2
LOS	E	E	B	D	D		D	B	A	D	C	A
Approach Delay		38.3			51.3			16.7			22.8	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	70	131	0	48	62		93	148	0	22	108	0
Queue Length 95th (ft)	125	#243	89	77	116		158	212	53	52	154	0
Internal Link Dist (ft)		455			452			2107			3557	
Turn Bay Length (ft)	135		135	335			315		315	200		240
Base Capacity (vph)	222	234	496	402	219		268	1884	1017	192	1455	737
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.78	0.69	0.33	0.44		0.51	0.34	0.37	0.16	0.29	0.07

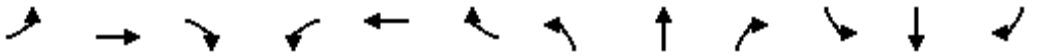
Intersection Summary			
Area Type:	Other		
Cycle Length: 114			
Actuated Cycle Length: 114			
Offset: 85 (75%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 26.4		Intersection LOS: C	
Intersection Capacity Utilization 57.4%		ICU Level of Service B	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

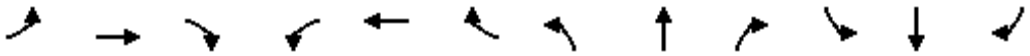
Queue shown is maximum after two cycles.

Splits and Phases: 1: TH 41 & Hundertmark Rd





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	375	172	19	172	17	23	1	9	19	5	34
Future Volume (vph)	43	375	172	19	172	17	23	1	9	19	5	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	225		225	100		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.865			0.869	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	3400	1596	0	1752	1603	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	1752	1845	1568	3400	1596	0	1752	1603	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			172			120		9			34	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		532			640			557			436	
Travel Time (s)		10.4			12.5			12.7			9.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	43	375	172	19	172	17	23	1	9	19	5	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	43	375	172	19	172	17	23	10	0	19	39	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		40			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6			2						

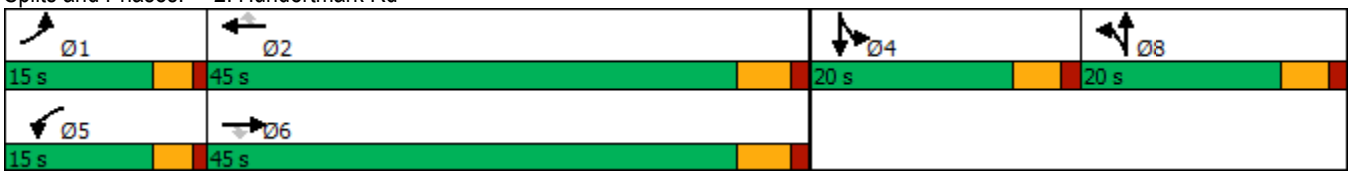


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	6	6	5	2	2	8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0		7.0	7.0	
Minimum Split (s)	11.0	25.5	25.5	11.0	34.5	34.5	15.0	15.0		12.0	12.0	
Total Split (s)	15.0	45.0	45.0	15.0	45.0	45.0	20.0	20.0		20.0	20.0	
Total Split (%)	15.0%	45.0%	45.0%	15.0%	45.0%	45.0%	20.0%	20.0%		20.0%	20.0%	
Maximum Green (s)	11.0	39.5	39.5	11.0	39.5	39.5	15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.5	5.5	4.0	5.5	5.5	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	0.2	2.0	2.0	0.2	2.0	2.0	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)					7.0	7.0						
Flash Dont Walk (s)					22.0	22.0						
Pedestrian Calls (#/hr)					0	0						
Act Effct Green (s)	8.0	34.7	34.7	7.6	32.6	32.6	10.8	10.8		7.7	7.7	
Actuated g/C Ratio	0.16	0.68	0.68	0.15	0.64	0.64	0.21	0.21		0.15	0.15	
v/c Ratio	0.16	0.30	0.15	0.07	0.15	0.02	0.03	0.03		0.07	0.14	
Control Delay	25.3	10.6	3.1	26.3	12.6	0.0	23.0	16.0		26.1	14.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	25.3	10.6	3.1	26.3	12.6	0.0	23.0	16.0		26.1	14.1	
LOS	C	B	A	C	B	A	C	B		C	B	
Approach Delay		9.5			12.8			20.9			18.0	
Approach LOS		A			B			C			B	
Queue Length 50th (ft)	8	38	0	3	15	0	2	0		3	1	
Queue Length 95th (ft)	45	208	36	26	99	0	14	13		26	28	
Internal Link Dist (ft)		452			560			477			356	
Turn Bay Length (ft)	200		200	225		225	100					
Base Capacity (vph)	406	1517	1320	406	1517	1311	1075	510		554	530	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.11	0.25	0.13	0.05	0.11	0.01	0.02	0.02		0.03	0.07	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 51			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.30			
Intersection Signal Delay: 11.2		Intersection LOS: B	
Intersection Capacity Utilization 46.0%		ICU Level of Service A	

Analysis Period (min) 15

Splits and Phases: 2: Hundertmark Rd



Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	0	18	17	0	24	1	395	7	9	173	6
Future Vol, veh/h	6	0	18	17	0	24	1	395	7	9	173	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	6	0	18	17	0	24	1	395	7	9	173	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	607	598	176	604	598	399	179	0	0	402	0	0
Stage 1	194	194	-	401	401	-	-	-	-	-	-	-
Stage 2	413	404	-	203	197	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	407	414	865	409	414	649	1391	-	-	1151	-	-
Stage 1	805	738	-	624	599	-	-	-	-	-	-	-
Stage 2	614	597	-	797	736	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	389	410	865	398	410	649	1391	-	-	1151	-	-
Mov Cap-2 Maneuver	389	410	-	398	410	-	-	-	-	-	-	-
Stage 1	804	732	-	623	598	-	-	-	-	-	-	-
Stage 2	591	596	-	774	730	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	12.6	0	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1391	-	-	662	514	1151	-	-
HCM Lane V/C Ratio	0.001	-	-	0.036	0.08	0.008	-	-
HCM Control Delay (s)	7.6	-	-	10.6	12.6	8.2	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

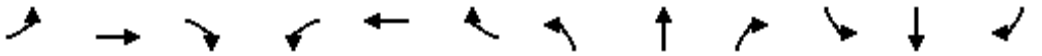
Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	54	24	324	101	27	134
Future Vol, veh/h	54	24	324	101	27	134
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	150	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	54	24	324	101	27	134

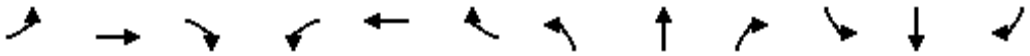
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	512	324	0	0	425	0
Stage 1	324	-	-	-	-	-
Stage 2	188	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	520	715	-	-	1129	-
Stage 1	731	-	-	-	-	-
Stage 2	842	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	508	715	-	-	1129	-
Mov Cap-2 Maneuver	508	-	-	-	-	-
Stage 1	731	-	-	-	-	-
Stage 2	822	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	508	715	1129	-
HCM Lane V/C Ratio	-	-	0.106	0.034	0.024	-
HCM Control Delay (s)	-	-	12.9	10.2	8.3	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.1	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	113	257	311	167	40	332	765	277	20	748	118
Future Volume (vph)	84	113	257	311	167	40	332	765	277	20	748	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		135	335		335	315		315	200		240
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.971				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	3400	1791	0	1752	3505	1568	1752	3505	1568
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	3400	1791	0	1752	3505	1568	1752	3505	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			257		7				277			113
Link Speed (mph)		40			35			50			50	
Link Distance (ft)		535			532			2187			3637	
Travel Time (s)		9.1			10.4			29.8			49.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	84	113	257	311	167	40	332	765	277	20	748	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	84	113	257	311	207	0	332	765	277	20	748	118
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6



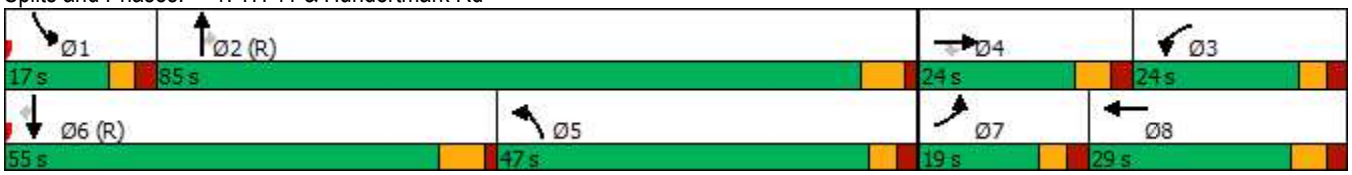
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	13.5	42.5	42.5	13.5	41.5		14.5	34.5	34.5	12.5	37.5	37.5
Total Split (s)	19.0	24.0	24.0	24.0	29.0		47.0	85.0	85.0	17.0	55.0	55.0
Total Split (%)	12.7%	16.0%	16.0%	16.0%	19.3%		31.3%	56.7%	56.7%	11.3%	36.7%	36.7%
Maximum Green (s)	13.5	17.5	17.5	18.5	22.5		41.5	78.5	78.5	11.5	48.5	48.5
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5		2.5	1.5	1.5	2.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag		Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		8.0	8.0		8.0			7.0	7.0		9.0	9.0
Flash Dont Walk (s)		28.0	28.0		27.0			21.0	21.0		22.0	22.0
Pedestrian Calls (#/hr)		0	0		0			0	0		0	0
Act Effct Green (s)	12.1	14.8	14.8	18.2	20.9		41.5	89.7	89.7	8.3	51.5	51.5
Actuated g/C Ratio	0.08	0.10	0.10	0.12	0.14		0.28	0.60	0.60	0.06	0.34	0.34
v/c Ratio	0.60	0.62	0.67	0.75	0.81		0.69	0.37	0.26	0.21	0.62	0.19
Control Delay	83.7	79.7	15.7	75.8	84.1		56.9	17.7	2.5	72.2	44.5	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.7	79.7	15.7	75.8	84.1		56.9	17.7	2.5	72.2	44.5	7.4
LOS	F	E	B	E	F		E	B	A	E	D	A
Approach Delay		44.2			79.1			24.1			40.2	
Approach LOS		D			E			C			D	
Queue Length 50th (ft)	80	108	0	151	190		292	222	0	19	332	3
Queue Length 95th (ft)	140	174	88	208	#306		407	281	44	48	404	50
Internal Link Dist (ft)		455			452			2107			3557	
Turn Bay Length (ft)	135		135	335			315		315	200		240
Base Capacity (vph)	157	215	409	428	274		484	2094	1048	134	1203	612
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.53	0.63	0.73	0.76		0.69	0.37	0.26	0.15	0.62	0.19

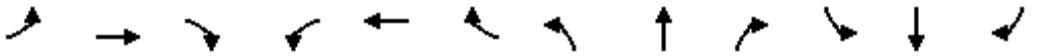
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 92 (61%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 40.2		Intersection LOS: D	
Intersection Capacity Utilization 76.1%		ICU Level of Service D	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

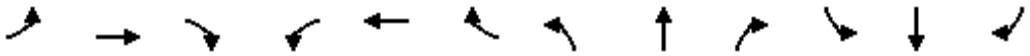
Queue shown is maximum after two cycles.

Splits and Phases: 1: TH 41 & Hundertmark Rd





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	289	59	9	314	29	136	3	22	14	1	68
Future Volume (vph)	62	289	59	9	314	29	136	3	22	14	1	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	225		225	100		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.868			0.852	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	3400	1601	0	1752	1572	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	1752	1845	1568	3400	1601	0	1752	1572	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			125			125		22			68	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		532			640			557			436	
Travel Time (s)		10.4			12.5			12.7			9.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	62	289	59	9	314	29	136	3	22	14	1	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	289	59	9	314	29	136	25	0	14	69	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		40			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	custom	Prot	NA	custom	Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			4			8						



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	6	4	5	2	8	8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	7.0	7.0	20.0	10.0	10.0	10.0		7.0	7.0	
Minimum Split (s)	11.0	25.5	12.0	11.0	34.5	15.0	15.0	15.0		12.0	12.0	
Total Split (s)	15.0	45.0	20.0	15.0	45.0	20.0	20.0	20.0		20.0	20.0	
Total Split (%)	15.0%	45.0%	20.0%	15.0%	45.0%	20.0%	20.0%	20.0%		20.0%	20.0%	
Maximum Green (s)	11.0	39.5	15.0	11.0	39.5	15.0	15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	4.0	3.5	3.0	4.0	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.5	5.0	4.0	5.5	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	4.0	3.0	3.0	4.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	0.2	2.0	0.2	0.2	2.0	0.2	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	0.0	15.0	0.0	0.0	15.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	15.0	0.0	0.0	15.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min	None	None	Min	None	None	None		None	None	
Walk Time (s)					7.0							
Flash Dont Walk (s)					22.0							
Pedestrian Calls (#/hr)					0							
Act Effct Green (s)	8.3	32.5	7.6	7.3	27.5	10.5	10.5	10.5		7.6	7.6	
Actuated g/C Ratio	0.14	0.55	0.13	0.12	0.47	0.18	0.18	0.18		0.13	0.13	
v/c Ratio	0.25	0.28	0.19	0.04	0.37	0.08	0.23	0.08		0.06	0.27	
Control Delay	29.0	13.0	1.6	28.9	18.8	0.4	26.0	14.2		28.3	11.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	29.0	13.0	1.6	28.9	18.8	0.4	26.0	14.2		28.3	11.6	
LOS	C	B	A	C	B	A	C	B		C	B	
Approach Delay		13.8			17.6			24.2			14.4	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)	23	63	0	3	100	0	24	1		5	0	
Queue Length 95th (ft)	59	158	3	17	188	0	53	22		21	35	
Internal Link Dist (ft)		452			560			477			356	
Turn Bay Length (ft)	200		200	225		225	100					
Base Capacity (vph)	340	1287	507	340	1287	507	901	440		464	466	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.18	0.22	0.12	0.03	0.24	0.06	0.15	0.06		0.03	0.15	

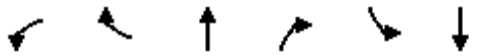
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 59.1			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.37			
Intersection Signal Delay: 16.8		Intersection LOS: B	
Intersection Capacity Utilization 45.1%		ICU Level of Service A	

Analysis Period (min) 15

Splits and Phases: 2: Hundertmark Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	0	4	5	1	14	5	297	23	16	343	8
Future Volume (vph)	7	0	4	5	1	14	5	297	23	16	343	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	200		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.951			0.905			0.989			0.997	
Flt Protected		0.969			0.988		0.950			0.950		
Satd. Flow (prot)	0	1700	0	0	1649	0	1752	1824	0	1752	1839	0
Flt Permitted		0.969			0.988		0.950			0.950		
Satd. Flow (perm)	0	1700	0	0	1649	0	1752	1824	0	1752	1839	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		468			640			640			1032	
Travel Time (s)		12.8			17.5			12.5			20.1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	7	0	4	5	1	14	5	297	23	16	343	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	0	0	20	0	5	320	0	16	351	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.5%		ICU Level of Service A	
Analysis Period (min) 15			



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	33	8	278	40	7	334
Future Volume (vph)	33	8	278	40	7	334
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		150	250	
Storage Lanes	1	1		1	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1752	1568	1845	1568	1752	1845
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1752	1568	1845	1568	1752	1845
Link Speed (mph)	25		35			35
Link Distance (ft)	1235		1032			697
Travel Time (s)	33.7		20.1			13.6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	33	8	278	40	7	334
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	8	278	40	7	334
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	0	4	5	1	14	5	297	23	16	343	8
Future Vol, veh/h	7	0	4	5	1	14	5	297	23	16	343	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	0	4	5	1	14	5	297	23	16	343	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	705	709	347	700	702	309	351	0	0	320	0	0
Stage 1	379	379	-	319	319	-	-	-	-	-	-	-
Stage 2	326	330	-	381	383	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	350	358	694	353	361	729	1202	-	-	1234	-	-
Stage 1	641	613	-	690	651	-	-	-	-	-	-	-
Stage 2	684	644	-	639	610	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	338	352	694	346	355	729	1202	-	-	1234	-	-
Mov Cap-2 Maneuver	338	352	-	346	355	-	-	-	-	-	-	-
Stage 1	638	605	-	687	648	-	-	-	-	-	-	-
Stage 2	667	641	-	627	602	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.9	11.8	0.1	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1202	-	-	416	548	1234	-	-
HCM Lane V/C Ratio	0.004	-	-	0.026	0.036	0.013	-	-
HCM Control Delay (s)	8	-	-	13.9	11.8	8	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	8	278	40	7	334
Future Vol, veh/h	33	8	278	40	7	334
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	150	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	33	8	278	40	7	334

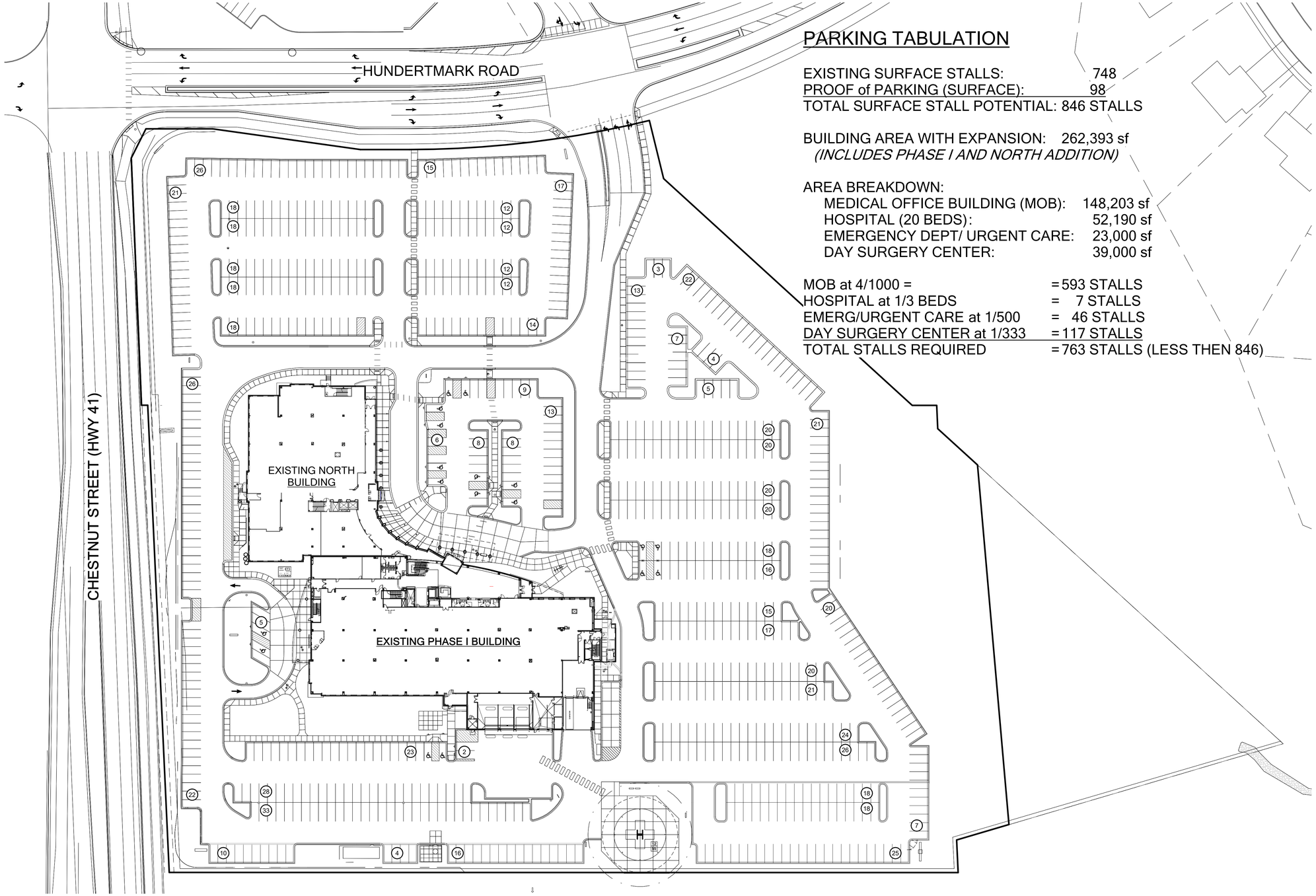
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	626	278	0	0	318	0
Stage 1	278	-	-	-	-	-
Stage 2	348	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	446	758	-	-	1236	-
Stage 1	767	-	-	-	-	-
Stage 2	713	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	443	758	-	-	1236	-
Mov Cap-2 Maneuver	443	-	-	-	-	-
Stage 1	767	-	-	-	-	-
Stage 2	709	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	443	758	1236	-
HCM Lane V/C Ratio	-	-	0.074	0.011	0.006	-
HCM Control Delay (s)	-	-	13.8	9.8	7.9	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	0	-

Appendix D

Development Concept Plan



PARKING TABULATION

EXISTING SURFACE STALLS: 748
PROOF of PARKING (SURFACE): 98
TOTAL SURFACE STALL POTENTIAL: 846 STALLS

BUILDING AREA WITH EXPANSION: 262,393 sf
(INCLUDES PHASE I AND NORTH ADDITION)

AREA BREAKDOWN:
- MEDICAL OFFICE BUILDING (MOB): 148,203 sf
- HOSPITAL (20 BEDS): 52,190 sf
- EMERGENCY DEPT/ URGENT CARE: 23,000 sf
- DAY SURGERY CENTER: 39,000 sf

MOB at 4/1000 = = 593 STALLS
HOSPITAL at 1/3 BEDS = = 7 STALLS
EMERG/URGENT CARE at 1/500 = = 46 STALLS
DAY SURGERY CENTER at 1/333 = 117 STALLS
TOTAL STALLS REQUIRED = 763 STALLS (LESS THEN 846)

1 / A2 PROOF of PARKING
SCALE: 1" = 50'-0"

0' 25' 50' 100'

N

I hereby certified that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota

Edward A. Farr
Date Date Reg. No. 16362
Project Manager
DLA
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Eden Prairie, Minnesota 55344 www.edfarrarch.com

Client
two twelve MEDICAL CENTER

Project
Two Twelve Medical Center Expansion

Location
111 Hundertmark Rd
Chaska, MN 55318

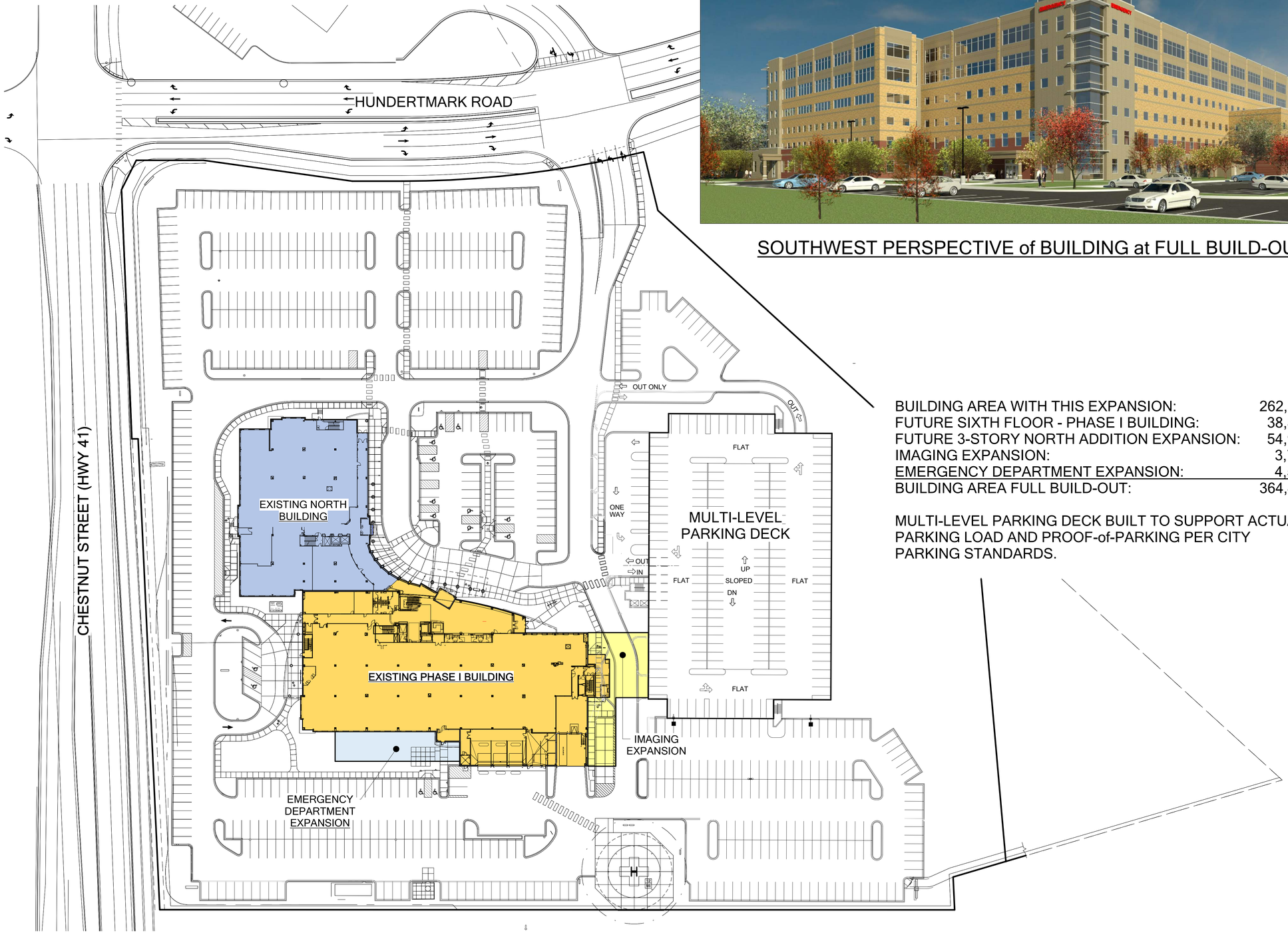
Issued For	*Date*
SITE PLAN REVIEW	12-07-2021

Sheet Title
SITE PLAN - PROOF of PARKING

Project Number 21.040
Sheet Number A2

12/7/2021 10:44:51 AM

SOUTHWEST PERSPECTIVE of BUILDING at FULL BUILD-OUT



BUILDING AREA WITH THIS EXPANSION:	262,393 sf
FUTURE SIXTH FLOOR - PHASE I BUILDING:	38,867 sf
FUTURE 3-STORY NORTH ADDITION EXPANSION:	54,962 sf
IMAGING EXPANSION:	3,750 sf
EMERGENCY DEPARTMENT EXPANSION:	4,500 sf
BUILDING AREA FULL BUILD-OUT:	364,473 sf

MULTI-LEVEL PARKING DECK BUILT TO SUPPORT ACTUAL PARKING LOAD AND PROOF-of-PARKING PER CITY PARKING STANDARDS.

1 A6 MASTER PLAN - FULL BUILD-OUT
SCALE: 1" = 50'-0"

0' 25' 50' 100'

N

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Edward A. Farr
Date Date Reg. No. 16362
Project Manager
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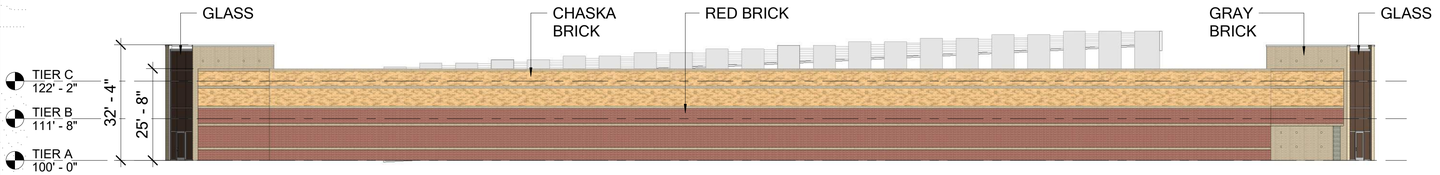
Issued For	*Date*
SITE PLAN REVIEW	12-07-2021

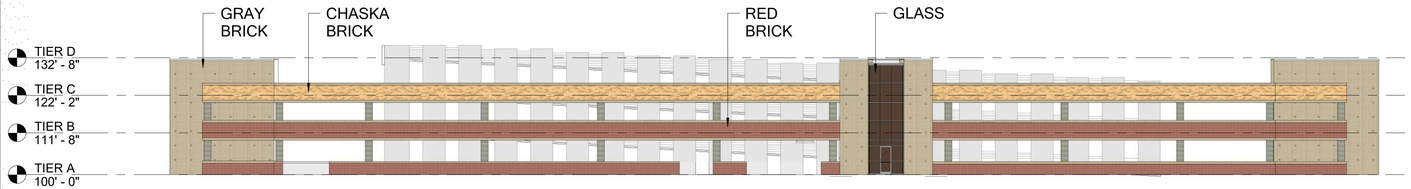
Sheet Title
MASTER PLAN FULL BUILD-OUT

Project Number 21.040
Sheet Number A6

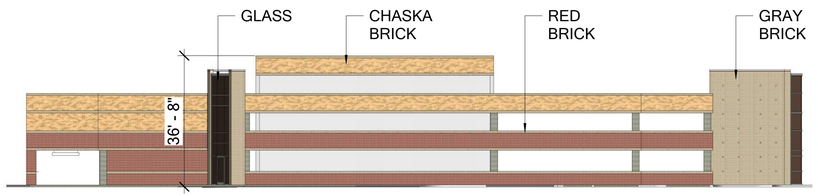
12/7/2021 10:45:05 AM



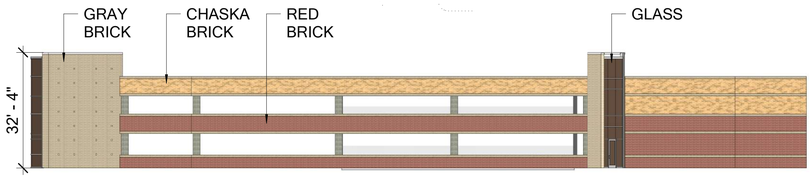
1 A7 PARKING DECK EAST
SCALE: 1" = 20'-0"



3 A7 PARKING DECK WEST
SCALE: 1" = 20'-0"



2 A7 PARKING DECK NORTH
SCALE: 1" = 20'-0"



4 A7 PARKING DECK SOUTH
SCALE: 1" = 20'-0"

PROOF-of-PARKING TABULATION
FULL BUILD-OUT

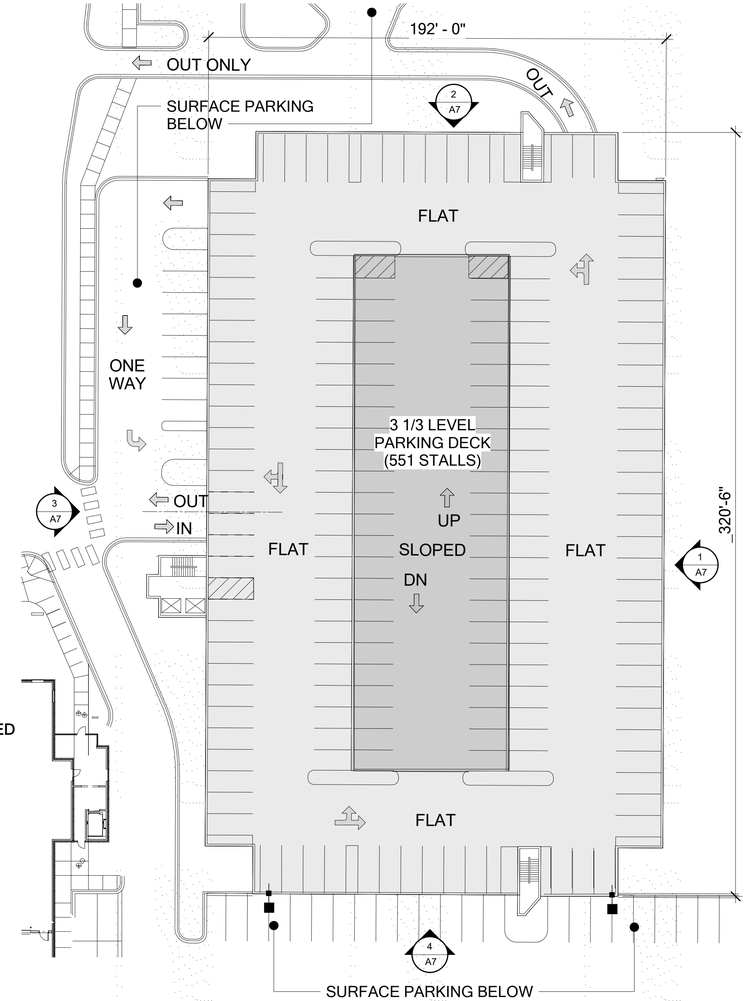
BUILDING AREA W/ THIS EXPANSION *(SEE BREAKDOWN ON SHEET A2)*	262,393 sf	763 STALLS

PARKING TABULATION FOR FUTURE BUILD-OUT

6TH FLOOR TTMC (MOB)	38,867 sf	
4TH, 5TH & 6TH FLOORS NA (MOB)	54,962 sf	
MEDICAL OFFICE BLDG (MOB) TOTAL	93,829 sf	375 STALLS (4/1000)
IMAGING EXPANSION (4/1000)	3,750 sf	15 STALLS
EMERGENCY DEPARTMENT (3/1000)	4,500 sf	14 STALLS
TOTAL FUTURE BUILD-OUT	**364,472 sf**	**1,167 STALLS REQUIRED**

PARKING DECK PARKING CALCULATION

TIER A (ON GRADE)	143 STALLS
TIER B	181 STALLS
TIER C	181 STALLS
1/3 TIER	46 STALLS
TOTAL PARKING DECK	**551 STALLS**
NET SURFACE PARKING NOT INCLUDING TIER A	620 STALLS
TOTAL PROOF-of-PARKING	**1,171 STALLS**



5 A7 PARKING DECK PLAN
SCALE: 1" = 30'-0"

I hereby certified that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota

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Chaska, MN 55318

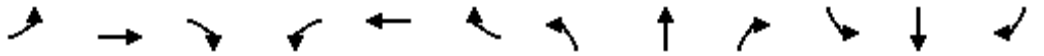
Issued For	*Date*
SITE PLAN REVIEW	12-07-2021
SPR REVISED	01/29/2022

Sheet Title
PROOF-of-PARKING
PARKING DECK

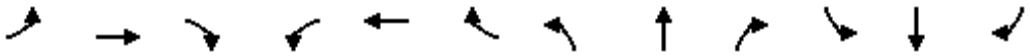
Project Number 21.040
Sheet Number A7

Appendix E

Synchro Reports – No-Build and Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	183	342	134	81	15	137	647	379	31	431	55
Future Volume (vph)	101	184	342	141	82	19	137	647	394	40	431	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		135	335		335	315		315	200		240
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.972				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	3400	1793	0	1752	3505	1568	1752	3505	1568
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	3400	1793	0	1752	3505	1568	1752	3505	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			342		8				394			148
Link Speed (mph)		40			35			50			50	
Link Distance (ft)		535			532			2187			3637	
Travel Time (s)		9.1			10.4			29.8			49.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	101	184	342	141	82	19	137	647	394	40	431	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	101	184	342	141	101	0	137	647	394	40	431	55
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6



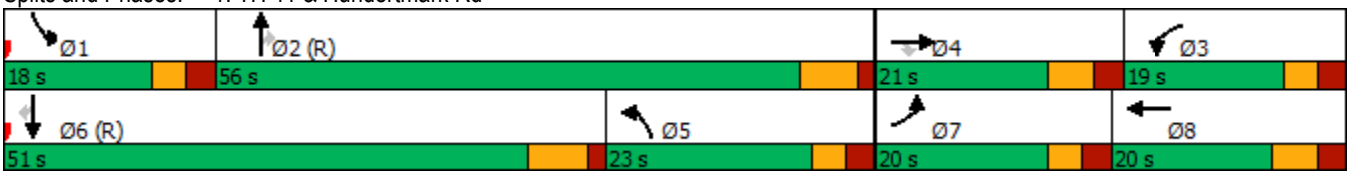
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	13.5	42.5	42.5	13.5	41.5		14.5	34.5	34.5	12.5	37.5	37.5
Total Split (s)	20.0	21.0	21.0	19.0	20.0		23.0	56.0	56.0	18.0	51.0	51.0
Total Split (%)	17.5%	18.4%	18.4%	16.7%	17.5%		20.2%	49.1%	49.1%	15.8%	44.7%	44.7%
Maximum Green (s)	14.5	14.5	14.5	13.5	13.5		17.5	49.5	49.5	12.5	44.5	44.5
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5		2.5	1.5	1.5	2.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag		Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		8.0	8.0		8.0			7.0	7.0		9.0	9.0
Flash Dont Walk (s)		28.0	28.0		27.0			21.0	21.0		22.0	22.0
Pedestrian Calls (#/hr)		0	0		0			0	0		0	0
Act Effct Green (s)	12.2	14.1	14.1	11.2	13.1		17.5	60.7	60.7	9.1	47.2	47.2
Actuated g/C Ratio	0.11	0.12	0.12	0.10	0.11		0.15	0.53	0.53	0.08	0.41	0.41
v/c Ratio	0.54	0.81	0.69	0.42	0.47		0.51	0.35	0.39	0.29	0.30	0.07
Control Delay	58.7	75.2	13.1	51.8	51.3		51.8	17.8	3.1	53.9	23.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	75.2	13.1	51.8	51.3		51.8	17.8	3.1	53.9	23.5	0.2
LOS	E	E	B	D	D		D	B	A	D	C	A
Approach Delay		38.6			51.6			16.8			23.4	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	71	133	0	51	65		93	152	0	28	109	0
Queue Length 95th (ft)	126	#246	90	81	121		159	217	55	62	155	0
Internal Link Dist (ft)		455			452			2107			3557	
Turn Bay Length (ft)	135		135	335			315		315	200		240
Base Capacity (vph)	222	234	497	402	219		268	1865	1018	192	1451	736
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.79	0.69	0.35	0.46		0.51	0.35	0.39	0.21	0.30	0.07

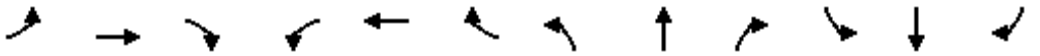
Intersection Summary			
Area Type:	Other		
Cycle Length: 114			
Actuated Cycle Length: 114			
Offset: 85 (75%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 26.8		Intersection LOS: C	
Intersection Capacity Utilization 57.5%		ICU Level of Service B	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

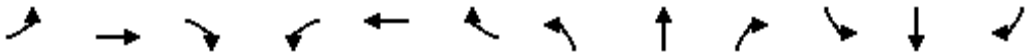
Queue shown is maximum after two cycles.

Splits and Phases: 1: TH 41 & Hundertmark Rd





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	377	173	19	173	17	23	1	9	19	5	34
Future Volume (vph)	43	377	198	23	173	17	35	1	11	19	5	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	225		225	100		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.862			0.869	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	3400	1590	0	1752	1603	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	1752	1845	1568	3400	1590	0	1752	1603	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			198			120		11			34	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		532			640			557			436	
Travel Time (s)		10.4			12.5			12.7			9.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	43	377	198	23	173	17	35	1	11	19	5	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	43	377	198	23	173	17	35	12	0	19	39	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		40			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6			2						

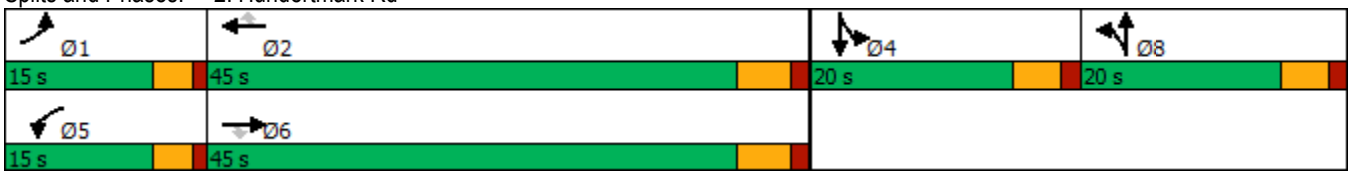


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	6	6	5	2	2	8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0		7.0	7.0	
Minimum Split (s)	11.0	25.5	25.5	11.0	34.5	34.5	15.0	15.0		12.0	12.0	
Total Split (s)	15.0	45.0	45.0	15.0	45.0	45.0	20.0	20.0		20.0	20.0	
Total Split (%)	15.0%	45.0%	45.0%	15.0%	45.0%	45.0%	20.0%	20.0%		20.0%	20.0%	
Maximum Green (s)	11.0	39.5	39.5	11.0	39.5	39.5	15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.5	5.5	4.0	5.5	5.5	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	0.2	2.0	2.0	0.2	2.0	2.0	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)					7.0	7.0						
Flash Dont Walk (s)					22.0	22.0						
Pedestrian Calls (#/hr)					0	0						
Act Effct Green (s)	7.9	35.0	35.0	7.6	32.8	32.8	10.6	10.6		7.6	7.6	
Actuated g/C Ratio	0.15	0.65	0.65	0.14	0.61	0.61	0.20	0.20		0.14	0.14	
v/c Ratio	0.17	0.31	0.18	0.09	0.15	0.02	0.05	0.04		0.08	0.15	
Control Delay	27.1	12.3	3.0	27.7	14.0	0.1	24.0	15.6		27.5	14.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	27.1	12.3	3.0	27.7	14.0	0.1	24.0	15.6		27.5	14.4	
LOS	C	B	A	C	B	A	C	B		C	B	
Approach Delay		10.3			14.3			21.9			18.7	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)	12	87	0	6	35	0	4	0		5	1	
Queue Length 95th (ft)	45	211	38	30	99	0	19	14		26	28	
Internal Link Dist (ft)		452			560			477			356	
Turn Bay Length (ft)	200		200	225		225	100					
Base Capacity (vph)	379	1433	1262	379	1433	1245	1003	476		516	497	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.11	0.26	0.16	0.06	0.12	0.01	0.03	0.03		0.04	0.08	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 53.9			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.31			
Intersection Signal Delay: 12.3		Intersection LOS: B	
Intersection Capacity Utilization 46.1%		ICU Level of Service A	

Analysis Period (min) 15

Splits and Phases: 2: Hundertmark Rd



Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	0	18	17	0	24	1	397	7	9	174	6
Future Vol, veh/h	6	0	18	17	0	24	1	399	7	9	178	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	6	0	18	17	0	24	1	399	7	9	178	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	616	607	181	613	607	403	184	0	0	406	0	0
Stage 1	199	199	-	405	405	-	-	-	-	-	-	-
Stage 2	417	408	-	208	202	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	401	410	859	403	410	645	1385	-	-	1147	-	-
Stage 1	801	735	-	620	597	-	-	-	-	-	-	-
Stage 2	611	595	-	792	732	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	384	406	859	392	406	645	1385	-	-	1147	-	-
Mov Cap-2 Maneuver	384	406	-	392	406	-	-	-	-	-	-	-
Stage 1	800	729	-	619	596	-	-	-	-	-	-	-
Stage 2	588	594	-	769	726	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	12.7	0	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1385	-	-	656	509	1147	-	-
HCM Lane V/C Ratio	0.001	-	-	0.037	0.081	0.008	-	-
HCM Control Delay (s)	7.6	-	-	10.7	12.7	8.2	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

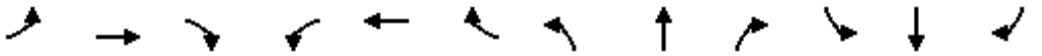
Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	54	24	326	102	27	135
Future Vol, veh/h	54	24	328	102	27	139
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	150	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	54	24	328	102	27	139

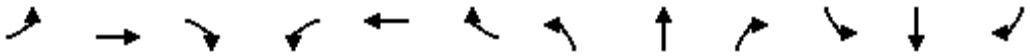
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	521	328	0	0	430	0
Stage 1	328	-	-	-	-	-
Stage 2	193	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	514	711	-	-	1124	-
Stage 1	728	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	502	711	-	-	1124	-
Mov Cap-2 Maneuver	502	-	-	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	817	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	502	711	1124	-
HCM Lane V/C Ratio	-	-	0.108	0.034	0.024	-
HCM Control Delay (s)	-	-	13	10.2	8.3	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.1	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	114	258	313	168	40	334	769	278	20	752	119
Future Volume (vph)	84	115	258	328	169	49	334	769	286	25	752	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		135	335		335	315		315	200		240
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.966				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	3400	1782	0	1752	3505	1568	1752	3505	1568
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	3400	1782	0	1752	3505	1568	1752	3505	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			258		8				286			113
Link Speed (mph)		40			35			50			50	
Link Distance (ft)		535			532			2187			3637	
Travel Time (s)		9.1			10.4			29.8			49.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	84	115	258	328	169	49	334	769	286	25	752	119
Shared Lane Traffic (%)												
Lane Group Flow (vph)	84	115	258	328	218	0	334	769	286	25	752	119
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6



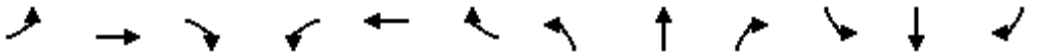
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	13.5	42.5	42.5	13.5	41.5		14.5	34.5	34.5	12.5	37.5	37.5
Total Split (s)	19.0	24.0	24.0	24.0	29.0		47.0	85.0	85.0	17.0	55.0	55.0
Total Split (%)	12.7%	16.0%	16.0%	16.0%	19.3%		31.3%	56.7%	56.7%	11.3%	36.7%	36.7%
Maximum Green (s)	13.5	17.5	17.5	18.5	22.5		41.5	78.5	78.5	11.5	48.5	48.5
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5		2.5	1.5	1.5	2.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag		Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		8.0	8.0		8.0			7.0	7.0		9.0	9.0
Flash Dont Walk (s)		28.0	28.0		27.0			21.0	21.0		22.0	22.0
Pedestrian Calls (#/hr)		0	0		0			0	0		0	0
Act Effct Green (s)	12.1	14.8	14.8	18.6	21.3		41.5	88.9	88.9	8.6	51.1	51.1
Actuated g/C Ratio	0.08	0.10	0.10	0.12	0.14		0.28	0.59	0.59	0.06	0.34	0.34
v/c Ratio	0.60	0.63	0.67	0.78	0.84		0.69	0.37	0.27	0.25	0.63	0.20
Control Delay	83.7	80.1	15.7	77.1	86.6		57.1	18.0	2.5	72.8	45.0	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.7	80.1	15.7	77.1	86.6		57.1	18.0	2.5	72.8	45.0	7.6
LOS	F	F	B	E	F		E	B	A	E	D	A
Approach Delay		44.4			80.9			24.2			40.8	
Approach LOS		D			F			C			D	
Queue Length 50th (ft)	80	109	0	160	202		294	225	0	24	334	4
Queue Length 95th (ft)	140	176	88	#227	#330		410	285	45	56	407	51
Internal Link Dist (ft)		455			452			2107			3557	
Turn Bay Length (ft)	135		135	335			315		315	200		240
Base Capacity (vph)	157	215	410	433	274		484	2078	1046	134	1193	608
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.53	0.63	0.76	0.80		0.69	0.37	0.27	0.19	0.63	0.20

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 92 (61%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 41.0		Intersection LOS: D	
Intersection Capacity Utilization 76.4%		ICU Level of Service D	
Analysis Period (min) 15			

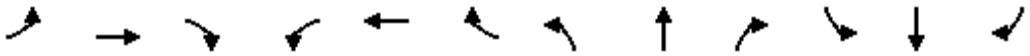
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: TH 41 & Hundertmark Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	290	59	9	316	29	137	3	22	14	1	68
Future Volume (vph)	62	290	73	11	316	29	162	3	26	14	1	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	225		225	100		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.866			0.852	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	3400	1597	0	1752	1572	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	1752	1845	1568	3400	1597	0	1752	1572	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			125			125		26			68	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		532			640			557			436	
Travel Time (s)		10.4			12.5			12.7			9.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	62	290	73	11	316	29	162	3	26	14	1	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	290	73	11	316	29	162	29	0	14	69	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		40			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	custom	Prot	NA	custom	Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			4			8						

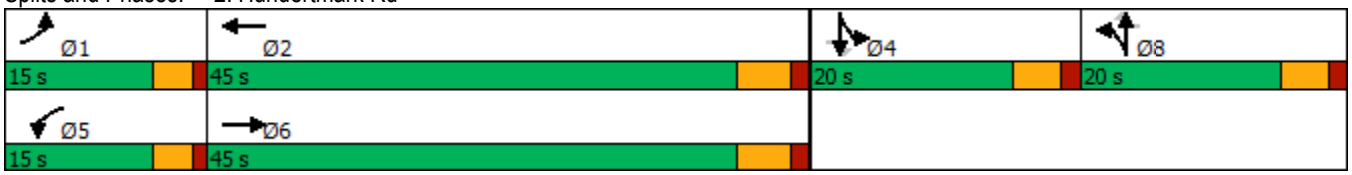


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	6	4	5	2	8	8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	7.0	7.0	20.0	10.0	10.0	10.0		7.0	7.0	
Minimum Split (s)	11.0	25.5	12.0	11.0	34.5	15.0	15.0	15.0		12.0	12.0	
Total Split (s)	15.0	45.0	20.0	15.0	45.0	20.0	20.0	20.0		20.0	20.0	
Total Split (%)	15.0%	45.0%	20.0%	15.0%	45.0%	20.0%	20.0%	20.0%		20.0%	20.0%	
Maximum Green (s)	11.0	39.5	15.0	11.0	39.5	15.0	15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	4.0	3.5	3.0	4.0	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.5	5.0	4.0	5.5	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	4.0	3.0	3.0	4.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	0.2	2.0	0.2	0.2	2.0	0.2	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	0.0	15.0	0.0	0.0	15.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	15.0	0.0	0.0	15.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min	None	None	Min	None	None	None		None	None	
Walk Time (s)					7.0							
Flash Dont Walk (s)					22.0							
Pedestrian Calls (#/hr)					0							
Act Effct Green (s)	8.4	32.3	7.7	7.4	27.3	10.8	10.8	10.8		7.7	7.7	
Actuated g/C Ratio	0.14	0.55	0.13	0.13	0.47	0.18	0.18	0.18		0.13	0.13	
v/c Ratio	0.25	0.29	0.23	0.05	0.37	0.07	0.26	0.09		0.06	0.26	
Control Delay	29.2	13.2	3.7	29.3	19.0	0.4	26.1	13.3		28.6	11.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	29.2	13.2	3.7	29.3	19.0	0.4	26.1	13.3		28.6	11.6	
LOS	C	B	A	C	B	A	C	B		C	B	
Approach Delay		13.9			17.8			24.2			14.5	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)	23	63	0	4	101	0	29	1		5	0	
Queue Length 95th (ft)	60	161	12	19	192	0	61	23		22	35	
Internal Link Dist (ft)		452			560			477			356	
Turn Bay Length (ft)	200		200	225		225	100					
Base Capacity (vph)	348	1292	516	348	1292	516	921	451		474	475	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.18	0.22	0.14	0.03	0.24	0.06	0.18	0.06		0.03	0.15	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 58.7			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.37			
Intersection Signal Delay: 17.1		Intersection LOS: B	
Intersection Capacity Utilization 45.2%		ICU Level of Service A	

Analysis Period (min) 15

Splits and Phases: 2: Hundertmark Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	0	4	5	1	14	5	298	23	16	345	8
Future Volume (vph)	7	0	4	5	1	14	5	302	23	16	347	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	200		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.951			0.905			0.989			0.997	
Flt Protected		0.969			0.988		0.950			0.950		
Satd. Flow (prot)	0	1700	0	0	1649	0	1752	1824	0	1752	1839	0
Flt Permitted		0.969			0.988		0.950			0.950		
Satd. Flow (perm)	0	1700	0	0	1649	0	1752	1824	0	1752	1839	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		468			640			640			1032	
Travel Time (s)		12.8			17.5			12.5			20.1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	7	0	4	5	1	14	5	302	23	16	347	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	0	0	20	0	5	325	0	16	355	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.6%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	33	8	279	40	7	336
Future Volume (vph)	33	8	283	40	7	338
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		150	250	
Storage Lanes	1	1		1	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1752	1568	1845	1568	1752	1845
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1752	1568	1845	1568	1752	1845
Link Speed (mph)	25		35			35
Link Distance (ft)	1235		1032			697
Travel Time (s)	33.7		20.1			13.6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	33	8	283	40	7	338
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	8	283	40	7	338
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	0	4	5	1	14	5	298	23	16	345	8
Future Vol, veh/h	7	0	4	5	1	14	5	302	23	16	347	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	0	4	5	1	14	5	302	23	16	347	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	714	718	351	709	711	314	355	0	0	325	0	0
Stage 1	383	383	-	324	324	-	-	-	-	-	-	-
Stage 2	331	335	-	385	387	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	345	354	690	348	357	724	1198	-	-	1229	-	-
Stage 1	638	610	-	686	648	-	-	-	-	-	-	-
Stage 2	680	641	-	636	608	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	333	348	690	341	351	724	1198	-	-	1229	-	-
Mov Cap-2 Maneuver	333	348	-	341	351	-	-	-	-	-	-	-
Stage 1	635	602	-	683	645	-	-	-	-	-	-	-
Stage 2	663	638	-	624	600	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14	11.9	0.1	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1198	-	-	410	543	1229	-	-
HCM Lane V/C Ratio	0.004	-	-	0.027	0.037	0.013	-	-
HCM Control Delay (s)	8	-	-	14	11.9	8	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	8	279	40	7	336
Future Vol, veh/h	33	8	283	40	7	338
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	150	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	33	8	283	40	7	338

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	635	283	0	0	323	0
Stage 1	283	-	-	-	-	-
Stage 2	352	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	441	754	-	-	1231	-
Stage 1	763	-	-	-	-	-
Stage 2	710	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	438	754	-	-	1231	-
Mov Cap-2 Maneuver	438	-	-	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	706	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	438	754	1231	-
HCM Lane V/C Ratio	-	-	0.075	0.011	0.006	-
HCM Control Delay (s)	-	-	13.9	9.8	7.9	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	0	19	18	0	25	1	417	7	9	183	6
Future Vol, veh/h	6	0	19	18	0	25	1	424	7	9	202	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	6	0	19	18	0	25	1	424	7	9	202	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	665	656	205	663	656	428	208	0	0	431	0	0
Stage 1	223	223	-	430	430	-	-	-	-	-	-	-
Stage 2	442	433	-	233	226	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	372	384	833	373	384	625	1357	-	-	1123	-	-
Stage 1	777	717	-	601	582	-	-	-	-	-	-	-
Stage 2	592	580	-	768	715	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	355	381	833	362	381	625	1357	-	-	1123	-	-
Mov Cap-2 Maneuver	355	381	-	362	381	-	-	-	-	-	-	-
Stage 1	776	711	-	600	581	-	-	-	-	-	-	-
Stage 2	568	579	-	744	709	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	13.3	0	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1357	-	-	630	479	1123	-	-
HCM Lane V/C Ratio	0.001	-	-	0.04	0.09	0.008	-	-
HCM Control Delay (s)	7.7	-	-	11	13.3	8.2	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

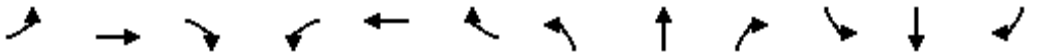
Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	57	25	343	107	28	142
Future Vol, veh/h	57	25	350	107	28	161
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	150	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	57	25	350	107	28	161

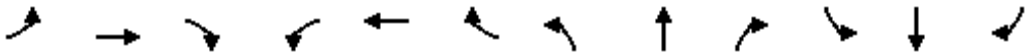
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	567	350	0	0	457	0
Stage 1	350	-	-	-	-	-
Stage 2	217	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	483	691	-	-	1099	-
Stage 1	711	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	471	691	-	-	1099	-
Mov Cap-2 Maneuver	471	-	-	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	797	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	471	691	1099	-
HCM Lane V/C Ratio	-	-	0.121	0.036	0.025	-
HCM Control Delay (s)	-	-	13.7	10.4	8.4	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.1	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	192	359	141	85	16	144	680	398	33	453	58
Future Volume (vph)	106	198	359	166	87	31	144	680	460	70	453	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		135	335		335	315		315	200		240
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.961				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	3400	1773	0	1752	3505	1568	1752	3505	1568
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	3400	1773	0	1752	3505	1568	1752	3505	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			359		13				460			148
Link Speed (mph)		40			35			50			50	
Link Distance (ft)		535			532			2187			3637	
Travel Time (s)		9.1			10.4			29.8			49.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	198	359	166	87	31	144	680	460	70	453	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	106	198	359	166	118	0	144	680	460	70	453	58
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6



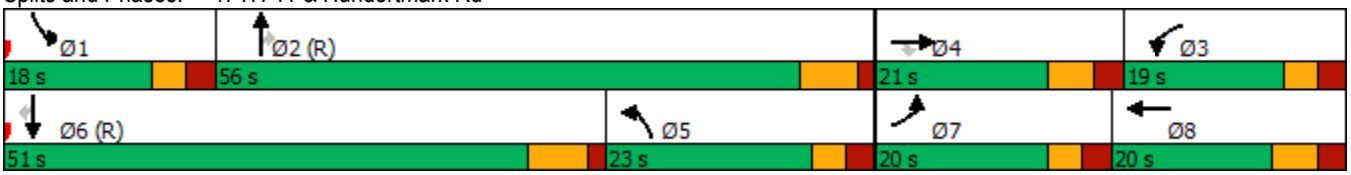
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	13.5	42.5	42.5	13.5	41.5		14.5	34.5	34.5	12.5	37.5	37.5
Total Split (s)	20.0	21.0	21.0	19.0	20.0		23.0	56.0	56.0	18.0	51.0	51.0
Total Split (%)	17.5%	18.4%	18.4%	16.7%	17.5%		20.2%	49.1%	49.1%	15.8%	44.7%	44.7%
Maximum Green (s)	14.5	14.5	14.5	13.5	13.5		17.5	49.5	49.5	12.5	44.5	44.5
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5		2.5	1.5	1.5	2.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag		Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		8.0	8.0		8.0			7.0	7.0		9.0	9.0
Flash Dont Walk (s)		28.0	28.0		27.0			21.0	21.0		22.0	22.0
Pedestrian Calls (#/hr)		0	0		0			0	0		0	0
Act Effct Green (s)	12.4	14.3	14.3	11.6	13.6		17.5	56.1	56.1	10.4	46.5	46.5
Actuated g/C Ratio	0.11	0.13	0.13	0.10	0.12		0.15	0.49	0.49	0.09	0.41	0.41
v/c Ratio	0.56	0.86	0.70	0.48	0.53		0.54	0.39	0.46	0.44	0.32	0.08
Control Delay	59.4	80.7	13.1	52.7	51.3		52.7	20.5	3.5	57.1	24.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	80.7	13.1	52.7	51.3		52.7	20.5	3.5	57.1	24.1	0.2
LOS	E	F	B	D	D		D	C	A	E	C	A
Approach Delay		40.7			52.1			18.0			25.7	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	74	144	0	60	74		99	170	0	49	117	0
Queue Length 95th (ft)	131	#272	93	94	134		166	232	59	95	163	0
Internal Link Dist (ft)		455			452			2107			3557	
Turn Bay Length (ft)	135		135	335			315		315	200		240
Base Capacity (vph)	222	234	512	402	224		268	1725	1005	192	1430	727
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.85	0.70	0.41	0.53		0.54	0.39	0.46	0.36	0.32	0.08

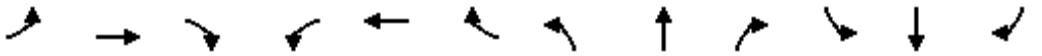
Intersection Summary			
Area Type:	Other		
Cycle Length: 114			
Actuated Cycle Length: 114			
Offset: 85 (75%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 28.4		Intersection LOS: C	
Intersection Capacity Utilization 58.9%		ICU Level of Service B	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

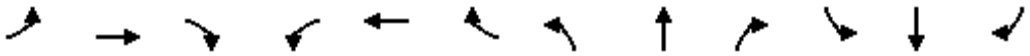
Queue shown is maximum after two cycles.

Splits and Phases: 1: TH 41 & Hundertmark Rd





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	396	182	20	182	18	24	1	9	20	5	36
Future Volume (vph)	45	396	287	39	182	18	66	1	16	20	5	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	225		225	100		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.859			0.868	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	3400	1585	0	1752	1601	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	1752	1845	1568	3400	1585	0	1752	1601	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			287			120		16			36	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		532			640			557			436	
Travel Time (s)		10.4			12.5			12.7			9.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	45	396	287	39	182	18	66	1	16	20	5	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	396	287	39	182	18	66	17	0	20	41	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		40			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6			2						

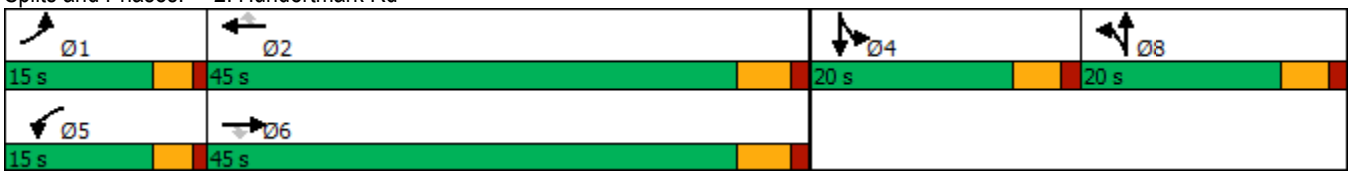


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	6	6	5	2	2	8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0		7.0	7.0	
Minimum Split (s)	11.0	25.5	25.5	11.0	34.5	34.5	15.0	15.0		12.0	12.0	
Total Split (s)	15.0	45.0	45.0	15.0	45.0	45.0	20.0	20.0		20.0	20.0	
Total Split (%)	15.0%	45.0%	45.0%	15.0%	45.0%	45.0%	20.0%	20.0%		20.0%	20.0%	
Maximum Green (s)	11.0	39.5	39.5	11.0	39.5	39.5	15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.5	5.5	4.0	5.5	5.5	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	0.2	2.0	2.0	0.2	2.0	2.0	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)					7.0	7.0						
Flash Dont Walk (s)					22.0	22.0						
Pedestrian Calls (#/hr)					0	0						
Act Effct Green (s)	8.8	35.5	35.5	8.6	33.4	33.4	11.7	11.7		8.3	8.3	
Actuated g/C Ratio	0.16	0.65	0.65	0.16	0.61	0.61	0.21	0.21		0.15	0.15	
v/c Ratio	0.16	0.33	0.26	0.14	0.16	0.02	0.09	0.05		0.08	0.15	
Control Delay	28.9	14.1	3.1	29.2	14.7	0.1	25.6	15.3		30.0	14.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	28.9	14.1	3.1	29.2	14.7	0.1	25.6	15.3		30.0	14.8	
LOS	C	B	A	C	B	A	C	B		C	B	
Approach Delay		10.7			15.9			23.5			19.8	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)	16	93	0	14	53	0	11	0		7	2	
Queue Length 95th (ft)	49	228	45	44	104	0	31	18		29	30	
Internal Link Dist (ft)		452			560			477			356	
Turn Bay Length (ft)	200		200	225		225	100					
Base Capacity (vph)	408	1362	1233	408	1362	1189	1081	515		557	534	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.11	0.29	0.23	0.10	0.13	0.02	0.06	0.03		0.04	0.08	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 55			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.33			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 47.1%		ICU Level of Service A	

Analysis Period (min) 15

Splits and Phases: 2: Hundertmark Rd



Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	0	4	5	1	15	5	313	24	17	363	8
Future Vol, veh/h	7	0	4	5	1	15	5	328	24	17	367	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	0	4	5	1	15	5	328	24	17	367	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	763	767	371	757	759	340	375	0	0	352	0	0
Stage 1	405	405	-	350	350	-	-	-	-	-	-	-
Stage 2	358	362	-	407	409	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	320	331	673	323	335	700	1178	-	-	1201	-	-
Stage 1	620	597	-	664	631	-	-	-	-	-	-	-
Stage 2	658	623	-	619	594	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	308	325	673	317	329	700	1178	-	-	1201	-	-
Mov Cap-2 Maneuver	308	325	-	317	329	-	-	-	-	-	-	-
Stage 1	618	589	-	661	628	-	-	-	-	-	-	-
Stage 2	640	621	-	607	586	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.7	12.2	0.1	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1178	-	-	384	522	1201	-	-
HCM Lane V/C Ratio	0.004	-	-	0.029	0.04	0.014	-	-
HCM Control Delay (s)	8.1	-	-	14.7	12.2	8	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

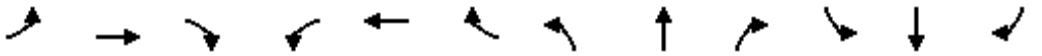
Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	8	293	42	7	353
Future Vol, veh/h	35	8	308	42	7	357
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	150	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	35	8	308	42	7	357

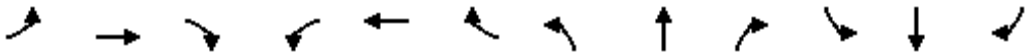
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	679	308	0	0	350	0
Stage 1	308	-	-	-	-	-
Stage 2	371	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	416	730	-	-	1203	-
Stage 1	743	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	414	730	-	-	1203	-
Mov Cap-2 Maneuver	414	-	-	-	-	-
Stage 1	743	-	-	-	-	-
Stage 2	692	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.7	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	414	730	1203	-
HCM Lane V/C Ratio	-	-	0.085	0.011	0.006	-
HCM Control Delay (s)	-	-	14.5	10	8	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	88	120	271	329	177	42	351	808	292	21	790	125
Future Volume (vph)	88	121	271	379	182	72	351	808	306	29	790	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		135	335		335	315		315	200		240
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.957				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	3400	1765	0	1752	3505	1568	1752	3505	1568
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	3400	1765	0	1752	3505	1568	1752	3505	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			271		11				306			113
Link Speed (mph)		40			35			50			50	
Link Distance (ft)		535			532			2187			3637	
Travel Time (s)		9.1			10.4			29.8			49.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	88	121	271	379	182	72	351	808	306	29	790	125
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	121	271	379	254	0	351	808	306	29	790	125
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6



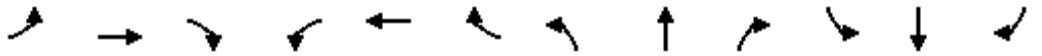
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	13.5	42.5	42.5	13.5	41.5		14.5	34.5	34.5	12.5	37.5	37.5
Total Split (s)	19.0	24.0	24.0	24.0	29.0		47.0	85.0	85.0	17.0	55.0	55.0
Total Split (%)	12.7%	16.0%	16.0%	16.0%	19.3%		31.3%	56.7%	56.7%	11.3%	36.7%	36.7%
Maximum Green (s)	13.5	17.5	17.5	18.5	22.5		41.5	78.5	78.5	11.5	48.5	48.5
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5		2.5	1.5	1.5	2.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag		Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		8.0	8.0		8.0			7.0	7.0		9.0	9.0
Flash Dont Walk (s)		28.0	28.0		27.0			21.0	21.0		22.0	22.0
Pedestrian Calls (#/hr)		0	0		0			0	0		0	0
Act Effct Green (s)	12.2	15.1	15.1	19.9	22.7		41.5	87.2	87.2	8.9	49.6	49.6
Actuated g/C Ratio	0.08	0.10	0.10	0.13	0.15		0.28	0.58	0.58	0.06	0.33	0.33
v/c Ratio	0.62	0.65	0.68	0.84	0.92		0.73	0.40	0.29	0.28	0.68	0.21
Control Delay	85.2	81.3	15.5	80.6	96.4		59.0	19.0	2.6	73.6	47.3	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.2	81.3	15.5	80.6	96.4		59.0	19.0	2.6	73.6	47.3	8.6
LOS	F	F	B	F	F		E	B	A	E	D	A
Approach Delay		44.9			86.9			25.2			43.0	
Approach LOS		D			F			C			D	
Queue Length 50th (ft)	84	115	0	189	239		312	241	0	28	356	8
Queue Length 95th (ft)	147	185	92	#284	#412		434	304	47	62	432	57
Internal Link Dist (ft)		455			452			2107			3557	
Turn Bay Length (ft)	135		135	335			315		315	200		240
Base Capacity (vph)	157	215	422	450	278		484	2037	1039	134	1158	593
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.56	0.64	0.84	0.91		0.73	0.40	0.29	0.22	0.68	0.21

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 92 (61%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 43.7		Intersection LOS: D	
Intersection Capacity Utilization 79.0%		ICU Level of Service D	
Analysis Period (min) 15			

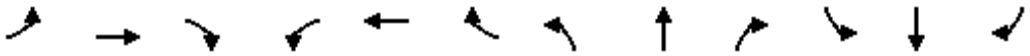
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: TH 41 & Hundertmark Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	305	62	9	332	30	144	3	23	15	1	71
Future Volume (vph)	65	305	85	13	332	30	229	3	38	15	1	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	225		225	100		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.861			0.852	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	3400	1588	0	1752	1572	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	1752	1845	1568	3400	1588	0	1752	1572	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			125			125		38			71	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		532			640			557			436	
Travel Time (s)		10.4			12.5			12.7			9.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	65	305	85	13	332	30	229	3	38	15	1	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	305	85	13	332	30	229	41	0	15	72	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		40			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	custom	Prot	NA	custom	Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			4			8						

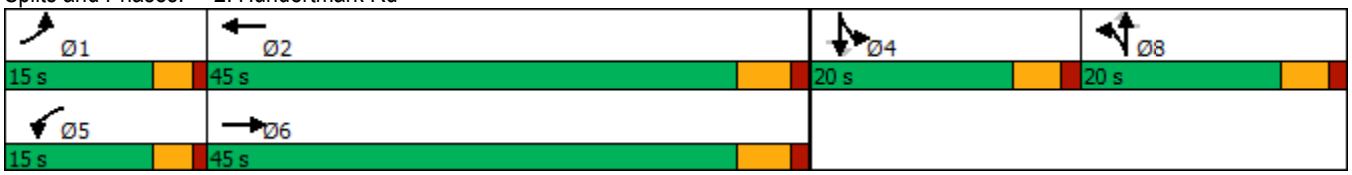


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	6	4	5	2	8	8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	7.0	7.0	20.0	10.0	10.0	10.0		7.0	7.0	
Minimum Split (s)	11.0	25.5	12.0	11.0	34.5	15.0	15.0	15.0		12.0	12.0	
Total Split (s)	15.0	45.0	20.0	15.0	45.0	20.0	20.0	20.0		20.0	20.0	
Total Split (%)	15.0%	45.0%	20.0%	15.0%	45.0%	20.0%	20.0%	20.0%		20.0%	20.0%	
Maximum Green (s)	11.0	39.5	15.0	11.0	39.5	15.0	15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	4.0	3.5	3.0	4.0	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.5	5.0	4.0	5.5	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	4.0	3.0	3.0	4.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	0.2	2.0	0.2	0.2	2.0	0.2	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	0.0	15.0	0.0	0.0	15.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	15.0	0.0	0.0	15.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min	None	None	Min	None	None	None		None	None	
Walk Time (s)					7.0							
Flash Dont Walk (s)					22.0							
Pedestrian Calls (#/hr)					0							
Act Effct Green (s)	8.5	27.3	7.7	7.4	22.2	11.4	11.4	11.4		7.7	7.7	
Actuated g/C Ratio	0.14	0.45	0.13	0.12	0.36	0.19	0.19	0.19		0.13	0.13	
v/c Ratio	0.27	0.37	0.28	0.06	0.49	0.08	0.36	0.12		0.07	0.28	
Control Delay	30.8	14.7	5.3	31.1	21.5	0.4	26.7	11.7		30.3	12.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	30.8	14.7	5.3	31.1	21.5	0.4	26.7	11.7		30.3	12.2	
LOS	C	B	A	C	C	A	C	B		C	B	
Approach Delay		15.2			20.2			24.4			15.3	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)	24	67	0	5	108	0	42	1		5	0	
Queue Length 95th (ft)	66	182	20	23	216	0	85	27		24	37	
Internal Link Dist (ft)		452			560			477			356	
Turn Bay Length (ft)	200		200	225		225	100					
Base Capacity (vph)	334	1263	500	334	1263	500	884	441		455	461	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.19	0.24	0.17	0.04	0.26	0.06	0.26	0.09		0.03	0.16	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 60.9			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 18.9		Intersection LOS: B	
Intersection Capacity Utilization 46.2%		ICU Level of Service A	

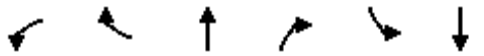
Analysis Period (min) 15

Splits and Phases: 2: Hundertmark Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	0	4	5	1	15	5	313	24	17	363	8
Future Volume (vph)	7	0	4	5	1	15	5	328	24	17	367	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	200		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.951			0.904			0.990			0.997	
Flt Protected		0.969			0.988		0.950			0.950		
Satd. Flow (prot)	0	1700	0	0	1648	0	1752	1826	0	1752	1839	0
Flt Permitted		0.969			0.988		0.950			0.950		
Satd. Flow (perm)	0	1700	0	0	1648	0	1752	1826	0	1752	1839	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		468			640			640			1032	
Travel Time (s)		12.8			17.5			12.5			20.1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	7	0	4	5	1	15	5	328	24	17	367	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	0	0	21	0	5	352	0	17	375	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.6%		ICU Level of Service A	
Analysis Period (min) 15			



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	35	8	293	42	7	353
Future Volume (vph)	35	8	308	42	7	357
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		150	250	
Storage Lanes	1	1		1	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1752	1568	1845	1568	1752	1845
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1752	1568	1845	1568	1752	1845
Link Speed (mph)	25		35			35
Link Distance (ft)	1235		1032			697
Travel Time (s)	33.7		20.1			13.6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	35	8	308	42	7	357
Shared Lane Traffic (%)						
Lane Group Flow (vph)	35	8	308	42	7	357
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	0	19	18	0	25	1	417	7	9	183	6
Future Vol, veh/h	6	0	19	18	0	25	1	417	7	9	183	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	6	0	19	18	0	25	1	417	7	9	183	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	639	630	186	637	630	421	189	0	0	424	0	0
Stage 1	204	204	-	423	423	-	-	-	-	-	-	-
Stage 2	435	426	-	214	207	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	387	397	854	389	397	630	1379	-	-	1130	-	-
Stage 1	796	731	-	607	586	-	-	-	-	-	-	-
Stage 2	598	584	-	786	729	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	369	393	854	378	393	630	1379	-	-	1130	-	-
Mov Cap-2 Maneuver	369	393	-	378	393	-	-	-	-	-	-	-
Stage 1	795	725	-	606	585	-	-	-	-	-	-	-
Stage 2	574	583	-	762	723	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	13	0	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1379	-	-	649	493	1130	-	-
HCM Lane V/C Ratio	0.001	-	-	0.039	0.087	0.008	-	-
HCM Control Delay (s)	7.6	-	-	10.8	13	8.2	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	57	25	343	107	28	142
Future Vol, veh/h	57	25	343	107	28	142
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	150	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	57	25	343	107	28	142

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	541	343	0	0	450	0
Stage 1	343	-	-	-	-	-
Stage 2	198	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	500	697	-	-	1105	-
Stage 1	716	-	-	-	-	-
Stage 2	833	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	488	697	-	-	1105	-
Mov Cap-2 Maneuver	488	-	-	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	812	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	488	697	1105	-
HCM Lane V/C Ratio	-	-	0.117	0.036	0.025	-
HCM Control Delay (s)	-	-	13.4	10.4	8.3	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.1	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	192	359	141	85	16	144	680	398	33	453	58
Future Volume (vph)	106	192	359	141	85	16	144	680	398	33	453	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		135	335		335	315		315	200		240
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.976				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	3400	1800	0	1752	3505	1568	1752	3505	1568
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	3400	1800	0	1752	3505	1568	1752	3505	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			359		7				398			148
Link Speed (mph)		40			35			50			50	
Link Distance (ft)		535			532			2187			3637	
Travel Time (s)		9.1			10.4			29.8			49.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	192	359	141	85	16	144	680	398	33	453	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	106	192	359	141	101	0	144	680	398	33	453	58
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6

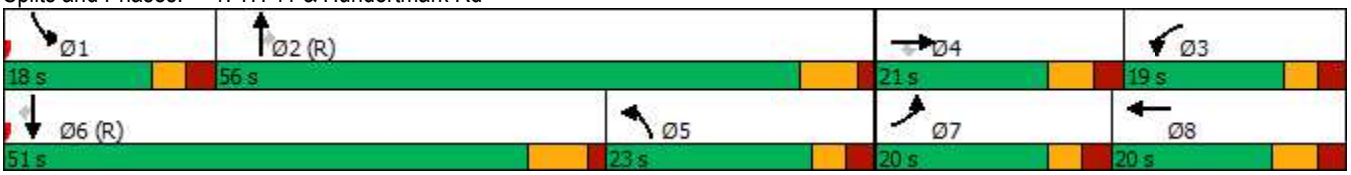
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	13.5	42.5	42.5	13.5	41.5		14.5	34.5	34.5	12.5	37.5	37.5
Total Split (s)	20.0	21.0	21.0	19.0	20.0		23.0	56.0	56.0	18.0	51.0	51.0
Total Split (%)	17.5%	18.4%	18.4%	16.7%	17.5%		20.2%	49.1%	49.1%	15.8%	44.7%	44.7%
Maximum Green (s)	14.5	14.5	14.5	13.5	13.5		17.5	49.5	49.5	12.5	44.5	44.5
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5		2.5	1.5	1.5	2.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag		Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		8.0	8.0		8.0			7.0	7.0		9.0	9.0
Flash Dont Walk (s)		28.0	28.0		27.0			21.0	21.0		22.0	22.0
Pedestrian Calls (#/hr)		0	0		0			0	0		0	0
Act Effct Green (s)	12.4	14.2	14.2	11.2	13.1		17.5	60.9	60.9	8.6	47.1	47.1
Actuated g/C Ratio	0.11	0.12	0.12	0.10	0.11		0.15	0.53	0.53	0.08	0.41	0.41
v/c Ratio	0.56	0.83	0.71	0.42	0.48		0.54	0.36	0.39	0.25	0.31	0.08
Control Delay	59.4	78.2	13.1	51.8	51.9		52.7	17.7	3.1	53.5	23.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	78.2	13.1	51.8	51.9		52.7	17.7	3.1	53.5	23.8	0.2
LOS	E	E	B	D	D		D	B	A	D	C	A
Approach Delay		39.6			51.8			17.1			23.1	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	74	139	0	51	66		99	160	0	23	115	0
Queue Length 95th (ft)	131	#261	93	81	122		166	226	54	54	163	0
Internal Link Dist (ft)		455			452			2107			3557	
Turn Bay Length (ft)	135		135	335			315		315	200		240
Base Capacity (vph)	222	234	512	402	219		268	1873	1023	192	1447	734
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.82	0.70	0.35	0.46		0.54	0.36	0.39	0.17	0.31	0.08

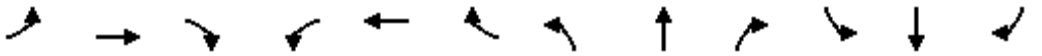
Intersection Summary			
Area Type:	Other		
Cycle Length: 114			
Actuated Cycle Length: 114			
Offset: 85 (75%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 27.0		Intersection LOS: C	
Intersection Capacity Utilization 58.9%		ICU Level of Service B	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: TH 41 & Hundertmark Rd





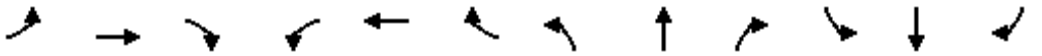
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	396	182	20	182	18	24	1	9	20	5	36
Future Volume (vph)	45	396	182	20	182	18	24	1	9	20	5	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	225		225	100		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.865			0.868	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	3400	1596	0	1752	1601	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	1752	1845	1568	3400	1596	0	1752	1601	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			120		9			36	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		532			640			557			436	
Travel Time (s)		10.4			12.5			12.7			9.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	45	396	182	20	182	18	24	1	9	20	5	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	396	182	20	182	18	24	10	0	20	41	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		40			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6			2						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	6	6	5	2	2	8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0		7.0	7.0	
Minimum Split (s)	11.0	25.5	25.5	11.0	34.5	34.5	15.0	15.0		12.0	12.0	
Total Split (s)	15.0	45.0	45.0	15.0	45.0	45.0	20.0	20.0		20.0	20.0	
Total Split (%)	15.0%	45.0%	45.0%	15.0%	45.0%	45.0%	20.0%	20.0%		20.0%	20.0%	
Maximum Green (s)	11.0	39.5	39.5	11.0	39.5	39.5	15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.5	5.5	4.0	5.5	5.5	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	0.2	2.0	2.0	0.2	2.0	2.0	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)					7.0	7.0						
Flash Dont Walk (s)					22.0	22.0						
Pedestrian Calls (#/hr)					0	0						
Act Effct Green (s)	8.0	37.6	37.6	7.5	33.0	33.0	10.6	10.6		7.6	7.6	
Actuated g/C Ratio	0.15	0.70	0.70	0.14	0.62	0.62	0.20	0.20		0.14	0.14	
v/c Ratio	0.17	0.31	0.16	0.08	0.16	0.02	0.04	0.03		0.08	0.16	
Control Delay	26.8	10.3	3.0	27.6	13.6	0.1	24.3	16.3		27.4	14.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	26.8	10.3	3.0	27.6	13.6	0.1	24.3	16.3		27.4	14.2	
LOS	C	B	A	C	B	A	C	B		C	B	
Approach Delay		9.4			13.7			22.0			18.5	
Approach LOS		A			B			C			B	
Queue Length 50th (ft)	11	40	0	5	32	0	2	0		5	1	
Queue Length 95th (ft)	47	222	36	28	104	0	14	13		27	29	
Internal Link Dist (ft)		452			560			477			356	
Turn Bay Length (ft)	200		200	225		225	100					
Base Capacity (vph)	381	1444	1266	381	1444	1253	1010	480		520	501	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.12	0.27	0.14	0.05	0.13	0.01	0.02	0.02		0.04	0.08	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 53.5			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.31			
Intersection Signal Delay: 11.5		Intersection LOS: B	
Intersection Capacity Utilization 47.1%		ICU Level of Service A	

Analysis Period (min) 15

Splits and Phases: 2: Hundertmark Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	0	19	18	0	25	1	417	7	9	183	6
Future Volume (vph)	6	0	19	18	0	25	1	417	7	9	183	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	200		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.897			0.922			0.998			0.995	
Flt Protected		0.988			0.979		0.950			0.950		
Satd. Flow (prot)	0	1635	0	0	1665	0	1752	1841	0	1752	1835	0
Flt Permitted		0.988			0.979		0.950			0.950		
Satd. Flow (perm)	0	1635	0	0	1665	0	1752	1841	0	1752	1835	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		468			640			640			1032	
Travel Time (s)		12.8			17.5			12.5			20.1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	0	19	18	0	25	1	417	7	9	183	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	0	0	43	0	1	424	0	9	189	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.4%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	57	25	343	107	28	142
Future Volume (vph)	57	25	343	107	28	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		150	250	
Storage Lanes	1	1		1	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1752	1568	1845	1568	1752	1845
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1752	1568	1845	1568	1752	1845
Link Speed (mph)	25		35			35
Link Distance (ft)	1235		1032			697
Travel Time (s)	33.7		20.1			13.6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	57	25	343	107	28	142
Shared Lane Traffic (%)						
Lane Group Flow (vph)	57	25	343	107	28	142
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	0	4	5	1	15	5	313	24	17	363	8
Future Vol, veh/h	7	0	4	5	1	15	5	313	24	17	363	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	0	4	5	1	15	5	313	24	17	363	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	744	748	367	738	740	325	371	0	0	337	0	0
Stage 1	401	401	-	335	335	-	-	-	-	-	-	-
Stage 2	343	347	-	403	405	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	329	340	676	332	343	714	1182	-	-	1217	-	-
Stage 1	624	599	-	677	641	-	-	-	-	-	-	-
Stage 2	670	633	-	622	597	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	317	334	676	325	337	714	1182	-	-	1217	-	-
Mov Cap-2 Maneuver	317	334	-	325	337	-	-	-	-	-	-	-
Stage 1	622	591	-	674	638	-	-	-	-	-	-	-
Stage 2	652	630	-	610	589	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.4	12	0.1	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1182	-	-	393	534	1217	-	-
HCM Lane V/C Ratio	0.004	-	-	0.028	0.039	0.014	-	-
HCM Control Delay (s)	8.1	-	-	14.4	12	8	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

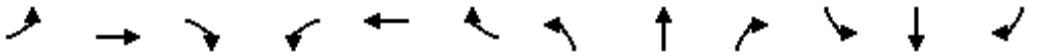
Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	8	293	42	7	353
Future Vol, veh/h	35	8	293	42	7	353
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	150	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	35	8	293	42	7	353

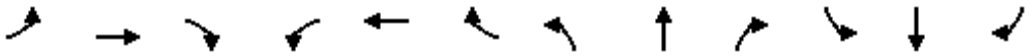
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	660	293	0	0	335	0
Stage 1	293	-	-	-	-	-
Stage 2	367	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	426	744	-	-	1219	-
Stage 1	755	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	423	744	-	-	1219	-
Mov Cap-2 Maneuver	423	-	-	-	-	-
Stage 1	755	-	-	-	-	-
Stage 2	695	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	423	744	1219	-
HCM Lane V/C Ratio	-	-	0.083	0.011	0.006	-
HCM Control Delay (s)	-	-	14.3	9.9	8	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	88	120	271	329	177	42	351	808	292	21	790	125
Future Volume (vph)	88	120	271	329	177	42	351	808	292	21	790	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		135	335		335	315		315	200		240
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.971				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	3400	1791	0	1752	3505	1568	1752	3505	1568
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	3400	1791	0	1752	3505	1568	1752	3505	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			271		7				292			113
Link Speed (mph)		40			35			50			50	
Link Distance (ft)		535			532			2187			3637	
Travel Time (s)		9.1			10.4			29.8			49.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	88	120	271	329	177	42	351	808	292	21	790	125
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	120	271	329	219	0	351	808	292	21	790	125
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6



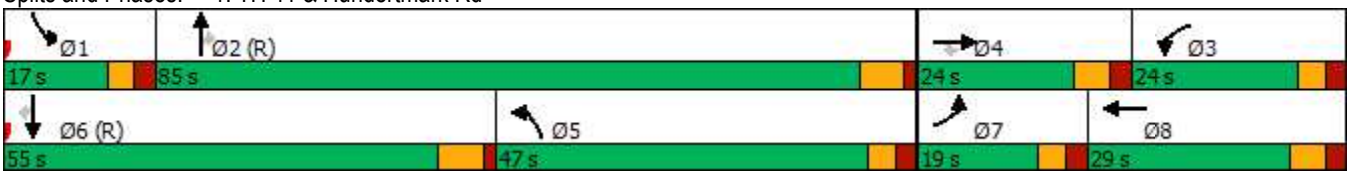
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	13.5	42.5	42.5	13.5	41.5		14.5	34.5	34.5	12.5	37.5	37.5
Total Split (s)	19.0	24.0	24.0	24.0	29.0		47.0	85.0	85.0	17.0	55.0	55.0
Total Split (%)	12.7%	16.0%	16.0%	16.0%	19.3%		31.3%	56.7%	56.7%	11.3%	36.7%	36.7%
Maximum Green (s)	13.5	17.5	17.5	18.5	22.5		41.5	78.5	78.5	11.5	48.5	48.5
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5		2.5	1.5	1.5	2.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	6.5	6.5	5.5	6.5		5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag		Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		8.0	8.0		8.0			7.0	7.0		9.0	9.0
Flash Dont Walk (s)		28.0	28.0		27.0			21.0	21.0		22.0	22.0
Pedestrian Calls (#/hr)		0	0		0			0	0		0	0
Act Effct Green (s)	12.2	15.0	15.0	18.5	21.3		41.5	89.0	89.0	8.3	50.9	50.9
Actuated g/C Ratio	0.08	0.10	0.10	0.12	0.14		0.28	0.59	0.59	0.06	0.34	0.34
v/c Ratio	0.62	0.65	0.68	0.79	0.84		0.73	0.39	0.28	0.22	0.66	0.21
Control Delay	85.2	81.1	15.6	77.5	87.2		59.0	18.2	2.5	72.3	46.1	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.2	81.1	15.6	77.5	87.2		59.0	18.2	2.5	72.3	46.1	8.5
LOS	F	F	B	E	F		E	B	A	E	D	A
Approach Delay		44.8			81.4			24.9			41.7	
Approach LOS		D			F			C			D	
Queue Length 50th (ft)	84	114	0	161	204		312	238	0	20	356	8
Queue Length 95th (ft)	147	183	92	#228	#333		434	300	45	50	432	57
Internal Link Dist (ft)		455			452			2107			3557	
Turn Bay Length (ft)	135		135	335			315		315	200		240
Base Capacity (vph)	157	215	422	431	274		484	2080	1049	134	1190	607
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.56	0.64	0.76	0.80		0.73	0.39	0.28	0.16	0.66	0.21

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 92 (61%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 41.4		Intersection LOS: D	
Intersection Capacity Utilization 79.0%		ICU Level of Service D	
Analysis Period (min) 15			

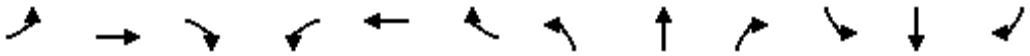
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: TH 41 & Hundertmark Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	305	62	9	332	30	144	3	23	15	1	71
Future Volume (vph)	65	305	62	9	332	30	144	3	23	15	1	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	225		225	100		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.867			0.852	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	3400	1599	0	1752	1572	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	1752	1845	1568	3400	1599	0	1752	1572	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			125			125		23			71	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		532			640			557			436	
Travel Time (s)		10.4			12.5			12.7			9.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	65	305	62	9	332	30	144	3	23	15	1	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	305	62	9	332	30	144	26	0	15	72	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		40			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	custom	Prot	NA	custom	Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			4			8						



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	6	4	5	2	8	8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	7.0	7.0	20.0	10.0	10.0	10.0		7.0	7.0	
Minimum Split (s)	11.0	25.5	12.0	11.0	34.5	15.0	15.0	15.0		12.0	12.0	
Total Split (s)	15.0	45.0	20.0	15.0	45.0	20.0	20.0	20.0		20.0	20.0	
Total Split (%)	15.0%	45.0%	20.0%	15.0%	45.0%	20.0%	20.0%	20.0%		20.0%	20.0%	
Maximum Green (s)	11.0	39.5	15.0	11.0	39.5	15.0	15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	4.0	3.5	3.0	4.0	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.5	5.0	4.0	5.5	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	4.0	3.0	3.0	4.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	0.2	2.0	0.2	0.2	2.0	0.2	0.2	0.2		0.2	0.2	
Time Before Reduce (s)	0.0	15.0	0.0	0.0	15.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	15.0	0.0	0.0	15.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min	None	None	Min	None	None	None		None	None	
Walk Time (s)					7.0							
Flash Dont Walk (s)					22.0							
Pedestrian Calls (#/hr)					0							
Act Effct Green (s)	8.4	33.0	7.6	7.3	27.8	10.6	10.6	10.6		7.6	7.6	
Actuated g/C Ratio	0.14	0.55	0.13	0.12	0.47	0.18	0.18	0.18		0.13	0.13	
v/c Ratio	0.26	0.30	0.20	0.04	0.39	0.08	0.24	0.09		0.07	0.27	
Control Delay	29.5	13.1	2.1	29.4	19.1	0.4	26.4	14.1		28.9	11.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	29.5	13.1	2.1	29.4	19.1	0.4	26.4	14.1		28.9	11.7	
LOS	C	B	A	C	B	A	C	B		C	B	
Approach Delay		14.0			17.9			24.5			14.7	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)	24	67	0	3	107	0	25	1		5	0	
Queue Length 95th (ft)	62	168	5	17	201	0	57	22		23	36	
Internal Link Dist (ft)		452			560			477			356	
Turn Bay Length (ft)	200		200	225		225	100					
Base Capacity (vph)	338	1281	505	338	1281	505	896	438		461	466	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.19	0.24	0.12	0.03	0.26	0.06	0.16	0.06		0.03	0.15	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 59.6			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.39			
Intersection Signal Delay: 17.1		Intersection LOS: B	
Intersection Capacity Utilization 46.2%		ICU Level of Service A	

Analysis Period (min) 15

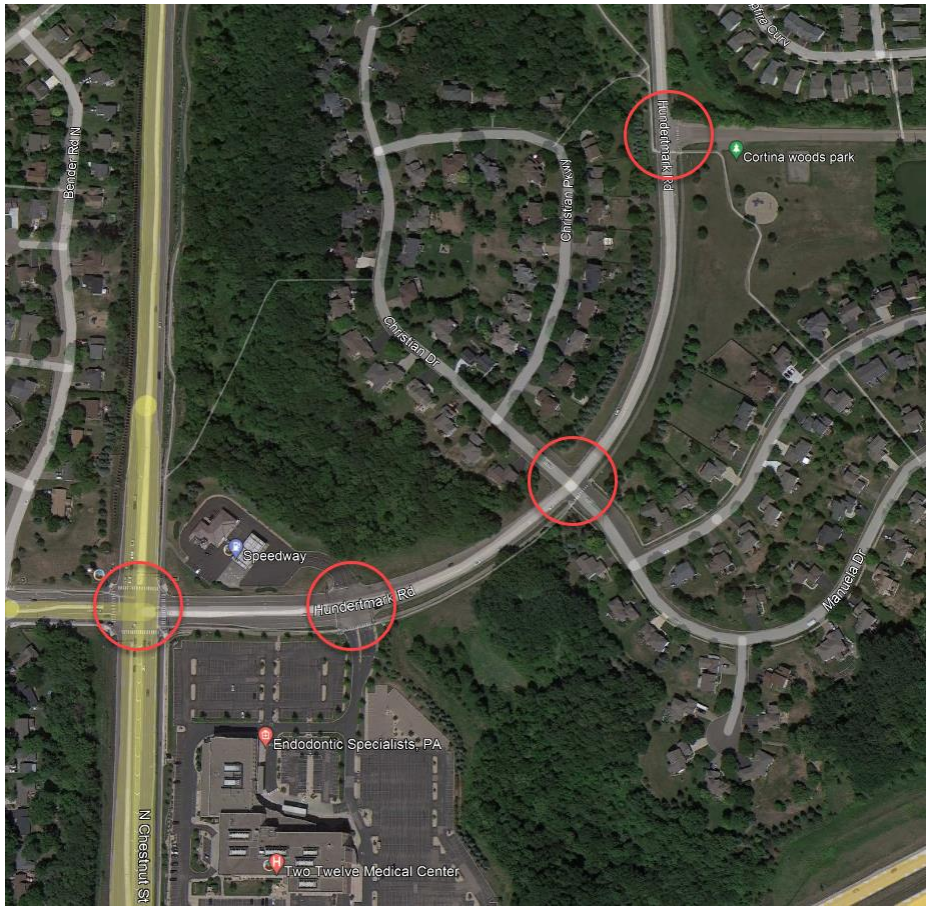
Splits and Phases: 2: Hundertmark Rd

Two Twelve Medical Center Traffic Study

Existing Conditions

- BMI conducted 48 Hour Turning Movement Counts the following intersections:
  - TH 41 & Hundertmark Road
  - Hundertmark Road & 212 Medical Center Driveway
  - Hundertmark Road & Manuela Drive
  - Hundertmark Road & Purple Brick Road

Road Segment	Daily Estimated Traffic
TH 41 North of Hundertmark	19,210
TH 41 South of Hundertmark	27,340
Hundertmark Road	9,170



Existing Conditions – Cut Through Traffic

- Origin-destination data gathered using StreetLight Insight probe data platform
- ~1500 vehicles per day travel between points A/B and C/D via Hundertmark Road
- This equates to 16% of the daily traffic along Hundertmark
- Approximately 1200 vehicles per day along Hundertmark Road are school related

Comparison to TH 41 Expansion Planning

- Generally, 2022 traffic volumes are the same or lower that the volume projections completed during planning work for the TH 41 expansion project.

- Planning and design for the expansion of TH 41 was anticipated to provide more green time at the TH 41/Hundertmark signal for side-street traffic. This has occurred and signal timing implemented now is similar to what was assumed during the study.

TH 41 & Hundertmark Road Movements
AM Peak Hour

	SBR	SBT	SBL	App. Total
2018*	50	575	30	655
2022	55	429	31	515

2018*	2022	
130	100	EBL
230	182	EBT
410	340	EBR
770	622	App. Total

	2018*	2022
WBR	20	15
WBT	80	81
WBL	155	133
App. Total	255	229

	NBL	NBT	NBR	App. Total
2018*	165	805	380	1350
2022	136	644	377	1157

North

NB/SB: TH 41
EB/WB: Hundertmark

*2018 volumes from the TH 41 Reconstruction Traffic Anlysis Report

TH 41 & Hundertmark Road Movements
PM Peak Hour

	SBR	SBT	SBL	App. Total
2018*	80	750	32	862
2022	118	748	20	886

2018*	2022	
78	84	EBL
130	113	EBT
223	257	EBR
431	454	App. Total

	2018*	2022
WBR	73	40
WBT	230	167
WBL	287	311
App. Total	590	518

	NBL	NBT	NBR	App. Total
2018*	389	788	362	1539
2022	332	765	277	1374

North

NB/SB: TH 41
EB/WB: Hundertmark

*2018 volumes from the TH 41 Reconstruction Traffic Anlysis Report

Existing Conditions – Capacity Analysis

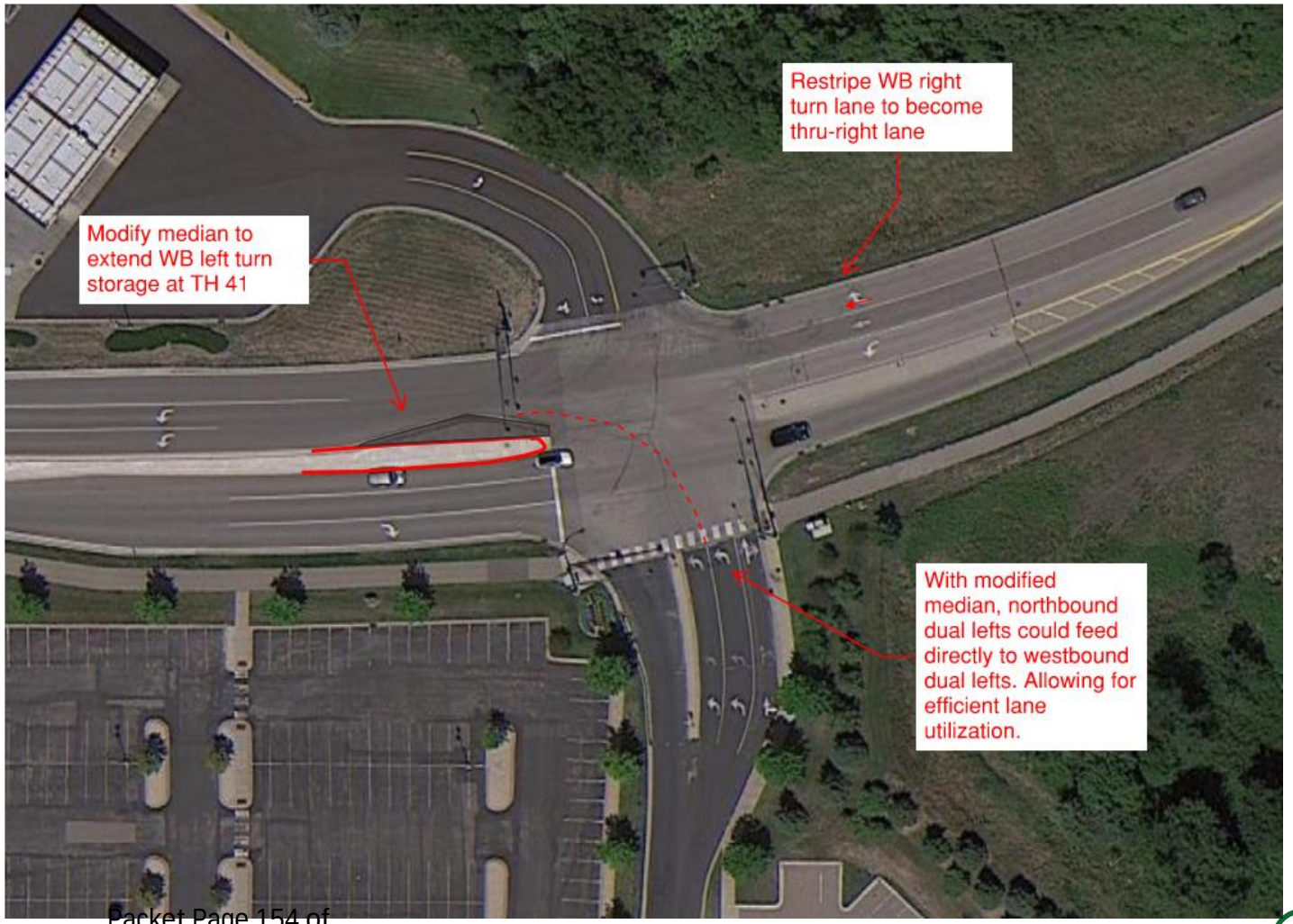
- TH 41 & Hundertmark
  - Operates at an acceptable Level of Service (LOS) during both peak hours.
  - The westbound queue has the potential to spillback to the 212 Medical Center Driveway and has been experienced by City Staff; however, this was not experienced during the time of data collection or in the analysis.
- Hundertmark Intersections
  - The intersections operate at an acceptable LOS during both peak hours with minimal delay.

Capacity Analysis Results

	AM Peak Hour	PM Peak Hour
Intersection	Intersection (Delay - LOS)	Intersection (Delay - LOS)
TH 41 & Hundertmark	26.4 - C	40.2 - D
Hundertmark & 212 Medical Center Driveway	11.2 - B	16.8 - B
Hundertmark & Manuela / Christian	12.2 - B	13.7 - B
Hundertmark & Purple Brick Drive	12.1 -B	13.0 -B

Existing Conditions - Mitigation

- TH 41 & Hundertmark
  - Work with MnDOT to modify signal timing to further increase green time provided to Hundertmark
- Hundertmark & 212 Medical
  - Modify the median on western leg of the intersection.
    - This will provide an additional 90 feet of stacking distance for the westbound left turn movement at Hundertmark & TH 41.
  - Restripe the westbound right turn lane to become a thru-right lane.
    - This has the capability to reduce the westbound queue by 50 feet.



Existing Conditions - Mitigation

- Hundertmark & Manuela Drive
  - Stripe the stop-controlled approaches to include a left-thru lane and an exclusive right turn lane
- Hundertmark & Purple Brick Road (shown to right)
  - Stripe the stop-controlled approach to include an exclusive left turn lane and an exclusive right turn lane

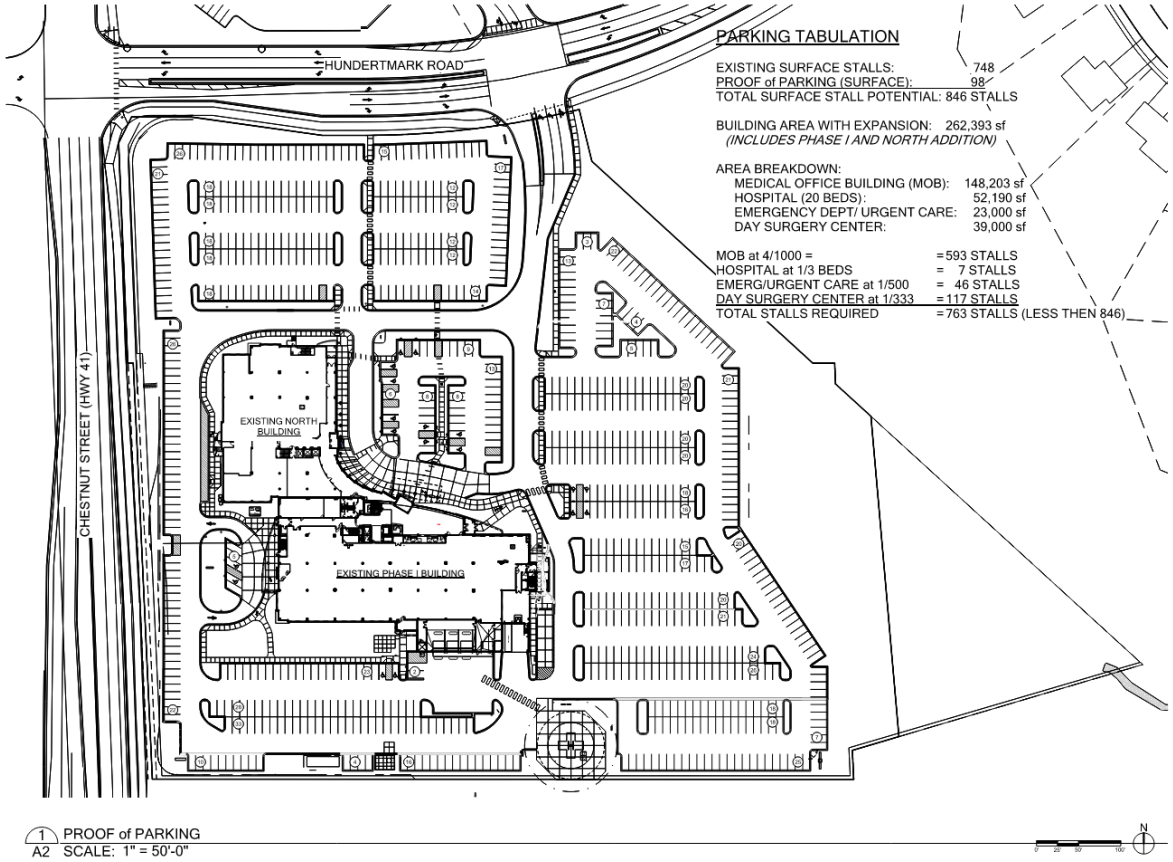
Restriping as indicated at both locations can reduce probability right turning vehicles having to wait to turn onto Hundertmark.

Two Twelve Medical Center

- Proposed 5th Floor addition will be 39,000 SF
- Addition is expected to be completed in 2023
- Traffic generated by the addition was estimated using the 11th Edition of the Institute of Transportation Engineers Trip Generation Manual

Trip Generation

Land Use (ITE Code)	Daily	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Hospital (610)	562	29	14	43	16	29	45



Projected Traffic Volumes

Projections from Chaska 2040 Comprehensive Plan

Road Segment	2018 AADT	2040 AADT
Hundertmark E of TH 41	8,300	9,000
Hundertmark W of TH 41	9,100	9,900
TH 41 S of Hundertmark	21,100	22,000
TH 41 N of Hundertmark	18,200	21,000

- On average traffic is expected to grow at an annual rate of **.5%**
- Therefore, the growth rate of .5% was used to project the existing volumes to future year scenarios

2023 Build Conditions

- TH 41 & Hundertmark
  - The westbound left turn delay is expected to increase with the addition of the site traffic
  - The westbound queue is not expected to increase significantly
  - All vehicles are still expected to be served in one signal cycle
  - Without implementing the mitigations for the existing conditions, the westbound queue could potentially spill back into the adjacent intersection.
- Hundertmark & 212 Medical
  - Additional traffic is expected to have minimal impact on the signal operations
- Unsignalized Hundertmark intersections
  - Minimal impacts are anticipated with the addition of site traffic

Capacity Analysis Results

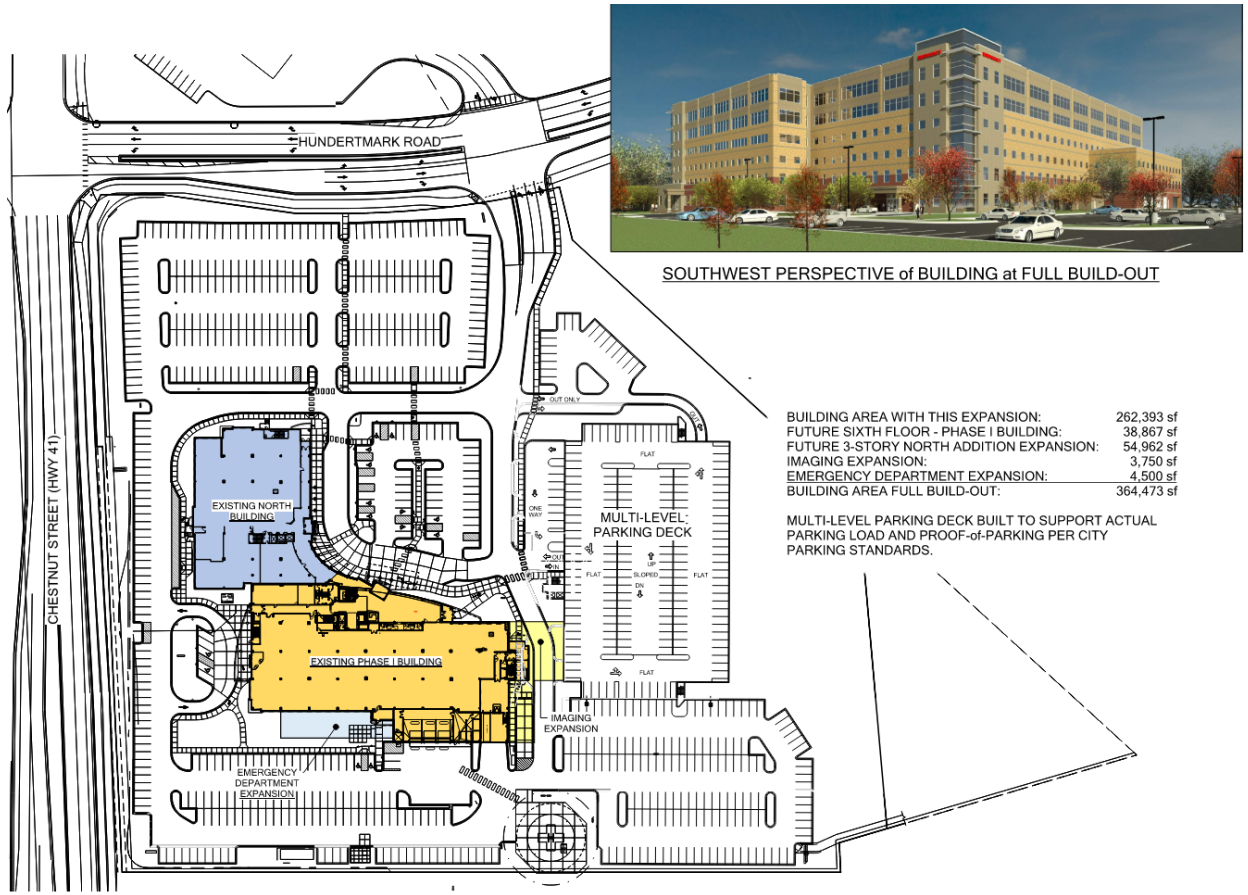
	2023 No-Build		2023 Build	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Intersection	Delay - LOS	Delay - LOS	Delay - LOS	Delay - LOS
TH 41 & Hundertmark	26.4 - C	40.2 - D	26.8 - C	41.0 - D
Hundertmark & 212 Medical Center Driveway	11.2 - B	16.8 - B	12.3 - B	17.1 - B
Hundertmark & Manuela / Christian	12.2 - B	13.7 - B	12.3 - B	13.8 - B
Hundertmark & Purple Brick Drive	12.1 -B	13.0 -B	12.2 -B	13.1 -B

Two Twelve Medical Center

- The full buildout is to consist of 364,473 SF
- Expected build year of 2033
- Existing traffic volumes were used to estimate the trip generation potential of the additional 141,100 SF (above and beyond trips generated by the 5th floor expansion)

Full Build Trip Generation

Land Use (ITE Code)	Daily	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
212 Medical Center	1542	124	49	173	27	100	127



SOUTHWEST PERSPECTIVE of BUILDING at FULL BUILD-OUT

2033 Build Conditions

- TH 41 & Hundertmark
  - The westbound left turn delay is expected to increase with the addition of the site traffic
  - The westbound queue is not expected to increase significantly
  - All vehicles are still expected to be served in one signal cycle
  - Without implementing the mitigations for the existing conditions, the westbound queue could potentially spill back into the adjacent intersection.
- Hundertmark & 212 Medical
  - Additional traffic is expected to have minimal impact on the signal operations
- Unsignalized Hundertmark intersections
  - Minimal impacts are anticipated with the addition of site traffic

Capacity Analysis Results

	2033 No-Build		2033 Build	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Intersection	Delay - LOS	Delay - LOS	Delay - LOS	Delay - LOS
TH 41 & Hundertmark	27.0 - C	41.4 - D	28.4 - C	43.7 - D
Hundertmark & 212 Medical Center Driveway	11.5 - B	17.1 - B	13.3 - B	18.9 - B
Hundertmark & Manuela / Christian	12.6 - B	14.2 - B	12.8 - B	14.4 - B
Hundertmark & Purple Brick Drive	12.4 -B	13.4 -B	12.7 -B	13.7 -B

In Conclusion

Existing Conditions

- Generally limited operational concerns overall, however westbound left turn from Hundertmark onto TH 41 can queue back to 212 Medical Center signal
- Recommend implementing the low-cost mitigations shown to benefit operations overall regardless of medical center expansion. These improvements would include pavements markings, signing, and a median modification.

Two Twelve Medical Center Expansion

- The future Build scenarios were analyzed using the existing intersection geometry and signal timing.
- Neither the currently proposed 39,000 expansion or the full buildout of the medical center is expected to severely impact the transportation network. The signalized intersections have additional capacity during periods of the day when medical center traffic is the highest.
- The traffic growth potential has been accounted for in the Chaska 2040 Comprehensive Plan and the TH 41 Expansion Study.

Ross Tillman, P.E.
Principal Transportation Engineer
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REQUEST FOR ACTION
CHASKA CITY COUNCIL
03/21/2022

Subject: Annexation into Chaska of a portion of the Kelzer property currently in Laketown Township

Prepared By: Elizabeth Hanson

In December 2021, the Concept Plan for Oak Creek (fka Sagewood 3rd) was approved. This development is mainly situated on a piece of property owned by the Kelzer family that is in Laketown Township (approx. 74 acres). It was required as a condition of approval of the concept plan to annex the property into Chaska in order to provide preliminary plat and rezoning approvals. The request this evening is to do just that as they plan to come in for preliminary plat and rezoning review in April this year.

It should be noted that this is an incontiguous parcel split by the railroad right-of-way (ROW). About 3 acres of the total parcel is situated north of the train tracks; the remainder of about 71 acres south of the train tracks. All of which will be annexed.

The parcel (see attached exhibit) is located within the Laketown Township Orderly Annexation Agreement area. This agreement shows this parcel ultimately being annexed by the City of Chaska. By agreement with Carver County, the City already has Planning and Zoning control over this parcel. The property is currently vacant and has been used as farmland over the years. It's future use will be for single-family residential. Given, that this parcel is adjacent to the City of Chaska, and that the annexation is consistent with the Orderly Annexation Agreement it would seem appropriate to consent to the annexation.

The Township of Laketown Board met on Monday, March 14, 2022 and approved the annexation (Township Resolution No. 2022-06). The next step is the City of Chaska approving the annexation, and subsequently the State (Department of Administration).

CITY COUNCIL ACTION REQUESTED

Adopt Resolution No. 2022-26, approving the annexation of the Kelzer property into Chaska from Laketown Township, per the Orderly Annexation Agreement.

JOINT RESOLUTION STIPULATING TO THE AMENDMENT OF THE ORDERLY ANNEXATION AGREEMENT NO. 76-47 AND THE ORDERLY ANNEXATION OF PROPERTY

CITY OF CHASKA RESOLUTION NO. 2022-_26

TOWNSHIP OF LAKETOWN RESOLUTION NO. 2022-__06_

TO: Chief Administrative Law Judge
State Office of Administrative Hearings
Municipal Boundary Adjustments Unit
P.O. Box 64620
St. Paul, MN 55164-0620

WHEREAS, the municipalities of Chaska, Victoria, and Waconia, and the Township of Laketown, agreed to Orderly Annexation Agreement No. 76-47 (the "Annexation Agreement") pursuant to Minnesota Statutes Chapter 414 for the annexation of certain unincorporated territory in the Township of Laketown; and

WHEREAS, the City of Chaska (the "City") has received a request for the annexation of the property totaling 73.65 acres of real property shown on attached Exhibit A and legally described on attached Exhibit B (the "Property"), which Property lies within the area designated in the Annexation Agreement for orderly annexation by the City but which was specifically exempted from annexation pursuant to the terms of the Annexation Agreement; and

WHEREAS, the Property is about to become urban and suburban in character; and

WHEREAS, the City and the Township of Laketown (the "Township") hereby intend to amend the Annexation Agreement relating to the rights, duties, and responsibilities of the Township and the City in regard to the Property; and

WHEREAS, the City and the Township are in agreement as to the orderly annexation of the unincorporated land described; that both believe it will be to their benefit and to the benefit of their respective residents; and

WHEREAS, Minnesota Statutes § 414.0325 provides a procedure whereby the City and the Township may agree on a process of orderly annexation of a designated area; and

WHEREAS, the City and the Township have agreed to all the terms and conditions for the annexation of the Property and the signatories hereto agree that no alteration of the designated area is appropriate and no consideration by the Chief Administrative Law Judge is necessary. The Chief Administrative Law Judge may review and comment, but shall within thirty (30) days, order the annexation in accordance with the terms of the resolution.

NOW, THEREFORE, BE IT JOINTLY RESOLVED, by the City Council of the City of Chaska and the Township Board of Supervisors of the Township of Laketown, Carver County, Minnesota, as follows:

1. **Affected Lands.** The terms of this Joint Resolution shall only apply to the Property graphically depicted on attached Exhibit A and legally described on attached Exhibit B. This Joint Resolution does not affect the terms of the Annexation Agreement in regard to any other real property subject to the Annexation Agreement.

2. **Jurisdiction.** That the Township and the City, by submission of this Joint Resolution to the Municipal Boundary Adjustment Unit of the Office of Administrative Hearings (the "OAH"), confers jurisdiction upon the Chief Administrative Law Judge so as to accomplish said orderly annexation in accordance with the terms of this Joint Resolution.

3. **No Alteration of Boundaries.** The Township and the City agree that no alteration of the stated boundaries of the Property as described in this Joint Resolution is appropriate. No consideration by the Chief Administrative Law Judge is necessary, Therefore, the Chief Administrative Law Judge may review and comment, but shall within thirty (30) days, order the annexation of the Property in accordance with the terms of this Joint Resolution.

4. **Need.** The Township and City agree that the Property is in need of orderly annexation, that the Property is urban or suburban or about to become so, that the City is capable of providing services to the Property within a reasonable time, and that annexation is in the best interest of the Property and surrounding area.

5. **Annexation.** The Township and the City agree that the conditions of annexation shall be governed by this Joint Resolution and pursuant to paragraph 26 of the Annexation Agreement, which states that the mill levy of the City of Chaska on any area annexed shall be increased in substantially equal proportions over a period of three (3) years such that in the fourth year following annexation the mill rate on such property shall be the same as the City of Chaska.

6. **Tax Reimbursement.** The Township and the City acknowledge that the reimbursement for taxable property has been satisfied. The Developer and Township have agreed that a single payment of $36,823.00 will be made to the Township in exchange for the taxable property annexed by this Joint Resolution. This payment has already been made and a copy of the Township's receipt acknowledging payment is attached as Exhibit C.

7. **Special Assessments**. There are no special assessments assigned by or due to the Township regarding the Property and no debt incurred by the Township prior to the annexation and attributable to the Property that needs to be reimbursed.

8. **Corporate Boundaries.** Minnesota Boundary Adjustments shall amend the corporate boundaries for Chaska consistent with this Joint Resolution.

9. **Authorization.** The appropriate officers of the City and the Township are hereby authorized to carry the terms of this Joint Resolution into effect.

10. **Severability and Repealer.** A determination that a provision of this Joint Resolution is unlawful or enforceable shall be severed from this Joint Resolution and shall not affect the validity or enforceability of the provisions herein.

11. **Costs.** Each party shall pay its own costs incurred in the negotiation, development, and implementation of the Annexation Agreement and this Joint Resolution.

12. **Venue.** The venue for all actions concerning this Joint Resolution shall be Carver County, Minnesota.

13. **Entire Agreement.** With respect to the Property only, the terms, covenants, conditions, and provisions of this Joint Resolution shall constitute the entire agreement between the parties hereto superseding all prior agreements and negotiations between the parties.

14. **Notice.** Any notices required under the provisions of this Joint Resolution shall be in writing and deemed sufficiently given if delivered in person or sent by U.S. mail, postage prepaid, to the City Administrator or to the Township Clerk at their official addresses.

15. **Legal Description and Mapping.** The Township and the City agree that in the event there are errors, omissions or any other problems with the mapping provided in Exhibit A or the legal description provided in Exhibit B, in the judgment of the OAH, the City and the Township agree to make such corrections and file any additional documentation, including new Exhibit A or Exhibit B making the corrections requested or required by the OAH as necessary to make effective the annexation of said Property in accordance with the terms of this Joint Resolution.

16. **Review and Comment.** The City and the Township agree that upon receipt of this Joint Resolution, passed and adopted by each party, the Chief Administrative Law Judge may review and comment, but shall within thirty (30) days, order the annexation in accordance with the terms of the Joint Resolution.

This Joint Resolution shall be effective upon approval by both the Board of Supervisors of the Township of Laketown and the City Council of the City of Chaska.

Passed and adopted by the Board of Supervisors of the Township of Laketown this 14 day of March 2022.

By: Mike Kluzik
Chairperson
Board of Supervisor

ATTEST:

By: Jean Moore
Township Clerk

JEAN MARIE MOORE
Carver County, Minnesota
Notarial Officer (ex-officio notary public)
term is indeterminate

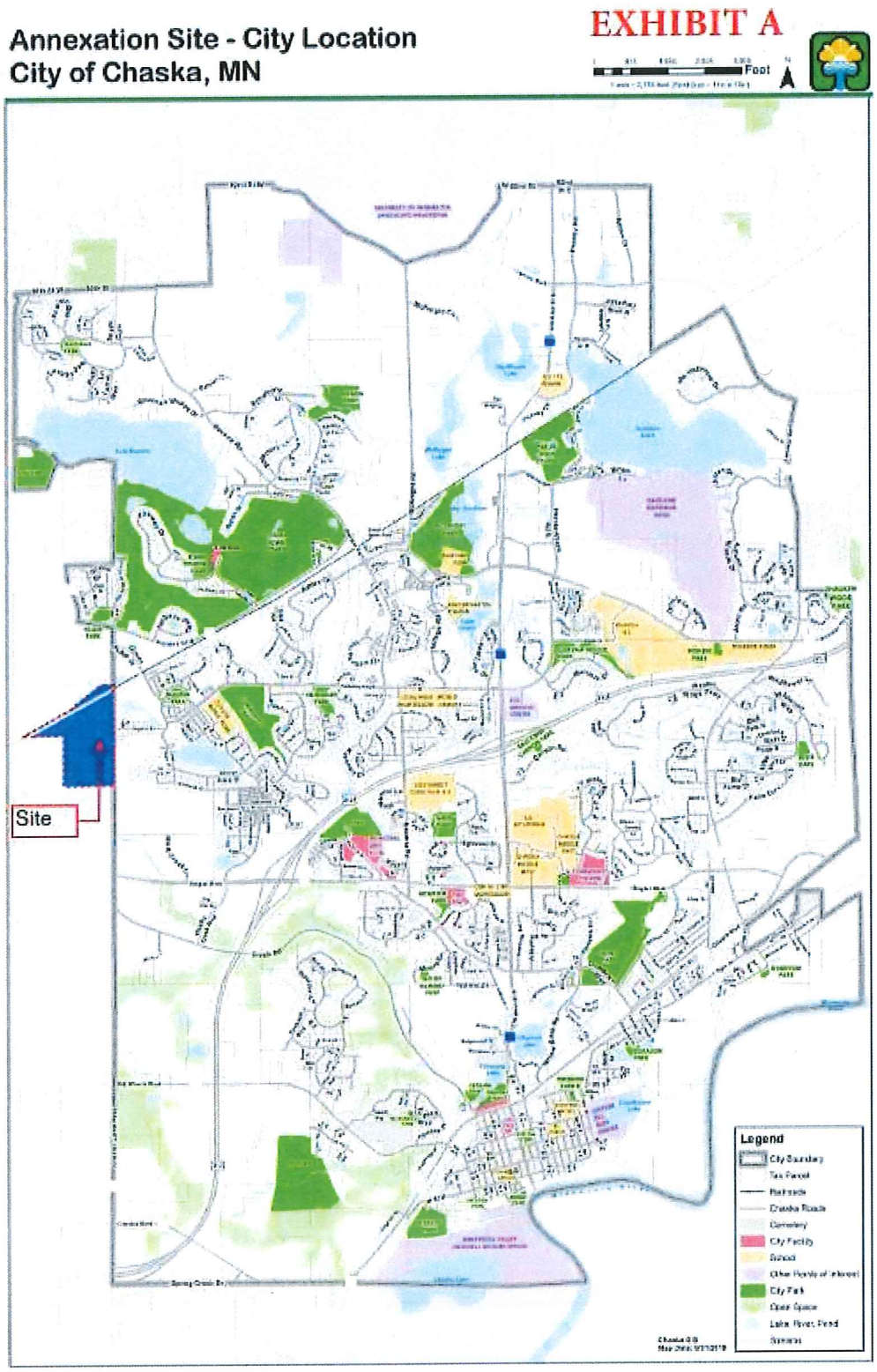
Adopted by affirmative vote of the City Council of the City of Chaska, this _____ day of _____2022.

ATTEST:

By: _____
Mark Windschitl
Mayor

By: _____
Denise Beebe
City Clerk

EXHIBIT A


Annexation Site - City Location
City of Chaska, MN
EXHIBIT A
Foot
Site
Legend
City Boundary
Tax Parcel
Railroads
Chaska Roads
Cemetery
City Facility
School
City Park
Open Space
Lake, River, Pond
Streams

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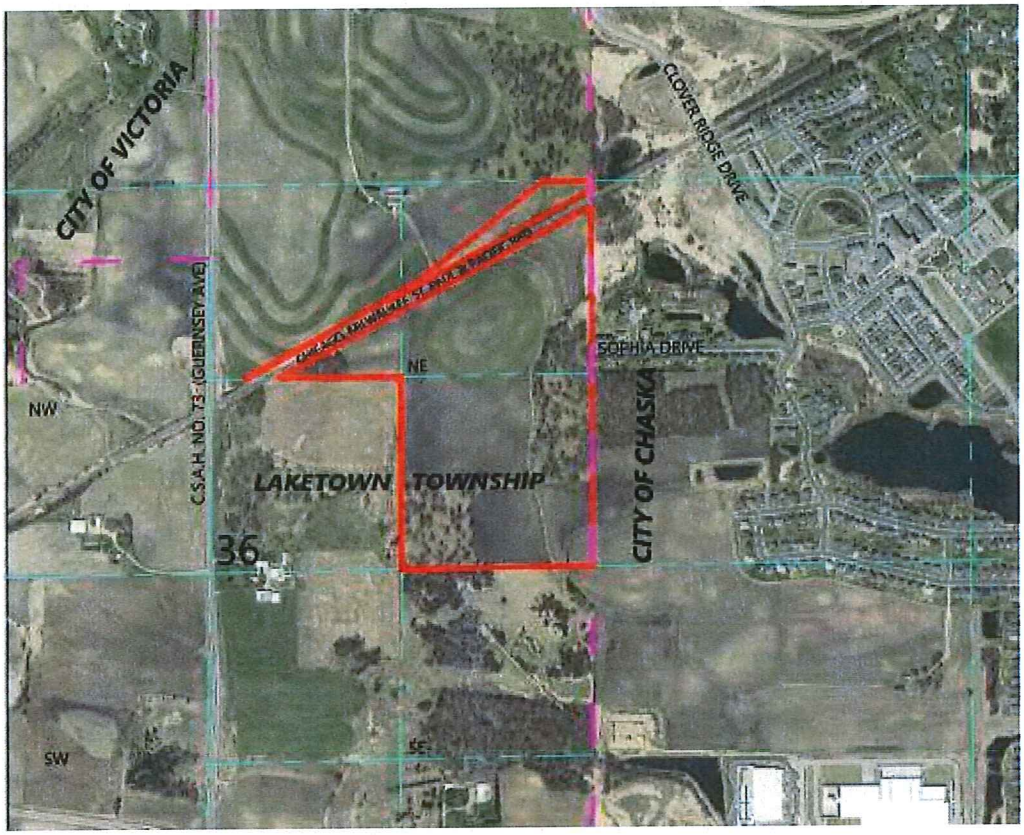


SITE

TOWNSHIP LINE

SECTION LINE

TWP. 116, RGE. 24, SECTION 36

0' 1000' 2000'

N:\0024429.00\DWG\SUBMITTAL\0024429-ANNEX.DWG

KELZER PROPERTY

KELZER PROPERTY
CHASKA, MINNESOTA

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (800) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

ANNEXATION EXHIBIT

SHEET NUMBER: 1 OF 1

DATE: 02/08/2022

PROJECT NUMBER: 0024429.00

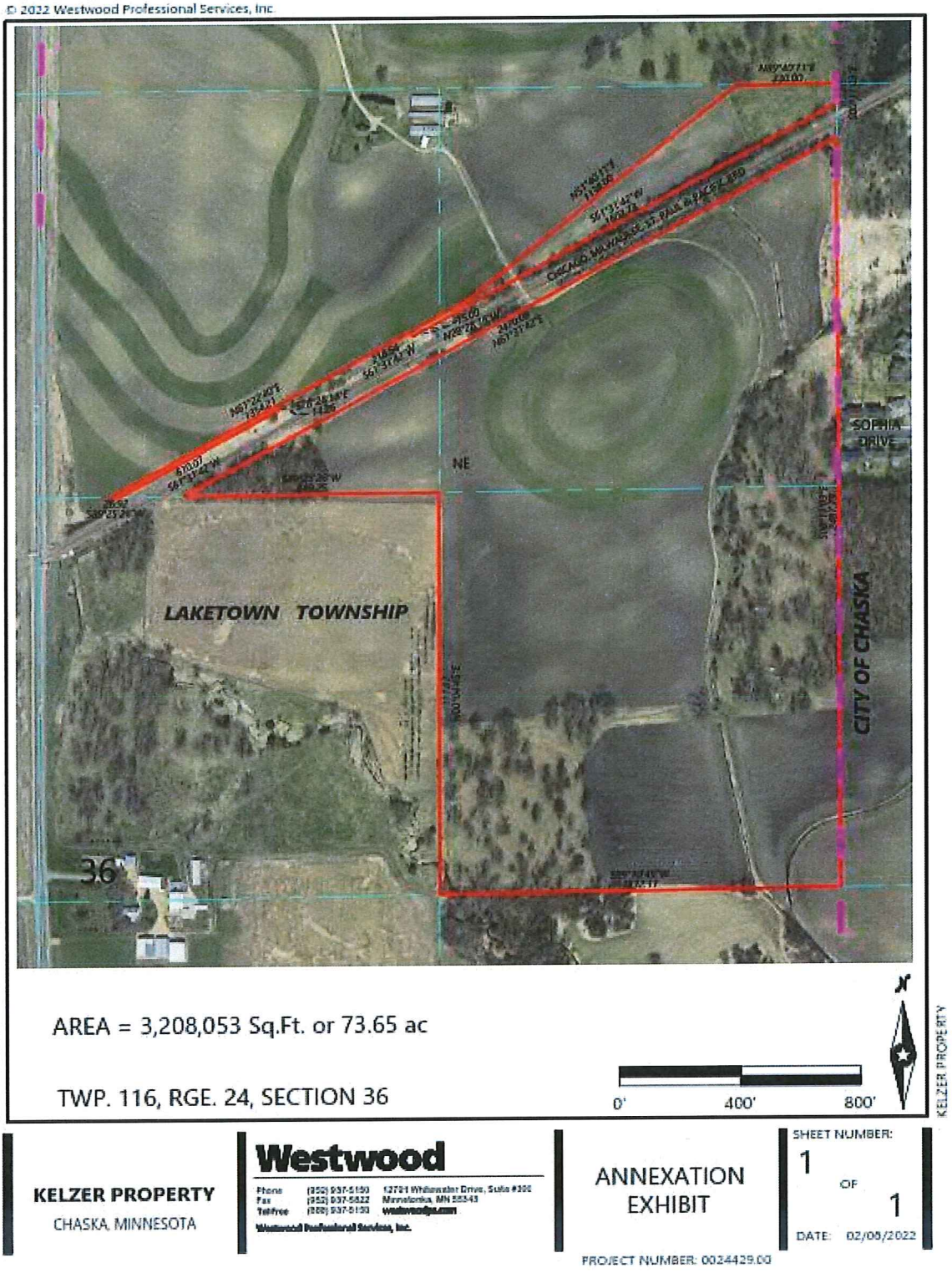

© 2022 Westwood Professional Services, Inc.
SOPHIA DRIVE
NE
LAKETOWN TOWNSHIP
CITY OF CHASKA
36
AREA = 3,208,053 Sq.Ft. or 73.65 ac
TWP. 116, RGE. 24, SECTION 36
0'
400'
800'
KELZER PROPERTY
KELZER PROPERTY
CHASKA, MINNESOTA
Westwood
ANNEXATION EXHIBIT
SHEET NUMBER: 1 OF 1
DATE: 02/05/2022
PROJECT NUMBER: 0024429.00

EXHIBIT B

Tract 1:

The Southeast Quarter of the Northeast Quarter (SE 1/4 of NE 1/4) of Section 36, Township 116 North, Range 24 West of the Fifth Principal Meridian.

(Abstract)

Tract 2:

All that part of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of Section 36, Township 116, Range 24, lying Southerly of the Northerly boundary line of the old right of way of the Hastings and Dakota Railway Co. as located prior to the year 1912, and described by metes and bounds, as follows:

> Beginning at the Northeast corner of said Section 36, running thence West on the North line of said Section 36, 330 feet to a point on the Northerly boundary line of said right of way; thence South 52 degrees West along said boundary line 1138 feet; thence South 61 degrees, 5 minutes West along said boundary line 1357 feet to a point on the South line of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of said Section 36, said point being 236 feet East from the Southwest corner of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of said Section 36 thence East along the South line of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of said Section 36, to the Southeast corner thereof; thence North on the section line to the place of beginning, EXCEPTING THEREFROM the right of way of the Chicago, Milwaukee and St. Paul Railway Co. as now located across said land as conveyed by deed, recorded in the office of the County Recorder, Carver County, Minnesota, in Book 23 of Deeds on page 304.

(Abstract)

EXHIBIT C

LAKETOWN TOWNSHIP

RECEIPT FOR REIMBURSEMENT TO TOWNSHIP

FOR ANNEXATION OF TAXABLE PROPERTY

March 14, 2022

Pursuant to Minnesota Statutes Section 414.036, the Township of Laketown hereby acknowledges the receipt of $ 36,823.00__ as reimbursement for all of the taxable property being annexed to the City of Chaska as depicted on Exhibit A and as legally described on Exhibit B of the attached Joint Resolution and approves the annexation of such land. There are no special assessments assigned by the Township of Laketown to the annexed property and no debt incurred by the Township of Laketown prior to the annexation attributable to the property annexed.

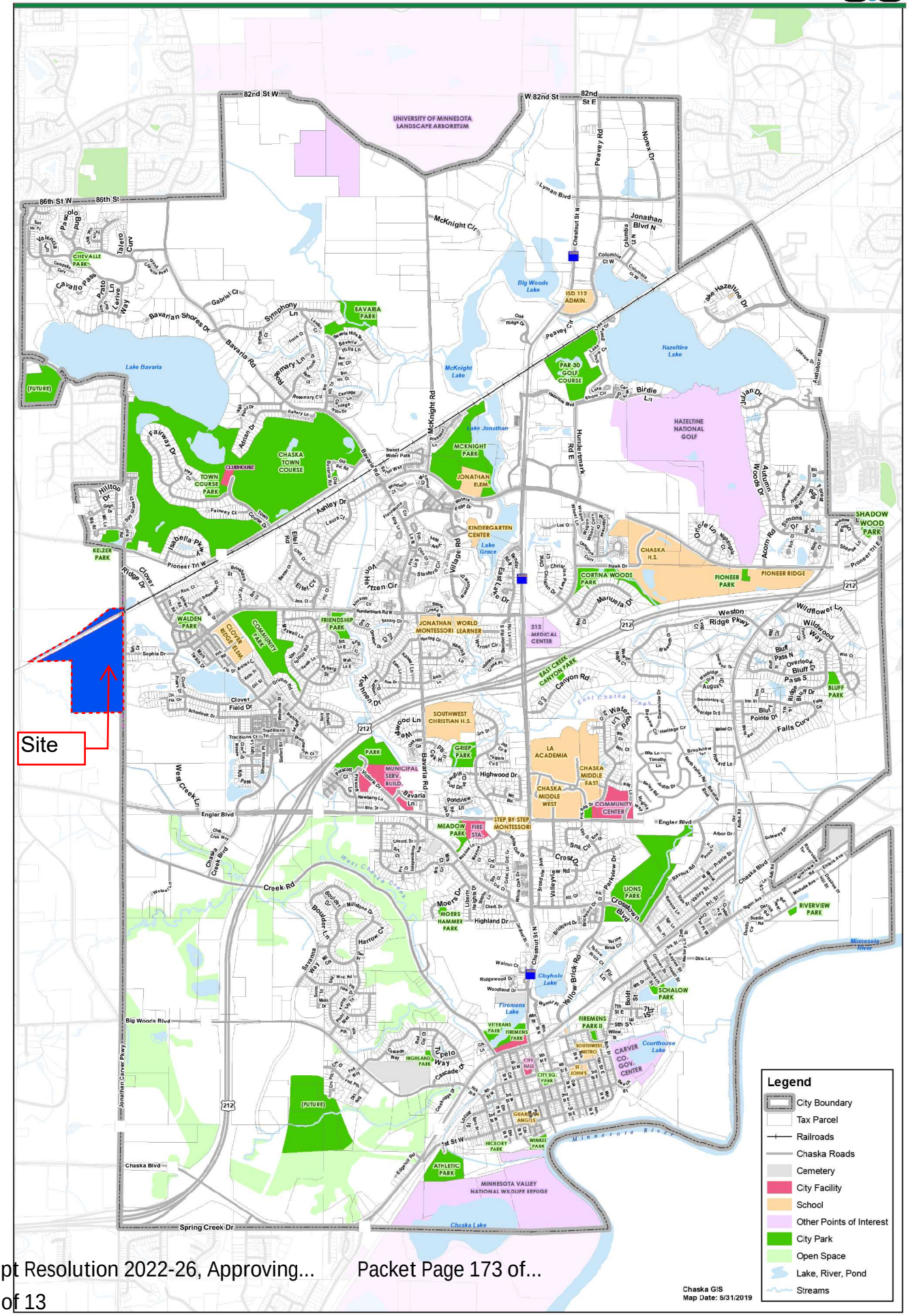
Laketown Township

Chairperson, Board of Supervisors

Township Clerk

JEAN MARIE MOORE
Carver County, Minnesota
Notarial Officer (ex-officio notary public)
My term is indeterminate

Annexation Site - City Location
City of Chaska, MN



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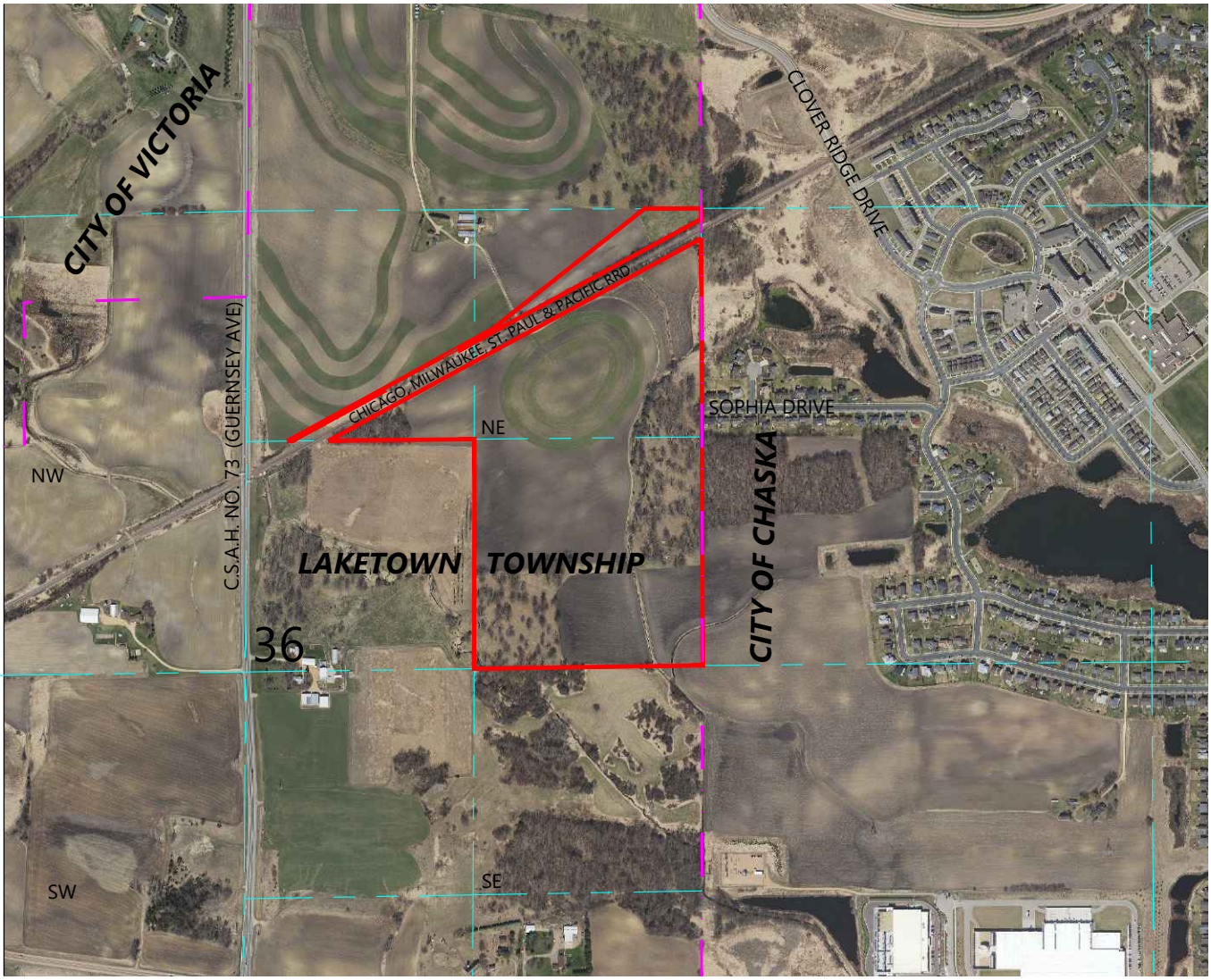

SITE

TOWNSHIP LINE

SECTION LINE

TWP. 116, RGE. 24, SECTION 36

0' 1000' 2000'

N:\0024429.00\DWG\SURVEY\0024429S-ANNX.DWG

KELZER PROPERTY

KELZER PROPERTY
CHASKA, MINNESOTA

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

ANNEXATION EXHIBIT

SHEET NUMBER: 1 OF 1

DATE: 02/08/2022

PROJECT NUMBER: 0024429.00

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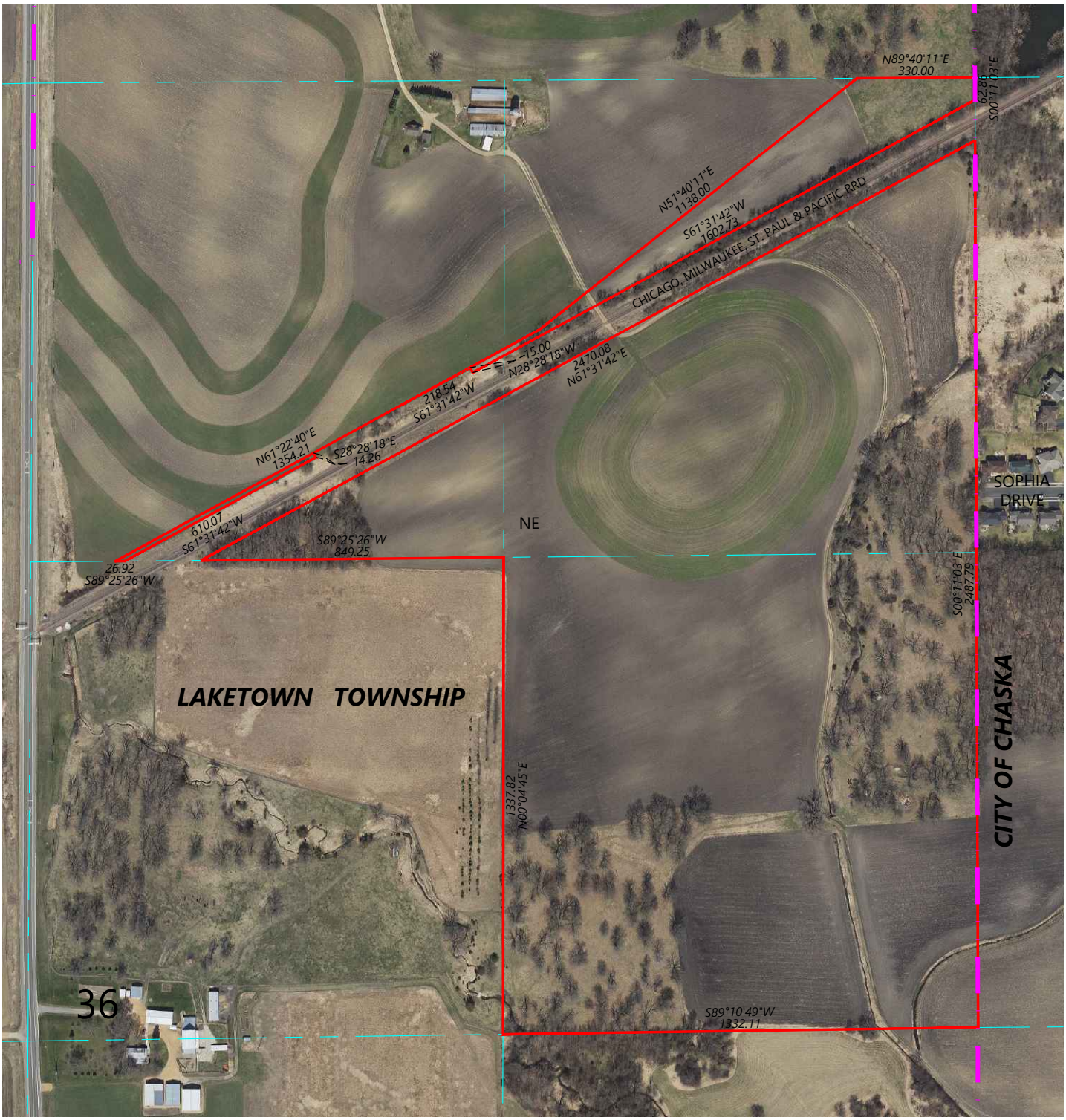

AREA = 3,208,053 Sq.Ft. or 73.65 ac

TWP. 116, RGE. 24, SECTION 36

0' 400' 800'

N:\0024429.00\DWG\SURVEY\0024429S-ANNX02.DWG

KELZER PROPERTY

KELZER PROPERTY
CHASKA, MINNESOTA

Westwood

Phone (952) 937-5150
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Toll Free (888) 937-5150
12701 Whitewater Drive, Suite #300
Minnetonka, MN 55343
westwoodps.com
©Westwood Professional Services, Inc.

ANNEXATION EXHIBIT

SHEET NUMBER: 1 OF 1

DATE: 02/08/2022

PROJECT NUMBER: 0024429.00

REQUEST FOR ACTION
CHASKA CITY COUNCIL
03/21/2022

Subject: **Bond Sale Reimbursement**

Prepared By: Kelly Grinnell, Finance Manager

Reviewed By: Noel Graczyk, Administrative Services Director

The City anticipates issuing bonds in the future to finance various improvements associated with TIF District #23, City Square West. One such item is the purchase of the parcel at 216 4th Street West for approximately $250,000. This parcel is part of a future new library site.

Another project the City plans to issue bonds for is the 2022 Street Reconstruction Project. The total project cost is estimated at about $6.5 million, but with the use of ARPA SLFRF funds and funds on hand the estimated bond amount is $4 million.

Prior to issuance of any such bonded debt the City must first comply with IRS regulations regarding reimbursement requirements. In accordance with IRS regulations, the City must declare its intent to reimburse itself prior to payment of any project expenditures. Projects as listed in the proposed reimbursement resolution will incur costs that may be reimbursed from future bond sales and thus must be declared by the City for possible future reimbursement.

The enclosed proposed resolution establishes compliance with IRS reimbursement regulations for the items as listed in Attachment A to the resolution.

Staff recommends adoption of the resolution.

CITY COUNCIL ACTION REQUESTED

Motion to adopt Resolution 2022-27 relating to financing certain proposed projects and establishing compliance with reimbursement bond regulations under the Internal Revenue Code.

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 03/21/2022 RESOLUTION NO. 2022-27

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

RESOLUTION RELATING TO FINANCING OF CERTAIN PROPOSED PROJECTS; AND, ESTABLISHING COMPLIANCE WITH REIMBURSEMENT BOND REGULATIONS UNDER THE INTERNAL REVENUE CODE

BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota (the "City"), as follows:

1. Recitals.

(a) The United States Department of Treasury has promulgated final regulations governing the use of proceeds of tax-exempt bonds, all or a portion of which are to be used to reimburse the City for project expenditures paid by the City prior to the date of issuance of such bonds. Those regulations (Treasury Regulations, Section 1.150-2) (the "Regulations") require that the City adopt a statement of official intent to reimburse an original expenditure not later than 60 days after payment of the original expenditure. The Regulations also generally require that the bonds be issued and the reimbursement allocation made from the proceeds of the bonds within 18 months (or three years, if the reimbursement bond issue qualifies for the "small issuer" exception from the arbitrage rebate requirement) after the later of (i) the date the expenditure is paid, or (ii) the date the project is placed in service or abandoned, but (unless the issue qualifies for the "small issuer" exception from the arbitrage rebate requirement) in no event more than three years after the date the expenditure is paid. The Regulations generally permit reimbursement of capital expenditures and costs of issuance of the bonds.

(b.) The City desires to comply with requirements of the Regulations with respect to certain projects hereinafter identified.

2. Official Intent Declaration.

(a) The City proposes to undertake certain projects, which projects and the estimated costs thereof are generally described in Exhibit A hereto, which is hereby incorporated herein and made a part hereof (the "Projects").

(b) Other than (i) expenditures to be paid or reimbursed from sources other than the Bonds (as hereinafter defined), (ii) expenditures constituting preliminary expenditures within the meaning of Section 1.150-2(f)(2) of the Regulations, or (iii) expenditures in a "de minimus" amount (as defined in Section 1.150-2(f)(1) of the Regulations), no expenditures for the Projects have been paid by the City before the sixty (60) days before the date of adoption of this resolution.

(c) The City reasonably expects to reimburse the expenditures made for costs of the Projects out of the proceeds of debt in an estimated maximum aggregate principal amount of $4,250,000 (the "Bonds") after the date of payment of all or a portion of the costs of the Projects. All reimbursed expenditures shall be capital expenditures, a cost of issuance of the Bonds or other expenditures eligible for reimbursement under Section 1.150-2(d)(3) of the Regulations.

3. Budgetary Matters. As of the date hereof, there are no City funds reserved, allocated on a long-term basis, or otherwise set aside (or reasonably expected to be reserved, allocated on a long-term basis, or otherwise set aside) to provide permanent financing for the expenditures related to the Projects, other than pursuant to the issuance of the Bonds. The statement of intent contained in this resolution, therefore, is determined to be consistent with the City's budgetary and financial circumstances as they exist or are reasonably foreseeable on the date hereof.

4. Reimbursement Allocations. The City's financial officer shall be responsible for making the "reimbursement allocations" described in the Regulations, being generally the transfer of the appropriate amount of proceeds of the Bonds to reimburse the source of temporary financing used by the City to make prior payment of the costs of the Projects. Each allocation shall be evidenced by an entry on the official books and records of the City maintained for the Bonds or the Projects and shall specifically identify the actual original expenditure being reimbursed.

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 21st day of March 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Denise Wetzel, Deputy Clerk

REQUEST FOR ACTION
CHASKA CITY COUNCIL
03/21/2022

Subject: Interfund Tax-Increment Project Financing

Prepared by: Kelly Grinnell, Finance Manager

Reviewed by: Noel Graczyk, Administrative Services Director

In accordance with the Minnesota State Statutes, the City needs to authorize the use of interfund loans to fund cash deficits in tax increment funds. The enclosed proposed resolution establishes the terms and conditions for an interfund loan, from the City, to purchase the property at 216 4th Street West. Eventually the City will issue permanent bond financing for this parcel.

In accordance with Minnesota State Statutes, interfund loans must be established by resolution with a stated interest rate, annual term, and loan amount. These defined terms fix the annual cost of a loan using the maximum interest rate permitted in accordance with State Statutes.

Tax Increment District #23 (City Square West) is expected to have a cash deficit of $250,000 due to the purchase of the 216 4th Street West parcel. The annual interfund interest rate of 4.0% will be applied based on average monthly cash balance for the purchase.

The enclosed resolution establishes the interfund loan and sets the loan terms. Staff recommends adoption of the resolution.

CITY COUNCIL ACTION REQUESTED

Motion to approve Resolution No. 2022-28 providing for the interfund loan for tax-increment project financing.

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 03/21/2022 RESOLUTION NO. 2022-28

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

RESOLUTION RELATING TO PROVIDING INTERFUND TAX-INCREMENT PROJECT FINANCING

BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota (the "City"), as follows:

1. Recitals.

(a) Minnesota State Statutes (MSS), Section 469.178 permits the authority or municipality to use interfund loans to advance or loan money to finance tax increment expenditures. The maximum interest rate on the interfund loans is the greater of (i) the rate stated in MSS, Section 270C.40 or (ii) the rate stated in MSS, Section 549.09.

(b) In 2022 the maximum interfund interest rate is 4.0%, based on the 3.0% permitted rate in accordance with MSS, Section 270C.40 and the 4.0% permitted rated in accordance with MSS, Section 549.09.

2. Official Intent Declaration.

(a) The City of Chaska intends to make interfund loans from various funds of the City of Chaska to Tax Increment District No. 23, City Square West for the purchase of the parcel at 216 4th Street West for the 2022 fiscal year in the amount of $250,000 for a maximum period from March 2022 (partial month), to December 31, 2022 at the annual rate of 4.0%. The 2022 total interest cost will be based on the average monthly, cash balance.

Passed and adopted by the City Council of the City of Chaska, Minnesota this 21st day of March 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Deputy Clerk

REQUEST FOR ACTION
CHASKA CITY COUNCIL
03/21/2022

Subject: **Use of ARPA Funds**

Reviewed By: Noel Graczyk, Administrative Services Director
Prepared By: Kelly, Grinnell, Finance Manager

Background

Congress adopted the American Rescue Plan Act ("ARPA") in March 2021, a $1.9 trillion coronavirus rescue package designed to facilitate the United States' recovery from the devastating economic and health impacts of the COVID-19 pandemic. The Coronavirus State and Local Fiscal Recovery Funds ("SLFRF") program, a part of the ARPA, includes $350 billion in funding for state, local, and tribal governments to support their response to and recovery from the COVID-19 public health emergency.

The City of Chaska ("City") has been allocated $2,949,418.32 in SLFRF pursuant to the ARPA.

In May 2021, the US Department of Treasury ("Treasury") published the Interim Final Rule describing eligible and ineligible uses of funds as well as other program provisions, sought feedback from the public on these program rules, and began to distribute funds.

On January 6, 2022, Treasury issued the final rule. The final rule delivers broader flexibility and greater simplicity in the program, responsive to feedback in the comment process.

The City may use SLFRF to:

- **Replace lost public sector revenue,** using this funding to provide government services up to the amount of revenue lost during the pandemic.
- **Respond to the far-reaching public health and negative economic impacts of the pandemic,** by supporting the health of communities, and helping households, small businesses, impacted industries, nonprofits, and the public sector recover from economic impacts.
- **Provide premium pay for essential workers,** offering additional support to those who have and will bear the greatest health risks because of their service in critical sectors.
- **Invest in water, sewer, and broadband infrastructure,** making necessary investments to improve access to clean drinking water, to support vital wastewater and stormwater infrastructure, and to expand affordable access to broadband internet.

The final rule offers a standard allowance to calculate lost public sector revenue of up to

$10 million, allowing recipients to select between a standard amount of revenue loss or complete a full revenue loss calculation. Recipients that select the standard allowance may use that amount, in many cases their full award, to provide government services, with streamlined reporting requirements.

At the February 28, 2022, council meeting, the City Council authorized to use SLFRF to replace lost public sector revenue and adopted Resolution 2022-14 to elect the standard allowance under the revenue loss provision of ARPA in the amount of $2,949,418.32 to be used for the general provision of government services.

The City Council made a motion at the January 24, 2022, council meeting to use SLFRF for the prepayment of the new fire ladder truck for $1,604,245. While reviewing the U.S. Treasury final guidance on the use and reporting of SLFRF, staff learned that the guidance places additional restrictions on the purchase of equipment, so staff is recommending that the City use SLFRF for the City's share of the Trunk Highway 41/CSAH 61 project (approximately $1.53 million) and the 2022 street reconstruction project (approximately $1.42 million) instead.

Staff Recommendation
Staff recommends the City Council designate the use SLFRF for the City's share of the Trunk Highway 41/CSAH 61 project (approximately $1.53 million) and the 2022 street reconstruction project (approximately $1.42 million).

CITY COUNCIL ACTION REQUESTED
Motion to designate the use of SLFRF for the City's share of the Trunk Highway 41/CSAH 61 project (approximately $1.53 million) and the 2022 street reconstruction project (approximately $1.42 million).

REQUEST FOR ACTION
CHASKA CITY COUNCIL
3/21/2022

Subject: **Letter of Support - State Funding for Northern Ravine Trail**

Prepared By: **Kevin Ringwald, Director of Special Projects**

The City of Chaska and Carver County are planning new improvements to a 2.4 mile off-street trail for pedestrians and cyclists between West 82nd Street near the Minnesota Landscape Arboretum and Pioneer Trail near Jonathan Elementary School.

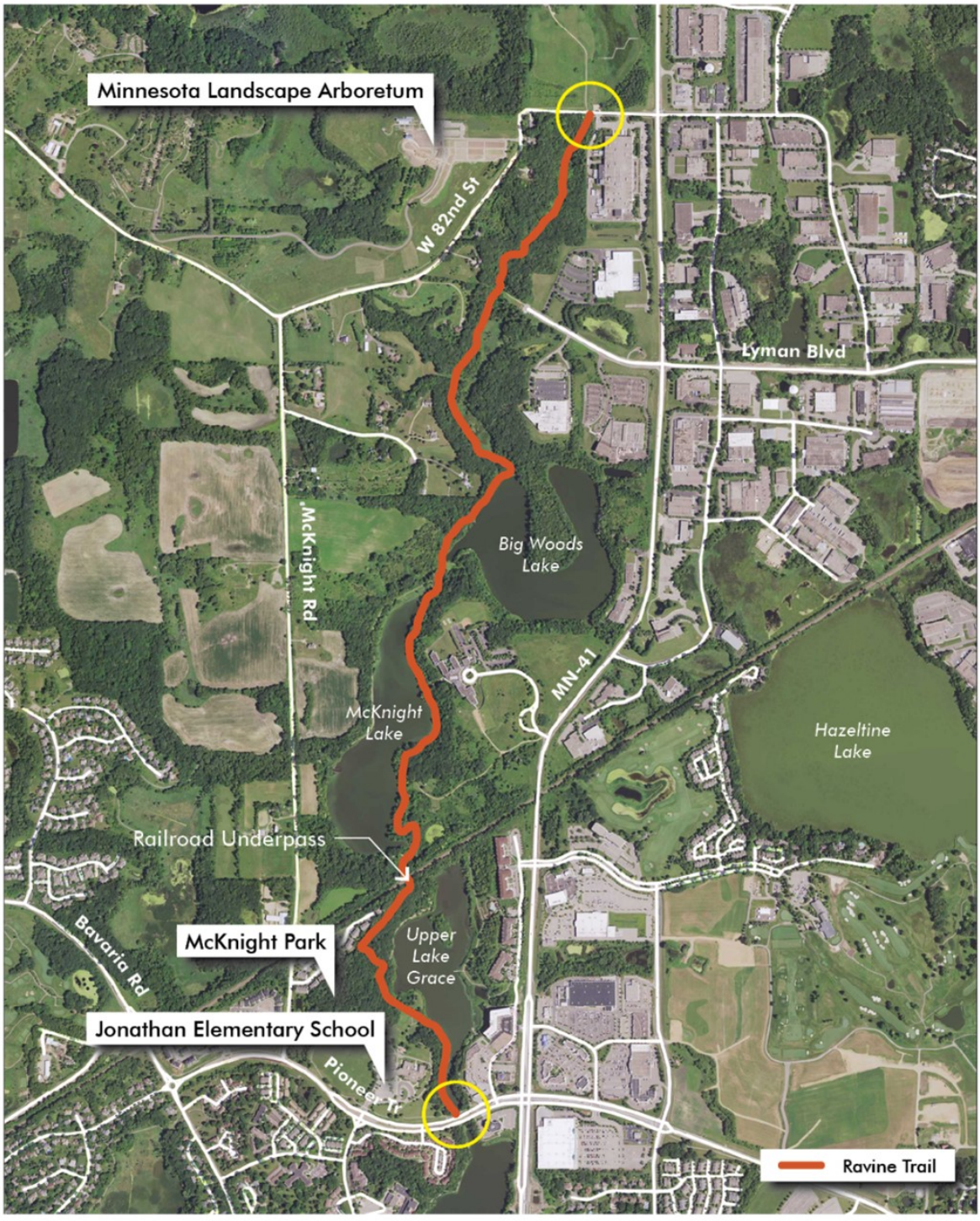
The project is consistent with the Chaska's goal of having a paved trail connecting the Minnesota Valley National Wildlife Refuge at the city's south edge to the University of Minnesota's Landscape Arboretum on our northern edge.

Currently, this section of the ravine trail consists of a mixture of paved and unpaved segments. Also, as you may be aware, there exists a missing section of trail between McKnight Lake and Lake Jonathan where it crosses the Twin Cities and Western Railroad. At times. this missing section of trail causes people to make unsafe choices and cross the Twin Cities & Western railroad tracks at an uncontrolled location.

The grant, which if approved, would allow us to start accumulating the necessary funds to do the designs and plans to solve the unsafe crossing by building an underpass between the two trail segments and to pave the necessary portions of this section of the northern ravine trail system.

CITY COUNCIL ACTION REQUESTED

Authorize the Mayor to sign and forward the attached letter of support for State Funding of the Northern Ravine Trail in Chaska.



Ravine Trail

Project Extents

0 1/8 1/4 1/2 MILE N

McKnight Lake
City Trails
Unsafe
Crossing
Twin Cities & Western RR
McKnight Rd
Pleasant Ct
City Trails
Lake Jonathan
Hazeltine Blvd
41
41

March 22, 2022

Ms. Elaine Koutsoukos
TAB Coordinator
Transportation Advisory Board
Metropolitan Council
390 North Robert Street
St. Paul, MN 55101

Dear Ms. Koutsoukos,

The City of Chaska supports Carver County's 2022 Regional Solicitation federal transportation request for the northern Ravine Trail. We understand the project will provide a multiuse regional trail between 82nd Street and Pioneer Trail (Carver County CSAH 60), a Twin Cities and Western Railroad underpass, new culverts, and directional signage.

The project is consistent with the Chaska's goal of having a paved trail connecting the Minnesota Valley National Wildlife Refuge at the city's south edge to the University of Minnesota's Landscape Arboretum on its northern edge.

This project will significantly improve multimodal access to and from employment areas, single and multi-family housing, places of commerce and assembly, and educational and cultural places, as well as improve access to both existing and future transit opportunities.

Lastly, from a safety perspective, there exists a missing section of trail between McKnight Lake and Lake Jonathan where it crosses the Twin Cities and Western Railroad. At times. this missing section of trail causes people to make unsafe choices and cross the Twin Cities & Western railroad tracks at an uncontrolled location. The railroad underpass proposed in this application will solve this unsafe crossing of the Twin Cities and Western Railroad.

Sincerely,

Mark Windschitl, Mayor
City of Chaska

REQUEST FOR ACTION
CHASKA CITY COUNCIL
3/21/2022

Subject: **Letter of Support – US Highway 212 Freight Mobility and Safety Project for consideration of federal financial assistance under US Department of Transportation Discretionary Grant Programs**

Prepared By: **Elise Durbin, Assistant City Administrator**

The Highway 212 project from the City of Cologne to the City of Norwood Young America is a critical, five-mile project that will transform the highway from a two-lane undivided rural highway to a four-lane divided expressway. Carver County and MnDOT have completed extensive planning and are partnering on the project to address the serious safety, access, and mobility issues along the corridor.

This Highway 212 corridor is a part of the National Highway System and an important economic and highway freight corridor not only within the State of Minnesota, but also the Upper Midwest region, connecting the Twin Cities to South Dakota and beyond. It is identified by MnDOT as a Critical Rural Freight Corridor and by the Metropolitan Council as a "Tier One Truck Corridor" because of its connection for agricultural and industrial traffic.

The project will benefit the highway freight network, implement highway safety measures, and improve the state of good repair for highway infrastructure by creating a reliable and connected freight transportation system. In addition, it will help to strengthen economic competitiveness and vitality within our communities.

CITY COUNCIL ACTION REQUESTED

Motion to authorize the Mayor to sign a letter of support for federal financial assistance under US Department of Transportation Discretionary Grant Programs.

Chaska

March 21, 2022

The Honorable Pete Buttigieg
Secretary, US Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Dear Secretary Buttigieg,

The City of Chaska is pleased to support the US Highway 212 Rural Freight Mobility and Safety Project for consideration of federal financial assistance under US Department of Transportation (DOT) Discretionary Grant Programs. This critical project expands five miles of US Highway 212 in Carver County, Minnesota from a two-lane undivided rural highway to a four-lane divided expressway facility extending from the City of Norwood Young America (County Highway 34) to the City of Cologne (County Highway 36). Carver County and MnDOT completed extensive corridor planning and are partnering on project development efforts to bring forward this innovative, cost-effective approach to expand US Highway 212.

The corridor is part of the National Highway System and is one of the most important economic and freight highway corridors in the State of Minnesota and the Upper Midwest region, connecting the Twin Cities to South Dakota and beyond. US Highway 212 is identified by the Minnesota DOT (MnDOT) in the Minnesota State Freight Investment Plan as a Critical Rural Freight Corridor. The corridor provides a connection for agricultural and industrial traffic to and from the Twin Cities Metropolitan area, which is emphasized by the Metropolitan Council's prioritization of the highway as a "Tier One Truck Corridor".

The US Highway 212 Rural Freight Mobility and Safety Project addresses serious safety, access, and mobility issues and meets and exceeds the priority objectives of the DOT's grant programs. Most significantly, the project will benefit the highway freight network by addressing deficiencies on a Critical Rural Freight Corridor, implementing significant highway safety measures, improving the state of good repair for National Highway System infrastructure not fully reconstructed since 1930, and strengthening local and regional economic competitiveness and vitality by realizing the vision of a reliable and connected freight transportation system.

The City of Chaska endorses and supports Carver County's application to US DOT Discretionary Grant Programs for the US Highway 212 Rural Freight Mobility and Safety Project and urges decision makers to prioritize the project for grant funding.

Sincerely,

_____

Mark Windschitl
Mayor

REQUEST FOR ACTION
CHASKA CITY COUNCIL
03-21-2022

Subject: **Adopt Ordinance 1012, Amend Chapter 2, Article 8, Sections 10 and 20 of the Chaska MN Code of Ordinances - Ward Boundaries and Polling Locations**

Prepared By: Nate Kabat and Denise Beebe

Background
Every ten years, upon completion of the Census, the Federal, State and local levels of government go through a process of redistricting. Redistricting is completed to help balance the population within the district boundaries to ensure equal representation. The State of Minnesota completed their redistricting process near the end of February. The local municipalities then determine their boundaries, with the counties following up last.

Municipalities have until the end of March to complete their process.

In the past, Council has utilized the following primary objectives for the redistricting process to ensure equitable representation across the four Wards within Chaska:

- Population sizes within wards be as equal as possible (i.e., within 10%).
    - Focus larger deviations on areas where growth is expected.
- Keep a four Ward system within the City of Chaska.
- Keep Ward boundaries as logical as possible.
- Keep the number of precincts required in each ward as low as possible.
- Avoid drastic changes that significantly impact residents in a negative way.
- Multiple Wards representing:
    - Downtown (2);
    - Mobile Home Parks (2); and
    - Jonathan (4).
- Options for alternate polling locations in each Ward.

Update
Council held a Work Session on March 7, 2022 to discuss options for ward boundary changes in line with he aforementioned primary objectives. Based on Council feedback at the Work Session, staff has prepared the proposed boundary map and associated ordinance revisions for Council's consideration for adoption.

Recommendation
The proposed boundary map changes are based on the objectives and feedback set by City Council. As such staff recommends adoption of Ordinance 1012 amending Chapter 2, Article 8,

Sections 10 and 20 of the Chaska Municipal Code of Ordinances to update Ward Boundaries and Polling Locations.

CITY COUNCIL ACTION REQUESTED

Motion to adopt Ordinance 1012 amending Chapter 2, Article 8, Sections 10 and 20 of the Chaska Municipal Code of Ordinances to update Ward Boundaries and Polling Locations.

CITY OF CHASKA
ORDINANCE MC 2022-1012

AMEND CHAPTER 2, ARTICLE 8, SECTIONS 10 AND 20 OF THE CHASKA MINNESOTA CODE OF ORDINANCES

WHEREAS, the legislature of the State of Minnesota has been redistricted; and

WHEREAS, Minnesota Statute section 204B.14, subd. 3 (d) requires that ward boundaries must be reestablished within 60 days of when the legislature has been redistricted or at least 19 weeks before the state primary election, whichever comes first;

NOW THEREFORE, be it ordained by the Council of the City of Chaska, in the State of Minnesota, hereby establishes the boundaries of the voting wards and polling places as follows and amends Chapter 2, Article 8, Sections 10 and 20 of the Chaska Minnesota Code of Ordinances. Attached, for illustrative purposes, is a map showing said wards and the location of each polling place.

SECTION 1: **AMENDMENT** "2.08.020 Polling Places" of the City of Chaska Municipal Code is hereby *amended* as follows:

AMENDMENT

2.8.20 Polling Places

A. *First Ward:* Chaska Event Center located at the northwest corner of Chestnut Street and Chaska Boulevard at 3210 Chaska Boulevard
~~Chaska Moravian Church located at the northwest corner of Fourth and Walnut Streets at 115 Fourth Street East~~ in the City of Chaska.
B. *Second Ward:* Christ Victorious Lutheran Church located at the northwest intersection of Pioneer Trail and Shady Oak Drive at 9860 Shady Oak Drive in the City of Chaska.
C. *Third Ward:* Chaska Moravian Church located at the northwest corner of Fourth Street and Walnut Street at 115 Fourth Street East in the
~~New Life Assembly of God Church located at the NE Corner of Audubon Road and Trumble Street at 950 Trumble Street,~~ City of Chaska.
D. *Fourth Ward:* Chaska Community Center, located at the intersection of Park Ridge Drive and Engler Boulevard at 1661 Park Ridge Drive, in the City of Chaska.

(Ord. No. 859, Chap. 2, Art. III, Sec. 19, 4/30/12)

SECTION 2: **AMENDMENT** "2.08.010 Ward Boundaries" of the City of Chaska Municipal Code is hereby *amended* as follows:

A M E N D M E N T

2.08.010 Ward Boundaries

The Ward boundaries of Wards I, II, III and IV shall be as follows:

WARD I

~~Beginning at the intersection of the centerline of Walnut Street extended southerly to the centerline of the Minnesota River; thence northerly along the centerline of Walnut Street and the extension of the centerline of Walnut Street to its intersection with the north property line of Lot 2, Block 1, The Klein Brick Yard Fifth Addition; thence northwesterly along said northerly line of said Lot 2 to the centerline of T.H. No. 41; thence north along the centerline of T.H. No. 41 to its intersection with the centerline of Hundertmark Road; thence westerly along the centerline of Hundertmark Road to its intersection with the centerline of the Chaska trail which follows the right-of-way of vacated Victoria Drive; thence southeasterly along the centerline of said trail to its intersection with the centerline of Engler Boulevard; thence westerly along the centerline of Engler Boulevard to its intersection with the west Corporate Limits of the City of Chaska; thence southerly along the west Corporate Limits of the City of Chaska to its intersection with the south boundary line of the Corporate Limits of the City of Chaska; thence east along the south boundary line of the Corporate Limits of the City of Chaska to its intersection with the centerline of the Minnesota River; thence northwesterly and easterly along the centerline of the Minnesota River to the point of beginning.~~
Beginning at the intersection of the centerline of Chestnut Street extended southerly to the centerline of the Minnesota River; thence northerly along the centerline of Chestnut Street to its intersection with Hundertmark Road; thence westerly along the centerline of Hundertmark Road to its intersection with Bavaria Road; thence north along the centerline of Bavaria Road to its
intersection with the centerline of Ashley Drive; thence westerly along the centerline of Ashley Drive to its intersection with the easterly property line of Lot 1, Block 1, Tuscany Hills 2nd Addition; thence southerly along the said property line extended south; thence southerly following the centerline of the ditch through wetland EC-W57 to its intersection with Hundertmark Road West; thence westerly along the centerline of Hundertmark Road West to
its intersection with the centerline of the Chaska trail which follows the right-of-way of vacated Victoria Drive; thence southeasterly along the centerline of said Chaska trail to its intersection with the centerline of Engler Boulevard; thence westerly along the centerline of Engler Boulevard to its intersection with the west Corporate Limits of the City of Chaska; thence southerly along the west Corporate Limits of the City of Chaska to its intersection with the south boundary line of the Corporate Limits of the City of Chaska; thence east along the south boundary line of the Corporate Limits of the City of Chaska to its intersection with the centerline of the Minnesota River; thence northwesterly and easterly along the centerline of the Minnesota River to the point of beginning.

WARD II

~~Beginning at the intersection of the centerline of Engler Boulevard and the west Corporate Limits of the City of Chaska; thence easterly along the centerline of Engler Boulevard to its intersection with the centerline of the Chaska trail, which trail follows the centerline of vacated Victoria Drive; thence northwesterly along the centerline of said Chaska trail to its intersection with the centerline of Hundertmark Road; thence easterly along the centerline of Hundertmark Road to its intersection with the centerline of Bavaria Road; thence northerly along the centerline of Bavaria Road to its intersection with the centerline of County Road No. 14 (also known as Pioneer Trail); thence northeasterly and easterly along the centerline of said County Road No. 14 to its intersection with the centerline of McKnight Road; thence northerly along the centerline of McKnight Road to its intersection with the north Corporate Limits of the City of Chaska; thence northwesterly, westerly, southerly and easterly with the Corporate Limits of the City of Chaska to the point of beginning.~~ Beginning at the intersection of the centerline of Engler Boulevard and the west Corporate Limits of the City of Chaska; thence easterly along the centerline of Engler Boulevard to its intersection with the centerline of the Chaska trail which trail follows the centerline of vacated Victoria Drive; thence northwesterly along the centerline of said Chaska trail to its intersection with the centerline of Hundertmark Road; thence easterly along the centerline of Hundertmark Road to its intersection with the centerline of the ditch through wetland EC-W57; thence northerly along the centerline of the ditch through wetland EC-W57 to the easterly property line of Lot 1, Block 1, Tuscany Hills 2nd Addition; thence northerly along said property line to the centerline of Ashley Drive; thence easterly along the centerline of Ashley Drive to the centerline of Bavaria Road; thence northerly along the centerline of Bavaria Road to its intersection of the centerline of the Twin Cities and Western Railway; thence northeasterly along the centerline of the Twin Cities and Western Railway to its intersection with the centerline of McKnight Road; thence northerly along the centerline of McKnight Road to its intersection with the north Corporate Limits of the City of Chaska; thence northwesterly, westerly, southerly and easterly with the Corporate Limits of the City of Chaska to the point of beginning.

WARD III

~~Beginning at the intersection of the centerline of Walnut Street extended southerly to the centerline of the Minnesota River; thence northerly along the centerline of Walnut Street and the extension of the centerline of Walnut Street to its intersection with the north property line of Lot 2, Block 1, The Klein Brick Yard Fifth Addition; thence northwesterly along said northerly line of said Lot 2 to the centerline of T.H. No. 41; thence northerly along the centerline of T.H. No. 41 to its intersection with the centerline of Engler Boulevard; thence easterly along the centerline of Engler Boulevard to its intersection with the centerline of Audubon Road; thence northerly along the centerline of Audubon Road to its intersection with the centerline of Pioneer Trail; thence westerly along the centerline of Pioneer Trail to its intersection with the centerline of Acorn Road; thence north along the centerline of Acorn Road to its intersection with the centerline of Autumn Woods Drive; thence northerly along the centerline of Autumn Woods Drive to its intersection with the centerline of Ironwood Boulevard; thence east along the centerline of Ironwood Boulevard to the centerline of Butternut Drive; thence east along the centerline of Butternut Drive to its intersection with the east boundary line of the Corporate Limits of the City of Chaska; thence southerly, easterly, westerly, northeasterly and southerly along the said Corporate Limits of the City of Chaska to~~

~~its intersection with the centerline of the Minnesota River; thence southerly and westerly along the centerline of the Minnesota River to the point of beginning.~~ Beginning at the intersection of the centerline of Chestnut Street extended southerly to the centerline of the Minnesota River; thence northerly along the centerline of Chestnut Street to its intersection with the centerline of Engler Boulevard; thence easterly along the centerline of Engler Boulevard to its intersection with the centerline of Audubon Road; thence northerly along the centerline of Audubon Road to its intersection with the centerline of Pioneer Trail; thence westerly along the centerline of Pioneer Trail to its intersection with the centerline of Acorn Road; thence north along the centerline of Acorn Road to its intersection with the centerline of Autumn Woods Drive;
thence northerly and westerly along the centerline of Autumn Woods Drive to its intersection with the the Corporate Limits of the City of Chaska; thence southerly, easterly, westerly, northeasterly and southerly along the east Corporate Limits of the City of Chaska to its intersection with the centerline of the Minnesota River; thence southerly and westerly along the centerline of the Minnesota River to the point of beginning.

WARD IV

~~Beginning at the intersection of the centerline of Engler Boulevard and the centerline of T.H. No. 41; thence northerly along the centerline of T.H. No. 41 to its intersection with the centerline of Hundertmark Road; thence westerly along the centerline of Hundertmark Road to its intersection with the centerline of Bavaria Road; thence northerly along the centerline of Bavaria Road to its intersection with the centerline of County Road No. 14 (also known as Pioneer Trail); thence easterly along the centerline of County Road No. 14 to its intersection with the centerline of McKnight Road; thence northerly along the centerline of McKnight Road to its intersection with the north Corporate Limits of the City of Chaska; thence easterly, northerly and southerly along the northerly and easterly Corporate Limits of the City of Chaska to its intersection with the centerline of Butternut Drive; thence westerly along the centerline of Butternut Drive to its intersection with the centerline of Ironwood Boulevard; thence westerly along the centerline of Ironwood Boulevard to its intersection with the centerline of Autumn Woods Drive; thence southerly along the centerline of Autumn Woods Drive to its intersection with the centerline of Acorn Road; thence southerly along the centerline of Acorn Road to its intersection with the centerline of County Road No. 14; thence easterly along the centerline of County Road No. 14 to its intersection with the centerline of Audubon Road; thence southerly along the centerline of Audubon Road to its intersection with the centerline of Engler Boulevard; thence westerly along the centerline of Engler Boulevard to the point of beginning.~~Beginning at the intersection of the centerline of Engler Boulevard and the
centerline of Chestnut Street; thence northerly along the centerline of Chestnut Streeet to its intersection with the centerline of Hundertmark Road; thence westerly along the centerline of Hundertmark Road to its intersection with the centerline of Bavaria Road; thence northerly along the centerline of Bavaria Road to its intersection with the centerline of the Twin Cities and Western Railway; thence northeasterly along the centerline of the Twin Cities and Western Railway to its intersection with the centerline of McKnight Road; thence northerly along the centerline of McKnight Road to its intersection with the north Corporate Limits of the City of Chaska; thence easterly, northerly and southerly along the northerly and easterly Corporate Limits of the City of Chaska to its intersection with the centerline of Autumn Woods Drive; thence westerly and southerly along the centerline of Autumn Woods Drive to

its intersection with the centerline of Acorn Road; thence southerly along the centerline of Acorn Road to its intersection with the centerline of Pioneer Trail; thence easterly along the centerline of Pioneer Trail to its intersection with the centerline of Audubon Road; thence southerly along the centerline of Audubon Road to its intersection with the centerline of Engler Boulevard; thence westerly along the centerline of Engler Boulevard to the point of beginning.

(Ord. No. 858, Chap. 2, Art. III, Sec. 19, 4/2/12)

PASSED AND ADOPTED BY THE CITY OF CHASKA COUNCIL _____.

	AYE	NAY	ABSENT	ABSTAIN
Councilmember Grau	_____	_____	_____	_____
Councilmember Hatfield	_____	_____	_____	_____
Councilmember Huang	_____	_____	_____	_____
Councilmember Hubbard	_____	_____	_____	_____
Mayor Windschitl	_____	_____	_____	_____

Presiding Officer

_____
Mark Windschitl, Mayor, City of Chaska

Attest

_____
Denise Beebe, Senior Clerk City of Chaska

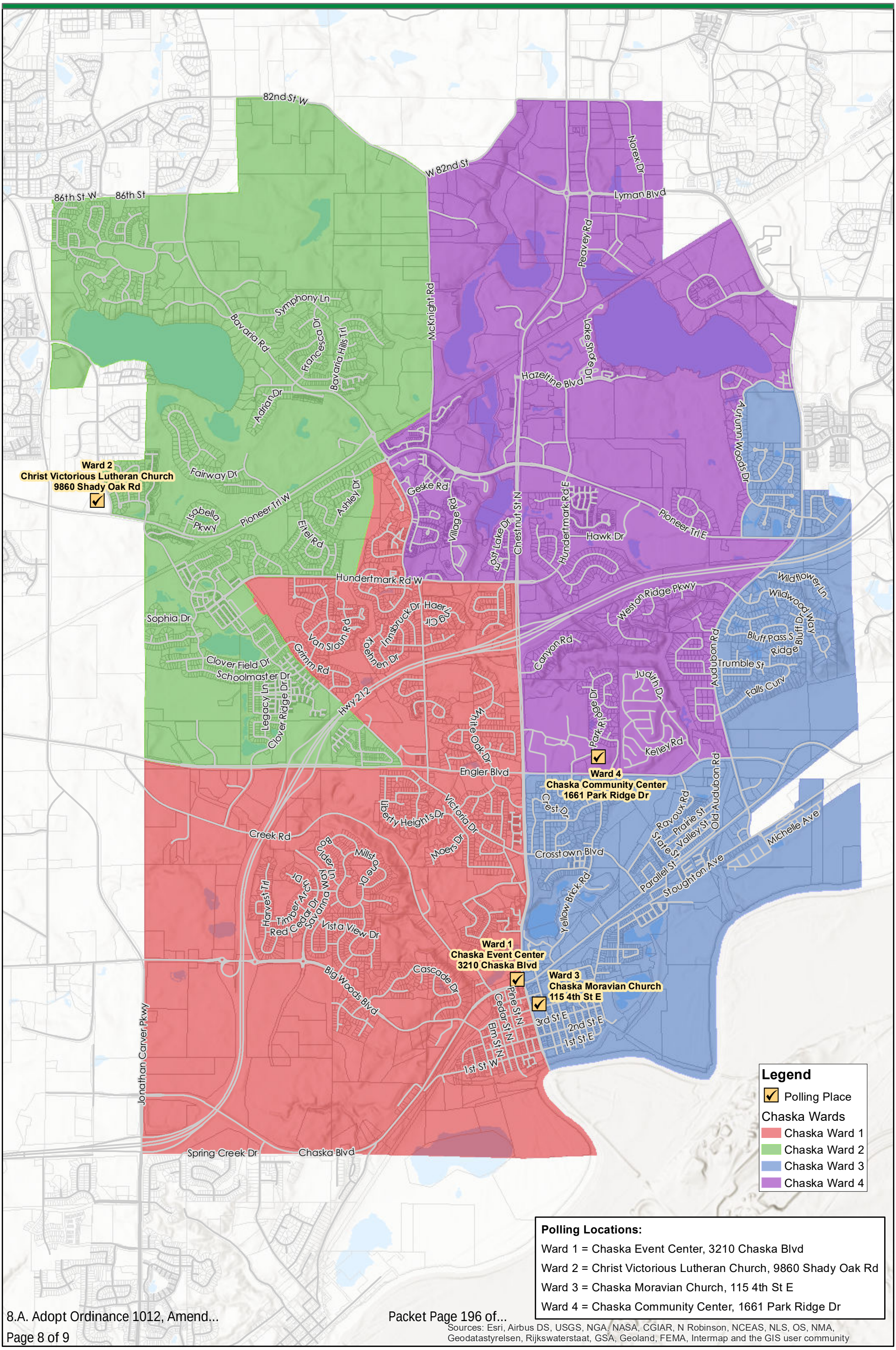
CITY OF CHASKA

2022 Ward Boundaries

Date: 3/15/2022

0 950 1,900 3,800 5,700 7,600 Feet

N



Legend

- Polling Place

Chaska Wards

- Chaska Ward 1
- Chaska Ward 2
- Chaska Ward 3
- Chaska Ward 4

Polling Locations:

Ward 1 = Chaska Event Center, 3210 Chaska Blvd

Ward 2 = Christ Victorious Lutheran Church, 9860 Shady Oak Rd

Ward 3 = Chaska Moravian Church, 115 4th St E

Ward 4 = Chaska Community Center, 1661 Park Ridge Dr

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

CITY OF CHASKA

2022 Ward Boundaries

Date: 3/15/2022

0 950 1,900 3,800 5,700 7,600 Feet

N

82nd St W
W 82nd St
86th St W
86th St
Norex Dr
Lyman Blvd
Peavey Rd
McKnight Rd
Symphony Ln
Bavaria Rd
Francesca Dr
Bavaria Hills Trl
Adrian Dr
Lake Shore Dr
Hazeltine Blvd
Autumn Woods Dr
48 B
Ward 2
Christ Victorious Lutheran Church
9860 Shady Oak Rd
Fairway Dr
Isabella Pkwy
Pioneer Trl W
Ashley Dr
Eitel Rd
Geske Rd
Village Rd
Lost Lake Dr
Chestnut St N
Hundertmark Rd E
Hawk Dr
Pioneer Trl E
Hundertmark Rd W
Sophia Dr
Van Sloun Rd
Innsbruck Dr
Haer Trl
Koehnen Dr
Weston Ridge Pkwy
Wildflower Ln
Wildwood Way
Bluff Dr
Bluff Pass S
Ridge
Canyon Rd
Audubon Rd
Trumble St
Falls Curv
Judith Dr
Clover Field Dr
Schoolmaster Dr
Grimm Rd
Legacy Ln
Clover Ridge Dr
Hwy 212
Park Ridge Dr
Kelley Rd
White Oak Dr
Engler Blvd
48 A
Ward 4
Chaska Community Center
1661 Park Ridge Dr
Crest Dr
Ravoux Rd
Prairie St
State St
Valley St
Old Audubon Rd
Michelle Ave
Liberty Heights Dr
Victoria Dr
Creek Rd
Moers Dr
Crosstown Blvd
Parallel St
Stoughton Ave
Yellow Brick Rd
Harvest Trl
Timber Arch Dr
Red Cedar Dr
Savanna Way
Vista View Dr
Ward 1
Chaska Event Center
3210 Chaska Blvd
Ward 3
Chaska Moravian Church
115 4th St E
Big Woods Blvd
Cascade Dr
Pine St N
Cedar St N
Elm St N
3rd St E
2nd St E
1st St E
1st St W
Jonathan Carver Pkwy
Spring Creek Dr
Chaska Blvd
17 B

Legend

- Polling Place
- MN House Districts

Chaska Wards

- Chaska Ward 1
- Chaska Ward 2
- Chaska Ward 3
- Chaska Ward 4

Polling Locations:

Ward 1 = Chaska Event Center, 3210 Chaska Blvd

Ward 2 = Christ Victorious Lutheran Church, 9860 Shady Oak Rd

Ward 3 = Chaska Moravian Church, 115 4th St E

Ward 4 = Chaska Community Center, 1661 Park Ridge Dr

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

REQUEST FOR ACTION
CHASKA CITY COUNCIL
03/21/22

Subject: **Chaska Creek Industrial Phase 3 (aka Chaska Club West Industrial) – Preliminary Site & Building Plan, Preliminary Plat and Rezoning**

Applicants: Oppidan

Location: Southwest corner of TH 212 and Creek Road, east of Wetzel Lane

Case No.: 2022-14

Synopsis: Applicant seeks to obtain approval of a Preliminary Site & Building Plan, Preliminary Plat and Rezoning for an office/industrial building south of the Chaska Creek Business Park

Prepared By: Elizabeth Hanson

Staff Recommendation: Motion to adopt resolution

BACKGROUND

The concept plan for the Chaska Creek Business Center (~87-acre site) was approved in October of 2013. This concept plan is located in the southwest corner of Highway 212 and Engler Boulevard (CR 10), which is just north of the subject property being reviewed this evening. It incorporated a couple different uses, two of them being High Bay Industrial and Corporate Industrial.

In March 2021 the final site and building plan was approved for the two industrial sites noted above. These industrial buildings were reviewed concurrently and were known as Phase I and Phase II of Chaska Creek Industrial. Phase I is the northerly building in the business park and is 133,000 square feet in size. Phase II is the southerly building in the business park and is 168,000 square feet. Oppidan was the developer for both these buildings as well.

Although this site being reviewed at this time is effectively outside the area of the Chaska Creek Business Park, we will still refer to it as Chaska Creek Industrial Phase 3.

In December 2021 the Concept Plan was approved for Phase 3 of Chaska Creek Industrial.

Changes/Updates Since Concept Plan Approval

The following are changes that have occurred on the plan since Concept Plan:

- Berming/Screening; berming and screening was a significant component of the site plan for the edges adjacent to residential. The applicant has prepared plans to show the screening that will take place on the south and southwesterly portions of the site. A significant berm of approximately 20 feet high will be incorporated on the south side. In

addition, primarily coniferous plantings of 8 feet in height will be installed on top of the berm on the southwesterly side. Both these elements will screen a majority of the loading dock and lighting in the rear of the property.

Project Goals
The goals of the Chaska Creek Industrial Phase 3 project include the following:

- Provide a progressive, new building that brings both commerce and job opportunities to the residents of Chaska
- Provide a unique building that creates interest and visibility from Creek Road
- Design a building on the site that seeks to maintain as much existing greenspace as possible while offering an efficient flow of people, products and vehicles

Comprehensive Plan & Zoning
The 2040 Comprehensive Plan guides the subject property being looked at tonight as Business Park and includes the subject property within the Metropolitan Urban Service Area (MUSA) so sanitary sewer is available to the site. The Business Park designation in the Comprehensive Plan is designed to create employment centers on large sites that provide a greater diversity of jobs, higher development densities and jobs per acre, higher quality site and architectural design, and increased tax revenues. The Business Park designation also allows for commercial activities.

The current zoning for this project site is Rural Residential (RR-2) and Open (O). The site will be rezoned to a more appropriate zoning district, such as Planned Industrial Development District (PID).

Existing Conditions
The lot being looked at for the project is approximately 38 acres in size, however the project site only encompasses approximately 13 of those acres. The 13 acres is primarily composed of open, agricultural land. The remaining 25 acres of the site is made of additional agricultural land, wooded groves, and a ravine system. Wooded steep slopes appear to encumber the areas around the ravine system. One wetland is delineated that abuts the northwest edge of the project site.

Adjacent Properties
The site is bound on the north by Creek Road and the Chaska Creek Business Park; the east by the proposed Chaska Creek Boulevard extending south, and Highway 212; the south by open remnant land, the ravine system, and the Raser property; the west by rural residential properties on Wetzel Lane.

CURRENT REQUEST
The request this evening is for Preliminary Site & Building Plan, Preliminary Plat and Rezoning for the construction of a new industrial building just south of the Chaska Creek Business Park (known as Chaska Creek Industrial Phase 3). End users have not been identified for the building, rather this will be a spec building that will be built and then be marketed to appropriate users. This building will be set up and designed similarly to the two other Chaska Creek Industrial buildings.

Projected and Targeted Users
Historically, the Chaska industrial market has consisted of small to medium sized manufacturing and research facilities located in single-use buildings. As the industrial/manufacturing market has matured, the users are seeking more flexible rental spaces as opposed to owner-occupied buildings, allowing seamless expansion of their operation. The proposed building is intended to target this type of user. In recent years Chaska companies, such as Lakeview Industrial and Federal Package have elected to expand outside of Chaska in similar, flexible office warehouse space as it has not bee available in the community. The building proposed *is not designed to be a distribution center*. The applicant believes that given Chaska Creek's location and proximity to the Metro area, it is not considered a desirable location for distribution centers.

The applicant has stated that the best comparable project to the one proposed in this request is the Holasek Business Park located in Chanhassen on the Chaska/Chanhassen border off of the intersection of Lyman Boulevard and Galpin Boulevard. This project was composed of two industrial buildings; one was a build-to-suit for a company called Retail Tech, Inc. and the other building was a spec building, that has been recently leased to 100% capacity with the businesses Retail Tech, Inc., LifeCore Biomedical and MedSource. Retail Tech is a point of sale systems for the retail, grocery and hospitality industries. MedSource is a provider of quality medical products, specializing in high-quality products and equipment and innovative medical product development. The applicant believes both the buildings proposed will attract similar users to their project. Other users and similar projects have been provided in the applicant's Additional Items Response document dated December 30, 2020.

Building Location/Design
The proposed industrial building will be approximately 177,000 square feet in size and 34-38 feet in height; clear height inside the building will be 28 feet which is consistent with the other Chaska Creek Industrial buildings. The main entrance of the building is oriented northerly towards Creek Road, with the loading dock area oriented southerly towards the ravine system. Parking is situated on the north, west, and east sides of the building. The building is programmed to provide 20% office space (~35,400 square feet) and 80% warehouse space (141,600 square feet).

The building will be a mix of durable materials including precast concrete panels, architectural diamond metal paneling, and aluminum storefront glass. Clear and visible signing of entrances via the use of architectural metal paneling and added height will provide definition to the building and its corners. Warm buff colors and materials were chosen to provide a generally cohesive look and tie in with Chaska colors. Accent colors in the main entrances, and the use of architectural metal paneling (diamond-shaped) will provide difference and allow the building to standout as its own.

The City of Chaska has certain building design and material requirements for industrial buildings. A portion of it is stated as follows:

"Industrial and warehouse buildings shall use at least two (2) different Class I materials and shall be composed of at least thirty (30) percent Class I material, and at least one (1) Class II materials and be composed of at least thirty (30) percent Class II materials; and not more than forty (40) percent of Class III materials."

Building Materials	
Class I	Glass and Architectural Metal Paneling (32%)
Class II	Aggregate Concrete Panels; two colors (65%)
Class III	Not applicable
CLASS I REQUIRED	30%; two different materials
CLASS II REQUIRED	30%; one material
CLASS I PROVIDED	34%; two different materials
CLASS II PROVIDED	62%; one material

Based on the table above the applicant is meeting the percentage and quantity requirements for building materials on industrial buildings. The design incorporated on this building is the same as the other Chaska Creek Industrial buildings.

Parking/Access/Circulation
214 parking spaces are proposed as a part of this site plan. The following chart summarizes the overall parking demand on the site, based on the approximated sizes of the conceptual uses.

Uses	Approx. Size	Code Req.	Est. Parking Req.
Office	35,400 sf	1ps/250sf	142 parking spaces
Warehouse	141,600 sf	1ps/2,000sf	71 parking spaces
		REQUIRED	**213 parking spaces**
		PROVIDED	**214 parking spaces**

According to this table the applicant is meeting the required amount of parking spaces needed for the uses proposed in the building.

In addition to the above, it should be noted the City parking code requires site plans to still show 1 parking space per 350 square feet for the warehouse use in the event that the use changes to manufacturing in the future. Because this building does not have determined end-users it is difficult to determine the raw parking need at this time, and as such it will be important to show how additional parking can be added to the site if needed. The applicant has provided a proof of parking exhibit in their preliminary site plan that meets a 1 parking space per 350 square foot requirement for the warehouse portion, which totals 528 parking stalls (71 for office; 457 for manufacturing).

A collector road, Chaska Creek Boulevard, currently exists north of the subject site stubbing into Creek Road. This collector road will be continued south to provide for additional access to the subject site. It should be noted that this southerly extension will be built and function much like a glorified driveway in the interim. The collector road will be built to City standards and widths when it's extension across the ravine system will be needed. Truck access will come from the proposed access on the southeast side of the site as it connects into Chaska

Creek Boulevard. An additional access is shown directly on Creek Road to line up with the building access for Chaska Creek Industrial Phase 2. Parking is shown on the north, west, and east sides of the building. Loading dock access is shown on the south side.

A semi-truck turning exhibit has been provided in the preliminary submittal, showing how trucks turn/turnaround in the site. It also shows how they turn in the proposed roundabout at Creek Road and Chaska Creek Boulevard.

Previous traffic studies have verified traffic operations are acceptable for Chaska Creek Way and Chaska Creek Boulevard to accommodate the proposed development.

Landscaping & Screening

Landscaping will have to meet the City's ordinance in terms of quantity and size. The table below indicates the landscaping requirements for this site and how the applicant meets or does not meet them:

LOT 1, BLOCK 1 LANDSCAPING		
	Required	**Proposed**
Overstory Trees	553 caliper inches	561 caliper inches
Understory Trees	51	51
Shrubs	590	691

It should be noted that during the final review of the Chaska Creek Industrial buildings Phase 1&2 it was determined that these buildings would be treated as one-story buildings (as opposed to two stories). The same landscaping requirements would apply here, and is reflected in the values noted in the previous table. An area that the applicant shall look at further for more landscaping is the northeast corner of the property adjacent to the proposed retaining wall. More trees shall line that perimeter of the retaining wall to help soften the edge.

Planting islands will need to be incorporated in the parking lots. The City's code requires 10% of the parking lots to be allocated for planting islands. These islands need to be at least 10 feet wide. The site plans are showing compliance with this.

Boulevard trees will be required along the sides that abut Chaska Creek Boulevard and Creek Road. The landscaping plan reflects this in the preliminary submittal.

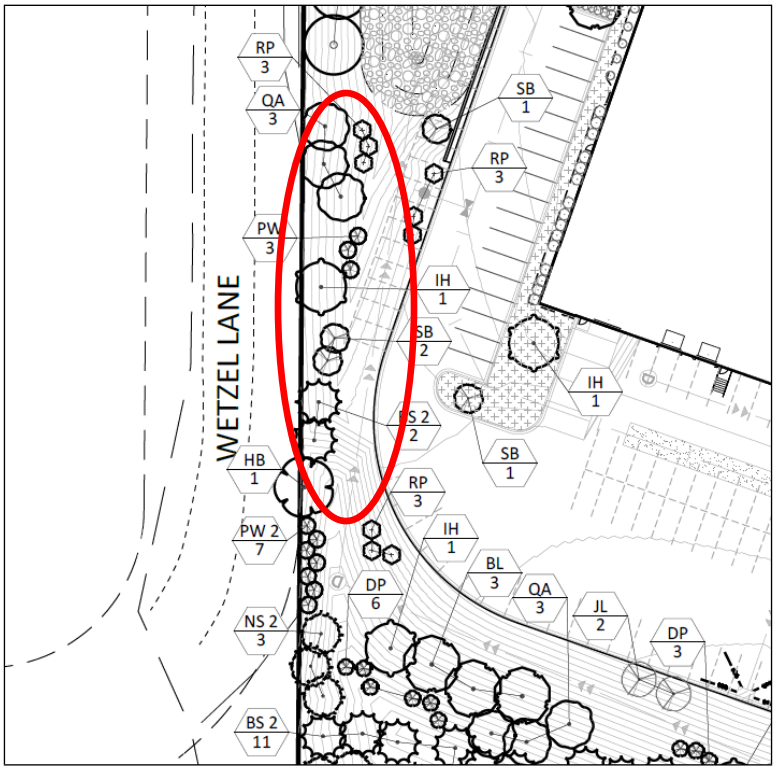
Screening

The property abuts residential on its western/southwestern edge. Because of this it will be important that screening is achieved effectively between the site and the homes. The loading dock is oriented to the south side of the site. The use of berming and landscaping will be imperative on the west and southwest edges.

The applicant has provided a landscape plan and section drawings to show the buffering and separation characteristics of the site plan. The south and southwest portions of the site will be significantly recessed into the site. A berm of approximately 20 feet high is planned on the south and southwest portions of the site. Additional landscaping/trees will be added to the top

of this berm of additional screening. These trees will primarily be coniferous trees of 8 feet in height. With the berming and landscaping in place it will significantly cover the loading dock and lighting shown in the rear of the property.

The only area that would need to be bolstered is the westerly edge between the stormwater pond and berm. This area is fairly level with the adjacent private drive, Wetzel Lane so adding more coniferous plantings in this area will help screen the proposed parking lot and site better. The image below identifies the area in question.



Lighting

Any lighting proposed for this plan should be fully screened and face downward. Light poles will also be limited to 25 feet in height since this site is adjacent to residential. Any wall mounts are limited to 18 feet in height on buildings. Lighting levels are proposed to be near zero at property lines abutting residential. In addition, the berming and landscaping proposed on the south side of the site will be flush or higher than the proposed light fixtures that are on the rear portion of the property and building. The west façade is showing 5 wall mounts. With there being two pedestrian doors plus one main entrance door on this facade it would appear that 3 wall mounts would be sufficient for this façade. Due to adjacent residential, and no berming here, it is better to only include what's necessary from a code perspective. Staff would require that the west façade have a maximum of 3 wall mounts to illuminate the pedestrian accesses.

Signs

The applicant will be required to meet all of Section 10 of the zoning ordinance for signs; specifically Section 10.8 as it relates to Industrial Sign Regulations; and they will be required to meet a 10 foot setback from property lines/ROW. Sign permits will need to be obtained prior to the installation of any sign.

For tenants sharing the same façade, the same or a similar method of signing must be used for all parties desiring to place a sign on the façade. Staff would require that signs on the west and south facades cannot be internally illuminated.

Traffic
There is one principal access spine (Chaska Creek Boulevard) as it moves from Engler Boulevard (CR 10) south to Creek Road. A roundabout is proposed at the Chaska Creek Boulevard and Creek Road intersection. This roundabout is in the process of being constructed. Chaska Creek Boulevard's right-of-way (ROW) will be preserved as a part of this site plan for the future southerly connection south of Creek Road, however, the road extension will not occur with this project. In the interim, a driveway will be provided for the Oppidan site so that trucks can access the site efficiently and directly on to the collector road.

Setbacks
Buildings and parking shall meet the following setbacks:

BUILDING SETBACKS	
Direction	**Setback**
Highway 212	225 feet from centerline or 50 feet from ROW, whichever greater
Chaska Creek Blvd	100 feet from centerline
Creek Road	100 feet from centerline
Interior Property Lines	10 feet
Wooded Steep Slope	50 feet from edge; 30 feet no grade/no mow
Wetlands	75 feet
Chaska Creek	75 feet from edge

PARKING SETBACKS	
Direction	**Setback**
Interior Property Lines	5 feet
Property Lines Abutting ROW or residential	10 feet

Utilities
Utilities are available to service the project.

The subject property *is not* located within the service territory of Chaska Electric, but of Minnesota Valley Electric Cooperative (MVEC).

Stormwater
The project's storm water design will need to meet the City's, Carver County Water Management's, and appropriate State and Federal requirements.

Wooded Steep Slope
The applicants have indicated on their plans the presence of wooded steep slopes along the Chaska Creek ravine mainly south, and out of the subject site; the site line is out of the treed areas. Although these remnant areas are not in the vicinity of the proposed project area, it should be noted that a 50 foot building and 30 foot no grade/mow setback apply to the edges of these slopes. With that in mind, it may require tweeks on future building and stormwater pond locations to ensure those setbacks are adhered to. More information/guidance will be provided on this when those remnant areas initiate development.

Pedestrian Sidewalks/Connections/Trails
Sidewalks will be required along both sides of local public streets, which would include along Creek Road and Chaska Creek Boulevard. A city trail will be required on the west side of Chaska Creek Boulevard to connect into the existing trail just north of Creek Road.

Development Costs (Infrastructure Improvements)
The area-wide development costs would include but not be limited to:

- Arterial Road Network
- Collector Roads
- Storm Sewer
- Parks
- Interchange (Zone of Influence)

Prior to final platting, the developer will need to work with Staff to determine which of these are applicable and what those fees will be. It should be noted that no parks are proposed as a part of this development, and therefore, park fees will be collected as opposed to land dedication.

Preliminary Plat
The site is proposed to be platted into one lot. There are three outlots, and their dispositions are as follows:

- Outlot A: open space and future development to be retained by the property owner
- Outlot B: stormwater ponding to be owned by the City of Chaska
- Outlot C: future collector road to be owned by the City of Chaska

Rezoning
The property is being rezoned from Rural Residential (RR-2) and Open (O) to Planned Industrial District No. 10 (PRD-10).

Deadline for Agency Actions
The City of Chaska received the complete application for this request on Wednesday, February 23, 2022. Pursuant to Minnesota State Statutes the City must act on this request by **Sunday, April 24, 2022** (60 days), unless the City provides the petitioner with written reasons for an additional 60-day review period. The additional review period would extend to *Thursday, June 23, 2022*. The City may with the petitioners consent extend the review period beyond the Thursday, June 23, 2022. Lastly, if the City denies the petitioners request "… it must state in writing the reasons for the denial at the time it denies the request."
PLANNING COMMISSION ACTION TAKEN 03/09/2022:

Motion to recommend to City Council approval of the Preliminary Site & Building Plan and Preliminary Plat for Chaska Creek Industrial Phase 3, subject to the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Title Sheet (pg C1.01), prepared by Sambatek, dated January 4, 2022
    b. Existing Conditions Plan (pg C2.01), prepared by Sambatek, dated February 22, 2022
    c. Site Plan (pg C3.01), prepared by Sambatek, dated February 23, 2022
    d. Site Plan – Proof of Parking (pg C3.02), prepared by Sambatek, dated February 23, 2022
    e. Grading Plan (pg C4.01), prepared by Sambatek, dated February 23, 2022
    f. Grading Plan Notes (pg C4.02), prepared by Sambatek, dated February 23, 2022
    g. Grading Plan – Future Road Improvements (pg C4.03), prepared by Sambatek, dated February 23, 2022
    h. Erosion Control Plan – Phase I (pg C5.01), prepared by Sambatek, dated February 23, 2022
    i. Erosion Control Plan – Phase II (pg C5.02), prepared by Sambatek, dated February 23, 2022
    j. Erosion Control Plan – Notes (pgs C5.03-5.04), prepared by Sambatek, dated February 23, 2022
    k. Erosion Control Plan – SWPPP (pgs C5.05-5.06), prepared by Sambatek, dated February 23, 2022
    l. Utility Plan (pg C6.01), prepared by Sambatek, dated February 23, 2022
    m. Detail Plan (pgs C9.01-9.04), prepared by Sambatek, dated February 23, 2022
    n. Landscape Plan (pg L1.01), prepared by Sambatek, dated February 23, 2022
    o. Shrub Plan (pg L1.02), prepared by Sambatek, dated February 23, 2022
    p. Landscape Details and Notes (pg L1.03), prepared by Sambatek, dated February 23, 2022
    q. Screening Exhibit Plan (pg L1.04), prepared by Sambatek, dated February 22, 2022
    r. Landscape Screening Exhibit (pg L1.03), prepared by Sambatek, dated December 30, 2021
    s. Photometric Plan, prepared by Pulse, dated February 6, 2022
    t. Truck Turning Exhibit (pg EX1.02), prepared by Sambatek, dated February 22, 2022
    u. Preliminary Plat, prepared by Sambatek, dated January 31, 2022
    v. Preliminary City Submittal – Conceptual Floor Plan, prepared by Mohagen Hansen, dated January 3, 2022
    w. Preliminary City Submittal – Conceptual 3D Images, prepared by Mohagen Hansen, dated January 3, 2022
    x. City Submittal – Exterior Elevations, prepared by Mohagen Hansen, dated January 3, 2022
    y. City Submittal – Exterior Materials, prepared by Mohagen Hansen, dated January 3, 2022
2. Adherence with the City Engineer's Memo dated March 9, 2022.
3. For businesses sharing the same façade, the same or a similar method of signing must be used for all parties desiring to place a sign on the façade.
4. Provision of all proposed signs to meet Section 10 of the Zoning Ordinance.

5. Provision that wall signs cannot be internally illuminated on the west and south facades.
6. Mechanical equipment for each building to be fully screened from view and to meet Section 9.11.6 of the zoning ordinance.
7. Prior to final plat approval, developer shall enter into an agreement with the City for the provision of necessary infrastructure and associated development costs.
8. Compliance with applicable zoning requirements, in particular Chapter 9 (General Requirements).
9. Provision that all wall mount lighting be mounted no higher than 18 feet.
10. Provision that only 3 wall mounts maximum are shown on the west façade, and to be addressed on the lighting plan at final submittal.
11. Provision that all pole lights will be no higher than 25 feet.
12. Provision of a storm water management plan meeting City, Carver County WMO and any other applicable agency standards.
13. Utility connections to each lot to adhere to City standards and be approved by the City Engineer.
14. Provision of sidewalks on both sides of all local streets.
15. Provision of a City trail on the west side of Chaska Creek Boulevard.
16. Provision of a 60 feet Right of Way width for all local streets.
17. Provision of additional coniferous trees be added to the west edge of the site between the stormwater pond and berm, and to be addressed at final submittal.
18. Provision of additional trees around the edge of the retaining wall on the northeast portion of the site, and to be addressed at final submittal.
19. Provision of retaining wall details meeting Section 15.28.100F of the zoning code, and addressed at final submittal.

Motion to recommend approval of the rezoning for Chaska Creek Industrial Phase 3 from Rural Residential (RR-2) and Open (O) to Planned Industrial District No. 10 (PID-10).

CITY COUNCIL ACTOIN REQUESTED

Motion to adopt Resolution No. 2022-23 approving the Preliminary Site & Building Plan and Preliminary Plat for Chaska Creek Industrial Phase 3 (PC #2022-14).

Motion to adopt Ordinance No. 1009 approving the rezoning for Chaska Creek Industrial Phase 3 from Rural Residential (RR-2) and Open (O) zoning districts to Planned Industrial District No. 10 (PID-10).

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 03/21/2022 RESOLUTION NO. 2022-23

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

Resolution approving the Preliminary Site & Building Plan and Preliminary Plat for Chaska Creek Industrial Phase 3/Oppidan/PC #2022-14

WHEREAS, the request this evening is for Preliminary Site & Building Plan, Preliminary Plat, and Rezoning for the construction of a new industrial building just south of the Chaska Creek Business Park (known as Chaska Creek Industrial Phase 3); and

WHEREAS, the building proposed is not designed to be a distribution center; and

WHEREAS, the proposed industrial building will be approximately 177,000 square feet in size and 34-38 feet in height; clear height inside the building will be 28 feet which is consistent with the other Chaska Creek Industrial buildings; and

WHEREAS, the building will be a mix of durable materials including precast concrete panels, architectural diamond metal paneling, and aluminum storefront glass; and

WHEREAS, 214 parking spaces are proposed as a part of this site plan; and

WHEREAS, the applicant has provided a proof of parking exhibit in their preliminary site plan that meets a 1 parking space per 350 square foot requirement for the warehouse portion, which totals 528 parking stalls (71 for office; 457 for manufacturing); and

WHEREAS, the property abuts residential on its western/southwestern edge; and

WHEREAS, because of this it will be important that screening is achieved effectively between the site and the homes; and

WHEREAS, the loading dock is oriented to the south side of the site, and the use of berming and landscaping will be imperative on the west and southwest edges; and

WHEREAS, the south and southwest portions of the site will be significantly recessed into the site, and a berm of approximately 20 feet high is planned on the south and southwest portions of the site; and

WHEREAS, additional landscaping/trees will be added to the top of this berm of additional screening, and these trees will primarily be coniferous trees of 8 feet in height; and

WHEREAS, the only area that would need to be bolstered is the westerly edge between the stormwater pond and berm; and

WHEREAS, this area is fairly level with the adjacent private drive, Wetzel Lane so adding more coniferous plantings in this area will help screen the proposed parking lot and site better; and

WHEREAS, light poles will also be limited to 25 feet in height since this site is adjacent to residential, and any wall mounts are limited to 18 feet in height on buildings; and

WHEREAS, sidewalks will be required along both sides of local public streets, which would include along Creek Road and Chaska Creek Boulevard; and

WHEREAS, a city trail will be required on the west side of Chaska Creek Boulevard to connect into the existing trail just north of Creek Road when the collector road gets constructed south of Creek Road; and

WHEREAS, the site is proposed to be platted into one lot, and there are three outlots, and their dispositions are as follows:

- Outlot A: open space and future development to be retained by the property owner
- Outlot B: stormwater ponding to be owned by the City of Chaska
- Outlot C: future collector road to be owned by the City of Chaska

WHEREAS, on March 9, 2022 the Planning Commission recommended approval to the City Council of the Preliminary Site & Building Plan and Preliminary Plat for Chaska Creek Industrial Phase 3 (PC#2022-14); and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota, hereby approves the Preliminary Site & Building Plan and Preliminary Plat for Chaska Creek Industrial Phase 3 (PC#2022-14), subject to the aforementioned stipulations and following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Title Sheet (pg C1.01), prepared by Sambatek, dated January 4, 2022
    b. Existing Conditions Plan (pg C2.01), prepared by Sambatek, dated February 22, 2022
    c. Site Plan (pg C3.01), prepared by Sambatek, dated February 23, 2022
    d. Site Plan – Proof of Parking (pg C3.02), prepared by Sambatek, dated February 23, 2022
    e. Grading Plan (pg C4.01), prepared by Sambatek, dated February 23, 2022
    f. Grading Plan Notes (pg C4.02), prepared by Sambatek, dated February 23, 2022
    g. Grading Plan – Future Road Improvements (pg C4.03), prepared by Sambatek, dated February 23, 2022
    h. Erosion Control Plan – Phase I (pg C5.01), prepared by Sambatek, dated February 23, 2022
    i. Erosion Control Plan – Phase II (pg C5.02), prepared by Sambatek, dated February 23, 2022
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    k. Erosion Control Plan – SWPPP (pgs C5.05-5.06), prepared by Sambatek, dated February 23, 2022
    l. Utility Plan (pg C6.01), prepared by Sambatek, dated February 23, 2022
    m. Detail Plan (pgs C9.01-9.04), prepared by Sambatek, dated February 23, 2022
    n. Landscape Plan (pg L1.01), prepared by Sambatek, dated February 23, 2022
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    q. Screening Exhibit Plan (pg L1.04), prepared by Sambatek, dated February 22, 2022
    r. Landscape Screening Exhibit (pg L1.03), prepared by Sambatek, dated December 30, 2021

s. Photometric Plan, prepared by Pulse, dated February 6, 2022
t. Truck Turning Exhibit (pg EX1.02), prepared by Sambatek, dated February 22, 2022
u. Preliminary Plat, prepared by Sambatek, dated March 16, 2022
v. Preliminary City Submittal – Conceptual Floor Plan, prepared by Mohagen Hansen, dated January 3, 2022
w. Preliminary City Submittal – Conceptual 3D Images, prepared by Mohagen Hansen, dated January 3, 2022
x. City Submittal – Exterior Elevations, prepared by Mohagen Hansen, dated January 3, 2022
y. City Submittal – Exterior Materials, prepared by Mohagen Hansen, dated January 3, 2022

2. Adherence with the City Engineer's Memo dated March 9, 2022.
3. For businesses sharing the same façade, the same or a similar method of signing must be used for all parties desiring to place a sign on the façade.
4. Provision of all proposed signs to meet Section 10 of the Zoning Ordinance.
5. Provision that wall signs cannot be internally illuminated on the west and south facades.
6. Mechanical equipment for each building to be fully screened from view and to meet Section 9.11.6 of the zoning ordinance.
7. Prior to final plat approval, developer shall enter into an agreement with the City for the provision of necessary infrastructure and associated development costs.
8. Compliance with applicable zoning requirements, in particular Chapter 9 (General Requirements).
9. Provision that all wall mount lighting be mounted no higher than 18 feet.
10. Provision that only 3 wall mounts maximum are shown on the west façade, and to be addressed on the lighting plan at final submittal.
11. Provision that all pole lights will be no higher than 25 feet.
12. Provision of a storm water management plan meeting City, Carver County WMO and any other applicable agency standards.
13. Utility connections to each lot to adhere to City standards and be approved by the City Engineer.
14. Provision of sidewalks on both sides of all local streets.
15. Provision of a City trail on the west side of Chaska Creek Boulevard.
16. Provision of a 60 feet Right of Way width for all local streets.
17. Provision of additional coniferous trees be added to the west edge of the site between the stormwater pond and berm, and to be addressed at final submittal.
18. Provision of additional trees around the edge of the retaining wall on the northeast portion of the site, and to be addressed at final submittal.
19. Provision of retaining wall details meeting Section 15.28.100F of the zoning code, and addressed at final submittal.

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 21st day of March, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Chaska Deputy Clerk

CITY OF CHASKA

ORDINANCE NO. 1009

MOTION BY COUNCILMEMBER ___ _, SECOND BY COUNCILMEMBER ____

AN ORDINANCE AMENDING ORDINANCE NO. 229 (ZONING ORDINANCE) OF THE CITY OF CHASKA BY REZONING CERTAIN REAL ESTATE WITHIN THE CITY OF CHASKA

THE CITY COUNCIL OF THE CITY OF CHASKA DO ORDAIN:

Section 1. Rezoning. The boundaries of the Zoning Districts as established by Ordinance No. 229 and as shown on the Zoning Map of Chaska, Minnesota are hereby amended as follows:

The following described real estate is hereby removed from the Rural Residential (RR-2) and Open (O) zoning districts and rezoned to Planned Industrial District No. 10 (PID-10) for all of:

Block 1 of the Chaska Club West Industrial

Section II. Exhibits. The Preliminary Plat and Preliminary Site/Building Plans for the Chaska Creek Industrial Phase 3 (aka Chaska Club West Industrial) shall serve as the basis for guiding the development area. The Preliminary Plat and Preliminary Site/Building Plans shall consist of the following graphic exhibits and subsequent revisions/amendments as may be approved by the City from time to time:

i. Title Sheet (pg C1.01), prepared by Sambatek, dated January 4, 2022
ii. Existing Conditions Plan (pg C2.01), prepared by Sambatek, dated February 22, 2022
iii. Site Plan (pg C3.01), prepared by Sambatek, dated February 23, 2022
iv. Site Plan – Proof of Parking (pg C3.02), prepared by Sambatek, dated February 23, 2022
v. Grading Plan (pg C4.01), prepared by Sambatek, dated February 23, 2022
vi. Grading Plan Notes (pg C4.02), prepared by Sambatek, dated February 23, 2022
vii. Grading Plan – Future Road Improvements (pg C4.03), prepared by Sambatek, dated February 23, 2022
viii. Erosion Control Plan – Phase I (pg C5.01), prepared by Sambatek, dated February 23, 2022
ix. Erosion Control Plan – Phase II (pg C5.02), prepared by Sambatek, dated February 23, 2022
x. Erosion Control Plan – Notes (pgs C5.03-5.04), prepared by Sambatek, dated February 23, 2022
xi. Erosion Control Plan – SWPPP (pgs C5.05-5.06), prepared by Sambatek, dated February 23, 2022
xii. Utility Plan (pg C6.01), prepared by Sambatek, dated February 23, 2022
xiii. Detail Plan (pgs C9.01-9.04), prepared by Sambatek, dated February 23, 2022
xiv. Landscape Plan (pg L1.01), prepared by Sambatek, dated February 23, 2022

xv. Shrub Plan (pg L1.02), prepared by Sambatek, dated February 23, 2022
xvi. Landscape Details and Notes (pg L1.03), prepared by Sambatek, dated February 23, 2022
xvii. Screening Exhibit Plan (pg L1.04), prepared by Sambatek, dated February 22, 2022
xviii. Landscape Screening Exhibit (pg L1.03), prepared by Sambatek, dated December 30, 2021
xix. Photometric Plan, prepared by Pulse, dated February 6, 2022
xx. Truck Turning Exhibit (pg EX1.02), prepared by Sambatek, dated February 22, 2022
xxi. Preliminary Plat, prepared by Sambatek, dated March 16, 2022
xxii. Preliminary City Submittal – Conceptual Floor Plan, prepared by Mohagen Hansen, dated January 3, 2022
xxiii. Preliminary City Submittal – Conceptual 3D Images, prepared by Mohagen Hansen, dated January 3, 2022
xxiv. City Submittal – Exterior Elevations, prepared by Mohagen Hansen, dated January 3, 2022
xxv. City Submittal – Exterior Materials, prepared by Mohagen Hansen, dated January 3, 2022

Section III. PID-10 District Regulations. Permitted uses and regulations applicable to the PID-10 District shall be as follows:

A. Intent. The intent of the PID-10 District is to provide for the development of a high-quality business park that seeks to reinforce the diversity of Chaska with a sustainable mix of businesses providing a high number of quality jobs per acre. Natural amenities such as wooded steep slopes shall be preserved. Architecture and design shall be high quality and complementary to 'Chaska'.

B. Permitted Uses.

1. Lot 1, Block 1, Chaska Club West Industrial: Office and manufacturing/warehousing facilities, not including distribution centers.

C. Accessory Uses. Customary accessory uses incidental to the foregoing principal use, including but not limited to the following:

1. Off-street parking and loading facilities as regulated by Section 9 of the Zoning Ordinance;
2. Signs as regulated by Section 10 of the Zoning Ordinance, except as follows:
    a. Lot 1, Block 1, Chaska Club West Industrial:
        i. For businesses sharing the same façade, the same or a similar method of sign design must be used for all parties desiring to place a sign on the façade.
        ii. Wall signs cannot be internally illuminated on the west and south facades.

D. Development Standards
1. Minimum building setbacks:

a. From Highway 212: 225 feet from centerline, or 50 feet from ROW, whichever is greater
b. From Chaska Creek Boulevard: 100 feet from centerline
c. From Creek Road: 100 feet from centerline
d. Interior Property Lines: 10 feet
e. Wooded Steep Slopes (18% or greater): 50 feet from edge and 30 feet no grade/no mow from edge
f. Wetlands: 75 feet

2. Minimum setback for impervious surfaces for on-site parking, loading and driving:
    a. Interior Property Lines: 5 feet
    b. Property Lines Abutting Public Right of Way: 10 feet
3. Exterior lighting standards shall be as regulated by the Chaska Zoning Ordinance, provided that:
    a. All wall mounts are located no higher than 18 feet above grade.
    b. All pole lights are located no higher than 25 feet above grade.

E. Outlots

The following described real estate shall be limited in its use to the following:

a. Outlot A: open space and future development to be retained by the property owner
b. Outlot B: stormwater ponding to be owned by the City of Chaska
c. Outlot C: future collector road to be owned by the City of Chaska

all in the plat of Chaska Club West Industrial, Carver County, Minnesota.

Section IV. Effective Date. This Ordinance shall be in full force and effect from and after its date of passage, adoption, and publication according to law.

Passed and adopted by the City Council of the City of Chaska, Minnesota this 21st day of March, 2022.

_____
Mark Windschitl, Mayor

Attest: _____
Deputy Clerk

City of Chaska
Memorandum

To: **Planning Commission**
From: **Matt Clark, City Engineer**
Date: **March 9, 2022**
Subject: **Chaska Creek Center Phase 3 Industrial Building Preliminary Plan**

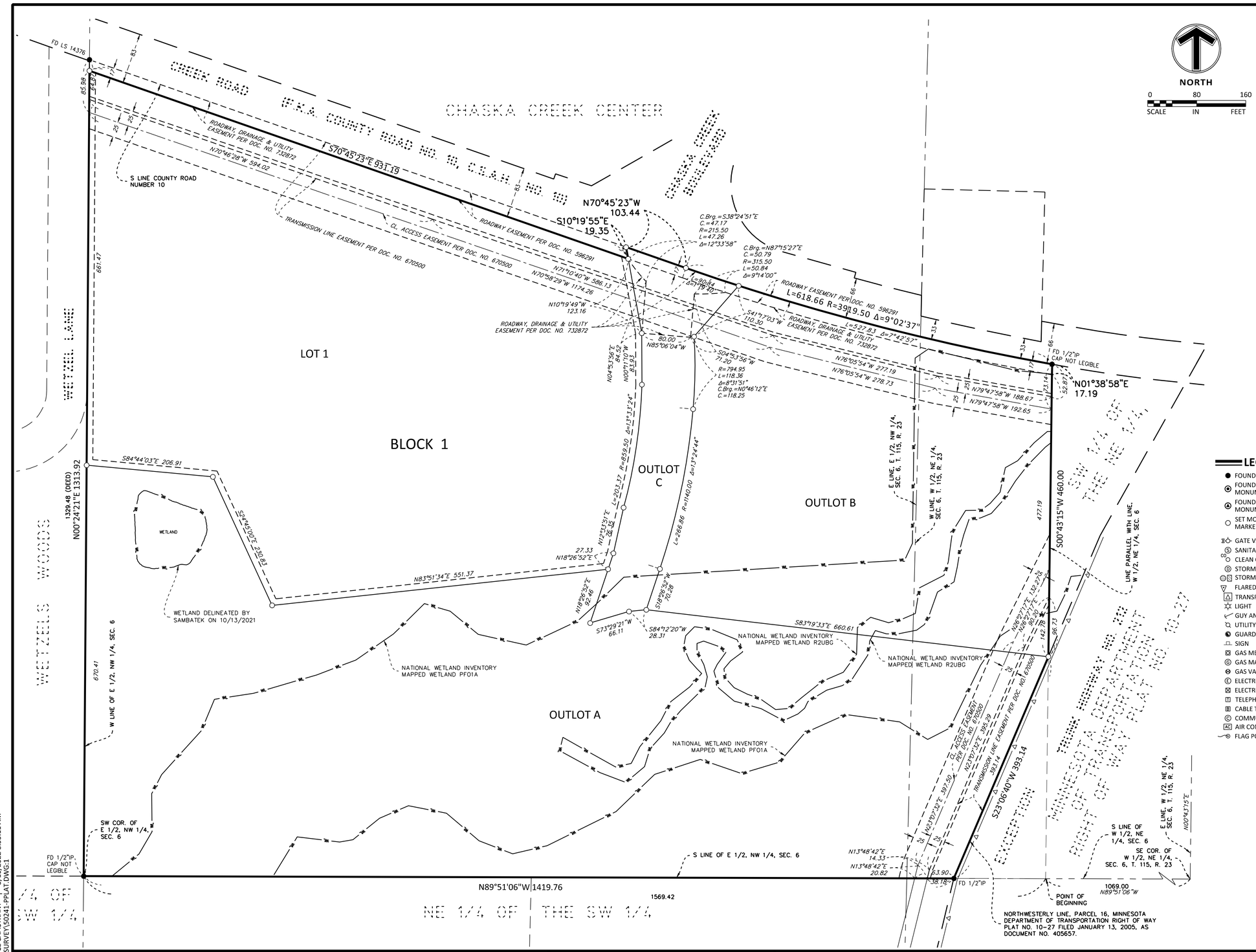
The proposed development is located south of the Chaska Creek Center Corporate Industrial Center at the southwest quadrant of US Highway 212 and County Road 110 (Creek Road). Improvements that are being constructed now with the Corporate Campus include City utilities and street improvements along Chaska Creek Boulevard that will accommodate development of the site.

The City's master plan includes trunk utilities and preservation of right of way for a future collector road through the property. The extension of collector road is not warranted at this time; however, the Developer and Property Owner have been working closely with the City for planning and acquisition of the right of way that will preserve the ability to construct in the future should it be necessary. For the final planning process, it will be important the site plans accommodate future City infrastructure improvements that are planned in the area both to Creek Road and a future collector road. Easements that allow for drainage, grading, and utilities necessary to support the planned infrastructure improvements will be considered with the final plat.

The wetland mitigation plan must be approved and executed with state agencies for wetland being mitigated within the development as well as any mitigation required within the MnDOT right of way prior to a grading.

The site plan requires mass grading and will require City and watershed agency requirements be met. Prior to a grading permit being issued for the development, all agency approvals for wetlands and storm water management will be required. Gravity sanitary sewer and water main extensions through future collector road will need to be coordinated with City utility departments. A City development agreement is required for the new development with approval of the final plat.

ONE CITY HALL PLAZA/CHASKA, MN 55318-1962/PH: (952) 448-2851/ FX: (952) 448-9300



DESCRIPTION

Those parts of the East half of the Northwest Quarter and the West half of the Northeast Quarter of Section 6, Township 115, Range 23, Carver County, Minnesota, described as follows:

Commencing at the Southeast Corner of said West half of the Northeast Quarter; thence Westerly along the South line of said West half of the Northeast Quarter a distance of 1069.00 feet to the point of beginning of the land to be described; thence continue Westerly along said South line of the West half of the Northeast Quarter and the South line of said East half of the Northwest Quarter a distance of 1569.42 feet to the Southwest corner of said East half of the Northwest Quarter; thence Northerly along the West line of said East half of the Northwest Quarter a distance of 1329.48 feet to the South line of County Road No. 10; thence Southeasterly and Easterly along the Southwesterly and Southerly line of said County Road No. 10 to its intersection with a line drawn North from the point of beginning parallel with the East line of said West half of the Northeast Quarter; thence Southerly along said parallel line to the point of beginning. Excepting therefrom, Parcel 16, Minnesota Department of Transportation Right of Way Plat No. 10-27 filed January 13, 2005, as Document No. 405657.

Carver County, Minnesota
Abstract Property

TO BE PLATTED AS: CHASKA CLUB WEST INDUSTRIAL.

PROPERTY SUMMARY

EXISTING ZONING: OPEN.
PROPOSED ZONING: PLANNED INDUSTRIAL DISTRICT (PID).

TOTAL SITE AREA: 37.507 ACRES OR 1,633,821 SQUARE FEET.

PROPOSED AREA CALCULATIONS:

LOT 1, BLOCK 1	=	12.960 ACRES OR 564,522 SQUARE FEET.
OUTLOT A	=	16.296 ACRES OR 709,853 SQUARE FEET.
OUTLOT B	=	6.991 ACRES OR 304,514 SQUARE FEET.
OUTLOT C	=	1.261 ACRES OR 54,935 SQUARE FEET.

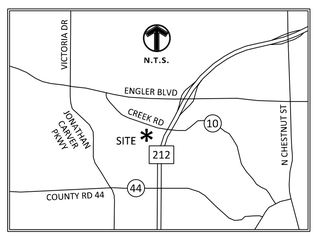
DEVELOPMENT NOTES

1. ALL AREAS ARE ROUNDED TO THE NEAREST SQUARE FOOT.
2. DRAINAGE AND UTILITY EASEMENTS SHALL BE PROVIDED AS REQUIRED. DRAINAGE AND UTILITY EASEMENTS WILL BE PROVIDED OVER ALL PUBLIC UTILITIES AND PONDS.
3. CURRENT PROPERTY IDENTIFICATION NUMBER: 30.0060800.
4. THE BEARING SYSTEM IS BASED ON THE CARVER COUNTY COORDINATE SYSTEM, NAD83 (1986 ADJUST), WITH AN ASSUMED BEARING OF NORTH 89 DEGREES 51 MINUTES 06 SECONDS WEST FOR THE SOUTH LINE OF THE NORTHWEST QUARTER, SECTION 6, TOWNSHIP 115, RANGE 23.

LEGEND

- FOUND MONUMENT
- FOUND CAST IRON MONUMENT
- FOUND RIGHT-OF-WAY MONUMENT
- SET MONUMENT MARKED LS 47092
- GATE VALVE / HYDRANT
- SANITARY MANHOLE
- CLEAN OUT
- STORM MANHOLE
- STORM CATCH BASIN
- FLARED END SECTION
- TRANSFORMER
- LIGHT
- GUY ANCHOR
- UTILITY POLE
- GUARD POST
- SIGN
- GAS METER
- GAS MANHOLE
- GAS VALVE
- ELECTRIC MANHOLE
- ELECTRIC METER
- TELEPHONE PEDESTAL
- CABLE TV BOX
- COMMUNICATIONS MH
- AIR CONDITIONING UNIT
- FLAG POLE
- BENCH
- HAND HOLE
- COMMUNICATIONS VAULT
- BENCHMARK
- DELINEATION POST
- GROUND LIGHT
- TRAFFIC LIGHT
- BEEHIVE
- WELL
- MAILBOX
- POST INDICATOR VALVE
- VENT
- REGULAR PARKING STALL COUNT
- BOUNDARY LINE
- RIGHT-OF-WAY LINE
- UNDERLYING / ADJACENT LOT
- TIE LINE
- SECTION LINE
- SETBACK LINE
- (100.00) DEED DISTANCE
- WATERMAIN
- SANITARY SEWER
- STORM SEWER
- UNDERGROUND ELECTRIC
- UNDERGROUND TELEPHONE
- UNDERGROUND GAS
- OVERHEAD ELECTRICAL WIRE
- FIBER OPTIC
- CHAIN LINK FENCE
- WOOD FENCE
- WIRE FENCE
- WETLAND
- RETAINING WALL
- BLOCK RETAINING WALL
- STONE RETAINING WALL
- POND / WATER LINE
- FEMA FLOOD ZONE LINE
- EASEMENT LINE
- SETBACK LINE
- RESTRICTED ACCESS
- TREE LINE
- CONCRETE CURB
- BUILDING LINE
- BUILDING CANOPY
- BITUMINOUS SURFACE
- CONCRETE SURFACE
- GRAVEL SURFACE
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- SPOT ELEVATION
- CONTOUR
- SOIL BORING

VICINITY MAP



NO	DATE	BY	CKD	APPR	COMMENT
A	03/16/22	LC		JH	OUTLOTS B & C

I hereby certify that this plan, survey, 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.

Print Name: JASON J. HOWARD

Date 03/16/2022 License # 47092

PRELIMINARY
DESIGN REVIEW
PERMIT SUBMITTAL
CONSTRUCTION DOCUMENTS

DRAWN BY LC
DESIGNED BY
CHECKED BY JJH
PROJECT NO. 50241

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PRELIMINARY PLAT
OPPIDAN
CHASKA CLUB WEST INDUSTRIAL
CHASKA, MINNESOTA

SHEET 1 OF 1 REV. A

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Preliminary Site Development Plans

for

Chaska Creek Industrial - Phase III

Chaska, Minnesota

Presented by:

Oppidan

SHEET INDEX

SHEET	DESCRIPTION
C1.01	TITLE SHEET
C2.01	EXISTING CONDITIONS PLAN
C3.01	SITE PLAN
C3.02	SITE PLAN - PROOF OF PARKING
C4.01	GRADING PLAN
C4.02	GRADING PLAN NOTES
C4.03	GRADING PLAN- FUTURE ROAD IMPROVEMENTS
C5.01	EROSION CONTROL PLAN - PHASE I
C5.02	EROSION CONTROL PLAN - PHASE II
C5.03	EROSION CONTROL PLAN - NOTES
C5.04	EROSION CONTROL PLAN - NOTES II
C5.05	EROSION CONTROL PLAN - SWPPP
C5.06	EROSION CONTROL PLAN - SWPPP II
C6.01	UTILITY PLAN
C9.01	DETAIL PLAN
C9.02	DETAIL PLAN II
C9.03	DETAIL PLAN III
L1.01	LANDSCAPE PLAN
L1.02	SHRUB PLAN
L1.03	LANDSCAPE DETAILS AND NOTES
L1.04	SCREENING EXHIBIT PLAN
L1.05	SCREENING EXHIBIT
EX1.01	PHOTOMETRIC PLAN
EX1.02	TRUCK TURNING EXHIBIT
EX1.03	AERIAL SITE EXHIBIT

CONSULTANT CONTACT LIST:

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OPPIDAN
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EXCELSIOR, MN 55331
(952) 294-0353
JAY@OPPIDAN.COM
CONTACT: JAY MOORE

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MINNETONKA, MN 55343
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BBUSSELMAN@SAMBATEK.COM
CONTACT: BRADY BUSSELMAN

ARCHITECT
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JKAPLAN@MOHANGENHANSEN.COM
CONTACT: JENNIFER KAPLAN

SURVEYOR
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JHOWARD@SAMBATEK.COM
JASON HOWARD

GEOTECHNICAL
BRAUN INTERTEC
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MINNEAPOLIS, MN 55438
(953) 995-2000
GJANDRO@BRAUNINTERTEC.COM
CONTACT: JOE WESTPHAL

LANDSCAPE ARCHITECT
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12800 WHITEWATER DRIVE, SUITE 300
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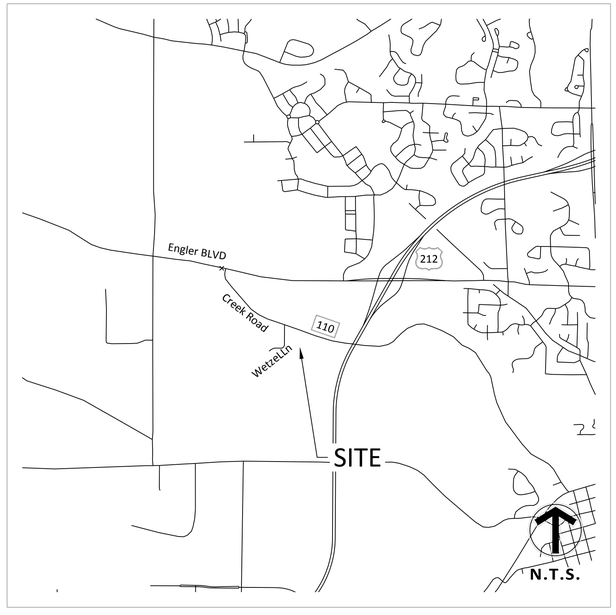
JWORKMAN@SAMBATEK.COM
CONTACT: JOHN WORKMAN



VICINITY MAP
NO SCALE

GOVERNING SPECIFICATIONS

CITY OF CHASKA SPECIFICATIONS (2019)
CITY ENGINEER'S ASSOCIATION OF MINNESOTA STANDARD SPECIFICATIONS (2013)
MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION (2018 EDITION)

NORTH

0 ## ###
SCALE IN FEET

NO	DATE	BY	CKD	APPR	COMMENT
	02/01/2022				REVISED PER CITY COMMENTS

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: _____

Date _____ License # _____

PRELIMINARY 01/04/2022
DESIGN REVIEW
PERMIT SUBMITTAL
CONSTRUCTION DOCUMENTS

DRAWN BY RM
DESIGNED BY JRM
CHECKED BY JDB
PROJECT NO. 50241

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TITLE SHEET
OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET C1.01 OF REV.

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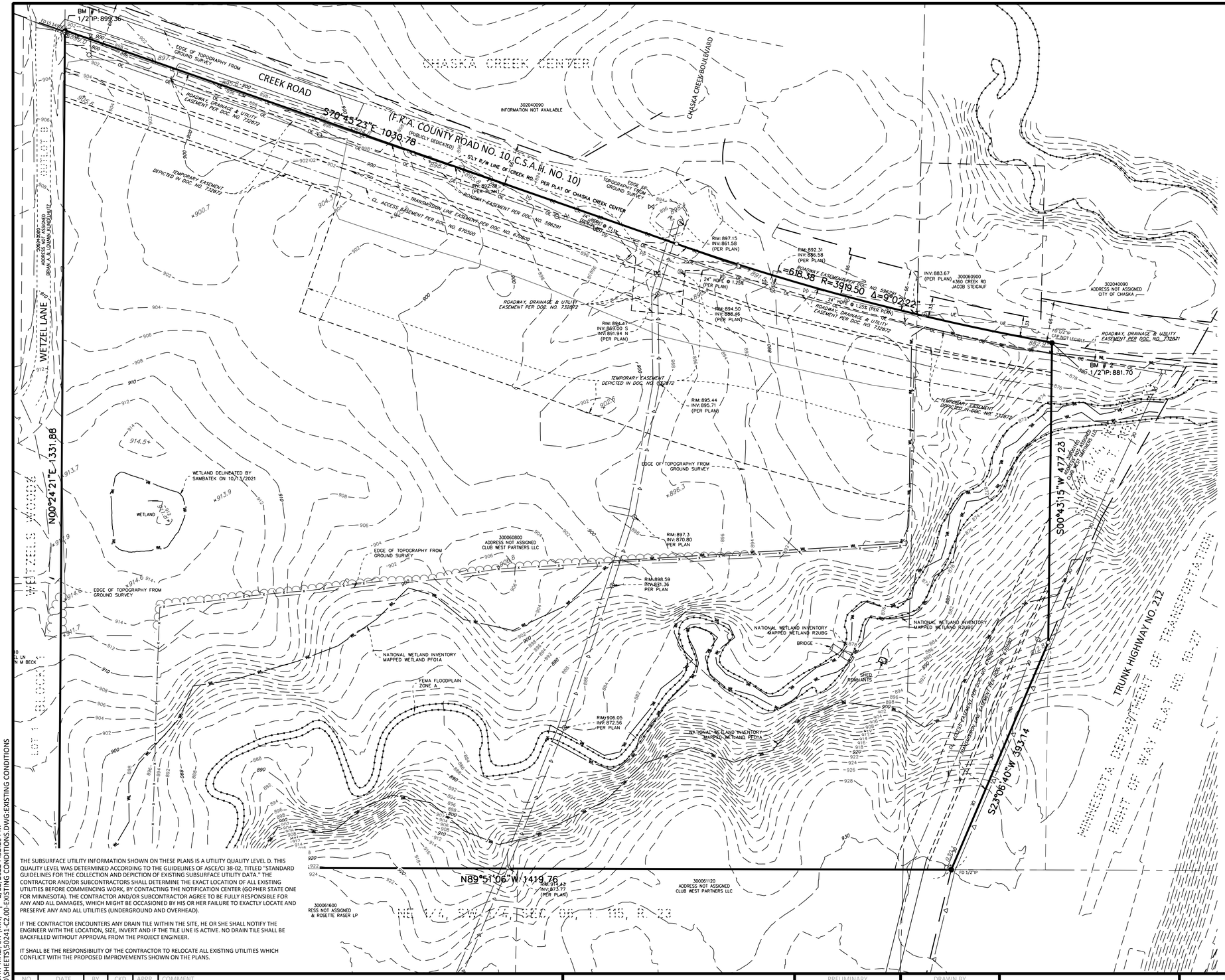

THE SUBSURFACE UTILITY INFORMATION SHOWN ON THESE PLANS IS A UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF ASCE/CI 38-02, TITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA." THE CONTRACTOR AND/OR SUBCONTRACTORS SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, BY CONTACTING THE NOTIFICATION CENTER (GOPHER STATE ONE FOR MINNESOTA). THE CONTRACTOR AND/OR SUBCONTRACTOR AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES, WHICH MIGHT BE OCCASIONED BY HIS OR HER FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES (UNDERGROUND AND OVERHEAD).

IF THE CONTRACTOR ENCOUNTERS ANY DRAIN TILE WITHIN THE SITE, HE OR SHE SHALL NOTIFY THE ENGINEER WITH THE LOCATION, SIZE, INVERT AND IF THE TILE LINE IS ACTIVE. NO DRAIN TILE SHALL BE BACKFILLED WITHOUT APPROVAL FROM THE PROJECT ENGINEER.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

LEGEND

- FOUND MONUMENT
- SET MONUMENT MARKED
- ELECTRIC METER
- LIGHT
- AIR CONDITIONER
- GUY ANCHOR
- HANDICAP STALL
- UTILITY POLE
- POST
- SIGN
- WATERMAIN
- SANITARY SEWER
- STORM SEWER
- FLARED END SECTION
- TELEPHONE PEDESTAL
- ELECTRIC TRANSFORMER
- GAS METER
- OVERHEAD WIRE
- CHAIN LINK FENCE
- IRON FENCE
- WIRE FENCE
- WOOD FENCE
- EASEMENT LINE
- SETBACK LINE
- RESTRICTED ACCESS
- CONCRETE CURB
- BUILDING LINE
- BUILDING CANOPY
- STANDARD DUTY ASPHALT PAVING
- BITUMINOUS SURFACE
- CONCRETE SURFACE
- LANDSCAPE SURFACE

DESCRIPTION

Those parts of the East half of the Northwest Quarter and the West half of the Northeast Quarter of Section 6, Township 115, Range 23, Carver County, Minnesota, described as follows:

Commencing at the Southeast Corner of said West half of the Northeast Quarter; thence Westerly along the South line of said West half of the Northeast Quarter a distance of 1069.00 feet to the point of beginning of the land to be described; thence continue Westerly along said South line of the West half of the Northeast Quarter and the South line of said East half of the Northwest Quarter a distance of 1569.42 feet to the Southwest corner of said East half of the Northwest Quarter; thence Northerly along the West line of said East half of the Northwest Quarter a distance of 1329.48 feet to the South line of County Road No. 10; thence Southeasterly and Easterly along the Southwesterly and Southerly line of said County Road No. 10 to its intersection with a line drawn North from the point of beginning parallel with the East line of said West half of the Northeast Quarter; thence Southerly along said parallel line to the point of beginning. Excepting therefrom, Parcel 16, Minnesota Department of Transportation Right of Way Plat No. 10-27 filed January 13, 2005, as Document No. 405657.

Carver County, Minnesota
Abstract Property

TO BE PLATTED AS: CHASKA CLUB WEST INDUSTRIAL.

PROPERTY SUMMARY

1. SUBJECT PROPERTIES ADDRESS IS UNASSIGNED, ITS PROPERTY IDENTIFICATION NUMBER IS 30.0060800.
2. THE GROSS AREA OF THE SUBJECT PROPERTY IS 37.870 ACRES OR 1,649,619 SQUARE FEET.
3. THE SUBJECT PROPERTY IS ZONED OPEN, PER CITY OF CHASKA.
4. THE BUILDING(S) AND EXTERIOR DIMENSIONS OF THE OUTSIDE WALL AT GROUND LEVEL ARE SHOWN ON THE SURVEY. IT MAY NOT BE THE FOUNDATION WALL.

BENCHMARKS

THE VERTICAL DATUM IS BASED ON NAVD88. THE ORIGINATING BENCH MARKS ARE WAUK AND ENGLER, BOTH REFERENCED FROM THE MNDOT GEODETIC DATABASE.

BENCHMARK #1
1/2 INCH IRON PIPE WITH CAP AT NORTHWESTERLY CORNER OF SURVEYED PROPERTY. ELEV.=899.36

BENCHMARK #2
1/2 INCH IRON PIPE WITH CAP AT NORTHEASTERLY CORNER OF SURVEYED PROPERTY. ELEV.=881.70

BENCHMARK #3
1/2 INCH IRON PIPE WITH CAP AT SOUTHWESTERLY CORNER OF SURVEYED PROPERTY. ELEV.=901.95

SURVEY NOTES

1. THE BEARING SYSTEM IS BASED ON THE CARVER COUNTY COORDINATE SYSTEM, NAD83 (1986 ADJUST), WITH AN ASSUMED BEARING OF NORTH 89 DEGREES 51 MINUTES 06 SECONDS WEST FOR THE SOUTH LINE OF THE NORTHWEST QUARTER, SECTION 6, TOWNSHIP 115, RANGE 23.
2. FIELD WORK WAS COMPLETED ON 11/20/2021.

NORTH
0 80 160
SCALE IN FEET

NO	DATE	BY	CKD	APPR	COMMENT

Print Name: _____
Date _____ License # _____

PRELIMINARY
DESIGN REVIEW
PERMIT SUBMITTAL
CONSTRUCTION DOCUMENTS

DRAWN BY: RM
DESIGNED BY: JRM
CHECKED BY: JDB
PROJECT NO.: 50241

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EXISTING CONDITIONS PLAN

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET
C2.01
OF
REV.

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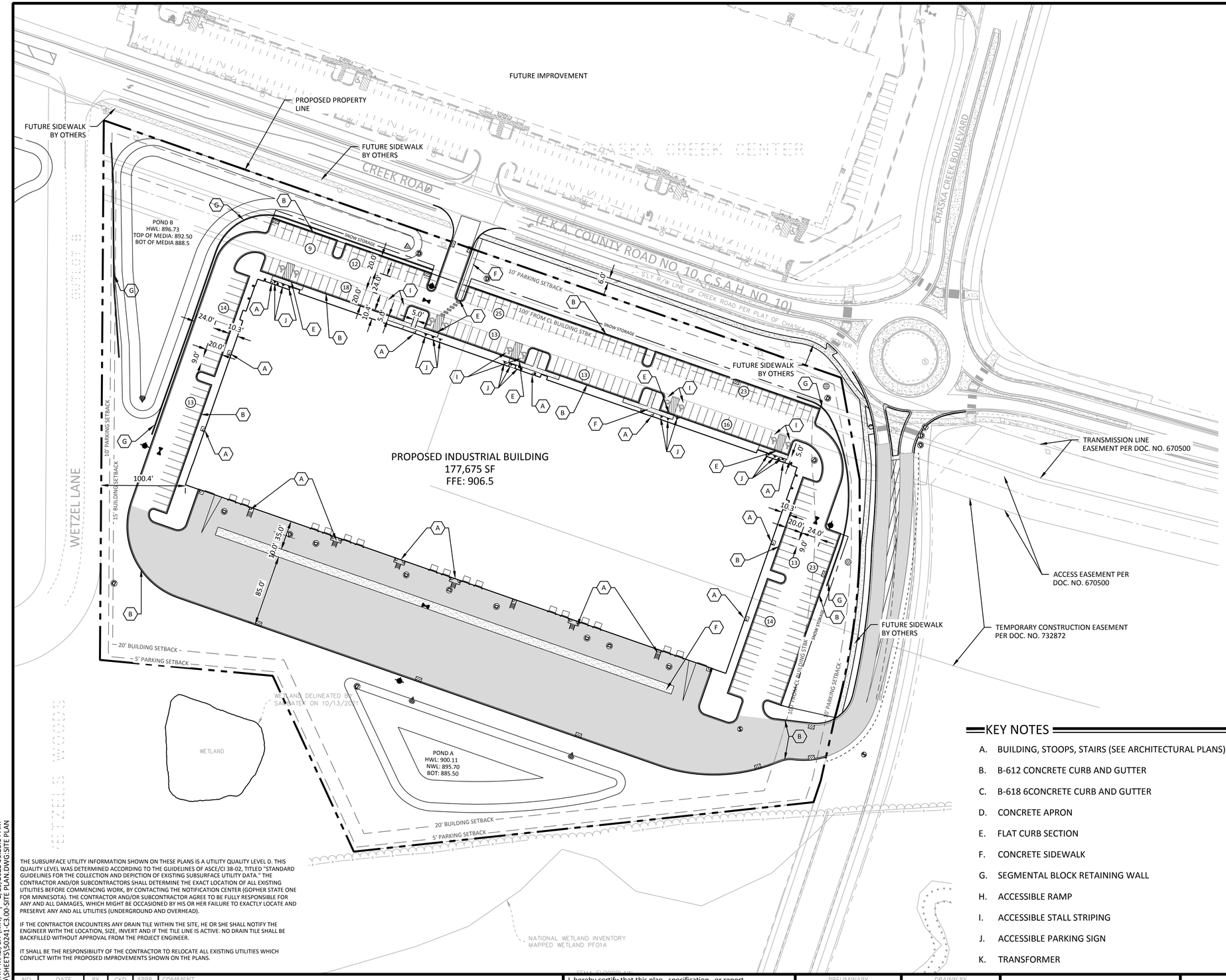

LEGEND

PROPOSED	EXISTING	
		BOUNDARY LINE
		CONCRETE CURB
		EASEMENT LINE
		BUILDING LINE
		RETAINING WALL
	WT	WET LAND
		TREE LINE
		SAW CUT LINE
		SIGN
		BOLLARD

- STANDARD DUTY ASPHALT PAVING
- HEAVY DUTY ASPHALT PAVING
- CONCRETE PAVING
- CONCRETE SIDEWALK
- PAVEMENT BY OTHERS (SEE ARCHITECTURAL PLANS)
- (##) REGULAR PARKING STALL COUNT
- (1) KEYNOTE

DEVELOPMENT SUMMARY

COMMERCIAL

AREA	ACRES
LOT 1	12.96

PARKING SUMMARY	STALLS
20% OFFICE (1 PER 250 SF)	143
80% WAREHOUSE (1 PER 2000 SF)	71
TOTAL PARKING REQUIRED	214
TOTAL PARKING PROPOSED	214

SETBACKS	
BUILDING SETBACKS	
FRONT YARD	30 FEET
REAR YARD	20 FEET
SIDE YARD	15 FEET
PARKING SETBACKS	
FRONT YARD	10 FEET
REAR YARD	5 FEET
SIDE YARD	5 FEET
ZONING	
EXISTING ZONING	OPEN
PROPOSED ZONING	PLANNED INDUSTRIAL DISTRICT (PID)

DEVELOPMENT NOTES

1. NOTES PLACEHOLDER

SITE DEVELOPMENT NOTES

1. ALL DIMENSIONS ARE ROUNDED TO THE NEAREST TENTH FOOT.
2. ALL DIMENSIONS SHOWN ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL REVIEW PAVEMENT GRADIENT AND CONSTRUCT "GUTTER OUT" WHERE WATER DRAINS AWAY FROM CURB. ALL OTHER AREAS SHALL BE CONSTRUCTED AS "GUTTER IN" CURB. COORDINATE WITH GRADING CONTRACTOR.
4. ALL AREAS ARE ROUNDED TO THE NEAREST SQUARE FOOT.
5. ALL PARKING STALLS TO BE 9' IN WIDTH AND 20' IN LENGTH UNLESS OTHERWISE INDICATED.
6. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF EXIT PORCHES, RAMPS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
7. SEE ARCHITECTURAL PLANS FOR MONUMENT SIGN DETAILS
8. LIGHT STANDARD LOCATIONS ARE FOR REFERENCE ONLY, SITE LIGHTING PLAN IS DESIGN BUILD BY CONTRACTOR. CONTRACTOR SHALL CONFIRM LIGHT STANDARD LOCATION WITH LIGHTING VENDOR.
9. REFER TO FINAL PLAT FOR LOT BOUNDARIES, LOT NUMBERS, LOT AREAS, AND LOT DIMENSIONS.
10. ALL GRADIENTS ON SIDEWALKS ALONG THE ADA ROUTE HAVE BEEN DESIGNED WITH A MAXIMUM LONGITUDINAL SLOPE OF 4.5%, AND A MAXIMUM CROSS SLOPE OF 1.5%. THIS IS LESS THAN THE ADA CODE MAXIMUM LONGITUDINAL SLOPE OF 5% (1:20), EXCEPT AT CURB RAMPS (1:12), AND A MAXIMUM CROSS SLOPE OF 2.00% (1:50). THE MAXIMUM DESIGN SLOPE IN ANY DIRECTION ON AN ADA PARKING STALL OR ACCESS AISLE IS 1.5%, LESS THAN THE ADA CODE MAXIMUM SLOPE IN ANY DIRECTION ON AN ADA PARKING STALL OR ACCESS AISLE OF 2.00% (1:50). THE CONTRACTOR SHALL REVIEW AND VERIFY THE GRADIENT IN THE FIELD ALONG THE ADA ROUTES PRIOR TO PLACING CONCRETE OR BITUMINOUS PAVEMENT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF THERE IS A DISCREPANCY BETWEEN THE GRADIENT IN THE FIELD VERSUS THE DESIGN GRADIENT AND COORDINATE WITH GRADING CONTRACTOR.
11. "NO PARKING" SIGNS SHALL BE PLACED ALONG ALL DRIVEWAYS AS REQUIRED BY CITY.
12. STREET NAMES ARE SUBJECT TO APPROVAL BY THE CITY.

CIVIL 3D MODEL LIMITATIONS

SAMBATEK'S DELIVERABLE AND GOVERNING DOCUMENTS FOR CONSTRUCTION SHALL BE A HARD COPY AND/OR PDF PLAN SHEETS. IF A CIVIL 3D MODEL IS GENERATED IN THE PROCESS OF PREPARING THE PLAN SHEETS, IT IS AS A DESIGN TOOL ONLY AND NOT AS A SEPARATE DELIVERABLE. AT THE OWNER'S REQUEST, WE WILL RELEASE OUR CIVIL 3D MODEL FOR THE CONTRACTOR'S USE. HOWEVER, ITS USE IS AT THE CONTRACTOR'S RISK AND SHALL NOT BE USED FOR STAKING OF CURB, SIDEWALK, OR OTHER HARD SURFACE IMPROVEMENTS. IF A CIVIL 3D MODEL FOR STAKING HARD SURFACE IMPROVEMENTS IS REQUIRED, WE CAN PROVIDE A SUPPLEMENTAL AGREEMENT FOR REFINEMENT AND PREPARATION OF THE CIVIL 3D MODEL.

KEY NOTES

A. BUILDING, STOOPS, STAIRS (SEE ARCHITECTURAL PLANS)
B. B-612 CONCRETE CURB AND GUTTER
C. B-618 6CONCRETE CURB AND GUTTER
D. CONCRETE APRON
E. FLAT CURB SECTION
F. CONCRETE SIDEWALK
G. SEGMENTAL BLOCK RETAINING WALL
H. ACCESSIBLE RAMP
I. ACCESSIBLE STALL STRIPING
J. ACCESSIBLE PARKING SIGN
K. TRANSFORMER

THE SUBSURFACE UTILITY INFORMATION SHOWN ON THESE PLANS IS A UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF ASCE/CI 38-02, TITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA." THE CONTRACTOR AND/OR SUBCONTRACTORS SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, BY CONTACTING THE NOTIFICATION CENTER (GOPHER STATE ONE FOR MINNESOTA). THE CONTRACTOR AND/OR SUBCONTRACTOR AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES, WHICH MIGHT BE OCCASIONED BY HIS OR HER FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES (UNDERGROUND AND OVERHEAD).

IF THE CONTRACTOR ENCOUNTERS ANY DRAIN TILE WITHIN THE SITE, HE OR SHE SHALL NOTIFY THE ENGINEER WITH THE LOCATION, SIZE, INVERT AND IF THE TILE LINE IS ACTIVE. NO DRAIN TILE SHALL BE BACKFILLED WITHOUT APPROVAL FROM THE PROJECT ENGINEER.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

NORTH

SCALE 0 60 120 IN FEET

NO.	DATE	BY	CKD	APPR	COMMENT

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: _____

Date _____ License # _____

PRELIMINARY | DESIGN REVIEW | PERMIT SUBMITTAL | CONSTRUCTION DOCUMENTS

DRAWN BY: RM
DESIGNED BY: JRM
CHECKED BY: JDB
PROJECT NO.: 50241

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SITE PLAN

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET C3.01 OF REV.

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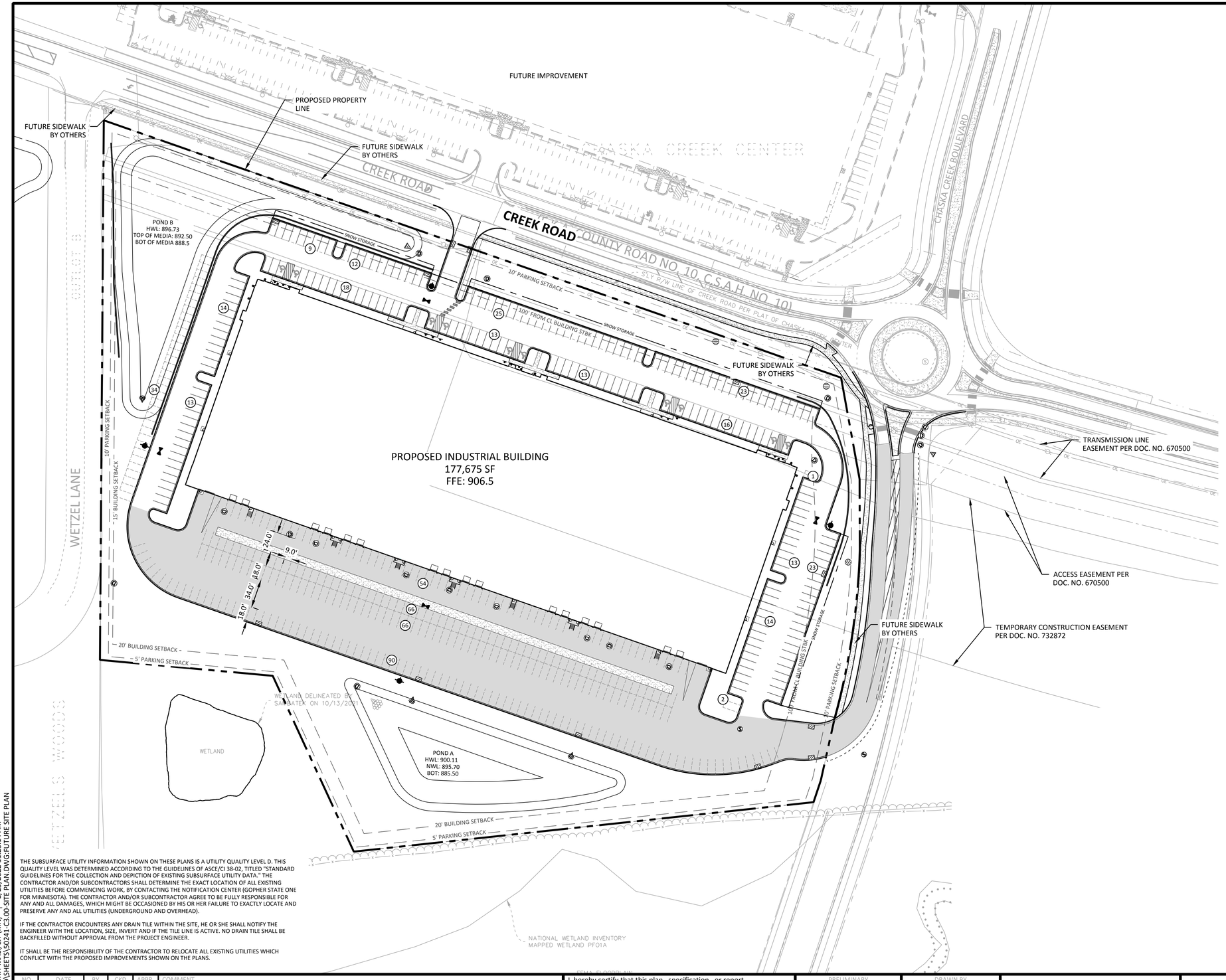

LEGEND

PROPOSED	EXISTING	
		BOUNDARY LINE
		CONCRETE CURB
		EASEMENT LINE
		BUILDING LINE
		RETAINING WALL
	WT	WET LAND
		TREE LINE
		SAW CUT LINE
		SIGN
		BOLLARD

- STANDARD DUTY ASPHALT PAVING
- HEAVY DUTY ASPHALT PAVING
- CONCRETE PAVING
- CONCRETE SIDEWALK
- PAVEMENT BY OTHERS (SEE ARCHITECTURAL PLANS)
- ## REGULAR PARKING STALL COUNT
- 1 KEYNOTE

DEVELOPMENT SUMMARY

COMMERCIAL

AREA	ACRES
LOT 1	12.96

PROOF OF PARKING SUMMARY	STALLS
10% OFFICE (1 PER 250 SF)	71
90% MANUFACTURING(1 PER 350 SF)	457
TOTAL PARKING REQUIRED	528
PROOF OF PARKING PROPOSED	314
EXISTING PARKING PROPOSED	214
TOTAL PARKING PROPOSED	528

SETBACKS	
BUILDING SETBACKS	
FRONT YARD	30 FEET
REAR YARD	20 FEET
SIDE YARD	15 FEET
PARKING SETBACKS	
FRONT YARD	10 FEET
REAR YARD	5 FEET
SIDE YARD	5 FEET
ZONING	
EXISTING ZONING	OPEN
PROPOSED ZONING	PLANNED INDUSTRIAL DISTRICT (PID)

THE SUBSURFACE UTILITY INFORMATION SHOWN ON THESE PLANS IS A UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF ASCE/CI 38-02, TITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA." THE CONTRACTOR AND/OR SUBCONTRACTORS SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, BY CONTACTING THE NOTIFICATION CENTER (GOPHER STATE ONE FOR MINNESOTA). THE CONTRACTOR AND/OR SUBCONTRACTOR AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES, WHICH MIGHT BE OCCASIONED BY HIS OR HER FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES (UNDERGROUND AND OVERHEAD).

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NORTH

0 60 120

SCALE IN FEET

NO.	DATE	BY	CKD	APPR	COMMENT

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: _____

Date _____ License # _____

PRELIMINARY | DESIGN REVIEW | PERMIT SUBMITTAL | CONSTRUCTION DOCUMENTS

DRAWN BY: RM
DESIGNED BY: JRM
CHECKED BY: JDB
PROJECT NO.: 50241

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SITE PLAN - PROOF OF PARKING

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET
C3.02
OF
REV.

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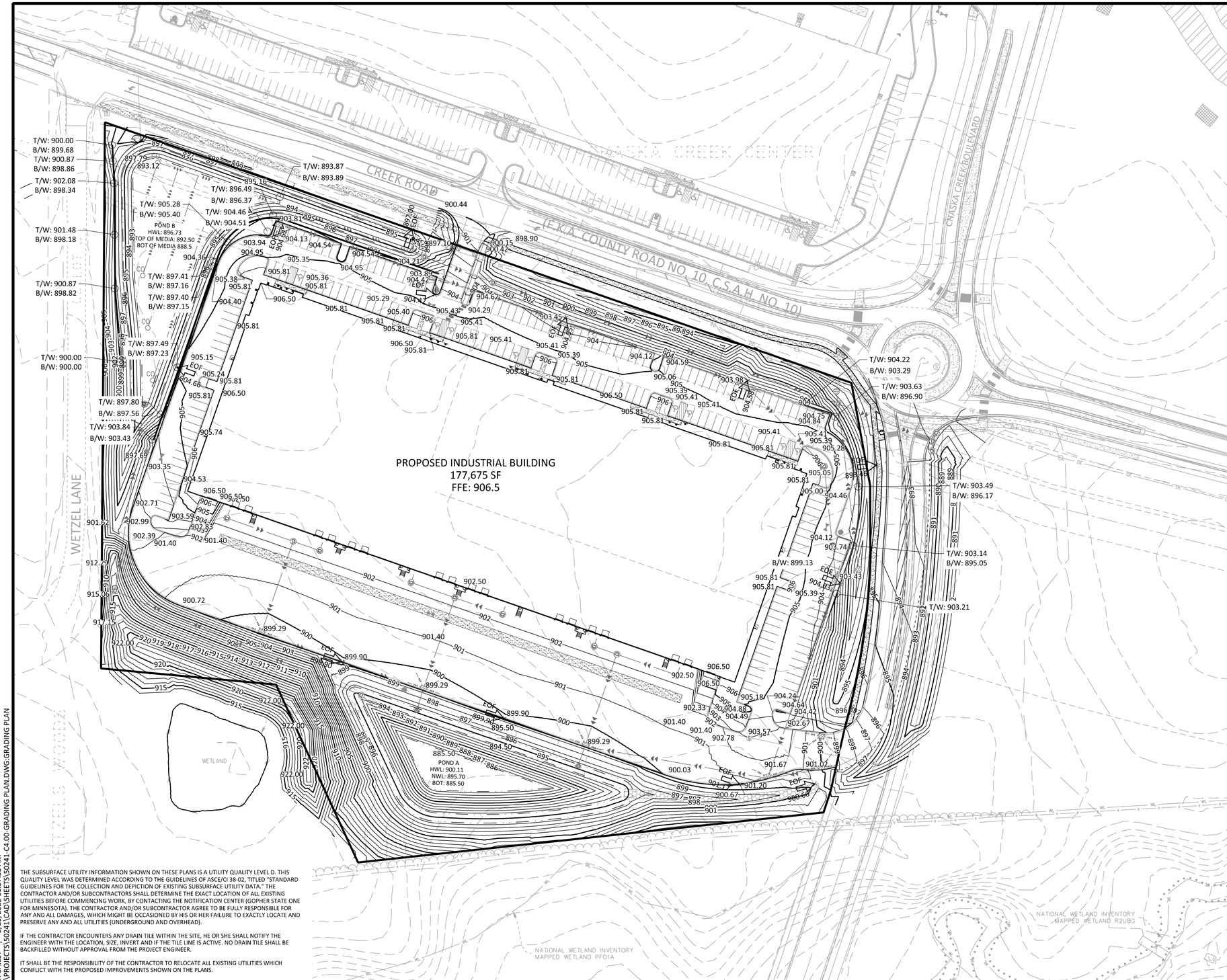

LEGEND

PROPOSED	EXISTING	
		PROPERTY LINE
		CONCRETE CURB
		STORM SEWER
		DRAINTILE
		BUILDING LINE
		RETAINING WALL
	WL	WETLAND LIMITS
		TREE LINE
	800 ×	SPOT ELEVATIONS
		RIPRAP
EOF 902.5		OVERFLOW ELEV.
	ST # 999.9	SOIL BORING

- STANDARD DUTY ASPHALT PAVING
- HEAVY DUTY ASPHALT PAVING
- CONCRETE PAVING
- CONCRETE SIDEWALK
- PAVEMENT BY OTHERS (SEE ARCHITECTURAL PLANS)

THE SUBSURFACE UTILITY INFORMATION SHOWN ON THESE PLANS IS A UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF ASCE/CI 38-02, TITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA." THE CONTRACTOR AND/OR SUBCONTRACTORS SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, BY CONTACTING THE NOTIFICATION CENTER (GOPHER STATE ONE FOR MINNESOTA). THE CONTRACTOR AND/OR SUBCONTRACTOR AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES, WHICH MIGHT BE OCCASIONED BY HIS OR HER FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES (UNDERGROUND AND OVERHEAD).

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NORTH

0 60 120
SCALE IN FEET

NO	DATE	BY	CKD	APPR	COMMENT

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:

Date License #

PRELIMINARY
DESIGN REVIEW
PERMIT SUBMITTAL
CONSTRUCTION DOCUMENTS

DRAWN BY RM
DESIGNED BY JRM
CHECKED BY JDB
PROJECT NO. 50241

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GRADING PLAN

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET C4.01 OF REV.

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8.B. Adopt Resolution 2022-23.pdf
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GRADING NOTES

GRADING NOTES

1. PROPOSED CONTOURS ARE TO FINISHED SURFACE ELEVATION. SPOT ELEVATIONS ALONG PROPOSED CURB DENOTE GUTTER GRADE.
2. CONTRACTOR SHALL REVIEW PAVEMENT GRADIENT AND CONSTRUCT "GUTTER OUT" WHERE WATER DRAINS AWAY FROM CURB. ALL OTHER AREAS SHALL BE CONSTRUCTED AS "GUTTER IN" CURB.
3. ALL GRADIENT ON SIDEWALKS ALONG THE ADA ROUTE SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5% (1:20), EXCEPT AT CURB RAMPS (1:12), AND A MAXIMUM CROSS SLOPE OF 2.00% (1:50). MAXIMUM SLOPE IN ANY DIRECTION ON AN ADA PARKING STALL OR ACCESS AISLE SHALL BE IN 2.00% (1:50). CONTRACTOR SHALL REVIEW AND VERIFY THE GRADIENT IN THE FIELD ALONG THE ADA ROUTES PRIOR TO PLACING CONCRETE OR BITUMINOUS. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF THERE IS A DISCREPANCY BETWEEN THE GRADIENT IN THE FIELD VERSUS THE DESIGN GRADIENT. COORDINATE ALL WORK WITH PAVING CONTRACTOR.
4. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
5. SAFETY NOTICE TO CONTRACTORS: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER OR THE DEVELOPER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.
6. CONTRACTOR SHALL COMPLETE THE SITE GRADING CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER'S SOILS ENGINEER. ALL SOIL TESTING SHALL BE COMPLETED BY THE OWNER'S SOILS ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOIL TESTS AND INSPECTIONS WITH THE SOILS ENGINEER.

   A GEOTECHNICAL ENGINEERING SOILS REPORT HAS BEEN COMPLETED BY:

   COMPANY:

   ADDRESS:

   PHONE:

   DATED:

   CONTRACTOR SHALL OBTAIN A COPY OF THE SOILS REPORT.
7. CONTRACTOR SHALL COMPLETE DEWATERING AS REQUIRED TO COMPLETE THE SITE GRADING CONSTRUCTION.
8. PRIOR TO PLACEMENT OF THE AGGREGATE BASE, A TEST ROLL SHALL BE PERFORMED ON THE STREET AND PARKING AREA SUBGRADE. CONTRACTOR SHALL PROVIDE A LOADED TANDEM AXLE TRUCK WITH A GROSS WEIGHT OF 25 TONS. THE TEST ROLLING SHALL BE AT THE DIRECTION OF THE SOILS ENGINEER AND SHALL BE COMPLETED IN AREAS AS DIRECTED BY THE SOILS ENGINEER. CORRECTION OF THE SUBGRADE SOILS SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SOILS ENGINEER.
9. REPLACE ALL SUBGRADE SOIL DISTURBED DURING THE CONSTRUCTION THAT HAVE BECOME UNSUITABLE AND WILL NOT PASS A TEST ROLL. REMOVE UNSUITABLE SOIL FROM THE SITE AND IMPORT SUITABLE SOIL AT NO ADDITIONAL COST TO THE OWNER.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPROPRIATE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARDS.
    a. EXISTING TREES AND OTHER NATURAL VEGETATION WITHIN THE PROJECT AND/OR ADJACENT TO THE PROJECT ARE OF PRIME CONCERN TO THE CONTRACTOR'S OPERATIONS AND SHALL BE A RESTRICTED AREA. CONTRACTOR SHALL PROTECT TREES TO REMAIN AT ALL TIMES. EQUIPMENT SHALL NOT NEEDLESSLY BE OPERATED UNDER NEARBY TREES AND EXTREME CAUTION SHALL BE EXERCISED WHEN WORKING ADJACENT TO TREES. SHOULD ANY PORTION OF THE TREE BRANCHES REQUIRE REMOVAL TO PERMIT OPERATION OF THE CONTRACTOR'S EQUIPMENT, CONTRACTOR SHALL OBTAIN THE SERVICES OF A PROFESSIONAL TREE TRIMMING SERVICE TO TRIM THE TREES PRIOR TO THE BEGINNING OF OPERATION. SHOULD CONTRACTOR'S OPERATIONS RESULT IN THE BREAKING OF ANY LIMBS, THE BROKEN LIMBS SHOULD BE REMOVED IMMEDIATELY AND CUTS SHALL BE PROPERLY PROTECTED TO MINIMIZE ANY LASTING DAMAGE TO THE TREE. NO TREES SHALL BE REMOVED WITHOUT AUTHORIZATION BY THE ENGINEER. COSTS FOR TRIMMING SERVICES SHALL BE CONSIDERED INCIDENTAL TO THE GRADING CONSTRUCTION AND NO SPECIAL PAYMENT WILL BE MADE.
    a. RESTRICTED AREAS SHALL INCLUDE ALL DESIGNATED TREED AREAS OUTSIDE OF THE DESIGNATED CONSTRUCTION ZONE. ALL VEGETATION WITHIN THE RESTRICTED AREAS SHALL REMAIN.
    b. CONTRACTOR SHALL RESTRICT ALL GRADING AND CONSTRUCTION ACTIVITIES TO AREAS DESIGNATED ON THE PLANS. ACTIVITIES WITHIN THE CONSTRUCTION MAY BE RESTRICTED TO A NARROWER WIDTH IN THE FIELD TO SAVE ADDITIONAL TREES AS DIRECTED BY THE OWNER.
    c. ACTIVITIES PROHIBITED OUTSIDE OF THE CONSTRUCTION BOUNDARIES WOULD INCLUDE, BUT NOT BE LIMITED TO: SOIL AND OTHER MATERIAL STOCKPILING, EQUIPMENT OR MACHINERY STORAGE, DRIVING OF ANY VEHICLE, LEAKAGE OR SPILLAGE OF ANY "WASHOUT" OR OTHER TOXIC MATERIAL. THE COLLECTION OF OTHER DEBRIS AND SOIL STOCKPILING WILL BE IN AN AREA DETERMINED ON-SITE BY THE ENGINEER.
    d. ALL RESTRICTED AREAS SHALL BE FENCED OFF WITH BRIGHT ORANGE POLYETHYLENE SAFETY NETTING AND STEEL STAKES AS SHOWN ON THE TREE PROTECTION DETAIL. AT NO TIME SHALL THIS FENCING BE REMOVED OR ACTIVITY OF ANY KIND TAKE PLACE WITHIN IT. FINAL PLACEMENT OF ALL PROTECTIVE FENCING SHALL BE COMPLETE BEFORE ANY WORK COMMENCES ON-SITE.
    e. BEFORE COMMENCING WITH ANY EXCAVATION CONTRACTOR SHALL COMPLETE ALL PREPARATORY WORK REGARDING TREE REMOVAL, ROOT PRUNING, TREE PRUNING AND STUMP REMOVAL TO THE SATISFACTION OF THE OWNER.
    f. PREPARATORY WORK SHALL INCLUDE THE FOLLOWING AND SHALL BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE OWNER'S REPRESENTATIVE
    g. AN OWNER'S REPRESENTATIVE WILL BE AVAILABLE AT ALL TIMES DURING THE PREPARATORY AND CONSTRUCTION PERIOD.
    g. MULCH RATHER THAN SEED OR SOD WILL BE USED AT THE BASE OF QUALITY TREES TO A PERIMETER DETERMINED BY THE OWNER'S REPRESENTATIVE. AREAS TO BE SEEDED FOR EROSION CONTROL PURPOSES WITHIN THE CONSTRUCTION ZONE ARE TO BE DETERMINED BY THE OWNER'S REPRESENTATIVE. NATURAL GROUND COVER WILL BE MAINTAINED WHEREVER POSSIBLE.
    h. THE USE OF RETAINING WALLS NEAR TREES, IN ADDITION TO THOSE REQUIRED ON THE PLANS SHALL BE DETERMINED IN THE FIELD, BASED ON TREE LOCATIONS AND TOPOGRAPHY.
12. EXCAVATE TOPSOIL FROM AREAS TO BE FURTHER EXCAVATED OR REGRADED AND STOCKPILE IN AREAS DESIGNATED ON THE SITE. CONTRACTOR SHALL SALVAGE ENOUGH TOPSOIL FOR RESPREADING ON THE SITE AS SPECIFIED. EXCESS TOPSOIL SHALL BE PLACED IN EMBANKMENT AREAS, OUTSIDE OF BUILDING PADS, ROADWAYS AND PARKING AREAS. CONTRACTOR SHALL SUBCUT CUT AREAS, WHERE TURF IS TO BE ESTABLISHED, TO A DEPTH OF 6 INCHES. RESPREAD TOPSOIL IN AREAS WHERE TURF IS TO BE ESTABLISHED TO A MINIMUM DEPTH OF 6 INCHES.
13. TRENCH BORROW CONSTRUCTION: IF ALLOWED BY THE OWNER, CONTRACTOR SHALL COMPLETE "TRENCH BORROW" EXCAVATION IN AREAS DIRECTED BY THE ENGINEER IN ORDER TO OBTAIN STRUCTURAL MATERIAL. TREES SHALL NOT BE REMOVED OR DAMAGED AS A RESULT OF THE EXCAVATION, UNLESS APPROVED BY THE ENGINEER. THE EXCAVATION SHALL COMMENCE A MINIMUM OF 10 FEET FROM THE LIMIT OF THE BUILDING PAD. THE EXCAVATION FROM THIS LIMIT SHALL EXTEND AT A MINIMUM SLOPE OF 1 FOOT HORIZONTAL TO 1 FOOT VERTICAL (1:1) DOWNWARD AND OUTWARD FROM THE FINISHED SURFACE GRADE ELEVATION. THE TRENCH BORROW EXCAVATION SHALL BE BACKFILLED TO THE PROPOSED FINISHED GRADE ELEVATION, AND SHALL BE COMPACTED IN ACCORDANCE WITH REQUIREMENTS OF THE QUALITY COMPACTION METHOD AS OUTLINED IN MN/DOT SPECIFICATION 2105.3F2. SNOW FENCE SHALL BE FURNISHED AND PLACED ALONG THE PERIMETER OF THE TRENCH BORROW AREA WHERE THE SLOPES EXCEED 2 FOOT HORIZONTAL TO 1 FOOT VERTICAL (2:1).
14. FINISHED GRADING SHALL BE COMPLETED, CONTRACTOR SHALL UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING, INCLUDING ADJACENT TRANSITION AREAS. PROVIDE A SMOOTH FINISHED SURFACE WITHIN SPECIFIED TOLERANCES, WITH UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN, OR BETWEEN SUCH POINTS AND EXISTING GRADES. AREAS THAT HAVE BEEN FINISHED GRADED SHALL BE PROTECTED FROM SUBSEQUENT CONSTRUCTION OPERATIONS, TRAFFIC AND EROSION. REPAIR ALL AREAS THAT HAVE BECOME RUTTED, ERODED OR HAS SETTLED BELOW THE CORRECT GRADE. ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO EQUAL OR BETTER THAN ORIGINAL CONDITION OR TO THE REQUIREMENTS OF THE NEW WORK.
15. TOLERANCES
    a. THE RESIDENTIAL BUILDING SUBGRADE FINISHED SURFACE ELEVATION SHALL NOT VARY BY MORE THAN 0.30 FOOT ABOVE, OR 0.30 FOOT BELOW, THE PRESCRIBED ELEVATION AT ANY POINT WHERE MEASUREMENT IS MADE.
    b. THE COMMERCIAL BUILDING SUBGRADE FINISHED SURFACE ELEVATION SHALL NOT VARY BY MORE THAN 0.10 FOOT ABOVE, OR 0.10 FOOT BELOW, THE PRESCRIBED ELEVATION AT ANY POINT WHERE MEASUREMENT IS MADE.
    c. THE STREET OR PARKING AREA SUBGRADE FINISHED SURFACE ELEVATION SHALL NOT VARY BY MORE THAN 0.05 FOOT ABOVE, OR 0.10 FOOT BELOW, THE PRESCRIBED ELEVATION OF ANY POINT WHERE MEASUREMENT IS MADE.
    d. AREAS WHICH ARE TO RECEIVE TOPSOIL SHALL BE GRADED TO WITHIN 0.30 FOOT ABOVE OR BELOW THE REQUIRED ELEVATION, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
    e. TOPSOIL SHALL BE GRADED TO PLUS OR MINUS 1/2 INCH OF THE SPECIFIED THICKNESS.
16. AFTER THE SITE GRADING IS COMPLETED, IF EXCESS OR SHORTAGE OF SOIL MATERIAL EXISTS, CONTRACTOR SHALL TRANSPORT ALL EXCESS SOIL MATERIAL OFF THE SITE TO AN AREA SELECTED BY THE CONTRACTOR, OR IMPORT SUITABLE MATERIAL TO THE SITE.
17. CONTRACTOR SHALL DETERMINE THE LOCATION OF ANY HAUL ROADS THAT MAY BE REQUIRED TO COMPLETE THE SITE GRADING CONSTRUCTION AND SHALL INDICATE HAUL ROADS ON EROSION AND SEDIMENT CONTROL "SITE MAP". CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE GOVERNING AUTHORITY OF EACH ROADWAY. CONTRACTOR SHALL POST WHATEVER SECURITY AND COMPLY WITH ALL CONDITIONS WHICH ARE REQUIRED BY EACH GOVERNING AUTHORITY OF EACH ROADWAY.
18. DISTURBED AREAS WITHIN WETLAND MITIGATION SITE AND ANY DISTURBED AREAS WITHIN THE WETLAND SHALL BE RESTORED WITH 6 TO 12 INCHES OF ORGANIC SOILS, PREFERABLY SOILS THAT WERE PREVIOUSLY REMOVED FROM WETLAND AREAS. SEEDING IN THE WETLAND MITIGATION AREAS ABOVE THE NORMAL WATER LEVEL SHALL BE MN STATE SEED MIX 34-271, WET MEADOW SOUTH AND WEST, OR APPROVED EQUAL. FOR STATE SEED MIXES, OATS AND WINTER WHEAT SHOULD BE SELECTED BASED ON THE TIME OF YEAR THAT THE MIX IS BEING USED. OATS SHOULD BE INCLUDED IN MIXES IF BEING USED BETWEEN OCTOBER 15TH AND AUGUST 1ST. WINTER WHEAT SHOULD BE USED BETWEEN AUGUST 1ST AND OCTOBER 15TH. THE SEEDING RATE IS THE SAME FOR OATS AND WINTER WHEAT. MIX 34-271 SHOULD BE APPLIED AT 12 POUNDS PER ACRE. SEED SHALL BE WATERED UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
19. FILL PLACED WITHIN THE BUILDING PAD AREAS SHALL BE IN CONFORMANCE WITH HUD/FHA PROCEDURES AND DATA SHEET 79G.
20. RETAINING WALL(S) SHALL BE CONSTRUCTED OF MODULAR BLOCK MATERIAL. CONTRACTOR SHALL SUBMIT TO THE ENGINEER AND LOCAL AUTHORITY CERTIFIED ENGINEERING DRAWINGS, DESIGN CALCULATIONS AND SOIL BORINGS. THE CERTIFIED ENGINEER FOR THE RETAINING WALL(S) SHALL PROVIDE CONSTRUCTION OBSERVATIONS OF THE RETAINING WALL IMPROVEMENT, AND A LETTER CERTIFYING THE INSTALLATION OF THE WALL(S) WAS CONSTRUCTED IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.

CIVIL 3D MODEL LIMITATIONS

SAMBATEK'S DELIVERABLE AND GOVERNING DOCUMENTS FOR CONSTRUCTION SHALL BE A HARD COPY AND/OR PDF PLAN SHEETS. IF A CIVIL 3D MODEL IS GENERATED IN THE PROCESS OF PREPARING THE PLAN SHEETS, IT IS AS A DESIGN TOOL ONLY AND NOT AS A SEPARATE DELIVERABLE. AT THE OWNER'S REQUEST, WE WILL RELEASE OUR CIVIL 3D MODEL FOR THE CONTRACTOR'S USE. HOWEVER, ITS USE IS AT THE CONTRACTOR'S RISK AND SHALL NOT BE USED FOR STAKING OF CURB, SIDEWALK, OR OTHER HARD SURFACE IMPROVEMENTS. IF A CIVIL 3D MODEL FOR STAKING HARD SURFACE IMPROVEMENTS IS REQUIRED, WE CAN PROVIDE A SUPPLEMENTAL AGREEMENT FOR REFINEMENT AND PREPARATION OF THE CIVIL 3D MODEL.

REV. DATE

NO	DATE	BY	CKD	APPR	COMMENT

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: _____

Date _____ License # _____

PRELIMINARY	
DESIGN REVIEW	
PERMIT SUBMITTAL	
CONSTRUCTION DOCUMENTS	
DRAWN BY	RM
DESIGNED BY	JRM
CHECKED BY	JDB
PROJECT NO.	50241

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GRADING PLAN NOTES

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET
C4.02
OF
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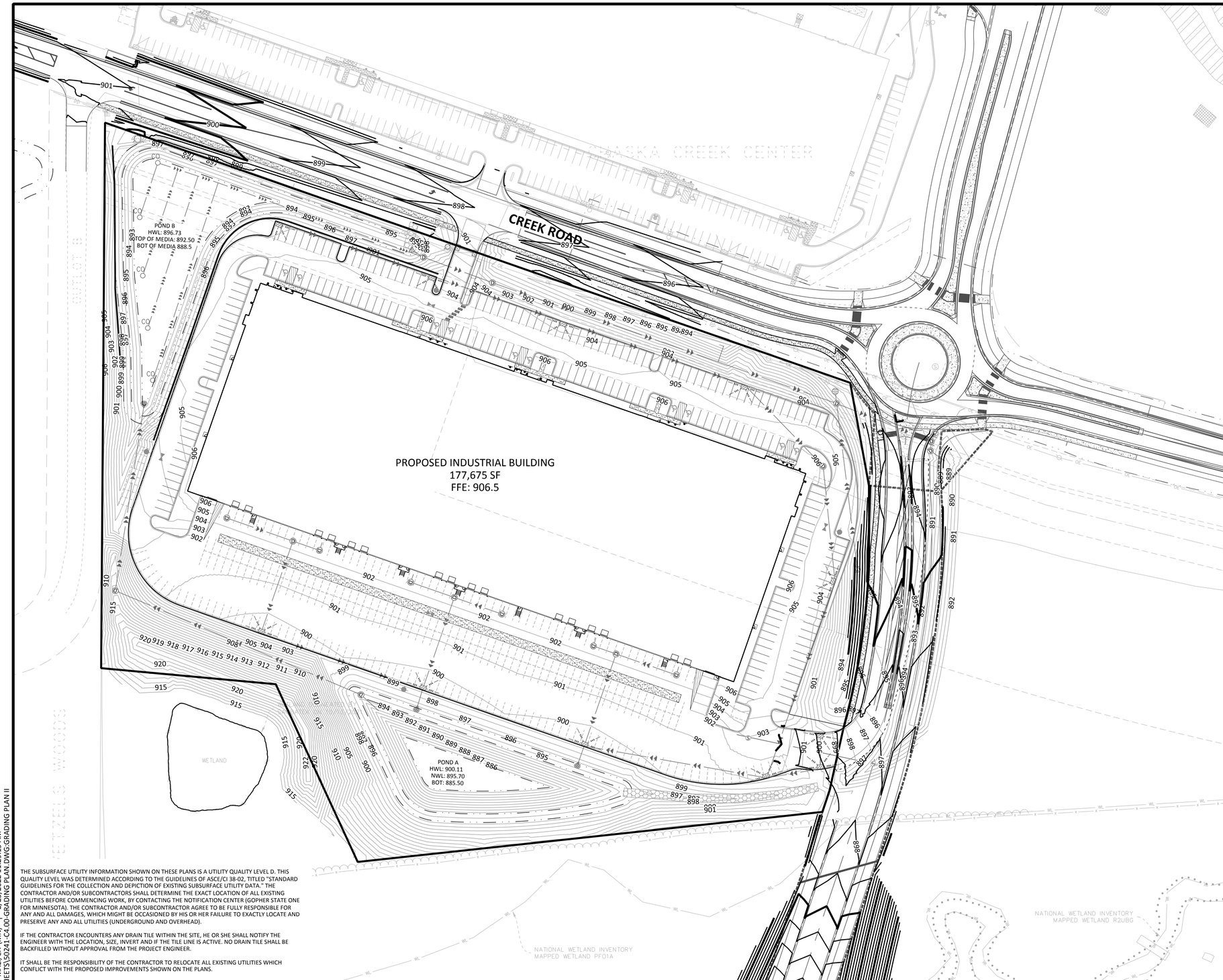

LEGEND

PROPOSED	EXISTING	
		PROPERTY LINE
		CONCRETE CURB
		STORM SEWER
		DRAINTILE
		BUILDING LINE
		RETAINING WALL
	WL	WETLAND LIMITS
		TREE LINE
	800 ×	SPOT ELEVATIONS
		RIPRAP
EOF 902.5		OVERFLOW ELEV.
	ST # 999.9	SOIL BORING

- STANDARD DUTY ASPHALT PAVING
- HEAVY DUTY ASPHALT PAVING
- CONCRETE PAVING
- CONCRETE SIDEWALK
- PAVEMENT BY OTHERS (SEE ARCHITECTURAL PLANS)

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NORTH

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SCALE IN FEET

NO	DATE	BY	CKD	APPR	COMMENT
	02/01/2022				REVISED PER CITY COMMENTS

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: _____

Date _____ License # _____

STATE PROJECT NO. 01/04/2022
PRELIMINARY
DESIGN REVIEW NO.
CLIENT REVIEW NO.
CONSTRUCTION DOCUMENTS

DRAWN BY RM
DESIGNED BY JRM
CHECKED BY JDB
PROJECT NO. 50241

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GRADING PLAN- FUTURE ROAD IMPROVEMENTS

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET C4.03 OF REV.

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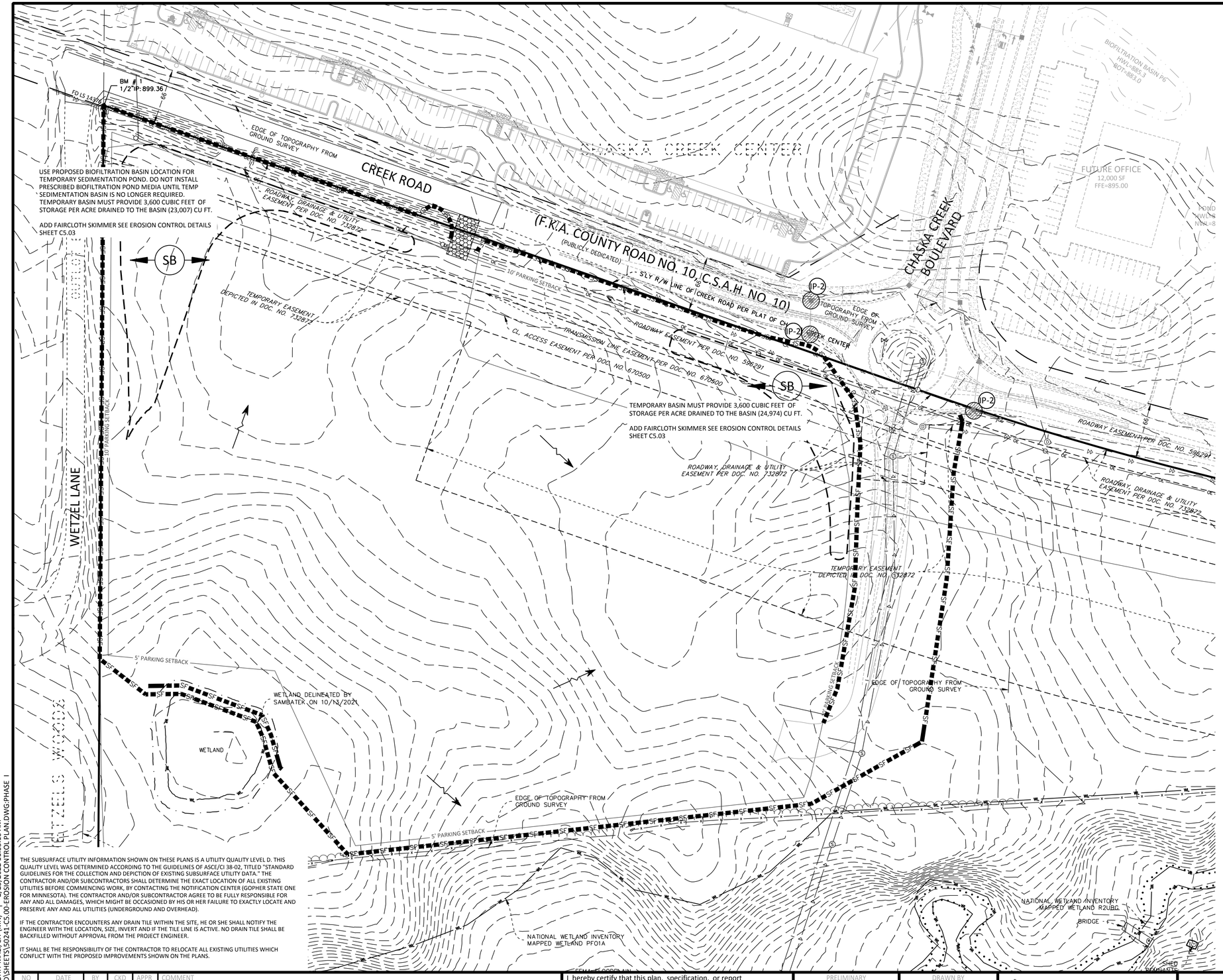

LEGEND

PROPOSED EXISTING

- CONCRETE CURB
- STORM SEWER
- DRAINTILE
- CONTOUR
- RIPRAP
- EOF 902.5 — OVERFLOW ELEV.
- BIO-ROLL
- SILT FENCE
- SILT DIKE
- LIMITS OF DISTURBANCE
- SOIL BORINGS
- 2.0% — DIRECTION OF OVERLAND FLOW
- TEMPORARY DIVERSION DITCH
- CHECK DAM
- LIMITS OF DRAINAGE SUB-BASIN
- IP1 — INLET PROTECTION DEVICE
- TEMPORARY STONE CONSTRUCTION ENGRANCE
- SB — TEMPORARY SEDIMENT BASIN
- TSM — TEMPORARY STABILIZATION MEASURES (SEED, MULCH, MATS OR BLANKETS AS OUTLINED IN THE SWPP)
- TS — TEMPORARY STORAGE AND PARKING AREA

NOTE TO CONTRACTOR

THE EROSION CONTROL PLAN SHEETS ALONG WITH THE REST OF THE SWPPP MUST BE KEPT ONSITE UNTIL THE NOTICE OF TERMINATION IS FILED WITH THE MPCA, THE CONTRACTOR MUST UPDATE THE SWPPP, INCLUDING THE EROSION CONTROL PLAN SHEETS AS NECESSARY TO INCLUDE ADDITIONAL REQUIREMENTS, SUCH AS ADDITIONAL OR MODIFIED BMPS DESIGNED TO CORRECT PROBLEMS IDENTIFIED. AFTER FILING THE NOTICE OF TERMINATION, THE SWPPP, INCLUDING THE EROSION CONTROL PLAN SHEETS, AND ALL REVISIONS TO IT MUST BE SUBMITTED TO THE OWNER, TO BE KEPT ON FILE IN ACCORDANCE WITH THE RECORD RETENTION REQUIREMENTS DESCRIBED IN THE SWPPP NARRATIVE.

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NO	DATE	BY	CKD	APPR	COMMENT

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Print Name: _____

Date _____ License # _____

PRELIMINARY | DESIGN REVIEW | PERMIT SUBMITTAL | CONSTRUCTION DOCUMENTS

DRAWN BY: RM
DESIGNED BY: JRM
CHECKED BY: JDB
PROJECT NO.: 50241

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EROSION CONTROL PLAN - PHASE I

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET C5.01 OF REV.

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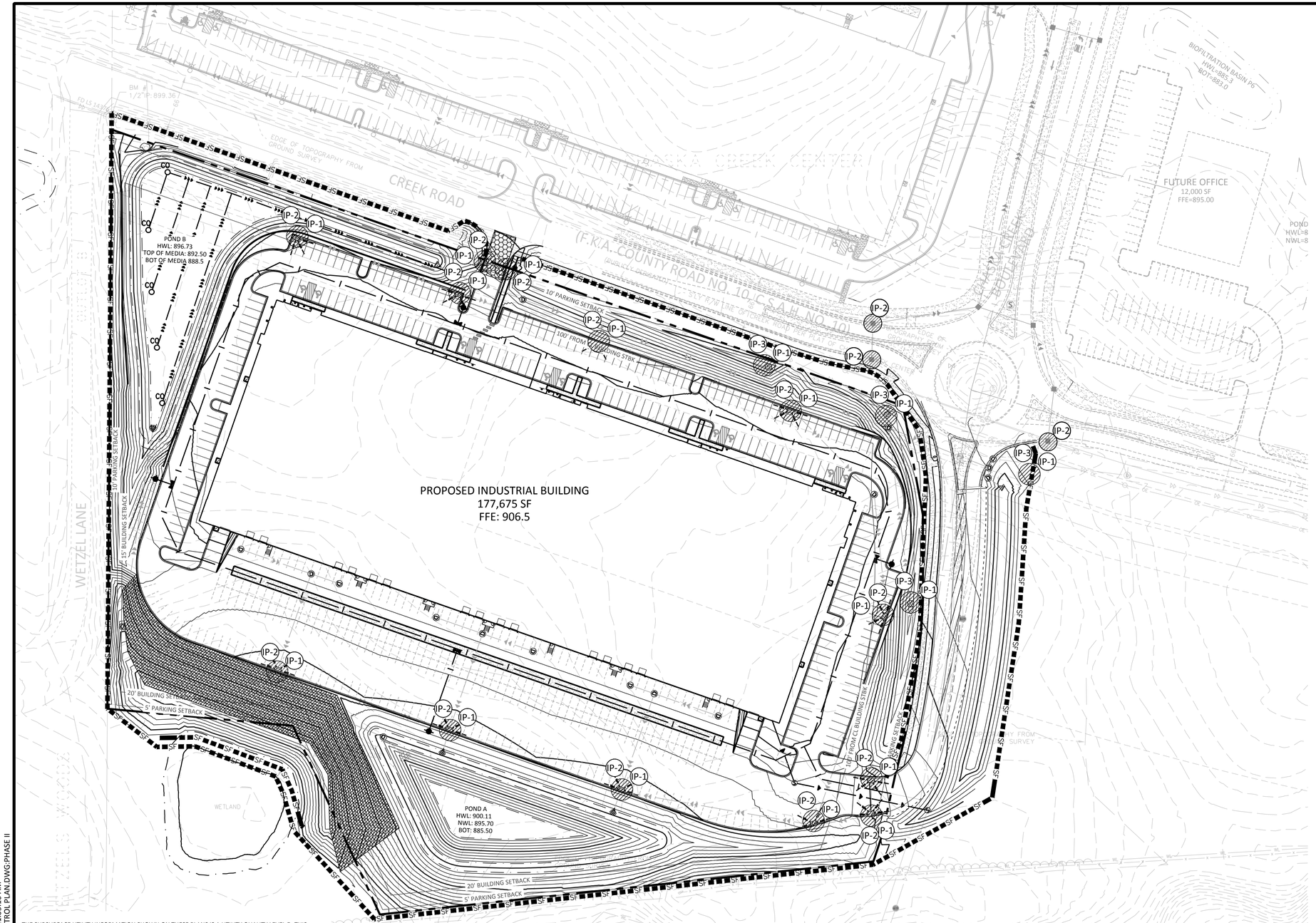

LEGEND

PROPOSED EXISTING

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- STORM SEWER
- DRAINTILE
- CONTOUR
- RIPRAP
- EOF 902.5 — OVERFLOW ELEV.
- BIO-ROLL
- SF — SILT FENCE
- SD — SILT DIKE
- LIMITS OF DISTURBANCE
- ST 5 902.5 — SOIL BORINGS
- 2.0% — DIRECTION OF OVERLAND FLOW
- TEMPORARY DIVERSION DITCH
- CHECK DAM
- LIMITS OF DRAINAGE SUB-BASIN
- IP1 — INLET PROTECTION DEVICE
- TEMPORARY STONE CONSTRUCTION ENGRANCE
- SB — TEMPORARY SEDIMENT BASIN
- TSM — TEMPORARY STABILIZATION MEASURES (SEED, MULCH, MATS OR BLANKETS AS OUTLINED IN THE SWPP)
- TS — TEMPORARY STORAGE AND PARKING AREA
- EROSION CONTROL BLANKETS

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THE EROSION CONTROL PLAN SHEETS ALONG WITH THE REST OF THE SWPPP MUST BE KEPT ONSITE UNTIL THE NOTICE OF TERMINATION IS FILED WITH THE MPCA, THE CONTRACTOR MUST UPDATE THE SWPPP, INCLUDING THE EROSION CONTROL PLAN SHEETS AS NECESSARY TO INCLUDE ADDITIONAL REQUIREMENTS, SUCH AS ADDITIONAL OR MODIFIED BMPS DESIGNED TO CORRECT PROBLEMS IDENTIFIED. AFTER FILING THE NOTICE OF TERMINATION, THE SWPPP, INCLUDING THE EROSION CONTROL PLAN SHEETS, AND ALL REVISIONS TO IT MUST BE SUBMITTED TO THE OWNER, TO BE KEPT ON FILE IN ACCORDANCE WITH THE RECORD RETENTION REQUIREMENTS DESCRIBED IN THE SWPPP NARRATIVE.

THE SUBSURFACE UTILITY INFORMATION SHOWN ON THESE PLANS IS A UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF ASCE/CI 38-02, TITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA." THE CONTRACTOR AND/OR SUBCONTRACTORS SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, BY CONTACTING THE NOTIFICATION CENTER (GOPHER STATE ONE FOR MINNESOTA). THE CONTRACTOR AND/OR SUBCONTRACTOR AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES, WHICH MIGHT BE OCCASIONED BY HIS OR HER FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES (UNDERGROUND AND OVERHEAD).

IF THE CONTRACTOR ENCOUNTERS ANY DRAIN TILE WITHIN THE SITE, HE OR SHE SHALL NOTIFY THE ENGINEER WITH THE LOCATION, SIZE, INVERT AND IF THE TILE LINE IS ACTIVE. NO DRAIN TILE SHALL BE BACKFILLED WITHOUT APPROVAL FROM THE PROJECT ENGINEER.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

NORTH

0 60 120
SCALE IN FEET

NO	DATE	BY	CKD	APPR	COMMENT
	02/01/2022				REVISED PER CITY COMMENTS

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: _____

Date _____ License # _____

PRELIMINARY	01/04/2022
DESIGN REVIEW	
PERMIT SUBMITTAL	
CONSTRUCTION DOCUMENTS	
DRAWN BY	RM
DESIGNED BY	JRM
CHECKED BY	JDB
PROJECT NO.	50241

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EROSION CONTROL PLAN - PHASE II

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

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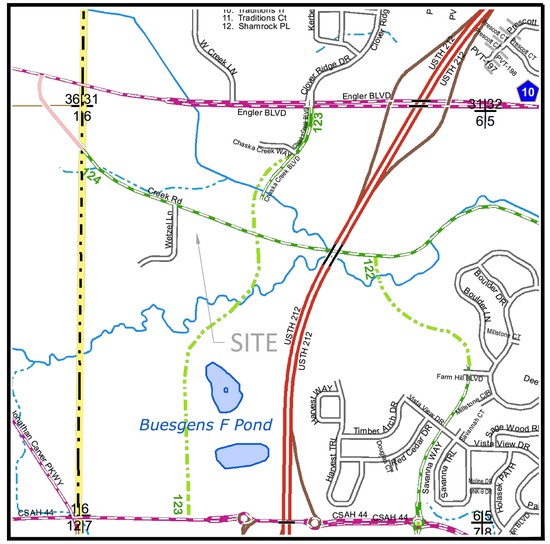
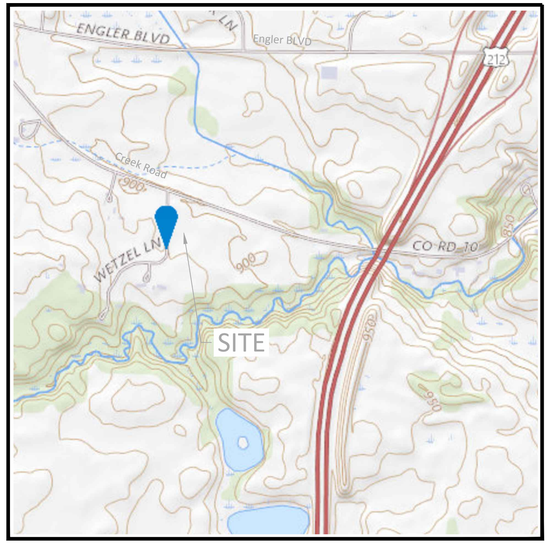


SITE LOCATION MAP

NOT TO SCALE

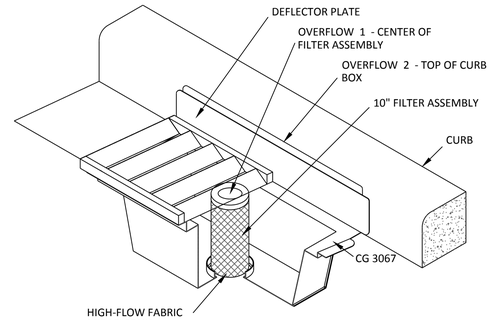


USGS MAP

NOT TO SCALE

AREA SUMMARY IN ACRES

PAVEMENT AREA	4.71 AC±
BUILDING AREA	4.08 AC±
SEEDED AREA	5.54 AC±
TOTAL DISTURBED	14.33 AC±
PRE - CONSTRUCTION IMPERVIOUS	0 AC±
POST - CONSTRUCTION IMPERVIOUS	8.79 AC±

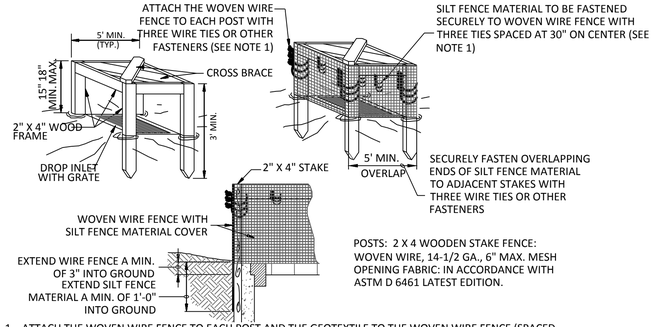


ROAD DRAIN CASTING APPLICABILITY

- NEENAH R-3067
- NEENAH R-3512

ROAD DRAIN INLET PROTECTION (IP-2)

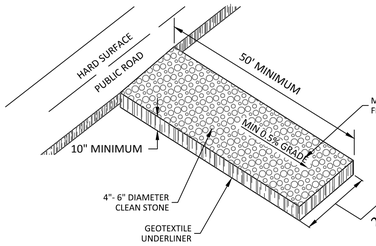
NOT TO SCALE



1. ATTACH THE WOVEN WIRE FENCE TO EACH POST AND THE GEOTEXTILE TO THE WOVEN WIRE FENCE (SPACED EVERY 30") WITH THREE WIRE TIES OR OTHER FASTENERS, ALL SPACED WITHIN THE TOP 8" OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1" VERTICALLY APART.
2. WHEN TWO SECTIONS OF SILT FENCE MATERIAL ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED ACROSS TWO POSTS.
3. MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE SWPPP. DEPTH OF ACCUMULATED SEDIMENTS MAY NOT EXCEED ONE-HALF THE HEIGHT OF THE FABRIC. MAINTENANCE CLEANOUT MUST BE CONDUCTED REGULARLY TO PREVENT ACCUMULATED SEDIMENTS FROM REACHING ONE-HALF THE HEIGHT OF THE SILT FENCE MATERIAL ABOVE GRADE.
4. ALL SILT FENCE INLETS SHALL INCLUDE WIRE SUPPORT.

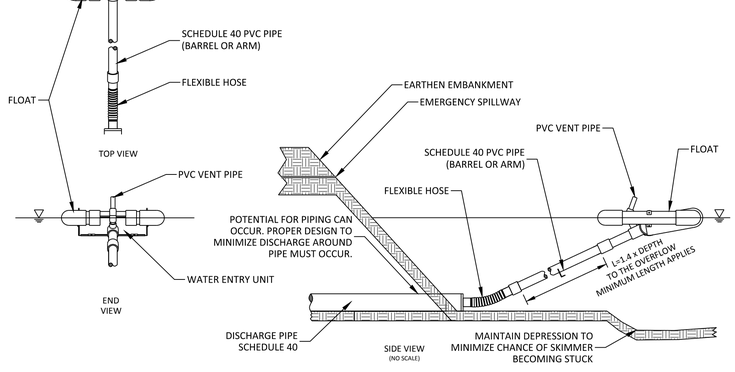
SILT FENCE INLET PROTECTION (IP-1)

NOT TO SCALE



TEMPORARY STONE CONSTRUCTION EXIT

N.T.S.

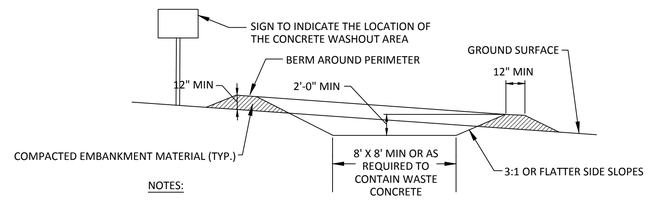


GENERAL NOTES:

1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING AROUND DISCHARGE PIPE.
2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
3. EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.
4. EMERGENCY SPILLWAY MUST BE CORRECTLY SIZED AND EROSION PROTECTION INSTALLED.
5. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.
6. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.
7. EIGHT SIZES OF SKIMMERS ARE AVAILABLE, REFER TO THE FLOW SHEET, CUT SHEET, AND INSTRUCTIONS ON WEB SITE FOR EACH SIZE.

FAIRCLOTH SKIMMER DISCHARGE SYSTEM WITH EMABANKMENT

N.T.S.



NOTES:

1. CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
2. CONCRETE WASHOUT AREA SHALL BE LINED WITH MINIMUM 10 MIL THICK PLASTIC LINER.
3. VEHICLE TRACKING CONTROL IS REQUIRED IF ACCESS TO CONCRETE WASHOUT AREA IS OFF PAVEMENT.
4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
5. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.
6. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN ACCEPTED WASTE SITE.
7. WHEN THE CONCRETE WASHOUT AREA IS REMOVED, THE DISTURBED AREA SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER ACCEPTED BY THE CITY.

CONCRETE WASHOUT AREA

NOT TO SCALE

DEVELOPER/OWNER: XXXXXXX XXXXXXX XXXXXXX XXX-XXX-XXXX
SITE OPERATOR / GENERAL CONTRACTOR
SUPERINTENDENT:

NO	DATE	BY	CKD	APPR	COMMENT
	02/01/2022				REVISED PER CITY COMMENTS

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: _____

Date _____ License # _____

PRELIMINARY 01/04/2022	DRAWN BY RM
DESIGN REVIEW	DESIGNED BY JRM
PERMIT SUBMITTAL	CHECKED BY JDB
CONSTRUCTION DOCUMENTS	PROJECT NO. 50241

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EROSION CONTROL PLAN - NOTES

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET C5.03 OF REV.

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GENERAL EROSION NOTES:

GENERAL EROSION NOTES

1. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME. WHERE A CONFLICT EXISTS BETWEEN LOCAL JURISDICTIONAL STANDARD SPECIFICATIONS AND SAMBATEK STANDARD SPECIFICATIONS, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
2. THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS COMPRISED OF THIS DRAWING (EROSION & SEDIMENTATION CONTROL PLAN-ESC PLAN), THE STANDARD DETAILS, THE PLAN NARRATIVE, AND ITS APPENDICES, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING & SUBMITTING THE APPLICATION FOR THE MPCA GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE SWPPP AND THE STATE OF MINNESOTA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT, ISSUED AUGUST 1, 2018) AND BECOME FAMILIAR WITH THE CONTENTS. THE SWPPP AND ALL OTHER RELATED DOCUMENTS MUST BE KEPT AT THE SITE DURING CONSTRUCTION. (NOTE TO THE PREPARER: EDIT APPLICATION PROCESS PER PROJECT REQUIREMENTS)
4. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMP'S) AS REQUIRED BY THE SWPPP & PERMITS. CONTRACTOR SHALL OVERSEE THE INSPECTION & MAINTENANCE OF THE BMP'S AND EROSION PREVENTION FROM BEGINNING OF CONSTRUCTION AND UNTIL CONSTRUCTION IS COMPLETED, IS APPROVED BY ALL AUTHORITIES, AND THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA BY EITHER THE OWNER OR OPERATOR AS APPROVED ON PERMIT. ADDITIONAL BMP'S SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION. (NOTE TO THE PREPARER: REVISE INSPECTION RESPONSIBILITY PER OPTIONS IN SWPPP NARRATIVE (SECTION 02370))
5. CONTRACTOR SHALL COMPLY WITH TRAINING REQUIREMENTS IN PART 21.1-21.3 OF THE GENERAL PERMIT.
6. BMP'S AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
7. ESC PLAN MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
8. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THE ESC PLANS SHALL BE CLEARLY DELINEATED (E.G. WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC.) ON THE DEVELOPMENT SITE BEFORE WORK BEGINS. GROUND DISTURBING ACTIVITIES MUST NOT OCCUR OUTSIDE THE LIMITS OF DISTURBANCE.
9. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
10. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) MUST BE LIMITED TO A DEFINED AREA OF THE SITE AND SHALL BE CONTAINED AND PROPERLY TREATED OR DISPOSED. NO ENGINE DEGREASING IS ALLOWED ON SITE.
11. ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. A COMPACTED CLAY LINER IS NOT ACCEPTABLE. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES. SELF-CONTAINED CONCRETE WASHOUTS ON CONCRETE DELIVERY TRUCKS ARE ALLOWED.
12. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
13. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
14. SOLID WASTE: COLLECTED SEDIMENT, ASPHALT & CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION & DEMOLITION DEBRIS & OTHER WASTES MUST BE DISPOSED OF PROPERLY & MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.
15. HAZARDOUS MATERIALS: OIL, GASOLINE, PAINT & ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT, TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE & DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.
16. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE SWPPP, SHALL BE INITIATED AS SOON AS PRACTICABLE AND PRIOR TO SOIL DISTURBING ACTIVITIES UPSLOPE.
17. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED SHALL BE TEMPORARILY SEEDED, WITHIN 14 DAYS OF INACTIVITY. SEEDING SHALL BE IN ACCORDANCE WITH MN/DOT SEED MIXTURE NUMBER 21-111 OR 21-112 DEPENDING ON THE SEASON OF PLANTING (SEE MN/DOT SPECIFICATION SECTION 2575.3) SEEDING METHOD AND APPLICATION RATE SHALL CONFORM TO MN/DOT SPECIFICATION SECTION 2575.3. TEMPORARY MULCH SHALL BE APPLIED IN ACCORDANCE WITH MN/DOT SPECIFICATION SECTION 2575.3F1 AND 2575.3G. ALTERNATIVELY, HYDRAULIC SOIL STABILIZER IN ACCORDANCE WITH MN/DOT SPECIFICATION SECTION 2575.3H MAY BE USED IN PLACE OF TEMPORARY MULCH.
18. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED. THESE AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE TIMETABLE DESCRIBED ABOVE. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN FOR VEGETATIVE COVER. (NOTE TO THE PREPARER: WHERE PERMANENT SEEDING IS NOT CALLED OUT IN THE GRADING AND/ OR LANDSCAPE PLAN, REPLACE THE LAST SENTENCE IN THIS ITEM WITH THE FOLLOWING: SEED WET PONDS WITH MN/DOT SEED MIXTURE 310 "NATIVE WET TALL" BELOW THE HWL. SEED ALL OTHER AREAS WITH SEED MIXTURE 260 "COMMERCIAL TURF". SEEDING METHOD AND APPLICATION RATE SHALL CONFORM TO MN/DOT SPECIFICATION SECTION 2573.3.)
19. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT FROM CONVEYANCES & FROM TEMPORARY SEDIMENTATION BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS. SEDIMENT MUST BE STABILIZED TO PREVENT IT FROM BEING WASHED BACK INTO THE BASIN, CONVEYANCES, OR DRAINAGEWAYS DISCHARGING OFF-SITE OR TO SURFACE WATERS. THE CLEANOUT OF PERMANENT BASINS MUST BE SUFFICIENT TO RETURN THE BASIN TO DESIGN CAPACITY.
20. ON-SITE & OFF-SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BMP'S. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
21. TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS & CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB & GUTTER SYSTEMS OR CONDUITS & DITCHES.
22. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
23. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, CHECK DAMS, INLET PROTECTION DEVICES, ETC.) TO PREVENT EROSION.
24. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

MAINTENANCE NOTES:

MAINTENANCE NOTES

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. THE DESIGNATED CONTACT PERSON NOTED ON THIS PLAN MUST ROUTINELY INSPECT THE CONSTRUCTION ON SITE ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. ALL SILT FENCES MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE FENCE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.

2. TEMPORARY AND PERMANENT SEDIMENTATION BASINS MUST BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS (SEE PART 10.1-10.5 OF THE GENERAL PERMIT).

3. SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF SEDIMENT BEING DEPOSITED BY EROSION. CONTRACTOR MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS, AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. THE REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. CONTRACTOR SHALL USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) CALENDAR DAYS OF OBTAINING ACCESS. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK.

4. CONSTRUCTION SITE VEHICLE EXIT LOCATIONS MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL OFF-SITE PAVED SURFACES, WITHIN 24 HOURS OF DISCOVERY, OR IF APPLICABLE, WITHIN A SHORTER TIME TO COMPLY WITH PART 9.11-9.12 OF THE GENERAL PERMIT.

5. CONTRACTOR IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT BMPS, AS WELL AS ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS, FOR THE DURATION OF THE CONSTRUCTION WORK AT THE SITE. THE PERMITTEE(S) ARE RESPONSIBLE UNTIL ANOTHER PERMITTEE HAS ASSUMED CONTROL (ACCORDING TO PART 3.1 TO 3.8 OF THE MPCA GENERAL PERMIT) OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED OR THE SITE HAS UNDERGONE FINAL STABILIZATION, AND A (N.O.T.) HAS BEEN SUBMITTED TO THE MPCA.

6. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT IN STREETS COULD BE WASHED INTO STORM SEWERS BY THE NEXT RAIN AND/OR POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS).

SEQUENCE OF CONSTRUCTION

PHASE I:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
2. PREPARE TEMPORARY PARKING AND STORAGE AREA.
3. CONSTRUCT THE SILT FENCES ON THE SITE.
4. INSTALL INLET PROTECTION DEVICES ON EXISTING STORM STRUCTURES, AS SHOWN ON THE PLAN.
5. CONSTRUCT THE SEDIMENTATION AND SEDIMENT TRAP BASINS, AS REQUIRED.
6. HALT ALL ACTIVITIES AND CONTACT THE CIVIL ENGINEERING CONSULTANT TO PERFORM INSPECTION OF BMPs. GENERAL CONTRACTOR SHALL SCHEDULE AND CONDUCT STORM WATER PRE-CONSTRUCTION MEETING WITH ENGINEER AND ALL GROUND DISTURBING CONTRACTORS BEFORE PROCEEDING WITH CONSTRUCTION.
7. CLEAR AND GRUB THE SITE.
8. BEGIN GRADING THE SITE.
9. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.

PHASE II:

1. TEMPORARY SEED DENUDED AREAS.
2. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
3. INSTALL RIP RAP AROUND OUTLET STRUCTURES.
4. INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES.
5. PREPARE SITE FOR PAVING.
6. PAVE SITE.
7. INSTALL INLET PROTECTION DEVICES.
8. COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING.
9. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED), IF REQUIRED BY THE CONTRACT.

NO	DATE	BY	CKD	APPR	COMMENT
	02/01/2022				REVISED PER CITY COMMENTS

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: _____

Date _____ License # _____

PRELIMINARY 01/04/2022 | DESIGN REVIEW | PERMIT SUBMITTAL | CONSTRUCTION DOCUMENTS

DRAWN BY RM | DESIGNED BY JRM | CHECKED BY JDB | PROJECT NO. 50241

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EROSION CONTROL PLAN - NOTES

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET C5.04 OF REV.

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SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING

1.1 PROJECT/SITE INFORMATION

CHASKA CREEK INDUSTRIAL PHASE III
CREEK ROAD AND CHASKA CREEK BLVD
CITY: CHASKA
STATE: MINNESOTA
ZIP CODE: 55318
COUNTY: CARVER

THIS SWPPP ADDRESSES THE STORMWATER MANAGEMENT FOR THE CONSTRUCTION OF AN INDUSTRIAL BUILDING, AS WELL AS SURROUNDING DETENTION AND BIOFILTRATION PONDS. CHASKA CREEK INDUSTRIAL PHASE III IS LOCATED SOUTH OF CREEK ROAD ALONG CHASKA CREEK BLVD.

NPDES PERMIT NUMBER:__________________

1.2 CONTACT INFORMATION/RESPONSIBLE PARTIES

COMPANY/ORGANIZATION NAME: OPPIDAN
CONTACT NAME: JAY MOORE
ADDRESS: 400 WATER STREET, SUITE 200
CITY, STATE, ZIP CODE: EXCELSIOR, MN 55331
TELEPHONE NUMBER: 952-294-1246
FAX/EMAIL: JAY@OPPIDAN.COM

GENERAL CONTRACTOR (TO BE COMPLETED BY GENERAL CONTRACTOR):

COMPANY/ORGANIZATION NAME:
CONTACT NAME:
ADDRESS:
CITY, STATE, ZIP CODE:
TELEPHONE NUMBER:
FAX/EMAIL:
INSERT AREA OF CONTROL (IF MORE THAN ONE OPERATOR AT SITE):

THE GENERAL CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE MINNESOTA GENERAL PERMIT AUTHORIZATION TO DISCHARGE STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM PERMIT PROGRAM (GENERAL PERMIT). THE GENERAL CONTRACTOR MUST COMPLY WITH ANY LOCAL GOVERNING AGENCY (LGU) HAVING JURISDICTION CONCERNING EROSION AND SEDIMENT CONTROL. THE GENERAL CONTRACTOR SHALL BE REQUIRED TO BE A CO-APPLICANT WITH THE OWNER. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL DEVICES.

THE "APPLICATION FOR GENERAL STORM-WATER PERMIT FOR CONSTRUCTION ACTIVITY (MN R100001)" SHALL BE COMPLETED BY THE GENERAL CONTRACTOR AND SUBMITTED ONLINE, ALONG WITH THE REQUIRED APPLICATION FEE, THROUGH THE MPCA'S WEBSITE.

UNLESS NOTIFIED BY THE MINNESOTA POLLUTION CONTROL AGENCY (MPCA) TO THE CONTRARY, APPLICANTS WHO SUBMIT A COMPLETE APPLICATION FORM IN ACCORDANCE WITH THE REQUIREMENTS OF THE GENERAL PERMIT ARE AUTHORIZED TO DISCHARGE STORM WATER FROM THE CONSTRUCTION SITE UNDER THE TERMS AND CONDITIONS OF THIS PERMIT SEVEN (7) CALENDAR DAYS THE ONLINE APPLICATION PROCESS IS COMPLETE(HTTPS://NETWEB.PCA.STATE.MN.US/PRIVATE/).

ADDITIONALLY, AUTHORIZATION WILL BE DELAYED UNDER THE FOLLOWING CIRCUMSTANCES:

- IF THE PROJECT DISTURBS 50 ACRES OR MORE AND HAS A DISCHARGE POINT WITHIN 1 MILE AND FLOWS TO AN IMPAIRED OR SPECIAL WATER WHOSE DISCHARGE MAY REACH AN IMPAIRED OR SPECIAL WATER LISTED IN SECTION 23 OF THE GENERAL PERMIT THE APPLICANT SHALL SUBMIT THE STORM WATER POLLUTION PREVENTION PLAN AND A COMPLETED APPLICATION AT LEAST 30 CALENDAR DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES. UNLESS NOTIFIED BY THE MPCA TO THE CONTRARY, COVERAGE BECOMES EFFECTIVE 30 CALENDAR DAYS AFTER THE POSTMARKED DATE OF THE COMPLETED APPLICATION.

- IF THE PROJECT INCLUDES ALTERNATIVE METHODS THE APPLICATION AND TWO ALTERNATIVE TREATMENT PLANS MUST BE SUBMITTED A MINIMUM OF 90 DAY BEFORE CONSTRUCTION STARTS.

EROSION & SEDIMENT CONTROL SUBCONTRACTOR (RESPONSIBLE FOR IMPLEMENTING & UPDATING SWPPP - TO BE COMPLETED BY CONTRACTOR):

COMPANY/ORGANIZATION NAME:
CONTACT NAME:
ADDRESS:
CITY, STATE, ZIP CODE:
TELEPHONE NUMBER:
FAX/EMAIL:

EROSION & SEDIMENT CONTROL INSPECTOR (SEE PART 6.1 OF THIS SWPPP FOR MORE INFORMATION ON INSPECTION RESPONSIBILITIES- TO BE COMPLETED BY CONTRACTOR):

COMPANY/ORGANIZATION NAME:
CONTACT NAME:
ADDRESS:
CITY, STATE, ZIP CODE:
TELEPHONE NUMBER:
FAX/EMAIL:

GROUND DISTURBING SUBCONTRACTOR(S):

COMPANY/ORGANIZATION NAME:
CONTACT NAME:
ADDRESS:
CITY, STATE, ZIP CODE:
TELEPHONE NUMBER:
FAX/EMAIL:

THE GENERAL CONTRACTOR SHALL PROVIDE A CHAIN OF RESPONSIBILITY WITH ALL OPERATORS ON THE SITE TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE AND THE NOT SUBMITTED.

THIS SWPPP WAS PREPARED BY:

COMPANY/ORGANIZATION NAME: SAMBATEK
CONTACT NAME: JOSEPH BAILEY
ADDRESS: 12800 WHITEWATER DRIVE, SUITE 300
CITY, STATE, ZIP CODE: MINNETONKA, MN 55343
TELEPHONE NUMBER: 763-476-6010
FAX/EMAIL: jbailey@sambatek.com

SWPPP DESIGNER CERTIFICATION CARD:

1.3 NATURE OF CONSTRUCTION ACTIVITY

NATURE OF CONSTRUCTION:

THIS SWPPP HAS BEEN PREPARED FOR MAJOR ACTIVITIES ASSOCIATED WITH CONSTRUCTION OF AN INDUSTRIAL BUILDING ALONG WITH SURROUNDING DETENTION AND BIOFILTRATION PONDS WEST OF HIGHWAY 212 ALONG CREEK ROAD IN CHASKA, MINNESOTA. SITE LIGHTING, LANDSCAPING, AND UTILITY WORK WILL ALSO BE PERFORMED.

ANTICIPATED APPROXIMATE TIMELINES:

ESTIMATED PROJECT START DATE: XX/XX/XX
ESTIMATED PROJECT COMPLETION DATE: XX/XX/XX

1.4 SOILS, SLOPES, VEGETATION, AND CURRENT DRAINAGE PATTERNS

SOIL TYPE(S):

BASED ON PRELIMINARY SOIL INVESTIGATION AND THE USGS, SOILS ON SITE ARE COMPRISED PRIMARILY OF CLAY SOILS.

SLOPES:

THE EXISTING SLOPES ON SITE VARY, RANGING FROM 7% TO 2%. THE PROPOSED SLOPES IN PAVEMENT AREAS ARE UP TO 3.5% AND UP TO 33.3% IN GREEN SPACE.

DRAINAGE PATTERNS:

UNDER EXISTING CONDITIONS, RUNOFF GENERALLY DRAINS FROM THE SOUTHWEST TO NORTHEAST, EVENTUALLY DRAINING TO CHASKA CREEK TO THE SOUTH OF THE SITE.

VEGETATION:

THE PROPOSED DEVELOPMENT WILL REQUIRE CLEARING AND GRUBBING OF THE EXISTING VEGETATION.

RAINFALL INFORMATION:

RAINFALL INFORMATION - THE AVERAGE TOTAL ANNUAL PRECIPITATION IS ABOUT 28.32 INCHES. OF THIS ABOUT 17.31 INCHES, OR 61 PERCENT, USUALLY FALLS IN MAY THROUGH SEPTEMBER. THE AVERAGE ANNUAL SNOWFALL IS 57.3 INCHES.

1.5 CONSTRUCTION SITE ESTIMATES

PROJECT AREA SUMMARY:

TOTAL PROJECT AREA: 12.98 ACRES
CONSTRUCTION SITE AREA TO BE DISTURBED: 14.33 ACRES

IMPERVIOUS AREAS:

IMPERVIOUS AREA BEFORE CONSTRUCTION (ACRES): 0

IMPERVIOUS AREA AFTER CONSTRUCTION (ACRES): 8.79

1.6 RECEIVING WATERS

CONSTRUCTION PHASE STORM WATER SYSTEM DESCRIPTION:

STORMWATER RUNOFF WILL BE CAPTURED AND ROUTER TO AN ABOVE GROUND DETENTION POND. WHEN THE RUNOFF EXCEEDS THE NWL IN THE POND, IT IS ROUTED TO A BIOFILTRATION BASIN WHICH THEN DAYLIGHTS TO THE EAST OF THE SITE. ULTIMATELY FLOWING TO CHASKA CREEK.

DESCRIPTION OF RECEIVING WATERS:

THE PROJECT DRAINS TO CHASKA CREEK, WHICH IS A MINNESOTA IMPAIRED WATER. RUNOFF WILL BE ROUTED TO A DETENTION POND AND BIOFILTRATION BASIN PRIOR TO DISCHARGING TO THE CREEK.

1.7 SITE FEATURES AND SENSITIVE AREAS TO BE PROTECTED

THERE ARE NO KNOWN SENSITIVE AREAS ON OR NEAR THE CONSTRUCTION SITE.

1.8 POTENTIAL SOURCES OF POLLUTION

POTENTIAL SOURCES OF SEDIMENT AND OTHER POLLUTANTS TO STORMWATER RUNOFF:

CONSTRUCTION PHASE POLLUTANT SOURCES ANTICIPATED AT THE SITE ARE DISTURBED (BARE) SOIL, VEHICLE FUELS AND LUBRICANTS, CHEMICALS ASSOCIATED WITH BUILDING CONSTRUCTION, AND BUILDING MATERIALS. WITHOUT ADEQUATE CONTROL THERE IS THE POTENTIAL FOR EACH TYPE OF POLLUTANT TO BE TRANSPORTED BY STORM WATER.

1.9 ENDANGERED/THREATENED SPECIES

THE SITE HAS A HIGH POTENTIAL OF CONTAINING THE RUSTY PATCH BUMBLE BEE. THE UNITED STATES FISH AND WILDLIFE SERVICE LISTS THE RUSTY PATCH BUMBLE BEE AS AN ENDANGERED SPECIES IN CARVER COUNTY. IT IS NOT ANTICIPATED THE PROJECT ACTIVITIES WILL IMPACT CRITICAL HABITAT OF THE RUSTY PATCH BUMBLE BEE. HOWEVER, IF THE RUSTY PATCH BUMBLE BEE IS OBSERVED WITHIN THE PROJECT LOCATION, THE CONTRACTOR IS TO STOP WORK IMMEDIATELY AND CONTACT THE ENGINEER OF RECORD.

1.10 HISTORIC PRESERVATION

THERE ARE NO KNOWN HISTORIC SITES ON OR NEAR THE CONSTRUCTION SITE.

1.11 APPLICABLE FEDERAL, TRIBAL, STATE OR LOCAL PROGRAMS

LOCAL GOVERNING UNIT (LGU) REQUIREMENTS:

THE LGU FOR STORMWATER MANAGEMENT IS THE CARVER COUNTY WATERSHED MANAGEMENT ORGANIZATION (CCWMO). THE CCWMO HAS REQUIREMENTS FOR RATE CONTROL, WATER QUALITY, AND VOLUME REDUCTION. THE CITY OF CHASKA ALSO HAS REQUIREMENTS FOR RATE CONTROL. THESE REGULATIONS HAVE BEEN MET BY THE DESIGNED SYSTEMS.

1.12 MITIGATION MEASURES FROM ENVIRONMENTAL REVIEWS/TMDLS/IMPAIRED WATERS

1.13 MAPS

EROSION AND SEDIMENT CONTROL PLANS:

THE FOLLOWING SITE DEVELOPMENT PLAN SHEETS ARE AN INTEGRAL PART OF THIS SWPPP:

C-5.01 - PHASE I EROSION AND SEDIMENTATION CONTROL PLAN/"SITE MAP"
C-5.02 - PHASE II EROSION AND SEDIMENTATION CONTROL PLAN/"SITE MAP"
C-5.03 - EROSION AND SEDIMENTATION CONTROL

SECTION 2: EROSION AND SEDIMENT CONTROL BMPS

EROSION CONTROL BMPS:

THE PURPOSE OF EROSION CONTROL IS TO PREVENT SOIL PARTICLES FROM BECOMING SUSPENDED IN WATER AND BEING TRANSPORTED TO EITHER DOWNSTREAM SURFACE WATERS OR DOWNSTREAM PROPERTIES.

APPROPRIATE CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRADING, AND OTHER CONSTRUCTION PRACTICES THAT MINIMIZE EROSION MUST BE PLANNED FOR AND IMPLEMENTED.

IN THE NATURAL CONDITION, SOIL IS STABILIZED BY NATIVE VEGETATION. THE PRIMARY TECHNIQUE TO BE USED AT THIS PROJECT FOR FINAL STABILIZATION OF SITE SOIL WILL BE TO PROVIDE A PROTECTIVE COVER OF VEGETATION, PAVEMENT, OR BUILDING.

ALL EXPOSED AREAS MUST BE STABILIZED AS SOON AS POSSIBLE (BUT NO LATER THAN THE NEXT WORK DAY) TO LIMIT SOIL EROSION, BUT IN NO CASE LATER THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY SOIL STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G. CLEAN AGGREGATED STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) AND THE CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES ARE EXEMPT FROM THIS REQUIREMENT, BUT MUST COMPLY WITH SECTION 2.7 OF THIS SWPPP (SECTION 8.4, 9.9, 9.10, AND 23.9 OF THE GENERAL PERMIT).

SEDIMENT CONTROL BMPS:

THE PURPOSE OF SEDIMENT CONTROL IS TO PREVENT SOIL PARTICLES THAT HAVE BEEN SUSPENDED IN WATER FROM ENTERING SURFACE WATERS, INCLUDING CURB AND GUTTER SYSTEMS AND STORM SEWER INLETS. SEDIMENT CONTROL BMPS HAVE BEEN DESIGNED AS PART OF THIS SWPPP.

IF THE DOWN GRADIENT TREATMENT SYSTEM IS OVERLOADED, THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING ADDITIONAL UP GRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPS TO ELIMINATE THE OVERLOADING AND MUST AMEND THE SWPPP TO IDENTIFY THE ADDITIONAL PRACTICES.

SEDIMENT CONTROL PRACTICES MUST ALWAYS BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS AND BE LOCATED UPGRADIENT OF ANY BUFFER ZONES. THE PERIMETER SEDIMENT CONTROL PRACTICES MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE PRACTICES MUST REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ACHIEVED (SEE SECTION 8 OF THIS SWPPP).

THE TIMING OF THE INSTALLATION OF SEDIMENT CONTROL PRACTICES MAY BE ADJUSTED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES. ANY SHORT TERM ACTIVITY MUST BE COMPLETED AS QUICKLY AS POSSIBLE AND THE SEDIMENT CONTROL PRACTICES MUST BE RE-INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED. SEDIMENT CONTROL PRACTICES MUST BE INSTALLED BEFORE THE NEXT RAIN EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.

2.1 MINIMIZE DISTURBED AREA AND PROTECT NATURAL FEATURES AND SOIL

PHASING OF GROUND DISTURBANCE SHALL BE IN ACCORDANCE WITH THE FINAL GRADING AND EROSION CONTROL PLANS.

2.2 PRESERVE 50 FOOT NATURAL BUFFER

THE CONTRACTOR MUST PRESERVE A 50 FOOT NATURAL BUFFER WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECTS EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. THE CONTRACTOR IS NOT REQUIRED TO ENHANCE THE QUALITY OF THE VEGETATION THAT ALREADY EXISTS IN THE BUFFER OR PROVIDE VEGETATION IF NONE EXISTS.

2.3 CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT

MEASURES SHOULD BE TAKEN TO ENSURE THAT "CLEAN" RUNOFF FROM OFF SITE IS DIVERTED AROUND DISTURBED AREAS ON SITE. CARE SHOULD BE TAKEN THAT RE-ROUTING OFF SITE RUNOFF DOES NOT RESULT IN FLOODING OR OTHER ISSUES ON ADJACENT PROPERTIES.

BMP DESCRIPTION: TEMPORARY DIVERSION DITCH

INSTALLATION SCHEDULE: INSTALL TEMPORARY DIVERSION DITCHES AS SHOWN ON THE SWPPP PLAN SHEETS, AND AS NEEDED THROUGHOUT CONSTRUCTION, PRIOR TO UP GRADIENT GROUND DISTURBING ACTIVITIES

MAINTENANCE AND INSPECTION REQUIREMENTS: THE WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE OR FROM THE POINT OF DISCHARGE INTO ANY SURFACE WATER. THIS STABILIZATION MUST BE COMPLETED WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER. THE REMAINDER OF THE DITCH MUST BE STABILIZED WITHIN 7 DAYS OF CONNECTING TO A SURFACE WATER AND AFTER CONSTRUCTION HAS CEASED.

TEMPORARY OR PERMANENT DITCHES THAT ARE BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DO NOT NEED TO BE STABILIZED, BUT MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.

DITCHES MUST BE INSPECTED EVERY 7 DAYS, AND WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. ANY SEDIMENT DEPOSITED IN DIVERSION DITCHES MUST BE REMOVED AND ANY EXPOSED SOILS STABILIZED WITHIN 7 DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. IF PRECLUDED, NOTE REASON FOR DELAY ON MAINTENANCE LOG.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

BMP DESCRIPTION: (ADD BMPS OR DELETE THIS SECTION)

INSTALLATION SCHEDULE:

MAINTENANCE AND INSPECTION REQUIREMENTS:

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

2.4 STABILIZE SOILS

1. **TEMPORARY SEEDING** - DISTURBED AREAS THAT ARE NOT YET AT FINAL GRADE BUT THAT WILL NOT BE ACTIVELY WORKED FOR 7 DAYS OR MORE MUST BE TEMPORARILY STABILIZED. TEMPORARY STABILIZATION MUST BE INITIATED IMMEDIATELY WHERE WORK HAS TEMPORARILY CEASED AND MUST BE COMPLETED NO LATER THAN 7 CALENDAR DAYS AFTER WORK IN THAT PORTION OF THE SITE HAS TEMPORARILY CEASED. TEMPORARY SEEDING SHALL BE IN ACCORDANCE WITH MN/DOT SEED MIXTURE NUMBER 21-111 OR 21-112 DEPENDING ON THE SEASON OF PLANTING (SEE MN/DOT SPECIFICATION SECTION 2575.3) SEEDING METHOD AND APPLICATION RATE SHALL CONFORM TO MN/DOT SPECIFICATION SECTION 2575.3. TEMPORARY MULCH SHALL BE APPLIED IN ACCORDANCE WITH MN/DOT SPECIFICATION SECTION 2575.3C. ALTERNATIVELY, HYDRAULIC SOIL STABILIZER IN ACCORDANCE WITH MN/DOT SPECIFICATION SECTION 2575.3E MAY BE USED IN PLACE OF TEMPORARY MULCH.

2. **PERMANENT STABILIZATION** - ALL AREAS AT FINAL GRADE MUST BE STABILIZED WITHIN 7 DAYS AFTER COMPLETION OF THE MAJOR CONSTRUCTION ACTIVITY. PERMANENT STABILIZATION MUST BE INITIATED IMMEDIATELY WERE WORK HAS PERMANENTLY CEASED AND MUST BE COMPLETED NO LATER THAN 7 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS PERMANENTLY CEASED. SEEDED AREAS SHALL BE PROTECTED WITH MULCH. PERMANENT MULCH SHALL CONFORM TO MN/DOT SPECIFICATION 3882, TYPE 3 AT 2 TONS/ACRE AND SHALL BE DISK ANCHORED. HYDRAULIC SOIL STABILIZER MAY BE USED IN PLACE OF MULCH IF APPROVED BY CIVIL ENGINEER. IF HYDRAULIC SOIL STABILIZER IS USED, IT SHALL BE MN/DOT TYPE 6.

BMP DESCRIPTION: (ADD BMPS OR DELETE THIS SECTION)

INSTALLATION SCHEDULE:

MAINTENANCE AND INSPECTION REQUIREMENTS:

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

2.5 PROTECT SLOPES

STEEP SLOPE AREAS - THE CONTRACTOR MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT THAT HAVE STEEP SLOPES (3:1 OR STEEPER). FOR THOSE SLOPED AREAS WHICH MUST BE DISTURBED, THE CONTRACTOR MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES, SUCH AS DRAINING AND TERRACING. SLOPES STEEPER THAN 3:1 MUST BE PROTECTED BY EROSION CONTROL BLANKETS.

BMP DESCRIPTION: EROSION CONTROL BLANKET

INSTALLATION SCHEDULE: INSTALL EROSION CONTROL BLANKETS AS SHOWN ON THE SWPPP PLAN SHEETS, AND AS NEEDED THROUGHOUT CONSTRUCTION, WITHIN THE TIMEFRAME ALLOWED FOR STABILIZATION AFTER WORK HAS CEASED IN AN AREA, DEPENDING ON THE LOCATION (I.E. 24 HOURS, 7 DAYS, 14 DAYS)

MAINTENANCE AND INSPECTION REQUIREMENTS: TO FUNCTION PROPERLY, EROSION CONTROL BLANKETS MUST BE IN CONTACT WITH THE SOIL BENEATH THE BLANKET. BLANKETS MUST BE SECURED PER THE CONSTRUCTION DETAIL PROVIDED WITH THE SWPPP PLAN SHEETS. INSPECT BLANKETS EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. REPAIR, REPLACE, OR SUPPLEMENT NON-FUNCTIONAL BLANKETS WITHIN 3 DAYS OR BY THE NEXT RAIN EVENT, WHICHEVER COMES FIRST.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

BMP DESCRIPTION: (ADD BMPS OR DELETE THIS SECTION)

INSTALLATION SCHEDULE:

MAINTENANCE AND INSPECTION REQUIREMENTS:

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

2.6 PROTECT STORM DRAIN INLETS

ALL STORM DRAIN INLETS MUST BE PROTECTED BY APPROPRIATE MEANS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. INLET PROTECTION MAY BE REMOVED FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (STREET FLOODING/FREEZING) HAS BEEN IDENTIFIED AND PERMITTEE(S) HAVE RECEIVED WRITTEN CORRESPONDENCE FROM THE JURISDICTIONAL AUTHORITY (E.G. CITY/COUNTY/TOWNSHIP/MNDOT/ETC.) VERIFYING THE NEED FOR REMOVAL. THE WRITTEN CORRESPONDENCE MUST BE DOCUMENTED IN THIS SWPPP.

BMP DESCRIPTION: SILT FENCE INLET PROTECTION

INSTALLATION SCHEDULE: INSTALL INLET PROTECTION IN EXISTING STRUCTURES AS DIRECTED ON THE SWPPP PLAN SHEETS, AND AS NEEDED THROUGHOUT CONSTRUCTION, PRIOR TO BEGINNING GROUND DISTURBING ACTIVITIES UP GRADIENT OF THE INLET. INSTALL INLET PROTECTION ON NEW STRUCTURES AS SOON AS THE STRUCTURES ARE PUT INTO USE.

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT SILT FENCE EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. SEDIMENT ACCUMULATIONS SHOULD BE REMOVED WHEN SEDIMENT BUILD-UP REACHES 1/2 THE HEIGHT OF THE SILT FENCE. THIS MAINTENANCE MUST BE COMPLETED WITHIN 24 HOURS OF DISCOVERY.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

BMP DESCRIPTION: INLET PROTECTION (INLET INSERT DEVICE)

INSTALLATION SCHEDULE: INSTALL INLET PROTECTION IN EXISTING STRUCTURES AS DIRECTED ON THE SWPPP PLAN SHEETS, AND AS NEEDED THROUGHOUT CONSTRUCTION, PRIOR TO BEGINNING GROUND DISTURBING ACTIVITIES UP GRADIENT OF THE INLET. INSTALL INLET PROTECTION ON NEW STRUCTURES AS SOON AS THE STRUCTURES ARE PUT INTO USE.

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT INLET PROTECTION EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. SEDIMENT ACCUMULATIONS SHOULD BE REMOVED WHEN SEDIMENT BUILD-UP REACHES 1/2 THE CAPACITY OF THE DEVICE, OR, IF MORE STRINGENT, IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. THIS MAINTENANCE MUST BE COMPLETED WITHIN 24 HOURS OF DISCOVERY.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

BMP DESCRIPTION: (ADD BMPS OR DELETE THIS SECTION)

INSTALLATION SCHEDULE:

MAINTENANCE AND INSPECTION REQUIREMENTS:

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

2.7 ESTABLISH PERIMETER CONTROLS AND SEDIMENT BARRIERS

ALL STRUCTURAL SEDIMENT CONTROLS INTENDED TO RECEIVE AND TREAT CONSTRUCTION RUNOFF MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND ALTERATION CAN BEGIN AND MUST STAY IN OPERATION UNTIL FINAL STABILIZATION OF THE SITE HAS BEEN ACHIEVED.

TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS, AND CANNOT BE PLACED IN ANY NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER.

BMP DESCRIPTION: SILT FENCE

INSTALLATION SCHEDULE: INSTALL SILT FENCE AS DIRECTED ON THE SWPPP PLAN SHEETS, AND AS NEEDED THROUGHOUT CONSTRUCTION, PRIOR TO COMMENCING UP GRADIENT LAND DISTURBING ACTIVITIES.

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT SILT FENCE EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. SEDIMENT ACCUMULATIONS SHOULD BE REMOVED WHEN SEDIMENT BUILD-UP REACHES 1/2 THE HEIGHT OF THE SILT FENCE. THIS MAINTENANCE MUST BE COMPLETED WITHIN 24 HOURS OF DISCOVERY.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

BMP DESCRIPTION: BIOLOGS

INSTALLATION SCHEDULE: INSTALL BIOLOGS AS DIRECTED ON THE SWPPP PLAN SHEETS, AND AS NEEDED THROUGHOUT CONSTRUCTION, PRIOR TO COMMENCING UP GRADIENT LAND DISTURBING ACTIVITIES.

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT BIOLOGS EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. SEDIMENT ACCUMULATIONS SHOULD BE REMOVED WHEN SEDIMENT BUILD-UP REACHES 1/2 THE HEIGHT OF THE BIOLOG. THIS MAINTENANCE MUST BE COMPLETED WITHIN 24 HOURS OF DISCOVERY.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

BMP DESCRIPTION: (ADD BMPS OR DELETE THIS SECTION)

INSTALLATION SCHEDULE:

MAINTENANCE AND INSPECTION REQUIREMENTS:

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

2.8 RETAIN SEDIMENT ON-SITE

ANY OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACT (E.G. FUGITIVE SEDIMENT IN STREETS COULD BE WASHED INTO STORM SEWERS BY THE NEXT RAIN AND/OR POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS.

[FILL OUT THE FOLLOWING IF SEDIMENTATION BASINS AND SEDIMENT TRAPS ARE TO BE UTILIZED - REMINDER, TEMPORARY SEDIMENTATION BASINS ARE REQUIRED BY THE GENERAL PERMIT WHERE DISTURBED AREAS OF 10 ACRES OR MORE DRAIN TO A COMMON LOCATION (SECTION 14); FOR DISCHARGES TO SOME SPECIAL WATERS AND IMPAIRED WATERS, TEMPORARY SEDIMENTATION BASINS ARE REQUIRED WHERE DISTURBED AREAS OF 5 ACRES OR MORE DRAIN TO A COMMON LOCATION (SECTION 23.10) IF A TEMPORARY SEDIMENTATION BASIN IS REQUIRED BUT UNFEASIBLE, A NOT MUST BE ADDED TO THE DOCUMENT STATING SUCH.] TEMPORARY SEDIMENTATION BASINS AND SEDIMENT TRAPS ARE TO BE UTILIZED DURING CONSTRUCTION TO CAPTURE AND TREAT SEDIMENT LADEN RUN OFF. THE TEMPORARY SEDIMENTATION BASINS HAVE BEEN DESIGNED TO [RETAIN THE RUNOFF FROM A 2 YEAR, 24 HOUR STORM EVENT, EXCEPT THAT IN NO CASE SHALL THE BASIN PROVIDE LESS THAN 1,800 CUBIC FEET OF LIVE STORAGE] OR [PROVIDE 3,600 CUBIC FEET OF STORAGE BELOW THE OUTLET PIPE PER ACRE DRAINED TO THE BASIN]. THE OUTLET STRUCTURE MUST BE DESIGNED TO WITHDRAW WATER FROM THE SURFACE IN ACCORDANCE WITH SECTION 14.5 AND 14.6 OF THE GENERAL PERMIT. PERMITTEES MUST PROVIDE ENERGY DISSIPATION FOR THE BASIN OUTLET WITHIN 24 HOURS AFTER A CONNECTION TO A SURFACE WATER (SECTION 14.7 OF THE GENERAL PERMIT)(MODIFY TO BE IN ACCORDANCE WITH SECTION 23 OF THE PERMIT IF APPLICABLE)

BMP DESCRIPTION: TEMPORARY SEDIMENTATION BASIN

INSTALLATION SCHEDULE: INSTALL TEMPORARY SEDIMENTATION BASIN PRIOR TO BEGINNING UPSLOPE LAND DISTURBING ACTIVITIES. IF THIS IS NOT POSSIBLE DUE TO EXISTING TOPOGRAPHY, LIMIT DISTURBANCE TO ONLY THOSE AREAS NECESSARY TO INSTALL TEMPORARY SEDIMENTATION BASIN.

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT TEMPORARY SEDIMENTATION BASINS EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. TEMPORARY AND PERMANENT SEDIMENTATION BASINS MUST BE DRAINED AND THE SEDIMENT REMOVED WHEN THE VOLUME OF SEDIMENT COLLECTED IN THE BASIN REACHES ½ THE STORAGE VOLUME. THIS MAINTENANCE MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS. IF CONDITIONS DO NOT ALLOW MAINTENANCE TO BE PERFORMED WITHIN 72 HOURS, DOCUMENT THE CAUSE OF DELAY ON THE MAINTENANCE FORM. REFER TO SECTION 3.1 OF THIS SWPPP FOR BASIN DRAINING GUIDELINES.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

BMP DESCRIPTION: (ADD BMPS OR DELETE THIS SECTION)

INSTALLATION SCHEDULE:

MAINTENANCE AND INSPECTION REQUIREMENTS:

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

2.9 ESTABLISH VEHICLE TRACKING PADS

VEHICLE TRACKING PADS HAVE BEEN DESIGNED TO PREVENT SEDIMENT TRACK OFF. IF THERE IS EVIDENCE OF SEDIMENT TRACKING FROM VEHICLES IN PAVED AREAS, THE SEDIMENT MUST BE REMOVED BY STREET SWEEPING OR OTHER METHOD AS SOON AS FEASIBLY POSSIBLE, BUT NO LONGER THAN 24 HOURS AFTER DISCOVERY. (SECTION 9.11 AND 9.12 OF THE GENERAL PERMIT)

BMP DESCRIPTION: VEHICLE TRACKING PAD

INSTALLATION SCHEDULE: INSTALL VEHICLE TRACKING PAD AS SHOWN ON THE SWPPP PLAN SHEETS AS SOON AS POSSIBLE AT THE BEGINNING OF CONSTRUCTION ACTIVITIES. INSTALL ADDITIONAL VEHICLE TRACKING PADS AS NEEDED THROUGHOUT CONSTRUCTION.

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT VEHICLE TRACKING PADS EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. VEHICLE TRACKING PADS MUST BE PERIODICALLY 'REFRESHED' TO ENSURE PROPER FUNCTIONALITY. MAINTENANCE SHOULD BE PERFORMED WHEN THE EXIT APPEARS SMOOTH AND COMPACTED OR WHEN THE VEHICLE TRACKING PAD CEASES TO FUNCTION PROPERLY. VEHICLE TRACKING PAD LOCATIONS SHOULD BE INSPECTED FOR SIGNS OF OFF-SITE SEDIMENT TRACKING. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES WITHIN 24 HOURS OF DISCOVERY. STREET SWEEPING MUST BE USED IF VEHICLE TRACKING PADS ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

BMP DESCRIPTION: (ADD BMPS OR DELETE THIS SECTION)

INSTALLATION SCHEDULE:

MAINTENANCE AND INSPECTION REQUIREMENTS:

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

NO	DATE	BY	CKD	APPR	COMMENT
	02/01/2022				REVISED PER CITY COMMENTS

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: ______________________

Date ______________ License # ______________

PRELIMINARY 01/04/2022	DRAWN BY RM
DESIGN REVIEW	DESIGNED BY JRM
PERMIT SUBMITTAL	CHECKED BY JDB
CONSTRUCTION DOCUMENTS	PROJECT NO. 50241

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EROSION CONTROL PLAN - SWPPP

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET
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2.10 CONTROL STORMWATER DISCHARGE POINTS

1. PIPE OR OTHER TEMPORARY OR PERMANENT OUTLETS MUST BE STABILIZED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER.
2. STABILIZE THE NORMAL WETTED PERIMETER OF A DRAINAGE DITCH OR SWALE WITHIN 200 FEET OF THE PROPERTY EDGE WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER. THE REMAINDER OF THE DITCH MUST BE STABILIZED WITHIN 7 CALENDAR DAYS OF CONNECTION.

BMP DESCRIPTION: RIPRAP

INSTALLATION SCHEDULE: INSTALL RIPRAP AS SHOWN ON SWPPP PLANS AND/OR GRADING PLANS. INSTALLATION MUST BE COMPLETED WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER.

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT OUTLETS EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. REPAIR, REPLACE OR SUPPLEMENT NON-FUNCTIONING RIPRAP ENERGY DISSIPATION WITHIN 3 DAYS OR BY THE NEXT RAIN EVENT, WHICHEVER COMES FIRST. ANY OFF SITE ACCUMULATION OF SEDIMENT MUST BE REMOVED IN MANNER AND AT A FREQUENCY TO MINIMIZE OFF-SITE IMPACTS.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

BMP DESCRIPTION: (ADD BMPS OR DELETE THIS SECTION)

INSTALLATION SCHEDULE:

MAINTENANCE AND INSPECTION REQUIREMENTS:

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

2.11 CHEMICAL EROSION AND SEDIMENT CONTROL BMPS

POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS MUST BE APPLIED AFTER CONVENTIONAL EROSION AND SEDIMENT CONTROL DEVICES ARE UTILIZED. CHEMICALS MAY ONLY BE APPLIED WHERE TREATED STORMWATER IS DIRECTED TO A SEDIMENT CONTROL SYSTEM WHICH ALLOWS FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE. CONSIDERATION MUST BE GIVEN WHEN SELECTING CHEMICALS TO THE EXPECTED SOIL TYPES TO BE EXPOSED DURING CONSTRUCTION, AND TO THE EXPECTED TURBIDITY, PH AND FLOW RATE OF STORMWATER FLOWING INTO THE CHEMICAL TREATMENT SYSTEM OR AREA. IF CHEMICALS ARE PART OF THE EROSION CONTROL PLAN, THEY MUST BE USED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, AND WITH DOSING SPECIFICATION AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR PROVIDER/SUPPLIER OF THE APPLICABLE CHEMICALS.

BMP DESCRIPTION: (ADD BMPS OR DELETE THIS SECTION)

INSTALLATION SCHEDULE:

MAINTENANCE AND INSPECTION REQUIREMENTS:

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

2.13 ADDITIONAL EROSION AND SEDIMENT CONTROL BMPS

BMP DESCRIPTION: (ADD BMPS OR DELETE THIS SECTION)

INSTALLATION SCHEDULE:

MAINTENANCE AND INSPECTION REQUIREMENTS:

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

SECTION 3: DEWATERING & BASIN DRAINING

3.1 DEWATERING AND BASIN DRAINING

ALLOWABLE NON-STORMWATER DISCHARGES, AS DEFINED BY THE GENERAL PERMIT, ARE LIMITED TO DEWATERING AND BASIN DRAINING. DEWATERING OR BASIN DRAINING THAT MAY HAVE TURBID OR SEDIMENT LADEN DISCHARGE WATER MUST BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON THE PROJECT SITE WHENEVER POSSIBLE. IF THE WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN PRIOR TO ENTERING THE SURFACE WATER, IT MUST BE TREATED WITH THE APPROPRIATE BMPS, SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER OR DOWNSTREAM LANDOWNERS. THE CONTRACTOR MUST ENSURE THAT DISCHARGE POINTS ARE ADEQUATELY PROTECTED FROM EROSION AND SCOUR. THE DISCHARGE MUST BE DISPERSED OVER NATURAL ROCK RIPRAP, SAND BAGS, PLASTIC SHEETING OR OTHER ACCEPTED ENERGY DISSIPATION MEASURES. ADEQUATE SEDIMENTATION CONTROL MEASURES ARE REQUIRED FOR DISCHARGE WATER THAT CONTAINS SUSPENDED SOLIDS. ALL WATER FROM DEWATERING OR BASIN DRAINING MUST BE DISCHARGED IN A MANNER THAT DOES NOT CAUSE NUISANCE CONDITIONS, EROSION IN RECEIVING CHANNELS OR ON DOWNSLOPE PROPERTIES, OR INUNDATION IN WETLANDS CAUSING SIGNIFICANT ADVERSE IMPACT TO THE WETLAND. IF THE CONTRACTOR ELECTS TO UTILIZE FILTERS WITH BACKWASH WATER, THE CONTRACTOR MUST HAUL THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. THE CONTRACTOR MUST REPLACE AND CLEAN THE FILTER MEDIA USED IN DEWATERING DEVICES WHEN REQUIRED TO RETAIN ADEQUATE FUNCTION. CONTRACTOR SHALL OBTAIN A WATER USE (APPROPRIATION) PERMIT FROM THE MINNESOTA DNR FOR DEWATERING ACTIVITIES THAT WILL WITHDRAW MORE THAN 10,000 GALLONS OF WATER PER DAY OR 1 MILLION GALLONS PER YEAR. CONTRACTOR SHALL DISCHARGE WATER THROUGH A FILTER SOCK AND SHALL DISCHARGE TO THE DITCH NORTH OF THE SITE OR DIRECTLY TO ONE OF THE MANHOLES IN CREEK ROAD

SECTION 4: GOOD HOUSEKEEPING BMPS

4.1 MATERIAL HANDLING AND WASTE MANAGEMENT

1. **SOLID WASTE DISPOSAL** - NO SOLID MATERIALS, INCLUDING CONSTRUCTION AND DEMOLITION MATERIALS, COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, SHALL BE ALLOWED TO BE CARRIED FROM THE SITE WITH STORM WATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE MAJOR CONSTRUCTION ACTIVITIES, MUST BE COLLECTED AND PLACED IN CONTAINERS. THE CONTAINERS WILL BE EMPTIED PERIODICALLY BY A CONTRACT TRASH DISPOSAL SERVICE AND HAULED AWAY FROM THE SITE. DISPOSAL OF SOLID WASTES MUST COMPLY WITH MPCA REQUIREMENTS.
2. **GROUNDWATER PROTECTION -** SUBSTANCES THAT HAVE THE POTENTIAL FOR POLLUTING SURFACE AND/OR GROUNDWATER MUST BE CONTROLLED BY WHATEVER MEANS NECESSARY IN ORDER TO ENSURE THAT THEY DO NOT DISCHARGE FROM THE SITE. AS AN EXAMPLE, SPECIAL CARE MUST BE EXERCISED DURING EQUIPMENT FUELING AND SERVICING OPERATIONS. IF A SPILL OCCURS, IT MUST BE CONTAINED AND DISPOSED OF SO THAT IT WILL NOT FLOW FROM THE SITE OR ENTER GROUNDWATER, EVEN IF THIS REQUIRES REMOVAL, TREATMENT, AND DISPOSAL OF SOIL. IN THIS REGARD, POTENTIALLY POLLUTING SUBSTANCES SHOULD BE HANDLED IN A MANNER CONSISTENT WITH THE IMPACT THEY REPRESENT.
3. **SANITARY FACILITIES -** ALL PERSONNEL INVOLVED WITH CONSTRUCTION ACTIVITIES MUST COMPLY WITH STATE AND LOCAL SANITARY SEPTIC SYSTEM REGULATIONS. PORTABLE TOILETS MUST BE POSITIONED SO THAT THEY ARE SECURE AND WILL NOT BE TIPPED OR KNOCKED OVER. TEMPORARY SANITARY FACILITIES WILL BE PROVIDED AT THE SITE THROUGHOUT THE CONSTRUCTION PHASE WHERE REQUIRED BY STATE OR LOCAL REGULATIONS. THEY MUST BE UTILIZED BY ALL CONSTRUCTION PERSONNEL AND BE SERVICED BY A COMMERCIAL OPERATOR.

4.2 ESTABLISH PROPER STORAGE, HANDLING & DISPOSAL PRACTICES

HAZARDOUS MATERIALS & TOXIC WASTE (INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) MUST BE STORED IN WATERPROOF CONTAINERS WITH SECONDARY CONTAINMENT, AND THEIR LOCATION(S) MUST BE NOTED ON THE SWPPP MAP. EXCEPT DURING APPLICATION, THE CONTENTS MUST BE KEPT IN TRUCKS OR WITHIN STORAGE FACILITIES IN ACCORDANCE WITH SECTION 12.4 OF THE GENERAL PERMIT. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MCPA REGULATIONS. RUNOFF CONTAINING SUCH MATERIAL MUST BE COLLECTED, REMOVED FROM THE SITE, TREATED, AND DISPOSED AT AN APPROVED SOLID WASTE OR CHEMICAL DISPOSAL FACILITY.

BUILDING PRODUCTS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS AND PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS AND LANDSCAPE MATERIALS MUST BE UNDER COVER BY PLASTIC SHEETING OR TEMPORARY ROOFS TO PREVENT DISCHARGE, OR PROTECTED BY SIMILAR EFFECTIVE MEANS TO PREVENT CONTACT WITH STORMWATER.

4.3 DESIGNATE WASHOUT AREAS

THE CONTRACTOR SHALL DESIGNATE AREAS FOR CONCRETE AND OTHER (STUCCO, PAINT, FOR RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS RELATED TO THE CONSTRUCTION ACTIVITY) WASHOUTS, AND NOTE THE LOCATIONS ON THE SITE MAP. ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK PROOF CONTAINMENT FACILITY OR IMPERMEABLE LAYER. A COMPACTED CLAY LINER IS NOT AN ACCEPTABLE IMPERMEABLE LAYER. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTE MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM SITE WORKERS TO UTILIZE PROPER FACILITIES FOR DISPOSAL OF CONCRETE AND OTHER WASTES.

BMP DESCRIPTION: CONCRETE WASHOUT

INSTALLATION SCHEDULE: PRIOR TO CONCRETE WORK.

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT CONCRETE WASHOUTS FOR EVIDENCE OF DISCHARGE EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. REPAIR, REPLACE OR SUPPLEMENT NON-FUNCTIONING CONCRETE WASHOUTS WITHIN 3 DAYS OR BY THE NEXT USE, WHICHEVER COMES FIRST.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

BMP DESCRIPTION: (ADD BMPS OR DELETE THIS SECTION)

INSTALLATION SCHEDULE:

MAINTENANCE AND INSPECTION REQUIREMENTS:

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

4.4 ESTABLISH PROPER EQUIPMENT/VEHICLE FUELING AND MAINTENANCE PRACTICES

THE CONTRACTOR SHALL DESIGNATE AREAS FOR EQUIPMENT FUELING, CLEANING, MAINTENANCE AND REPAIR, AND NOTE THE LOCATION(S) ON THE SWPPP SITE MAPS. RUNOFF MUST BE CONTAINED WITHIN THE DESIGNATED AREAS (I.E. THROUGH USE OF A TEMPORARY BERM). THE AREAS MUST NOT BE LOCATED IN ANY SURFACE WATER. SPECIAL CARE MUST BE EXERCISED DURING EQUIPMENT FUELING AND SERVICING OPERATIONS. IF A SPILL OCCURS, IT MUST BE CONTAINED AND DISPOSED OF SO THAT IT WILL NOT FLOW FROM THE SITE OR ENTER GROUNDWATER, EVEN IF THIS REQUIRES REMOVAL, TREATMENT, AND DISPOSAL OF SOIL. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. NO ENGINE DEGREASING IS ALLOWED ON SITE.

4.5 CONTROL EQUIPMENT/VEHICLE WASHING

THE CONTRACTOR SHALL DESIGNATE LOCATION(S) FOR VEHICLE WASHING, AND NOTE THE LOCATION(S) ON THE SWPPP SITE MAP. RUNOFF FROM THE WASHING AREA MUST BE CONTAINED IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND WASTE FROM THE WASHING ACTIVITY MUST BE PROPERLY DISPOSED OF. THE CONTRACTOR MUST PROPERLY USE AND STORE SOAPS, DETERGENTS AND SOLVENTS. ENGINE DEGREASING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES IS ALSO PROHIBITED.

4.6 SPILL PREVENTION AND CONTROL PLAN

1. **ACCIDENTAL SPILL** - DISCHARGE OF OIL OR OTHER HAZARDOUS SUBSTANCES IS SUBJECT TO REPORTING AND CLEAN UP REQUIREMENTS. IN CASE OF AN ACCIDENTAL SPILL, THE MINNESOTA POLLUTION CONTROL AGENCY IS TO BE NOTIFIED AT THEIR **24-HOUR TELEPHONE NUMBER: 651-649-5451**. REFER TO SECTION 12 OF THE GENERAL PERMIT.
2. **GROUNDWATER PROTECTION -** SUBSTANCES THAT HAVE THE POTENTIAL FOR POLLUTING SURFACE AND/OR GROUNDWATER MUST BE CONTROLLED BY WHATEVER MEANS NECESSARY IN ORDER TO ENSURE THAT THEY DO NOT DISCHARGE FROM THE SITE. AS AN EXAMPLE, SPECIAL CARE MUST BE EXERCISED DURING EQUIPMENT FUELING AND SERVICING OPERATIONS. IF A SPILL OCCURS, IT MUST BE CONTAINED AND DISPOSED OF SO THAT IT WILL NOT FLOW FROM THE SITE OR ENTER GROUNDWATER, EVEN IF THIS REQUIRES REMOVAL, TREATMENT, AND DISPOSAL OF SOIL. IN THIS REGARD, POTENTIALLY POLLUTING SUBSTANCES SHOULD BE HANDLED IN A MANNER CONSISTENT WITH THE IMPACT THEY REPRESENT.

4.7 ANY ADDITIONAL BMPS

BMP DESCRIPTION: (ADD BMPS OR DELETE THIS SECTION)

INSTALLATION SCHEDULE:

MAINTENANCE AND INSPECTION REQUIREMENTS:

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

SECTION 5: POST-CONSTRUCTION BMPS

BMP DESCRIPTION: SUMP MANHOLE

INSTALLATION SCHEDULE: ALONG WITH STORM SEWER NETWORK

MAINTENANCE AND INSPECTION REQUIREMENTS: PRACTICE SHOULD BE INSPECTED (AND CLEANED OUT IF DEEMED NECESSARY) SEMI-ANNUALLY TO ENSURE THAT SEDIMENT IS NOT BEGINNING TO WASH OUT DURING STORM EVENTS. DEVICES SHOULD BE CLEANED OUT AT LEAST ONCE PER YEAR OR AS NEEDED.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

BMP DESCRIPTION: FILTRATION BASIN

INSTALLATION SCHEDULE: THE FILTRATION BASIN WILL BE INSTALLED DURING THE INITIAL GRADING FOR THE SITE. THE STORM SEWER SYSTEM WILL THEN BE CONNECTED INTO THE FILTRATION BASIN.

MAINTENANCE AND INSPECTION REQUIREMENTS: ONCE CONSTRUCTION IS COMPLETE, THE BASIN WILL BE INSPECTED AND CLEARED OF ANY SEDIMENT BUILD-UP TWICE PER YEAR AND AS NEEDED. INSPECTION WILL ALSO INCLUDE CHECKING FOR EROSION ISSUES ALONG THE SLOPES OF THE BASIN AND CLEANING ANY DEBRIS FROM THE INLET PIPES.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

BMP DESCRIPTION: (ADD BMPS OR DELETE THIS SECTION)

INSTALLATION SCHEDULE:

MAINTENANCE AND INSPECTION REQUIREMENTS:

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

SECTION 6: INSPECTIONS

6.1 INSPECTIONS

1. **INSPECTION FREQUENCY AND RESPONSIBILITY**

[OPTION 1 - CONTRACTOR RESPONSIBLE FOR INSPECTIONS]

BETWEEN THE TIME THIS SWPPP IS IMPLEMENTED AND FINAL SITE STABILIZATION IS ACHIEVED AND THE NOTICE OF TERMINATION FILED WITH THE MPCA, ALL DISTURBED AREAS AND POLLUTANT CONTROLS MUST BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS FOLLOWING A RAINFALL OF 0.5 INCHES OR GREATER. THE PURPOSE OF SITE INSPECTIONS IS TO ASSESS PERFORMANCE OF POLLUTANT CONTROLS. THE INSPECTIONS WILL BE CONDUCTED BY THE CONTRACTOR'S DESIGNATED REPRESENTATIVE. BASED ON THESE INSPECTIONS, THE CONTRACTOR WILL DECIDE WHETHER IT IS NECESSARY TO MODIFY THIS SWPPP, ADD OR RELOCATE STRUCTURAL BMPS, OR WHATEVER ELSE MAY BE NEEDED IN ORDER TO PREVENT POLLUTANTS FROM LEAVING THE SITE VIA STORM WATER RUNOFF. IF THE SWPPP REQUIRES MODIFICATION, THOSE CHANGES TO THE SWPPP MUST BE DOCUMENTED. THE CONTRACTOR HAS THE DUTY TO CAUSE POLLUTANT CONTROL MEASURES TO BE REPAIRED, MODIFIED, MAINTAINED, SUPPLEMENTED, OR WHATEVER ELSE IS NECESSARY IN ORDER TO ACHIEVE EFFECTIVE POLLUTANT CONTROL.

[OPTION 2 - OWNER RESPONSIBLE FOR INSPECTIONS]

BETWEEN THE TIME THIS SWPPP IS IMPLEMENTED AND FINAL SITE STABILIZATION IS ACHIEVED AND THE NOTICE OF TERMINATION FILED WITH THE MPCA, ALL DISTURBED AREAS AND POLLUTANT CONTROLS MUST BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS FOLLOWING A RAINFALL OF 0.5 INCHES OR GREATER. THE PURPOSE OF SITE INSPECTIONS IS TO ASSESS PERFORMANCE OF POLLUTANT CONTROLS. THE INSPECTIONS WILL BE CONDUCTED BY THE OWNER'S DESIGNATED REPRESENTATIVE. BASED ON THESE INSPECTIONS, THE CONTRACTOR WILL DECIDE WHETHER IT IS NECESSARY TO MODIFY THIS SWPPP, ADD OR RELOCATE STRUCTURAL BMPS, OR WHATEVER ELSE MAY BE NEEDED IN ORDER TO PREVENT POLLUTANTS FROM LEAVING THE SITE VIA STORM WATER RUNOFF. IF THE SWPPP REQUIRES MODIFICATION, THOSE CHANGES TO THE SWPPP MUST BE DOCUMENTED. THE CONTRACTOR HAS THE DUTY TO CAUSE POLLUTANT CONTROL MEASURES TO BE REPAIRED, MODIFIED, MAINTAINED, SUPPLEMENTED, OR WHATEVER ELSE IS NECESSARY IN ORDER TO ACHIEVE EFFECTIVE POLLUTANT CONTROL.

2. **INSPECTION PROCEDURES** - EXAMPLES OF PARTICULAR ITEMS TO EVALUATE DURING SITE INSPECTIONS ARE LISTED BELOW. THIS LIST IS NOT INTENDED TO BE COMPREHENSIVE. DURING EACH INSPECTION THE INSPECTOR MUST EVALUATE OVERALL POLLUTANT CONTROL SYSTEM PERFORMANCE AS WELL AS PARTICULAR DETAILS OF INDIVIDUAL SYSTEM COMPONENTS. ADDITIONAL FACTORS SHOULD BE CONSIDERED AS APPROPRIATE TO THE CIRCUMSTANCES.

A. PRE-INSPECTION PREPARATION:

1. INSPECTORS SHOULD BE FAMILIAR WITH THE SWPPP, INCLUDING THE EROSION AND SEDIMENT CONTROL PLANS, PAST INSPECTION REPORTS, AND MAINTENANCE LOGS.
2. PAY SPECIAL ATTENTION TO STORM WATER DISCHARGE TO SPECIAL/IMPAIRED WATERS AND WETLANDS; DISCHARGES TO SPECIAL/IMPAIRED WATERS AND WETLANDS HAVE ADDITIONAL REQUIREMENTS THAT ARE DESCRIBED IN SECTION 23 OF THE GENERAL PERMIT, AND ADDRESSED IN THIS SWPPP.

B. SITE ENTRY:

1. BEFORE ENTERING THE SITE, OBSERVE THE SURROUNDINGS AND VARIOUS STAGES OF CONSTRUCTION. NOTE AREAS FOR IN-DEPTH REVIEW AND ANY POTENTIAL ISSUES.
2. THIS IS A GOOD TIME TO VIEW CONSTRUCTION SITE VEHICLE TRACKING PAD LOCATIONS AND PERIMETER CONTROLS.

C. RECORDS REVIEW:

1. VERIFY THAT A COPY OF THE SWPPP AND APPLICATION FOR THE NPDES STORM WATER PERMIT, AND COPIES OF ALL CONSTRUCTION SITE INSPECTIONS ARE ON SITE.
2. VERIFY THAT THE TIMING FOR INSTALLATION OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS, AS WELL AS CONSTRUCTION PHASING, IS GENERALLY BEING FOLLOWED.
3. SWPPPS ARE INTENDED TO BE DYNAMIC DOCUMENTS, VERIFY THAT AMENDMENTS OR CHANGES TO THE SWPPP ARE BEING MADE WHEN:
   A. A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVE A SIGNIFICANT EFFECT ON STORM WATER DISCHARGES
   B. INSPECTIONS INDICATE THE SWPPP IS NOT EFFECTIVE
   C. THE SWPPP IS NOT CONSISTENT WITH THE TERMS OF THE GENERAL PERMIT

D. SITE INSPECTION (NOTE TIMELINES FOR MAINTENANCE INCLUDED IN INSPECTION/MAINTENANCE REPORT)

1. INSPECT DISCHARGE POINTS DOWNSTREAM AND OFF-SITE AREAS FOR SIGNS OF IMPACT.
2. INSPECT PERIMETER CONTROLS:
   A. HAVE PERIMETER CONTROLS BEEN PROPERLY INSTALLED AND MAINTAINED?
   B. ARE VEHICLE TRACKING PADS FUNCTIONING PROPERLY? ARE ADDITIONAL ENTRANCES/EXITS BEING USED THAT ARE NOT STABILIZED?
   C. ALL STORM DRAINS MUST BE PROTECTED AND TEMPORARY STOCKPILES MUST HAVE SEDIMENT CONTROLS INSTALLED.
   D. ALL EXPOSED SOILS MUST HAVE TEMPORARY OR PERMANENT EROSION PROTECTION WITHIN 7 DAYS OF INACTIVITY.
3. COMPARE BMPS IN THE SWPPP WITH CONSTRUCTION SITE CONDITIONS: ARE REQUIRED BMPS IN PLACE; ARE ADDITIONAL BMPS NEEDED; ARE BMPS IN PLACE PROPERLY INSTALLED AND MAINTAINED?
4. INSPECT AREAS THAT HAVE BEEN DISTURBED AND ARE NOT CURRENTLY BEING WORKED. ANY UNSEEDED OR UNMULCHED BARE AREAS THAT HAVE BEEN IDLE FOR 7 DAYS SHOULD BE NOTED.
5. INSPECT AREAS WITH FINAL STABILIZATION. IN ORDER FOR FINAL STABILIZATION TO BE ACHIEVED, AREAS MUST HAVE A UNIFORM COVER WITH A DENSITY OF 70% OVER ENTIRE AREA. TEMPORARY BMPS SHOULD BE REMOVED AND AREAS DISTURBED BY REMOVAL SEEDED AS NECESSARY.

E. EXIT INTERVIEW:

1. DEBRIEF THE PERSON IN CHARGE. EXPLAIN THE IDENTIFIED DEFICIENCIES AND ANY AREAS OF CONCERN.

F. A COPY OF THE COMPLETED INSPECTION REPORT MUST BE KEPT WITH THE SWPPP ON SITE.

THE INSPECTION REPORT USED SHOULD INCLUDE, AT A MINIMUM, THE FOLLOWING:

- DATE & TIME OF INSPECTION
- NAME OF INSPECTOR(S)
- FINDINGS OF INSPECTIONS AND RECOMMENDATIONS FOR CORRECTIVE ACTIONS
- CORRECTIVE ACTIONS TAKEN, INCLUDING DATES, TIMES AND NAMES OF PARTY COMPLETING MAINTENANCE
- DATE & AMOUNT OF RAINFALL
- RECORD OF ALL POINTS OF DISCHARGE FROM THE PROPERTY AND DESCRIPTION OF DISCHARGE
- NOTE TO UPDATE THE SWPPP

6.2 DELEGATION OF AUTHORITY

DULY AUTHORIZED REPRESENTATIVE(S) OR POSITION(S):

COMPANY OR ORGANIZATION NAME:
NAME:
POSITION:
ADDRESS:
CITY, STATE, ZIP CODE:
TELEPHONE NUMBER:
FAX/EMAIL:

6.3 CORRECTIVE ACTION LOG

THE INSPECTION/MAINTENANCE FORM, AVAILABLE UPON REQUEST, INCORPORATES BOTH INSPECTION AND MAINTENANCE REPORTING INTO A SINGLE FORM. THIS FORM ALSO SPECIFIES THE TIME ALLOWED FOR CORRECTIONS TO BE PERFORMED. IF THE PARTY PERFORMING INSPECTIONS CHOOSES TO USE ANOTHER INSPECTION FORM, A SEPARATE CORRECTIVE ACTION LOG MUST BE PROVIDED.

SECTION 7: RECORD KEEPING AND TRAINING

7.1 RECORDKEEPING

RECORD RETENTION - THE OWNER MUST KEEP THE SWPPP INCLUDING ALL CHANGES MADE TO IT DURING CONSTRUCTION (SEE SECTION 7.2 OF THIS SWPPP), ALONG WITH THE FOLLOWING ADDITIONAL RECORDS ON FILE FOR THREE YEARS AFTER COMPLETION OF THE CONSTRUCTION PROJECT (FINAL STABILIZATION AND NOTICE OF TERMINATION):

1. ANY OTHER STORMWATER RELATED PERMITS REQUIRED FOR THE PROJECT
2. RECORDS OF ALL INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION
3. ALL PERMANENT OPERATION AND MAINTENANCE AGREEMENTS THAT HAVE BEEN IMPLEMENTED, INCLUDING ALL RIGHT OF WAY, CONTRACTS, COVENANTS AND OTHER BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE
4. ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORM WATER MANAGEMENT SYSTEMS

7.2 AMENDMENTS

THE CONTRACTOR SHALL KEEP A RECORD LOG OF ALL MODIFICATIONS TO THE SWPPP. AN EXAMPLE OF A SWPPP UPDATE LOG FORM CAN BE PROVIDED UPON REQUEST.

MODIFICATIONS TO THE SWPPP - THIS SWPPP INTENDS TO CONTROL WATER-BORNE AND LIQUID POLLUTANT DISCHARGES BY SOME COMBINATION OF INTERCEPTION, FILTRATION, AND CONTAINMENT. THE GENERAL CONTRACTOR AND SUBCONTRACTORS IMPLEMENTING THIS SWPPP MUST REMAIN ALERT TO THE NEED TO PERIODICALLY REFINE AND UPDATE THE SWPPP IN ORDER TO ACCOMPLISH THE INTENDED GOALS. THIS SWPPP MUST BE AMENDED AS NECESSARY DURING THE COURSE OF CONSTRUCTION IN ORDER TO KEEP IT CURRENT WITH THE POLLUTANT CONTROL MEASURES UTILIZED AT THE SITE. AMENDING THE SWPPP DOES NOT MEAN THAT IT HAS TO BE REPRINTED. IT IS ACCEPTABLE TO ADD ADDENDA, SKETCHES, NEW SECTIONS, AND/OR REVISED DRAWINGS. THIS SWPPP MUST BE UPDATED AS NECESSARY TO INCLUDE ADDITIONAL REQUIREMENTS, SUCH AS ADDITIONAL OR MODIFIED BMPS, DESIGNED TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER:

1. THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS THAT HAS A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR UNDERGROUND WATERS.
2. INSPECTIONS OR INVESTIGATIONS BY SITE OPERATORS, LOCAL, STATE OR FEDERAL OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR UNDERGROUND WATERS OR THAT THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES.
3. THE SWPPP IS NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY, OR THE SWPPP IS NOT CONSISTENT WITH THE TERMS AND CONDITIONS OF THE GENERAL PERMIT.
4. THE MPCA HAS DETERMINED THAT THE PROJECT'S STORM WATER DISCHARGES MAY CAUSE OR CONTRIBUTE TO NON-ATTAINMENT OF ANY APPLICABLE WATER STANDARD, OR THAT THE SWPPP DOES NOT INCORPORATE REQUIREMENTS RELATED TO AN APPROVED TOTAL MAXIMUM DAILY LOAD (TMDL) IMPLEMENTATION PLAN. IN THIS CASE, THE SWPPP MUST BE UPDATED OR A SUPPLEMENTAL BMP ACTION PLAN DEVELOPED TO ADDRESS THE IDENTIFIED CONCERNS.

7.3 TRAINING

THE PERMITTEE(S) MUST FULFILL TRAINING REQUIREMENTS AND INCLUDE RECORDS OF TRAINING IN THE SWPPP. REFRESHER TRAINING MUST BE ATTENDED EVERY THREE YEARS STARTING THREE YEARS, FROM THE ISSUANCE OF THE 2018 GENERAL PERMIT (ISSUED 8/1/18). INDIVIDUALS REQUIRED TO BE TRAINED INCLUDE:

1. INDIVIDUALS PREPARING THE SWPPP
2. INDIVIDUALS OVERSEEING IMPLEMENTATION OF, REVISING, AND AMENDING THE SWPPP AND INDIVIDUALS PERFORMING INSPECTIONS. ONE OF THESE INDIVIDUALS MUST BE AVAILABLE FOR AN ON SITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCA.
3. INDIVIDUALS PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPS. AT LEAST ONE INDIVIDUAL ON A PROJECT MUST BE TRAINED IN THESE JOB DUTIES.

THE CONTENT AND EXTENT OF TRAINING MUST BE COMMENSURATE WITH THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES WITH REGARD TO ACTIVITIES COVERED UNDER THE GENERAL PERMIT. AT LEAST ONE INDIVIDUAL TRAINED IN THE JOB DUTIES LISTED ABOVE MUST BE PRESENT ON THE SITE OR AVAILABLE TO THE SITE IN 72 HOURS.

TRAINING DOCUMENTATION MUST INCLUDE:

1. NAMES OF PERSONNEL ASSOCIATED WITH THE PROJECT THAT ARE REQUIRED TO BE TRAINED
2. DATES OF TRAINING AND NAMES OF INSTRUCTOR AND ENTITY PROVIDING TRAINING
3. CONTENT OF TRAINING COURSE, INCLUDING NUMBER OF HOURS OF TRAINING
4. DOCUMENTATION MUST BE KEPT WITH THE SWPPP. TRAINING RECORD/CERTIFICATION TEMPLATE IS AVAILABLE UPON REQUEST.

INDIVIDUALS MUST BE TRAINED BY LOCAL, STATE, FEDERAL AGENCIES, PROFESSIONAL ORGANIZATIONS, OR OTHER ENTITIES WITH EXPERTISE IN EROSION PREVENTION, SEDIMENT CONTROL, OR PERMANENT STORMWATER MANAGEMENT SUCH AS THE UNIVERSITY OF MINNESOTA, MINNESOTA EROSION CONTROL ASSOCIATION, SOIL AND WATER CONSERVATION DISTRICTS, OR THE MPCA.

SECTION 8: FINAL STABILIZATION / PERMIT TERMINATION

FINAL STABILIZATION - TO ACHIEVE FINAL STABILIZATION OF THE SITE, THE CONTRACTOR WILL IMPLEMENT THE FOLLOWING MEASURES AFTER ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED.

1. ALL SOILS MUST BE STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70 PERCENT OVER THE ENTIRE PERVIOUS SURFACE AREA, OR BY OTHER EQUIVALENT MEANS NECESSARY TO PREVENT SOIL FAILURE UNDER EROSIVE CONDITIONS. REFER TO LANDSCAPING PLANS/SPECIFICATIONS FOR TYPE OF VEGETATIVE COVER.
2. THE PERMANENT STORMWATER MANAGEMENT SYSTEM IS CONSTRUCTED, MEETS ALL REQUIREMENTS IN SECTIONS 15, 16, 17, 18, AND 19 OF THE GENERAL PERMIT AND IS OPERATING AS DESIGNED. TEMPORARY OR PERMANENT SEDIMENTATION BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS HAVE BEEN CLEAN OF ANY ACCUMULATED SEDIMENT. ALL SEDIMENT HAS BEEN REMOVED FROM CONVEYANCE SYSTEMS AND DITCHES ARE STABILIZED WITH PERMANENT COVER.
3. ALL TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL BMPS MUST BE REMOVED.
4. FOR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL PURPOSES FINAL STABILIZATION MAY BE ACCOMPLISHED BY RETURNING THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE.
5. FOR RESIDENTIAL CONSTRUCTION ONLY, INDIVIDUAL LOTS ARE CONSIDERED FINALLY STABILIZED IF THE STRUCTURE(S) ARE FINISHED AND TEMPORARY EROSION PROTECTION AND DOWNGRADIENT PERIMETER CONTROL HAS BEEN COMPLETED AND THE RESIDENCE HAS BEEN SOLD TO THE HOMEOWNER. ADDITIONALLY, THE PERMITTEE HAS DISTRIBUTED THE MPCA'S "HOMEOWNER FACT SHEET" TO THE HOMEOWNER TO INFORM THE HOMEOWNER OF THE NEED FOR, AND BENEFITS OF, PERMANENT COVER.

PERMIT TERMINATION - TO ACHIEVE PERMIT TERMINATION FOR THE SITE, PERMITTEES MUST COMPLY WITH SECTIONS 4 & 13 OF THE GENERAL PERMIT.

NO	DATE	BY	CKD	APPR	COMMENT
	02/01/2022				REVISED PER CITY COMMENTS

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: ______

Date ______ License # ______

PRELIMINARY 01/04/2022	DRAWN BY RM
DESIGN REVIEW	DESIGNED BY JRM
PERMIT SUBMITTAL	CHECKED BY JDB
CONSTRUCTION DOCUMENTS	PROJECT NO. 50241

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EROSION CONTROL PLAN - SWPPP

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET C5.06 OF
REV.

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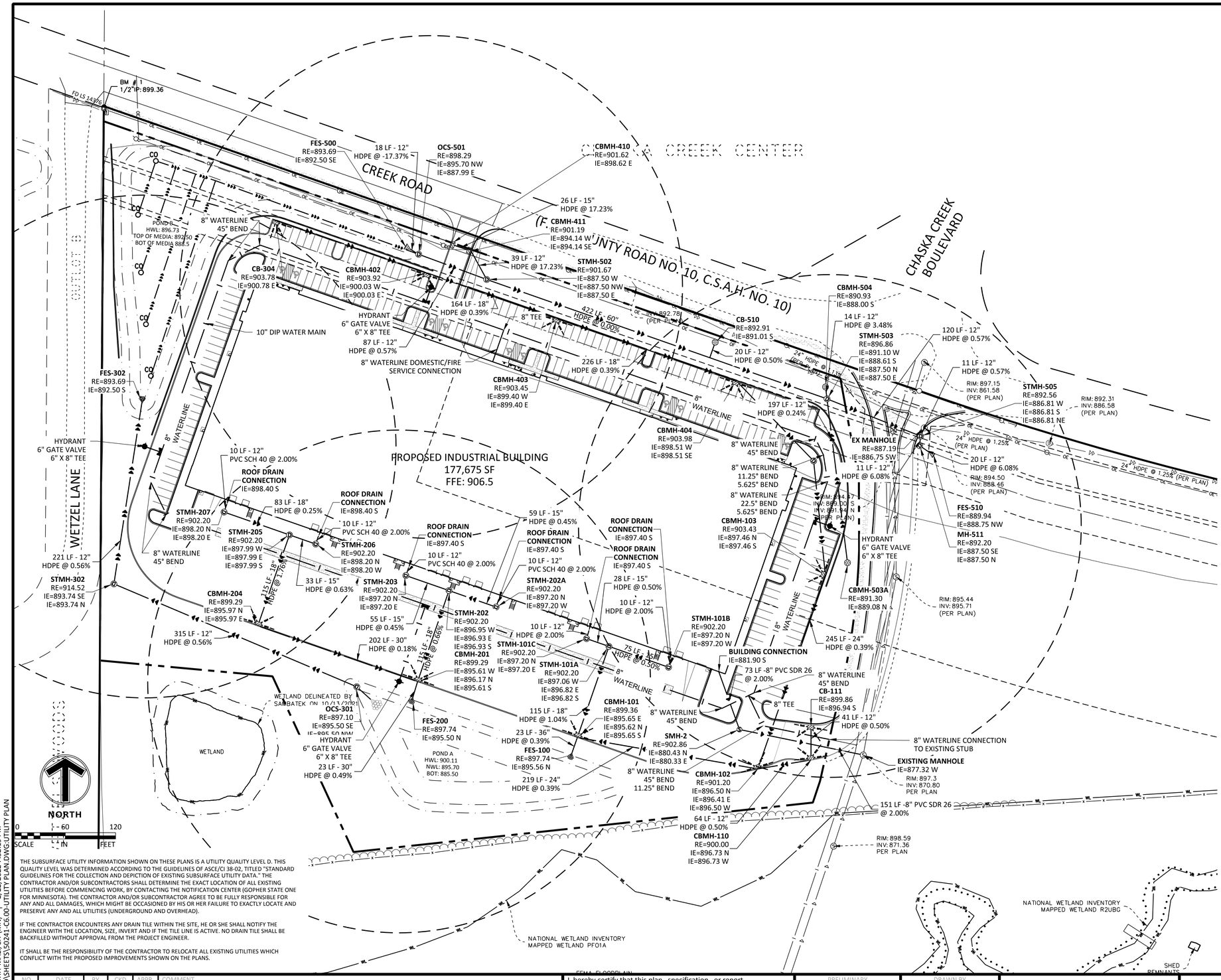
\PROJECTS\50241\CAD\SHEETS\50241-C5.00-EROSION CONTROL PLAN.DWG: SWPPP 2



LEGEND

- SANITARY SEWER
- FORCEMAIN (SAN.)
- STORM SEWER
- DRAINTILE
- WATERMAIN
- UNDERGROUND GAS LINE
- UNDERGROUND TELEPHONE
- ELECTRIC
- CONCRETE CURB
- EASEMENT LINE
- 300' FIRE HYDRANT COVERAGE

UTILITY CONSTRUCTION NOTES

1. UTILITY CONSTRUCTION NOTES HOLDER

UTILITY CONSTRUCTION NOTES

1. THE UTILITY IMPROVEMENTS FOR THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "STANDARD UTILITIES SPECIFICATIONS" AS PUBLISHED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM), EXCEPT AS MODIFIED HEREIN. CONTRACTOR SHALL OBTAIN A COPY OF THESE SPECIFICATIONS.
   a. ALL UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS, INCLUDING BUT NOT LIMITED TO CITY, DEPARTMENT OF LABOR AND INDUSTRY AND MINNESOTA DEPARTMENT OF HEALTH REQUIREMENTS.
   b. CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP WATERMAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE THE LIABILITY OF CONTRACTOR.
   c. A MINIMUM VERTICAL SEPARATION OF 18 INCHES, AND HORIZONTAL SEPARATION OF 10-FEET, BETWEEN OUTSIDE PIPE AND/OR STRUCTURE WALLS, IS REQUIRED AT ALL WATERMAIN AND SEWER MAIN (BUILDING, STORM AND SANITARY) CROSSINGS.
2. ALL MATERIALS SHALL BE AS SPECIFIED IN CEAM SPECIFICATIONS EXCEPT AS MODIFIED HEREIN.
   a. ALL MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY.
   b. ALL SANITARY SEWER TO BE PVC SDR-35, UNLESS NOTED OTHERWISE.
   i. ALL SANITARY SEWER SERVICES TO BUILDING SHALL BE PVC SCH 40 CONFORMING TO ASTM D2665.
   c. ALL WATERMAIN TO BE PVC C-900, UNLESS NOTED OTHERWISE.
   i. ALL WATERMAIN TO HAVE 7.5-FEET OF COVER OVER TOP OF WATERMAIN.
   ii. PROVIDE THRUST BLOCKING AND MECHANICAL JOINT RESTRAINTS ON ALL WATERMAIN JOINTS PER CITY STANDARDS.
   d. ALL STORM SEWER PIPE TO BE SMOOTH INTERIOR DUAL WALL HDPE PIPE WITH WATERTIGHT GASKETS, UNLESS NOTED OTHERWISE.
   i. ALL STORM SEWER PIPE FOR ROOF DRAIN SERVICES TO BUILDING SHALL BE PVC SCH 40 CONFORMING TO ASTM D2665.
   e. RIP RAP SHALL BE MN/DOT CLASS 3.
   f. PVC SCHEDULE 40 SHALL BE USED FOR STORM SEWER WITHIN 10' OF CROSSING ANY WATERMAIN REGARDLESS OF SEPARATION.
3. COORDINATE ALL BUILDING SERVICE CONNECTION LOCATIONS AND INVERT ELEVATIONS WITH MECHANICAL CONTRACTOR PRIOR TO CONSTRUCTION.
4. ALL BUILDING SERVICE CONNECTIONS (STORM, SANITARY, WATER) WITH FIVE FEET OR LESS COVER ARE TO BE INSULATED FROM BUILDING TO POINT WHERE 5-FEET OF COVER IS ACHIEVED.
5. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
6. SAFETY NOTICE TO CONTRACTORS: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER OR THE DEVELOPER TO CONDUCT CONSTRUCTION REVIEW OF CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.
7. ALL AREAS OUTSIDE THE PROPERTY BOUNDARIES THAT ARE DISTURBED BY UTILITY CONSTRUCTION SHALL BE RESTORED IN KIND. SODDED AREAS SHALL BE RESTORED WITH 6 INCHES OF TOPSOIL PLACED BENEATH THE SOD.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPROPRIATE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARDS.
9. ALL SOILS TESTING SHALL BE COMPLETED BY AN INDEPENDENT SOILS ENGINEER. EXCAVATION FOR THE PURPOSE OF REMOVING UNSTABLE OR UNSUITABLE SOILS SHALL BE COMPLETED AS REQUIRED BY THE SOILS ENGINEER. THE UTILITY BACKFILL CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF THE SOILS ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOILS TESTS AND SOIL INSPECTIONS WITH THE SOILS ENGINEER. A GEOTECHNICAL ENGINEERING REPORT HAS BEEN COMPLETED BY:COMPANY:
   ADDRESS:
   PHONE:
   DATED:
   CONTRACTOR SHALL OBTAIN A COPY OF THIS SOILS REPORT.
10. CONTRACTOR SHALL SUBMIT 2 COPIES OF SHOP DRAWINGS FOR MANHOLE AND CATCH BASIN STRUCTURES TO _____. CONTRACTOR SHALL ALLOW 5 WORKING DAYS FOR SHOP DRAWING REVIEW.
11. CONTRACTOR AND MATERIAL SUPPLIER SHALL DETERMINE THE MINIMUM DIAMETER REQUIRED FOR EACH STORM SEWER STRUCTURE.

THE SUBSURFACE UTILITY INFORMATION SHOWN ON THESE PLANS IS A UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF ASCE/CI 38-02, TITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA." THE CONTRACTOR AND/OR SUBCONTRACTORS SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, BY CONTACTING THE NOTIFICATION CENTER (GOPHER STATE ONE FOR MINNESOTA). THE CONTRACTOR AND/OR SUBCONTRACTOR AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES, WHICH MIGHT BE OCCASIONED BY HIS OR HER FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES (UNDERGROUND AND OVERHEAD).

IF THE CONTRACTOR ENCOUNTERS ANY DRAIN TILE WITHIN THE SITE, HE OR SHE SHALL NOTIFY THE ENGINEER WITH THE LOCATION, SIZE, INVERT AND IF THE TILE LINE IS ACTIVE. NO DRAIN TILE SHALL BE BACKFILLED WITHOUT APPROVAL FROM THE PROJECT ENGINEER.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

NO.	DATE	BY	CKD	APPR	COMMENT

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: _____

Date _____ License # _____

PRELIMINARY	
DESIGN REVIEW	
PERMIT SUBMITTAL	
CONSTRUCTION DOCUMENTS	
DRAWN BY	RM
DESIGNED BY	JRM
CHECKED BY	JDB
PROJECT NO.	50241

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UTILITY PLAN

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET C6.01 OF REV.

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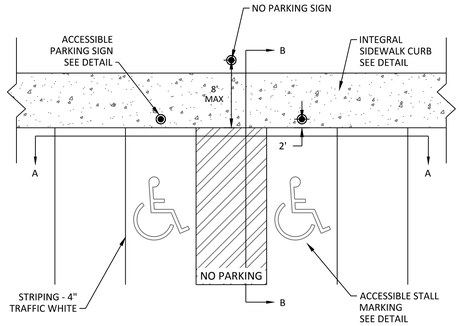
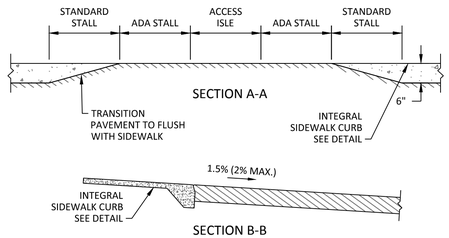
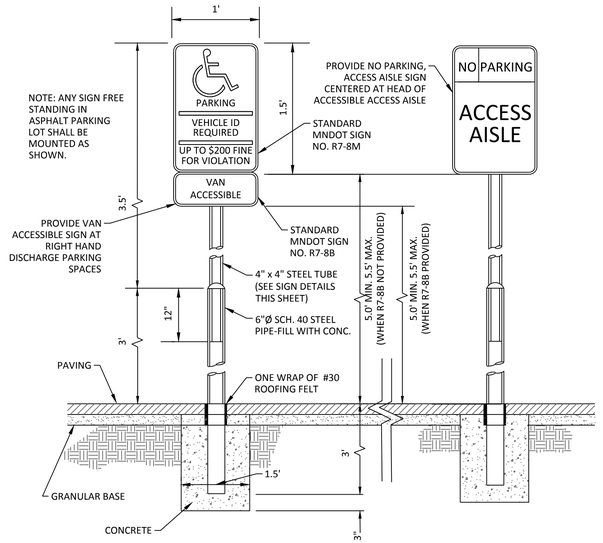


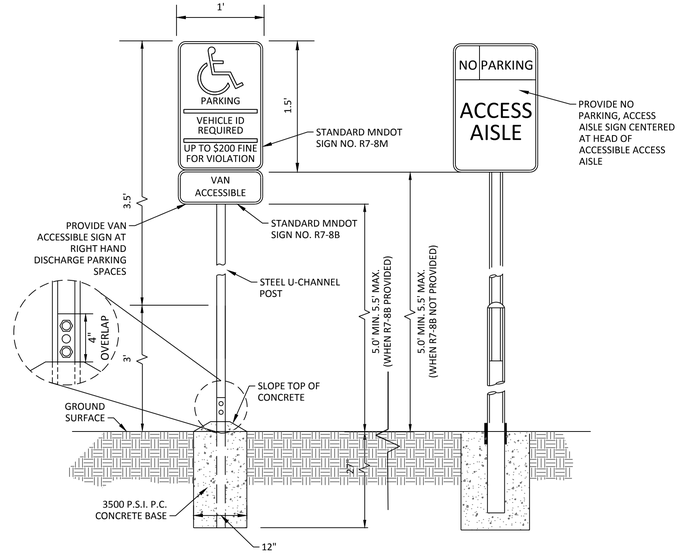
PLAN VIEW OF ADA PARKING



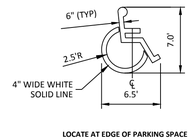
01 N.T.S. **ADA PARKING**



02 N.T.S. **ACCESSIBLE PARKING SIGN WITH BOLLARD**

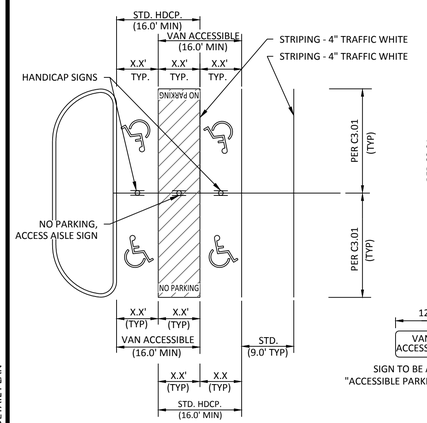


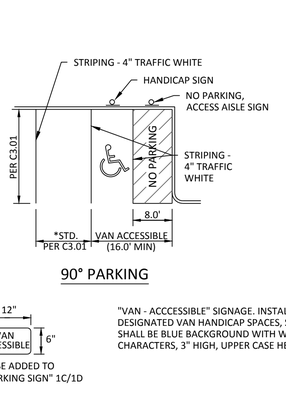
03 N.T.S. **BREAKAWAY ACCESSIBLE PARKING SIGN**



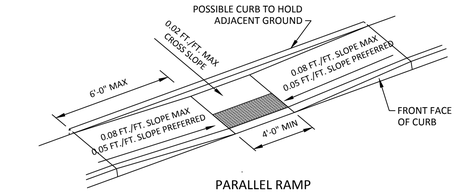
LOCATE AT EDGE OF PARKING SPACE

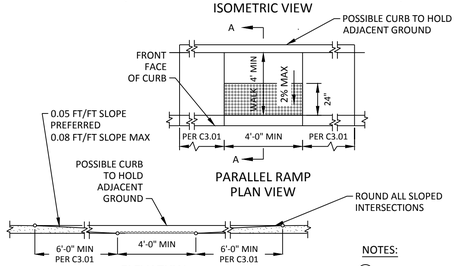
04 N.T.S. **ACCESSIBLE PARKING SYMBOL**





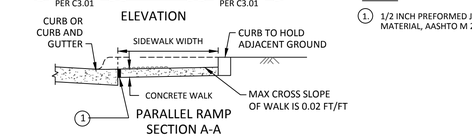
05 N.T.S. **ADA/STANDARD STRIPING**



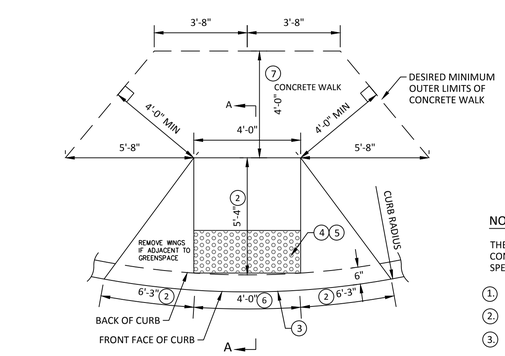


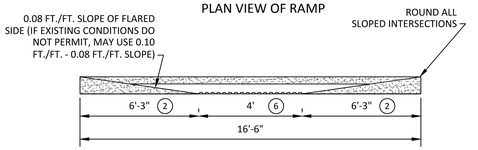
NOTES:

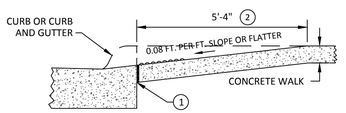
1. 1/2 INCH PREFORMED JOINT FILLER MATERIAL, AASHTO M 213.

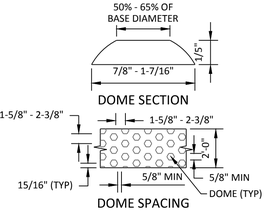


06 N.T.S. **PEDESTRIAN CURB RAMP**









NOTE:

THE CURB AND CURB TRANSITION ON THE RAMP WILL BE PAID FOR AS LINEAR FEET OF CONCRETE CURB OR CONCRETE CURB AND GUTTER. THE RAMP AREA WILL BE PAID AS SQUARE FEET OF CONCRETE WALK, UNLESS SPECIFIED OTHERWISE. THE TRUNCATED DOME AREA WILL BE CONSIDERED INCIDENTAL.

1. 1/2 INCH PREFORMED JOINT FILLER MATERIAL, AASHTO M 213.
2. VARIES WITH CURB HEIGHT. EXAMPLE SHOWN IS FOR 6" CURB HEIGHT.
3. 6" TO 8" IS THE REQUIRED OFFSET OF THE DETECTABLE WARNINGS/TRUNCATED DOME AREA FROM THE FRONT FACE OF CURB, OR PLACE THE DETECTABLE WARNINGS AT THE BACK OF CURB.
4. ADA REQUIRED TRUNCATED DOME AREA SHALL BE 2' 0" MIN. IN DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH (3' 0" OR 4' 0" TYP.) OF THE CURB RAMP. THIS 2' 0" BY 3' 0" OR 4' 0" WIDTH (TYP.) TRUNCATED DOME AREA SHALL CONTRAST VISUALLY WITH THE ADJACENT WALKING SURFACE. THE ENTIRE TRUNCATED DOME AREA SHALL BE A LIGHT COLOR (LIGHT GRAY, WHITE, OR YELLOW) WHEN THE ADJACENT SIDEWALK IS A DARK COLOR. THE ENTIRE TRUNCATED DOME AREA SHALL BE A DARK COLOR (RED, BLACK, DARK GRAY, OR BRIGHT YELLOW) WHEN THE ADJACENT SIDEWALK IS A "WHITE" OR LIGHT GRAY CEMENT COLOR.
5. THE TRUNCATED DOME AREA MAY BE EITHER GRANITE PANEL OR STAMPED CONCRETE, INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS. GRANITE PANELS SHALL BE 2" NOMINAL THICKNESS WITH SANDED TEXTURED FINISH, FREE OF ANY CRACKS, CHIPS OR COLOR DEFORMATIONS. STAMPED CONCRETE SHALL MEET REQUIREMENTS OF 3A36 CONCRETE MIX AND HAVE INTEGRATED HOMOGENEOUS COLORING.
6. 4' 0" FOR NEW CONSTRUCTION. 3' 0" ALLOWED FOR RETROFITS OR PRESERVATION PROJECTS.
7. PROVIDE A 4' X 4' LANDING BEHIND THE PEDESTRIAN RAMP. SLOPING A MAXIMUM OF 2% IN ANY DIRECTION.

07 N.T.S. **PEDESTRIAN CURB RAMP**

NORTH

SCALE 0 60 120 IN FEET

NO	DATE	BY	CKD	APPR	COMMENT

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: _____

Date _____ License # _____

PRELIMINARY | DESIGN REVIEW | PERMIT SUBMITTAL | CONSTRUCTION DOCUMENTS

DRAWN BY: RM
DESIGNED BY: JRM
CHECKED BY: JDB
PROJECT NO.: 50241

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DETAIL PLAN

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

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PRECAST INVERT WITH A MINIMUM 1% THROUGH SLOPE REQUIRED.

PRECAST INVERT MUST BE 1/2 DIAMETER OF THE PIPE AND BENCHES SLOPED 2" TOWARD THE INVERT.

FRAME	A	B
R1642-2310B	27"	7"
R1755G	27"	7"

PLAN

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.

NEENAH COVER **R-1642-S001**, LETTERED "SANITARY SEWER" WITH 2 CONCEALED PICK HOLES AND SELF SEALING LID. SEE SPECIFICATION FOR CASTING NUMBER.

MINIMUM OF 2 MAXIMUM OF 4 ADJUSTMENT RINGS. FINAL RING MATERIAL AND ADHESIVE TO BE SPECIFIED BY OWNER ON A PROJECT BASIS.

MAXIMUM 20"ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.

MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL)

ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS AND RAMNECK.

NOTE: ALL INFILTRATION AREAS SHALL BE REPAIRED UNTIL MANHOLE IS WATER TIGHT.

PIPE SHALL BE CUT 2" FROM INSIDE FACE OF WALL.

..1' DROP ACROSS INVERTS MIN.

NOTE: KOR-N-SEAL MANHOLE TO BE USED FOR PIPE / MANHOLE CONNECTION.

ALL DOG HOUSES SHALL BE GROUTED ON INSIDE OF MANHOLE.

COMPACT TO TOP OF PIPE, TO FIRST JOINT.

MINIMUM THICKNESS OF PRECAST BASE IS 6" FOR 14' DEEP OR LESS, AND INCREASES 1" IN THICKNESS FOR EVERY 4' OF DEPTH GREATER THAN 14'.

SECTION

OUTER SURFACE OF ALL PRE-CAST SECTIONS SHALL RECEIVE 2 COATS OF BITUMINOUS DAMP PROOFING (SEE ENGINEERING GUIDELINES OR PROJECT SPECIFICATIONS FOR MORE DETAILS)

Stantec
3535 Vadnais Ctr Pl
St. Paul, MN 55110
www.stantec.com

SANITARY SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. SAN-1

GROUT BOTTOM OF MANHOLE TO A MINIMUM OF 1/2 DIAMETER AT PIPE AND SLOPE GROUT 2" TOWARD INVERT.

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM FOR ALL LINES UP TO 24", PLACE STEPS ON RIGHT HAND SIDE WHEN FACING DOWN STREAM FOR ALL 24 " AND OVER.

FRAME	A	B
R1642-2310B	27"	7"

PLAN

FOR OFF-ROAD SITUATIONS, USE R1916F CASTING MARKED "STORM SEWER". COVERS MUST BE SECURED TO PREVENT REMOVAL.

NEENAH COVER **R1642-S040** LETTERED, "STORM SEWER", WITH 2 CONCEALED PICK HOLES.

MINIMUM OF 2 MAXIMUM OF 4 CONCRETE ADJUSTMENT RINGS WITH FULL BED OF MORTAR BETWEEN EACH RING.

- MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.

MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL.)

ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS.

- DOG HOUSES MUST BE GROUTED BOTH INSIDE AND OUTSIDE OF STRUCTURE.

PIPE SHALL BE CUT OUT 2" FROM INSIDE FACE OF WALL.

- NOTE: KOR-N-SEAL MANHOLE OR EQUAL CONSIDERED ACCEPTABLE ALTERNATE.
- NOTE: A MINIMUM SLOPE OF 1% IS REQUIRED ACROSS THE INVERT.

MINIMUM SLAB THICKNESS, 6" TO 14' DEPTH. INCREASE THICKNESS 1" FOR EACH 4' OF DEPTH GREATHER THAN 14', AND REINFORCE WITH PER MNDOT STD 4011

SECTION

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STORM SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-1

SEE CITY PLATE NO. STO-10 FOR RIPRAP PLACEMENT.

ANCHOR CLIP

24" MAX

6"

TIE LAST 3 PIPE JOINTS. USE 2 TIE BOLT FASTENERS PER JOINT. INSTALL AT 60° FROM TOP OR BOTTOM OF PIPE.

PROVIDE 3 ANCHOR CLIPS TO FASTEN TRASH GUARD TO FLARED END SECTION. HOT DIP GALVANIZE AFTER FABRICATION.

TRASH GUARD SIZING

PIPE SIZE	BARS	'H'	BOLTS
12"	3/4"Ø	2 1/2"	5/8"
15"	3/4"Ø	3"	5/8"
18"	3/4"Ø	4"	5/8"
21"-24"	1"Ø	4"	3/4"
27"-36"	1"Ø	5"	3/4"
42"	1"Ø	6"	3/4"
48"-54"	1 1/4"Ø	6"	1"
60"-72"	1 1/4"Ø	7"	1"
78"-90"	1 1/4"Ø	8"	1"

ISOMETRIC

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FLARED END SECTION AND TRASH GUARD

CHASKA, MINNESOTA

LAST REVISION: FEB. 1995

PLATE NO. STO-10

RIPRAP

RIPRAP REQUIREMENTS

12" TO 18"	4 CUBIC YARDS CL.3
21" TO 27"	8 CUBIC YARDS CL.3
30" TO 36"	12 CUBIC YARDS CL.3
42" TO 48"	16 CUBIC YARDS CL.3
54" AND UP	20 CUBIC YARDS CL. 4

PLAN

(ONE CUBIC YARD IS APPROXIMATELY 2,800 LBS.)

SECTION A-A

GRANULAR FILTER MATERIAL (MN/DOT 3601.2B1)

GEOTEXTILE FILTER-TYPE IV

NOTE
FILTER BLANKET REQUIRED UNDER RIPRAP OR 2 LAYERS OF 500X MIRAFI FABRIC OR EQUAL

SECTION B-B

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RIPRAP AT OUTLETS

CHASKA, MINNESOTA

LAST REVISION: APRIL 2004

PLATE NO. STO-11

RIPRAP

RIPRAP REQUIREMENTS

12" TO 18"	4 CUBIC YARDS CL.3
21" TO 27"	8 CUBIC YARDS CL.3
30" TO 36"	12 CUBIC YARDS CL.3
42" TO 48"	16 CUBIC YARDS CL.3
54" AND UP	20 CUBIC YARDS CL. 4

PLAN

NOTE
FILTER BLANKET REQUIRED UNDER RIP RAP OR 2 LAYERS OF 500X MIRAFI FABRIC OR EQUAL

(ONE CUBIC YARD IS APPROXIMATELY 2,800 LBS.)

GROUT

SECTION A-A

GRANULAR FILL MATERIAL (MN/DOT 3601.2B1)

GEOTEXTILE FILTER-TYPE IV

SECTION B-B

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GROUTED RIPRAP AT OUTLETS

CHASKA, MINNESOTA

LAST REVISION: APRIL 2004

PLATE NO. STO-11B

MIN. 1" CORPORATION STOP

CURB STOP AND BOX

18" TO FINISHED GRADE

PLUGGED END

WATER MAIN

AFTER MEETING TEST REQUIREMENTS THE AIR BLEED LINE SHALL BE DISCONNECTED AT THE PLUG WITH NO ADDITIONAL COMPENSATION.

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TYPICAL AIR BLEED INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2008

PLATE NO. WAT-8

MEASUREMENT FOR PAYMENT

CONTRACTION JOINT

INTERGRAL CAST

EXPANSION JOINT

SECTION A-A
THRU B618 C&G

SECTION B-B
THRU
CONCRETE VALLEY GUTTER

NO. 4 REBAR, TYPICAL

3/4" PER FT

7"

8" MIN. AGGREGATE BASE

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COMMERCIAL DRIVEWAY

CHASKA, MINNESOTA

LAST REVISION: APRIL 2016

PLATE NO. STR-3

NOTE:
CLEANOUT CAP SHALL BE THREADED MALLEABLE IRON (GALVANIZED)

NOTE:
ENCLOSE LONG SWEEP BEND OR COMBINATION WYE IN CONCRETE AS SHOWN.

PVC CLEAN OUT RISER WITH FEMALE THREADED INSERT SCHEDULE 40 PVC SDR-26

LONG SWEEP OR TWO 45° BENDS

CONCRETE MIN. 1/3 CU. YDS.

END OF LINE CLEANOUT

PVC COMBINATION WYE

CONCRETE MIN. 1/3 CU. YDS.

IN LINE CLEANOUT

NOTE:
CLEANOUT IS REQUIRED FOR EVERY 100 FEET OF SERVICE LENGTH.

NOTE:
1. IF CLEAN OUT IS IN DRIVEWAY, CONTRACTOR MUST INSTALL FORD A-1 CASTING, MARKED WITH "SEWER" ON LID.
2. IF VALVE BOX IS IN ROADWAY, CONTRACTOR MUST INSTALL TOP SECTION OF A VALVE BOX WITH LID MARKED "SEWER".

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SERVICE LINE CLEANOUTS

CHASKA, MINNESOTA

LAST REVISION: MARCH 2001

PLATE NO. SER-4

NOTES: CORE BLUE BOLTS REQUIRED FOR ALL MECHANICAL FITTINGS. ANTI-CORROSIVE COATING REQUIRED ON ALL BOLTS AND TIE ROD ASSEMBLIES.

- PROVIDE POLYWRAP AROUND ALL WATERMAIN
- 7.5' MINIMUM COVER REQUIRED OVER TOP OF WATER MAIN.
- RESTRAIN TEE AND VALVE WITH EPOXY COATED MEGALUG (OR EQUAL) THRUST RESTRAINTS.

DROP LID TYLER MUELLER BIBBY-STE-CROIX	NO. 6860 NO. H-10361 NO. B-5160	
TOP TYLER MUELLER BIBBY-STE-CROIX	NO. 6860 NO. H-10361 NO. V8502	26" 26" 27"
EXTENSION TYLER	NO. S8 NO. S9 NO. 60	14" 18" 24"
MUELLER	NO. S8 NO. S9	14" 20"
BIBBY-STE-CROIX	NO. S7 NO. S8 NO. S9 NO. 60	9" 14" 20" 26"
BOTTOM TYLER MUELLER BIBBY-STE-CROIX	NO. 6860 NO. H-10361 NO. V8516	65" 65" 60"

GRADE

- ADJUST TOP TO 1/2" BELOW GRADE. BOX TO BE SET TO PROVIDE 12" OF ADJUSTMENT.
- TYLER NO. 6860 MUELLER NO. H-10357 BIBBY-STE-CROIX B-5001 GATE VALVE BOX, SCREW TYPE, 3 PIECE, 5 1/4" SHAFT, SIZE 6 BOX, 7'-6" EXTENDED, #6 ROUND BASE
- PROVIDE VALVE STEM RISERS TO WITHIN 1 FOOT OF THE SURFACE.

GATE VALVE ADAPTER: 1/4" STEEL WITH PROTECTIVE COATING, 1/2" RUBBER GASKET INSTALLED BETWEEN THE GATE VALVE AND GATE VALVE ADAPTER.

- RESILIANT WEDGE VALVE CONFORMING TO AWWA C509-01 OR C515 STANDARDS WITH STAINLESS STEEL BOLTS AND BRONZE TOP NUT

6 oz. ZINC ANODE CAP. SEE ENGINEERING GUIDELINES

3'

BASE

MEGALUGS

MEGALUGS

8" CONC. BLOCK

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GATE VALVE AND BOX INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-1

HYDRANT MARKER WITH FLEX SPRUNG HYDRAFINDER (CANOY CANE) (PROVIDE 2 PER HYDRANT DELIVER EXTRA TO CHASKA UTILITIES.)

21"

2.70"

GRADE

3'

6" LEAD

MEGALUGS

8" CONC. BLOCK

POURED CONCRETE THRUST BLOCK REQUIRED IF STANDARD BLOCK CAN'T BE PLACED TO VIRGIN GROUND. OWNER TO APPROVE.

ALL HYDRANT LEAD AND PIPE JOINTS SHALL BE RESTRAINED WITH TIE RODS AND EPOXY COATED MEGALUGS.

HYDRANT SHALL BE WATEROUS PACER WB-67-250 WITH 16" TRAFFIC BREAK OFF SECTION, AND EPOXY COATED BOOT.

HYDRANT SHALL BE FOR 8.0' BURY. WATERMAIN SHALL HAVE 7'-6" OF COVER.

PROVIDE A VENTED CAP ON ONE 2 1/2" NOZZLE.

CORE BLUE BOLTS REQUIRED FOR ALL MECHANICAL FITTINGS. ANTI-CORROSIVE COATING REQUIRED ON ALL BOLTS AND TIE ROD ASSEMBLIES.

FOR VALVE BOX INSTALLATION SEE DETAIL PLATE NO. WAT-1.

RESTRAIN HYDRANT,VALVE,AND TEE WITH MEGALUG THRUST RESTRAINT (OR EQUAL)

PROVIDE POLYWRAP AROUND ALL WATERMAIN (GENERAL REQUIREMENTS) AND UP THE HYDRANT BARREL TO THE BREAK OFF FLANGE.

RESILIENT WEDGE VALVE CONFORMING TO AWWA C-509-01 STANDARDS WITH STAINLESS STEEL BOLTS AND BRONZE TOP NUT

MEGALUGS

6 oz. ZINC ANODE CAP. SEE ENGINEERING GUIDELINES

1 CU. YD. OF 1 1/2" IGNEOUS ROCK ONLY. MINIMUM OF 1' ABOVE WEEP HOLES. COVER WITH 2 LAYERS OF POLYETHYLENE.

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WATEROUS PACER HYDRANT AND VALVE INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-2

NOTES:
1. SHAPE OF BACK OF BUTTRESS MAY VARY AS LONG AS POURED AGAINST FIRM UNDISTURBED EARTH.
2. DIMENSION C1,C2,C3 SHOULD BE LARGE ENOUGH TO MAKE ANGLE Θ EQUAL TO OR LARGER THAN 45°.
3. DIMENSION A1,A2,A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH MJ BOLTS.
4. PROVIDE POLYETHYLENE WRAP AROUND ALL WATERMAIN.
5. ALL BENDS AND FITTINGS SHALL BE RESTRAINED WITH BOTH EPOXY COATED MEGA-LUGS AND THRUST BLOCKING.

BUTTRESS DIMENSIONS

PIPE SIZE	22 1/2° BEND		45° BEND		90° BEND	
	B1	D1	B2	D2	B3	D3
6"	1'-5"	1'-5"	1'-5"	1'-5"	2'-1"	1'-6"
8"	1'-5"	1'-5"	2'-1"	1'-6"	2'-8"	2'-0"
12"	1'-10"	1'-10"	3'-4"	2'-0"	4'-9"	2'-6"
16"	3'-0"	2'-0"	3'-10"	3'-0"	6'-2"	3'-6"
20"	3'-6"	2'-8"	5'-6"	3'-4"	8'-4"	4'-0"
24"	4'-4"	3'-0"	6'-10"	3'-10"	9'-8"	5'-0"
30"	-	-	9'-3"	6'-0"	17'-0"	6'-0"

Θ=45° MIN.

PLAN 90° BENDS

PLAN 45° BENDS

CONCRETE SHALL BE IN CONTACT WITH THIS QUADRANT OF PIPE

BEDDING MATERIAL

UNDISTURBED EARTH

CONCRETE

SECTION A-A

PLAN 22 1/2° BENDS

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CONCRETE THRUST BLOCKING

CHASKA, MINNESOTA

LAST REVISION: APRIL 2005

PLATE NO. WAT-4

EMERGENCY OVERFLOW

BOLT PROTECTOR TO INLET APRON

DUAL LAYER HOPE W/400 MICRON FILTER FABRIC BETWEEN LAYERS

- FILTER FABRIC MAY BE REPLACED AS REQUIRED BY REMOVING BOLTS OR RIVETS CONNECTING HOPE LAYERS AND BOLTING OR RIVETING BACK TOGETHER.
- DEVICES SHOWN ARE AS MANUFACTURED BY ROYAL ENVIRONMENTAL SYSTEMS. INFRASAFE - CULVERT INLET PROTECTOR.

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FLARED END EROSION CONTROL

CHASKA, MINNESOTA

LAST REVISION: FEB 2005

PLATE NO. ERO-6

NORTH

0 2 3

SCALE IN FEET

NO	DATE	BY	CKD	APPR	COMMENT

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: _____

Date _____ License # _____

PRELIMINARY

DESIGN REVIEW

PERMIT SUBMITTAL

CONSTRUCTION DOCUMENTS

DRAWN BY: RM

DESIGNED BY: JRM

CHECKED BY: JDB

PROJECT NO. 50241

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DETAIL PLAN

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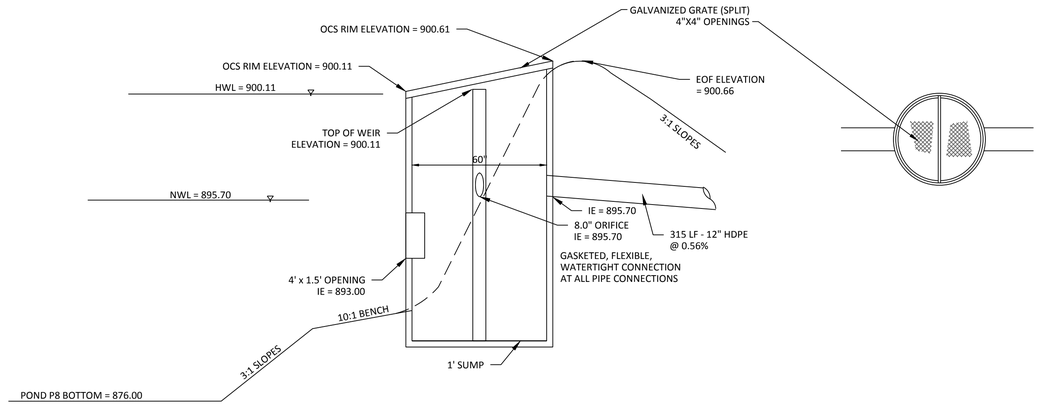
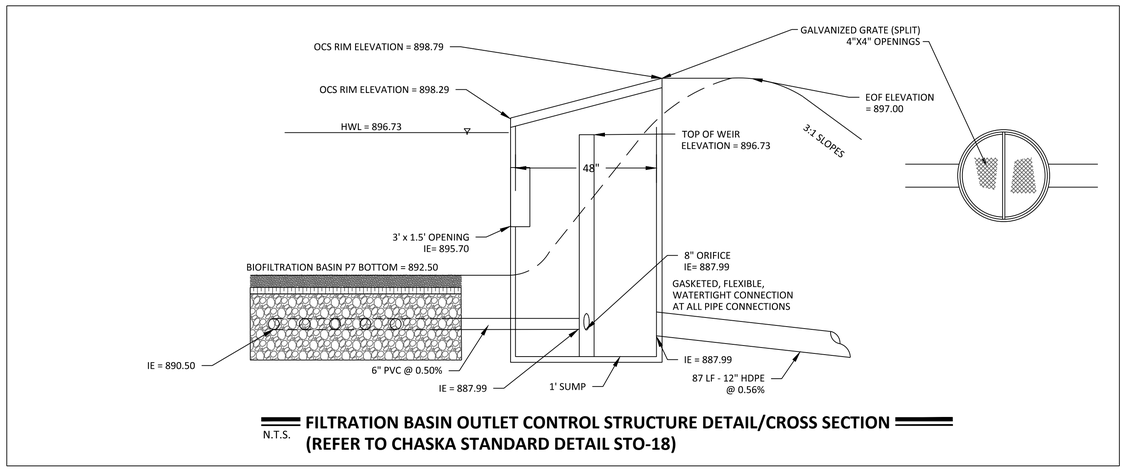
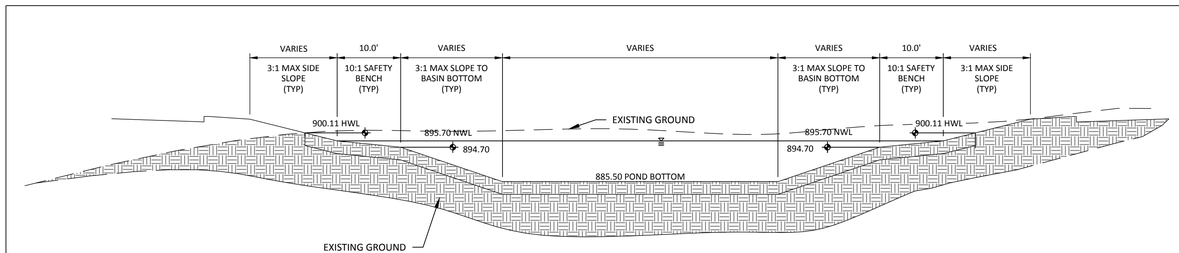


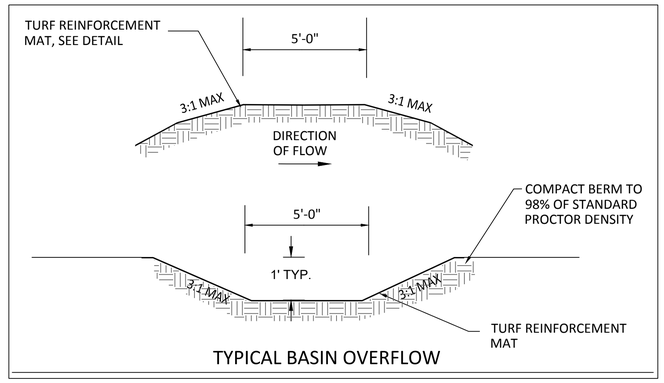
NURP POND OUTLET CONTROL STRUCTURE DETAIL/CROSS SECTION
N.T.S. **(REFER TO CHASKA STANDARD DETAIL STO-18)**



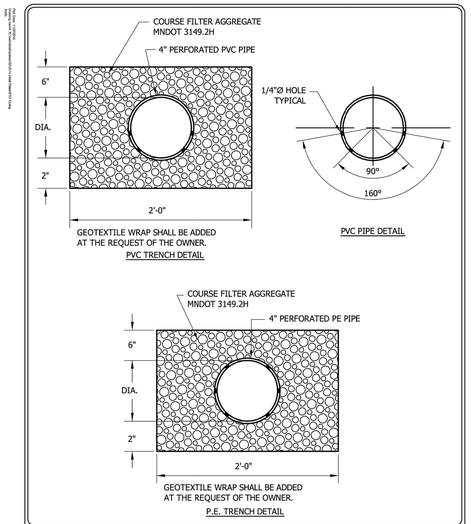
FILTRATION BASIN OUTLET CONTROL STRUCTURE DETAIL/CROSS SECTION
N.T.S. **(REFER TO CHASKA STANDARD DETAIL STO-18)**



NURP POND CROSS SECTION DETAIL
NOT TO SCALE



TYPICAL BASIN OVERFLOW



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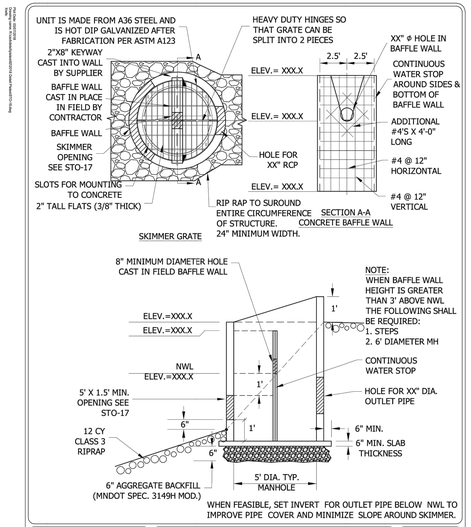
PERFORATED PIPE
TRENCH DETAIL

CHASKA, MINNESOTA

LAST REVISION:
NOV. 2014

PLATE NO.
STO-13



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SKIMMER STRUCTURE WITH
CAST IN FIELD
CONCRETE BAFFLE WALL

CHASKA, MINNESOTA

LAST REVISION:
MARCH 2018

PLATE NO.
STO-18

NO	DATE	BY	CKD	APPR	COMMENT
	02/01/2022				REVISED PER CITY COMMENTS

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: _____

Date _____ License # _____

PRELIMINARY
01/04/2022
DESIGN REVIEW
PERMIT SUBMITTAL
CONSTRUCTION DOCUMENTS

DRAWN BY
RM
DESIGNED BY
JRM
CHECKED BY
JDB
PROJECT NO.
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DETAIL PLAN

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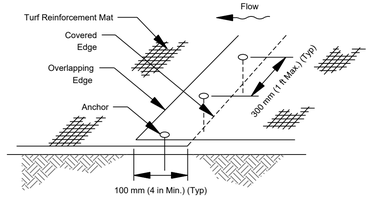
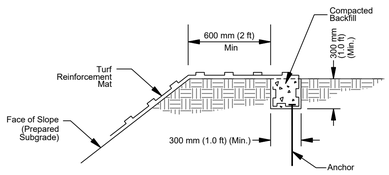
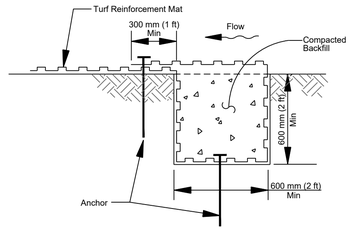


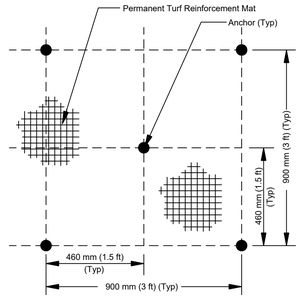
TURF REINFORCEMENT MAT OVERLAP JOINT (A1)



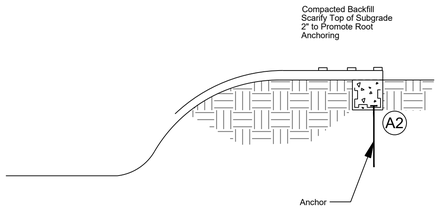
KEY TRENCH AT TOP OF SLOPE DETAIL (A2)

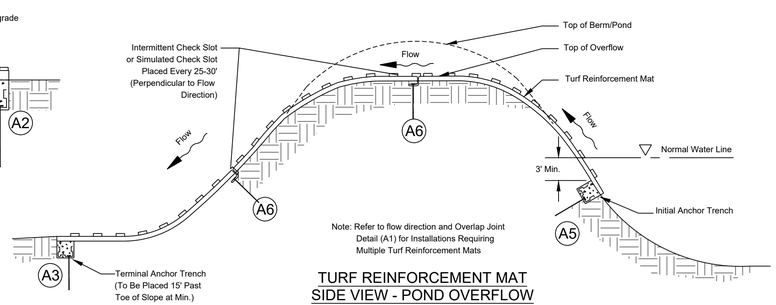


TERMINAL ANCHOR TRENCH (UPSTREAM) DETAIL (A3)

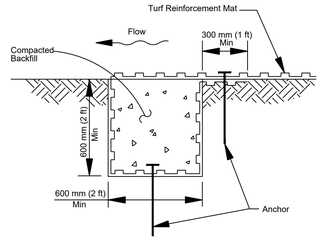


ANCHOR PATTERN (A4)

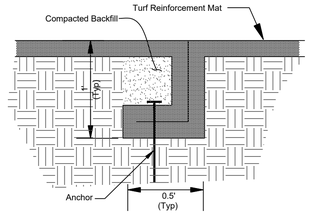




TURF REINFORCEMENT MAT SIDE VIEW - POND OVERFLOW



INITIAL ANCHOR TRENCH (DOWNSTREAM) DETAIL (A5)



INTERMITTENT CHECK SLOT (A6)

TURF REINFORCEMENT MAT (TRM)

N.T.S.
PROPEX DETAIL

NO	DATE	BY	CKD	APPR	COMMENT
	02/01/2022				REVISED PER CITY COMMENTS

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: _____

Date _____ License # _____

PRELIMINARY 01/04/2022
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PERMIT SUBMITTAL
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DRAWN BY RM
DESIGNED BY JRM
CHECKED BY JDB
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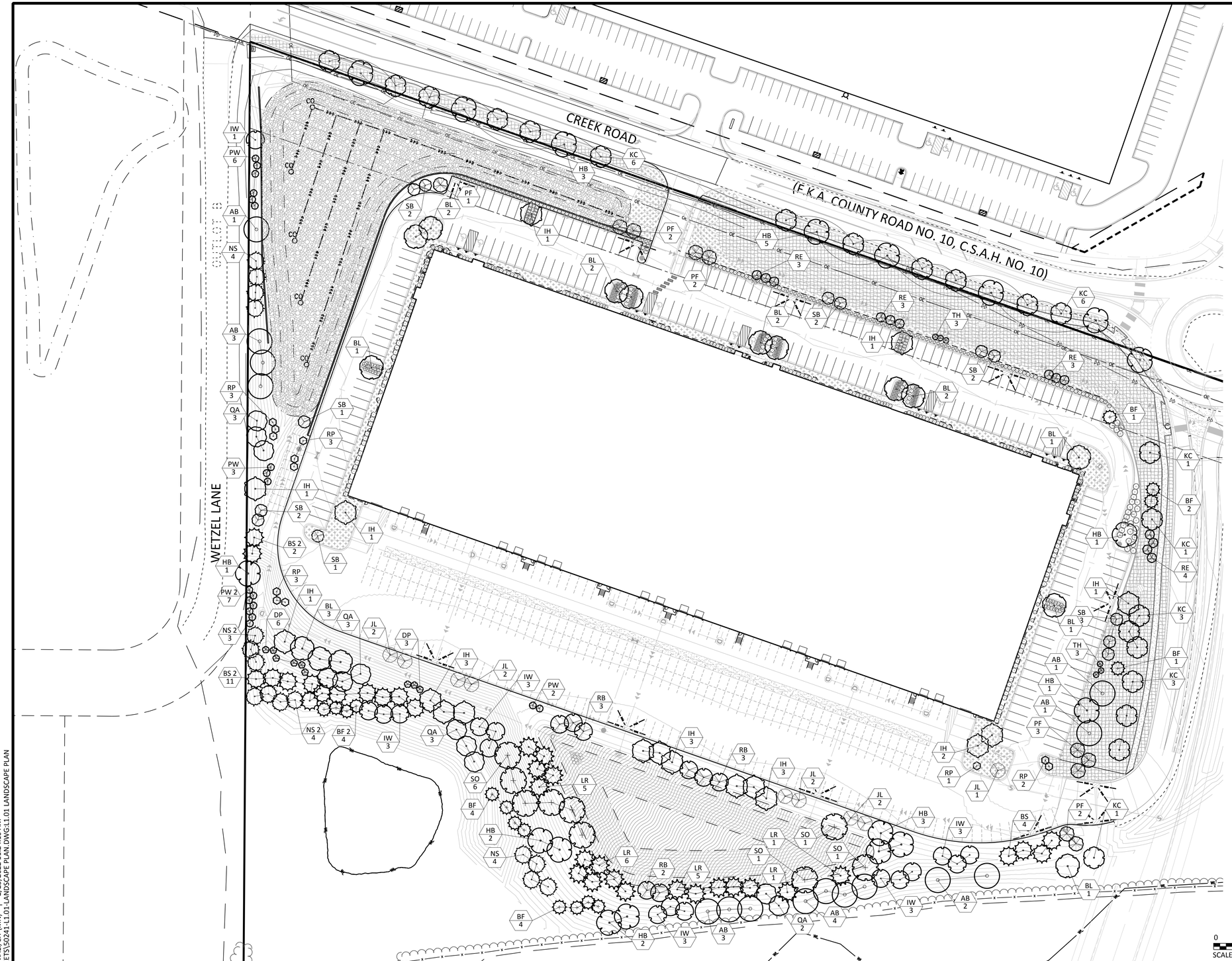
8.B. Adopt Resolution Approval
Page 36 of 50
Packet Page 233 of



LEGEND

	PROPOSED	EXISTING
PROPERTY LIMIT		
CURB & GUTTER		
EASEMENT		
BUILDING		
RETAINING WALL		
WETLAND LIMITS		WL
TREELINE		
LANDSCAPE EDING		
STORM SEWER	D	
SANITARY SEWER	S	
FORCEMAIN (SAN.)	LS FM	S
WATERMAIN		
YARDDRAIN		
LIMITS OF DISTURBANCE		

STANDARD DUTY ASPHALT PAVING	
CONCRETE PAVING	
CONCRETE SIDEWALK	
SIGN	
PIPE BOLLARD	
RIPRAP	
TREE PROTECTION FENCE	TP
TREE TO BE REMOVED	

CHASKA LANDSCAPE CODE

*VARIANCE FROM CODE TO TREAT THE PROPOSED BUILDING AS SINGLE STORY FOR THE DETERMINATION OF LANDSCAPE REQUIREMENTS - 175,438 TOTAL GROSS SQUARE FEET

MINIMUM SIZE REQUIREMENTS:

OVERSTORY DECIDUOUS TREE	2.5"	UNDERSTORY DECIDUOUS TREE	2"
CONIFEROUS TREE	6'	MAJOR SHRUB PLANTING	5 GAL.

TOTAL CALIPER INCHES REQUIRED: (GROSS SQ. FT. / 320) = 548 CAL. INCHES

TREE CALIPER	2.5"	3.0"	3.5"	4.0"	4.5"+
TREES REQ.	154	19	17	15	-
TREES PROP.	154	19	17	15	-

TOTAL CALIPER INCHES PROPOSED: = 561 CAL. INCHES

UNDERSTORY/SHRUBS	REQUIRED	PROPOSED
UNDERSTORY TREES	51	51
BOULEVARD TREES	9	9
SHRUBS/PERENNIALS	585	585
STREET TREES	20	20

PARKING LANDSCAPING(50,584 / 79,180) 10% 63%
(IMPERVIOUS 79,180)
(LANDSCAPE 50,584)

TREE AND GROUNDCOVER SCHEDULE

PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	AB	Acer freemanii `Autumn Blaze` / Autumn Blaze Maple	B & B	4"CAL		15
	RB	Betula nigra `Cully` TM / Heritage Birch	B & B	2.5"Cal		8
	DP	Betula platyphylla `Fargo` TM / Dakota Pinnacle Birch	B & B	2.5"Cal		9
	HB	Celtis occidentalis / Common Hackberry	B & B	3"Cal.		18
	IH	Gleditsia triacanthos `Imperial` / Imperial Honeylocust	B & B	2.5"Cal		17
	KC	Gymnocladus dioica `Espresso` / Kentucky Coffeetree	B & B	4.5" CAL.		21
	IW	Ostrya virginiana / American Hophornbeam	B & B	2.5"Cal		16
	QA	Populus tremuloides / Quaking Aspen	B & B	3.5" Cal.		11
	SO	Quercus bicolor / Swamp White Oak	B & B	3"Cal.		9
	RP	Quercus robur x warei`Long` / Regal Prince Oak	B & B	2.5"Cal		12
	BL	Tilia americana `Boulevard` / Boulevard Linden	B & B	2.5"Cal		15
CONIFERS	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	BF	Abies balsamea / Balsam Fir	B & B		6'	12
	BF 2	Abies balsamea / Balsam Fir	B & B	8'		4
	LR	Larix laricina / Tamarack	B & B		6'	18
	NS	Picea abies / Norway Spruce	B & B		6'	8
	NS 2	Picea abies / Norway Spruce	B & B	8'		7
	BS	Picea glauca densata / Black Hills Spruce	B & B		6'	4
	BS 2	Picea glauca densata / Black Hills Spruce	B & B	8'		13
	PW	Pinus strobus `Fastigiata` / Pyramidal White Pine	B & B		6'	11
	PW 2	Pinus strobus `Fastigiata` / Pyramidal White Pine	B & B	8'		7
ORN. TREES	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	SB	Amelanchier canadensis `Autumn Brilliance` / Autumn Brilliance Serviceberry	B & B	2"Cal		13
	RE	Cercis canadensis / Eastern Redbud	B & B	2"Cal		13
	TH	Hydrangea paniculata `Tardiva` / Tardiva Hydrangea	B & B	1.25"		6
	PF	Malus x `Prairifire` / Prairifire Crab Apple	B & B	2"Cal		10
	JL	Syringa reticulata / Japanese Tree Lilac	B & B	2"Cal		9
GROUND COVERS	CODE	BOTANICAL / COMMON NAME	CONT			
	RM	6"-10" Rip rap / Rock Mulch	6 PACK			
	25-131	MNDOT Seed Mix 25-131 / Low Maintenance Fescue mix	Seed			
	33-261	MNDOT Seed Mix 33-261 / Ponds and Wet Areas	Seed			
	TUR HIG	Turf Sod Highland Sod / Sod	Sod			

NORTH

0 50 100
SCALE IN FEET

NO	DATE	BY	CKD	APPR	COMMENT

Print Name: _____

Date _____ License # _____

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LANDSCAPE PLAN

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET
L1.01
OF
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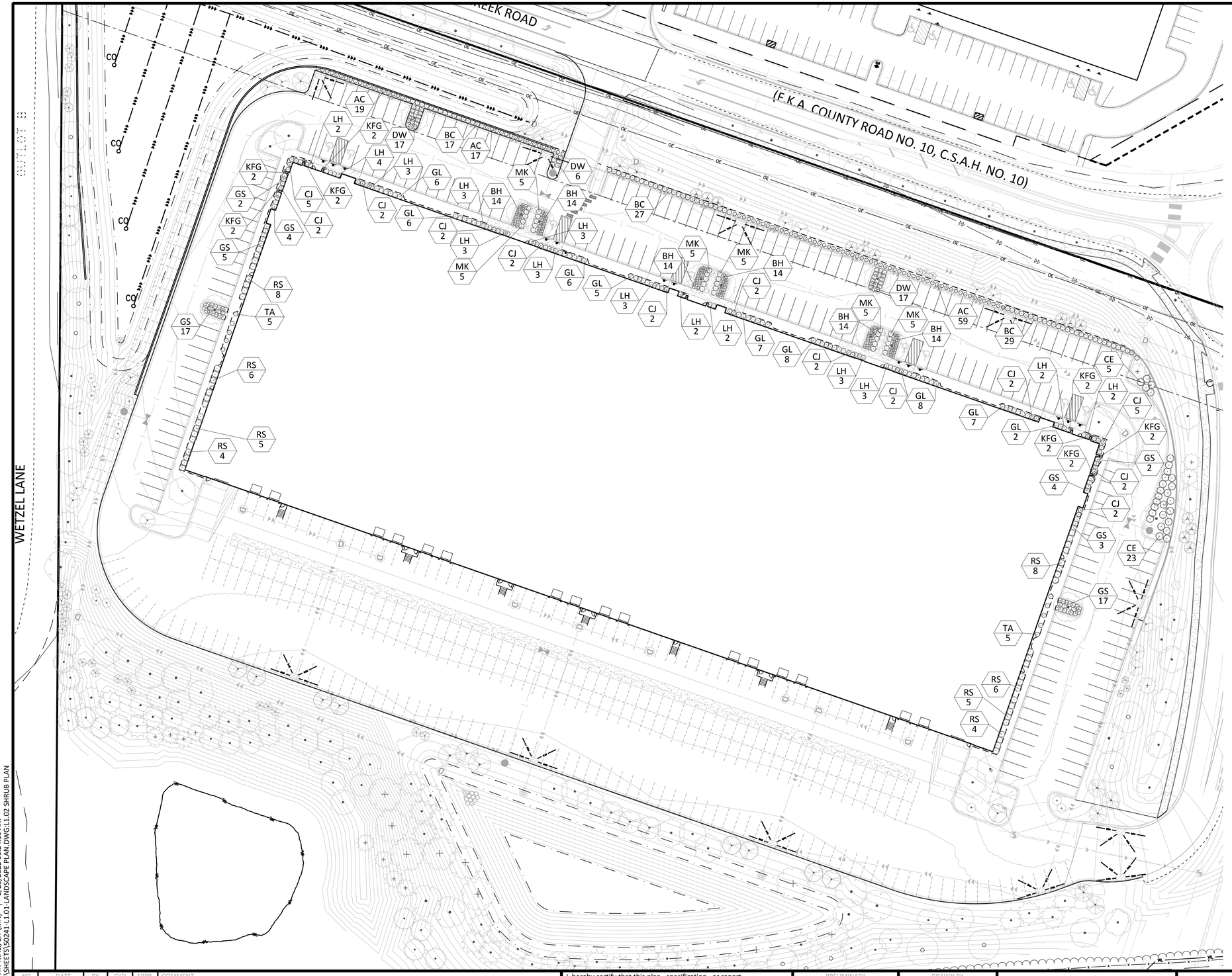

LEGEND

	PROPOSED	EXISTING
PROPERTY LIMIT		
CURB & GUTTER		
EASEMENT		
BUILDING		
RETAINING WALL		
WETLAND LIMITS		WL
TREELINE		
LANDSCAPE EDING		
STORM SEWER	D	
SANITARY SEWER	S	
FORCEMAIN (SAN.)	LS	FM
WATERMAIN		
YARDDRAIN		
LIMITS OF DISTURBANCE		

STANDARD DUTY ASPHALT PAVING

CONCRETE PAVING

CONCRETE SIDEWALK

SIGN

PIPE BOLLARD

RIPRAP

TREE PROTECTION FENCE — TP

TREE TO BE REMOVED

SHRUB SCHEDULE

PLANT SCHEDULE

SHRUBS	CODE	BOTANICAL / COMMON NAME	CONT	QTY
	RS	Amelanchier alnifolia `Regent` / Saskatoon Serviceberry	5 gal	36
	BC	Aronia melanocarpa `Autumn Magic` / Autumn Magic Black Chokeberry	5 gal	75
	BH	Diervilla lonicera / Dwarf Bush Honeysuckle	5 gal	84
	CE	Euonymus alatus `Compactus` / Compact Burning Bush	5 gal	25
	LH	Hydrangea paniculata `Jane` / Little Lime Hydrangea	5 gal	38
	CJ	Juniperus sabina `Monna` / Calgary Carpet Juniper	5 gal	32
	GL	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac	5 gal	50
	AC	Ribes alpinum / Alpine Currant	5 gal	95
	DW	Salix purpurea `Nana` / Dwarf Arctic Willow	5 gal	56
	GS	Spiraea japonica `Goldflame` / Spirea	5 gal	54
	MK	Syringa patula `Miss Kim` / Miss Kim Lilac	5 gal	30
	TA	Thuja occidentalis `Techny Globe` / Techny Globe Arborvitae	10 gal	10
GRASSES	CODE	BOTANICAL / COMMON NAME	CONT	QTY
	KFG	Calamagrostis x acutiflora `Karl Foerster` / Feather Reed Grass	1 gal	16

NORTH

0 40 80

SCALE IN FEET

NO	DATE	BY	CKD	APPR	COMMENT

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

Print Name: _____

Date _____ License # _____

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DESIGNED BY

CHECKED BY

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SHRUB PLAN

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET L1.02 OF REV.

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2.0S (LMS TECH) | ROHIT MALI, EIT (MN) | 2/23/2022 11:24:10 AM
\PROJECTS\50241\CAD\SHEETS\50241-L1.01-LANDSCAPE PLAN.DWG:L1.02 SHRUB PLAN

8.B. Adopt Resolution ... CAD\SHEETS\50241-L1.01-LANDSCAPE PLAN.DWG: L1.02 SHRUB PLAN
Packet Page 235 of
Page 38 of 50

NOTES

GENERAL NOTES:

1. THE CONTRACTOR SHALL INSPECT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS RELATING TO THE NATURE AND SCOPE OF THE WORK.
2. THE CONTRACTOR SHALL VERIFY PLAN LAYOUT AND BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT DISCREPANCIES WHICH MAY COMPROMISE THE DESIGN OR INTENT OF THE LAYOUT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS GOVERNING THE WORK.
4. THE CONTRACTOR SHALL PROTECT EXISTING ROADS, CURBS/GUTTERS, TRAILS, TREES, LAWNS AND SITE ELEMENTS DURING CONSTRUCTION. DAMAGE TO SAME SHALL BE REPAIRED AND/OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
5. LOCATE AND VERIFY ALL UTILITIES, INCLUDING IRRIGATION LINES, WITH THE OWNER FOR PROPRIETARY UTILITIES AND GOPHER STATE ONE CALL 48 HOURS BEFORE DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
6. **THE LANDSCAPE CONTRACTOR SHALL COORDINATE THE PHASES OF CONSTRUCTION AND PLANTING INSTALLATION WITH OTHER CONTRACTORS WORKING ON SITE.**
7. THE CONTRACTOR SHALL REVIEW THE SITE FOR DEFICIENCIES IN SITE CONDITIONS WHICH MIGHT NEGATIVELY AFFECT PLANT ESTABLISHMENT, SURVIVAL OR WARRANTY. UNDESIRABLE SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK.
8. THE PLAN TAKES PRECEDENCE OVER THE LANDSCAPE LEGEND IF DISCREPANCIES EXIST. QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.
9. THE SPECIFICATIONS TAKE PRECEDENCE OVER THE PLANTING NOTES AND GENERAL NOTES.
10. EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED TO THE DRIP LINE FROM ALL CONSTRUCTION TRAFFIC, STORAGE OF MATERIALS ETC. WITH 4' HT. ORANGE PLASTIC SAFETY FENCING ADEQUATELY SUPPORTED BY STEEL FENCE POSTS 6' O.C. MAXIMUM SPACING.
11. LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED.
12. CONTRACTOR SHALL REQUEST IN WRITING, A FINAL ACCEPTANCE INSPECTION.

PLANTING NOTES:

1. NO PLANTS SHALL BE INSTALLED UNTIL FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
2. A GRANULAR PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL PLANT BEDS AT THE MANUFACTURERS RECOMMENDED RATE PRIOR TO PLANT INSTALLATION.
3. ALL PLANTING STOCK SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK," ANSI-Z60, LATEST EDITION, OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS.
4. OVERSTORY TREES SHALL BEGIN BRANCHING NO LOWER THAN 6' ABOVE PAVED SURFACES.
5. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE AND BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE LANDSCAPE LEGEND.
6. PLANT MATERIALS TO BE INSTALLED PER PLANTING DETAILS.
7. ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
8. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
9. NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
10. ALL PLANT MATERIAL QUANTITIES, SHAPES OF BEDS AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN AND ADJUSTED TO CONFORM TO THE EXACT CONDITIONS OF THE SITE. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIALS PRIOR TO INSTALLATION.
11. ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED.
12. MULCH: DOUBLE SHREDDED HARDWOOD MULCH, CLEAN AND FREE OF NOXIOUS WEEDS OR OTHER DELETERIOUS MATERIAL, IN ALL MASS PLANTING BEDS AND FOR TREES, UNLESS INDICATED AS ROCK MULCH ON DRAWINGS. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT PRIOR TO DELIVERY ON-SITE FOR APPROVAL. DELIVER MULCH ON DAY OF INSTALLATION. USE 3" FOR SHRUB BEDS, TREE RINGS, AND 3" FOR PERENNIAL/GROUND COVER BEDS, UNLESS OTHERWISE DIRECTED.
13. BUILDING MAINTENANCE STRIP: WHERE NO LANDSCAPE PLANTING BEDS EXIST ADJACENT TO A BUILDING FOUNDATION, CONTRACTOR SHALL INSTALL A DECORATIVE ROCK MAINTENANCE STRIP PER PLAN. DECORATIVE ROCK SHALL BE 1"-3" DRESSER TRAP ROCK, GREY IN COLOR.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES AND PLANTING SOIL QUANTITIES TO COMPLETE THE WORK SHOWN ON THE PLAN.
15. USE ANTI-DESICCANT (WILTPRUF OR APPROVED EQUAL) ON DECIDUOUS PLANTS MOVED IN LEAF AND FOR EVERGREENS MOVED ANYTIME. APPLY AS PER MANUFACTURER'S INSTRUCTION. ALL EVERGREENS SHALL BE SPRAYED IN THE LATE FALL FOR WINTER PROTECTION DURING WARRANTY PERIOD.
16. WRAP ALL SMOOTH-BARKED DECIDUOUS TREES PLANTED IN THE FALL PRIOR TO DECEMBER 1 AND REMOVE WRAPPING AFTER MAY 1. TREE WRAPPING MATERIAL SHALL BE WHITE TWO-WALLED PLASTIC SHEETING APPLIED FROM TRUNK FLARE TO THE FIRST BRANCH.
17. ALL DECIDUOUS, PINE, AND LARCH PLANTINGS SHALL RECEIVE RODENT PROTECTION PER MNDOT 2571.31.2
18. PLANTING SOIL FOR TREES, SHRUBS AND GROUND COVERS: FERTILE FRIABLE LOAM CONTAINING A LIBERAL AMOUNT (4% MIN.) OF HUMUS AND CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL COMPLY WITH MNDOT SPECIFICATION 3877 TYPE B SELECT TOPSOIL. MIXTURE SHALL BE FREE FROM HARDPACK SUBSOIL, STONES, CHEMICALS, NOXIOUS WEEDS, ETC. SOIL MIXTURE SHALL HAVE A PH BETWEEN 6.1 AND 7.5 AND 10-0-10 FERTILIZER AT THE RATE OF 3 POUNDS PER CUBIC YARD. IN PLANTING BEDS INCORPORATE THIS MIXTURE THROUGHOUT THE ENTIRE BED IN A 6" LAYER AND ROTO-TILLING IT INTO THE TOP 12" OF SOIL AT A 1:1 RATIO.ANY PLANT STOCK NOT PLANTED ON DAY OF DELIVERY SHALL BE HEELED IN AND WATERED UNTIL INSTALLATION. PLANTS NOT MAINTAINED IN THIS MANNER WILL BE REJECTED.
19. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT EACH EXCAVATED TREE AND SHRUB PIT WILL PERCOLATE PRIOR TO INSTALLING PLANTING MEDIUM AND PLANTS. THE CONTRACTOR SHALL FILL THE BOTTOM OF SELECTED HOLES WITH SIX INCHES OF WATER AND CONFIRM THAT THIS WATER WILL PERCOLATE WITHIN A 24-HOUR PERIOD. IF THE SOIL AT A GIVEN AREA DOES NOT DRAIN PROPERLY, A PVC DRAIN OR GRAVEL SUMP SHALL BE INSTALLED OR THE PLANTING SHALL BE RELOCATED IF DIRECTED BY THE LANDSCAPE ARCHITECT.
20. ALL PLANTS SHALL BE GUARANTEED FOR TWO COMPLETE GROWING SEASONS (APRIL 1 - NOVEMBER 1), UNLESS OTHERWISE SPECIFIED. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND PLANTS.
21. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 3 DAYS PRIOR TO PLANNED DELIVERY. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 24 HOURS IN ADVANCE OF BEGINNING PLANT INSTALLATION.
22. SEASONS/TIME OF PLANTING AND SEEDING: NOTE: THE CONTRACTOR MAY ELECT TO PLANT IN OFF-SEASONS ENTIRELY AT HIS/HER RISK.
    - 22.1. POTTED PLANTS: 4/1 - 6/1; 9/21 - 11/1
    - 22.2. DECIDUOUS /B&B: 4/1 - 6/1; 9/21 - 11/1
    - 22.3. EVERGREEN POTTED PLANTS: 4/1 - 6/1; 9/21-11/1
    - 22.4. EVERGREEN B&B: 4/1 - 5/1; 9/21 - 11/1
    - 22.5. TURF/LAWN SEEDING: 4/1 - 6/1; 7/20 - 9/20
    - 22.6. NATIVE MIX SEEDING: 4/15 - 7/20; 9/20-10/20
23. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PORTION OF THE WORK IS IN PLACE. PLANT MATERIAL SHALL BE PROTECTED AND MAINTAINED UNTIL THE INSTALLATION OF THE PLANTS IS COMPLETE, INSPECTION HAS BEEN MADE, AND PLANTINGS ARE ACCEPTED EXCLUSIVE OF THE GUARANTEE. MAINTENANCE SHALL INCLUDE WATERING, CULTIVATING, MULCHING, REMOVAL OF DEAD MATERIALS, RE-SETTING PLANTS TO PROPER GRADE AND KEEPING PLANTS IN A PLUMB POSITION. AFTER ACCEPTANCE, THE OWNER SHALL ASSUME MAINTENANCE RESPONSIBILITIES. HOWEVER, THE CONTRACTOR SHALL CONTINUE TO BE RESPONSIBLE FOR KEEPING THE TREES PLUMB THROUGHOUT THE GUARANTEE PERIOD.
24. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL LANDSCAPE LEGEND SPECIFICATIONS.
25. WATERING: MAINTAIN A WATERING SCHEDULE WHICH WILL THOROUGHLY WATER ALL PLANTS ONCE A WEEK. IN EXTREMELY HOT, DRY WEATHER, WATER MORE OFTEN AS REQUIRED BY INDICATIONS OF HEAT STRESS SUCH AS WILTING LEAVES. CHECK MOISTURE UNDER MULCH PRIOR TO WATERING TO DETERMINE NEED. CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR WATER.

TURF NOTES:

TURF ESTABLISHMENT SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROVISIONS OF THE MN/DOT 2105 AND 2575 EXCEPT AS MODIFIED BELOW:

1. ALL AREAS TO RECEIVE SOD SHALL ALSO RECEIVE 6" OF TOPSOIL PRIOR TO INSTALLING SOD. TOPSOIL SHALL BE FREE OF TREE ROOTS, STUMPS, BUILDING MATERIAL, AND TRASH, AND SHALL BE FREE OF STONES LARGER THAN 1 ½" INCHES IN ANY DIMENSION.
2. WHERE SOD ABUTS PAVED SURFACES, FINISHED GRADE OF SOD/SEED SHALL BE HELD 1" BELOW SURFACE ELEVATION OF TRAIL, SLAB, CURB, ETC.
3. SOD SHALL BE LAID PARALLEL TO THE CONTOURS AND SHALL HAVE STAGGERED JOINTS. ON SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES, SOD SHALL BE STAKED SECURELY.
4. TURF ON ALL OTHER AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED BY SEEDING, MULCHING AND FERTILIZING. SEED MIXTURE NO.25-121 WILL BE PLACED AT THE RATE OF 65 POUNDS PER ACRE.
5. ALL DISTURBED AREAS TO BE TURF SEEDED, ARE TO RECEIVE 6" TOP SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. FOR SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES INSTALL EROSION CONTROL BLANKET.
6. ALL DISTURBED AREAS TO RECEIVE NATIVE SEED, ARE TO RECEIVE PLANTING SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. FOR SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES INSTALL EROSION CONTROL BLANKET.
7. ANY SEEDING ON SLOPES GREATER THAN 1:3 SHOULD INCLUDE A TYPE 4 HYDRAULIC MULCH.

GENERAL TREE SPECIFICATIONS:

1. ALL STREET AND PARKING LOT TREES SHALL BE LIMBED UP TO THE FOLLOWING HEIGHTS:
    - 1.1. 2" CAL. TREES: LOWEST BRANCH 6' HT.
    - 1.2. 3" CAL.+ TREES: LOWEST BRANCH 7' HT.
2. TREE CANOPY WIDTH SHALL BE RELATIVE TO HEIGHT/CALIPER OF TREE AND TYPE OF TREE.
    - 2.1. 1" CALIPER/6-8' HT: 3-4' WIDTH MIN.
    - 2.2. 2" CALIPER/12-14' HT: 4-5' WIDTH MIN.
    - 2.3. 3" CALIPER/14-16' HT: 6-7' WIDTH MIN.
3. CANOPY TREES SHALL NOT HAVE CO-DOMINATE LEADERS IN LOWER HALF OF TREE CROWN.
4. ALL TREES SHALL HAVE SYMMETRICAL OR BALANCED BRANCHING ON ALL SIDES OF THE TREE.
5. TREES SHALL NOT BE TIPPED PRUNED.
6. TREES SHALL BE FREE OF PHYSICAL DAMAGE FROM SHIPPING AND HANDLING. DAMAGED TREES SHALL BE REJECTED.
7. SUMMER DUG TREES SHALL HAVE ROOTBALL SIZE INCREASED BY 20%
8. TREES WHICH EXCEED RECOMMENDED CALIPER TO HEIGHT RELATIONSHIP SHALL BE REJECTED.

IRRIGATION NOTES:

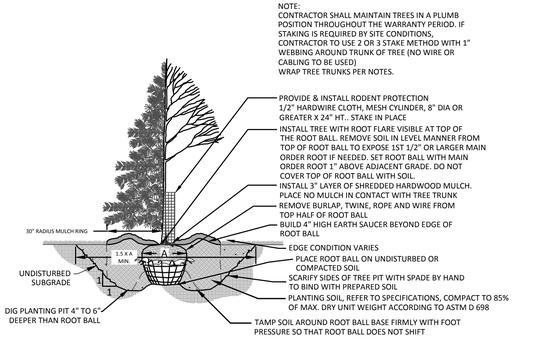
1. IRRIGATION SYSTEM TO BE DESIGN/BUILD. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL OF SYSTEM LAYOUT PRIOR TO INSTALLATION.
2. ALL SOD TO RECEIVE SPRAY OR ROTOR IRRIGATION HEADS WITH MINIMUM DESIGN OF 1" IRRIGATION PER WEEK.
3. ALL PLANT BEDS TO RECEIVE DRIP LINE IRRIGATION , WITH A MINIMUM DESIGN OF .25" IRRIGATION PER WEEK.
4. CONTRACTOR TO INSTALL A TOTAL OF 4 QUICK COUPLERS AT THE CORNERS OF THE PROPERTY. A 2.5" TYPE K SOURCE PIPE IS PROVIDED BY MECHANICAL.

LOW MAINTENANCE FESCUE NOTES:

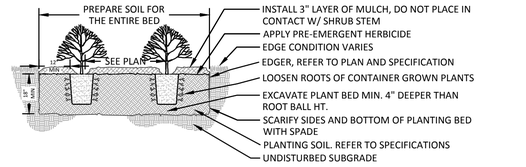
1. DURING GROWING SEASON NEVER MOW SHORTER THAN 3.5 INCHES, PREFERRED MAINTENANCE IS MOW ONCE PER MONTH AT 5" HEIGHT
2. DO NOT USE HIGH NITROGEN FERTILIZER ON FESCUE LAWN
3. OVERSEED THIN,BARE SPOTS IN FALL
4. ALWAYS USE SHARP BLADE WHEN MOWING TO AVOID TEARING LEAF BLADE
5. SET MOWER TO 3" FOR BAGGING AND MOWING IN LATE FALL AFTER GROWING SEASON

NATIVE SEED MIX NOTES:

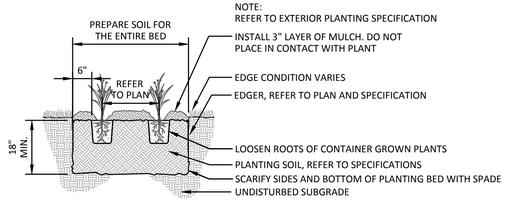
1. ESTABLISHMENT AND YEAR ONE: MOW THREE(3) TIMES FIRST YEAR ON 30-DAY INTERVALS TO A HEIGHT BETWEEN FIVE AND EIGHT INCHES. DO NOT USE FERTILIZERS. SPOT TREAT INVASIVE WOODY PLANTS OR HAND WEED INDIVIDUAL NOXIOUS WEEDS.
2. YEAR TWO: PERFORM ONE MOWING BETWEEN MID-JUNE AND MID-AUGUST. SPOT SPRAY WEEDS AS NEEDED WHERE THEY ARE ESPECIALLY DOMINATE.
3. YEAR THREE (AND BEYOND): CUT ONE TIME PER YEAR AS A CLEAN UP PROCEDURE (EITHER IN EARLY MAY OR LATE NOVEMBER). PRESCRIBED BURNS MAY BE USED AS WELL IN PLACE OF MOWING. CHECK LOCAL REGULATIONS AND PERMIT PROCEDURES.



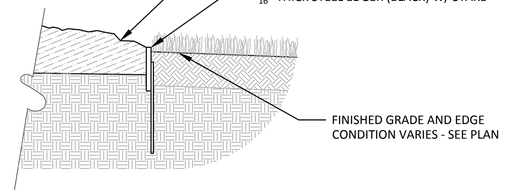
1 L1.02 TREE PLANTING DETAIL
1/4" = 1'-0" P-01



2 L1.02 SHRUB PLANTING DETAIL
3/8" = 1'-0" P-02



3 L1.02 PERENNIAL PLANTING DETAIL
1/2" = 1'-0" P-03



4 L1.02 STEEL EDGER
1 1/2" = 1'-0" P-06

NO	DATE	BY	CKD	APPR	COMMENT

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

Print Name: _____

Date _____ License # _____

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LANDSCAPE DETAILS AND NOTES

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

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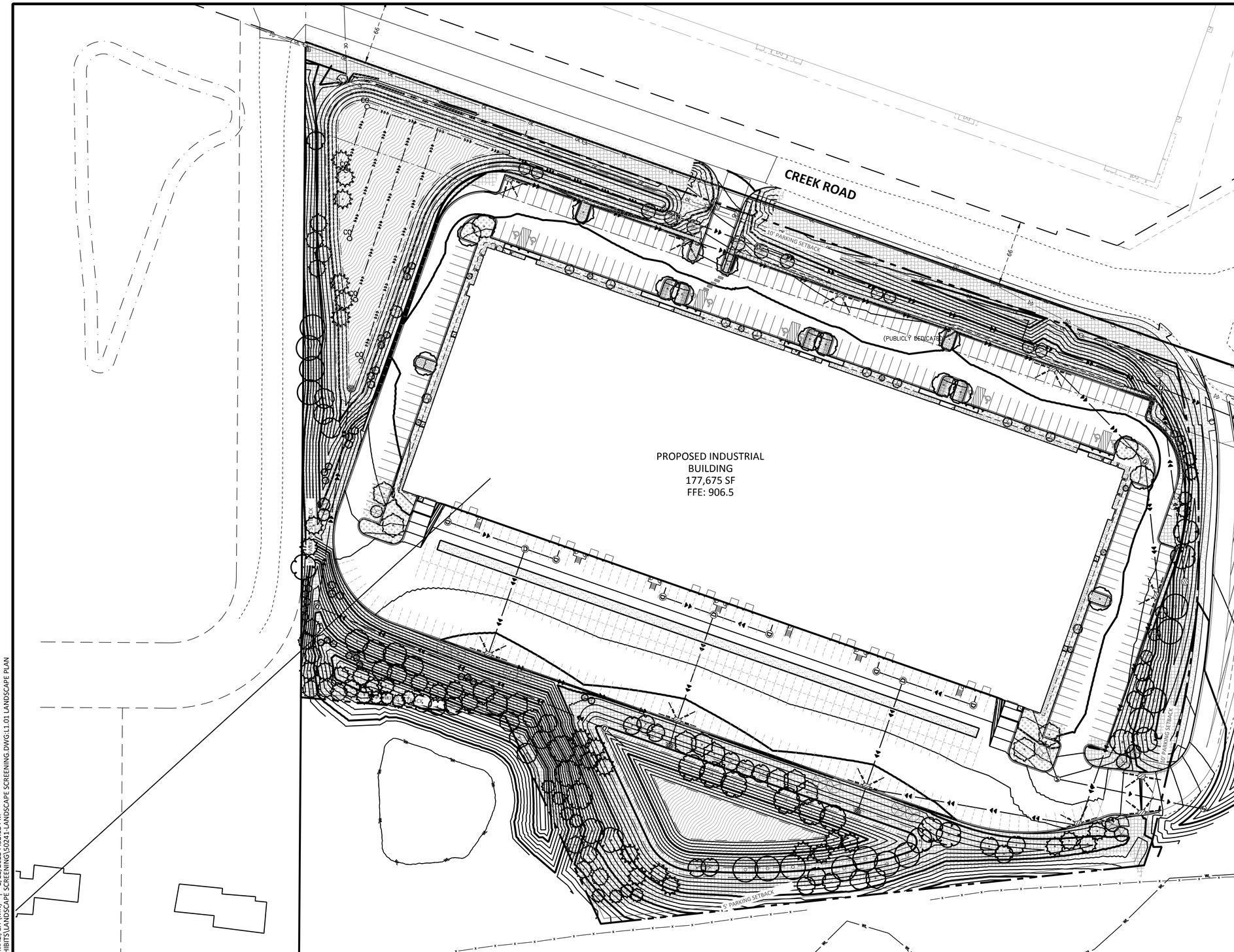

LEGEND

	PROPOSED	EXISTING	
PROPERTY LIMIT			STANDARD DUTY ASPHALT PAVING
CURB & GUTTER			
EASEMENT			CONCRETE PAVING
BUILDING			
RETAINING WALL			
WETLAND LIMITS		WL	CONCRETE SIDEWALK
TREELINE			
LANDSCAPE EDING			
STORM SEWER	D		
SANITARY SEWER	S		
FORCEMAIN (SAN.)	LS	FM	
WATERMAIN			
YARDDRAIN			
LIMITS OF DISTURBANCE			
TREE PROTECTION FENCE	TP		
TREE TO BE REMOVED			
SIGN			
PIPE BOLLARD			
RIPRAP			

CHASKA LANDSCAPE CODE

*VARIANCE FROM CODE TO TREAT THE PROPOSED BUILDING AS SINGLE STORY FOR THE DETERMINATION OF LANDSCAPE REQUIREMENTS - 175,438 TOTAL GROSS SQUARE FEET

MINIMUM SIZE REQUIREMENTS:

OVERSTORY DECIDUOUS TREE	2.5"	UNDERSTORY DECIDUOUS TREE	2"
CONIFEROUS TREE	6'	MAJOR SHRUB PLANTING	5 GAL.

TOTAL CALIPER INCHES REQUIRED: (GROSS SQ. FT. / 320) = 548 CAL. INCHES

TREE CALIPER	2.5"	3.0"	3.5"	4.0"	4.5"+
TREES REQ.	154	19	17	15	-
TREES PROP.	154	19	17	15	-

TOTAL CALIPER INCHES PROPOSED: = XXX CAL. INCHES

UNDERSTORY/SHRUBS	REQUIRED	PROPOSED
UNDERSTORY TREES	51	51
SHRUBS/PERENNIALS	585	691

PLANT SCHEDULE

NO	DATE	BY	CKD	APPR	COMMENT

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: _____

Date _____ License # _____

PRELIMINARY
DESIGN REVIEW
PERMIT SUBMITTAL
CONSTRUCTION DOCUMENTS

DRAWN BY RM
DESIGNED BY JRM
CHECKED BY JDB
PROJECT NO. 50241

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SCREENING EXHIBIT PLAN

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET L1.04 OF REV.

2.0S (LMS TECH) | ROHIT MALI, EIT (MN) | 2/22/2022 7:52:12 PM
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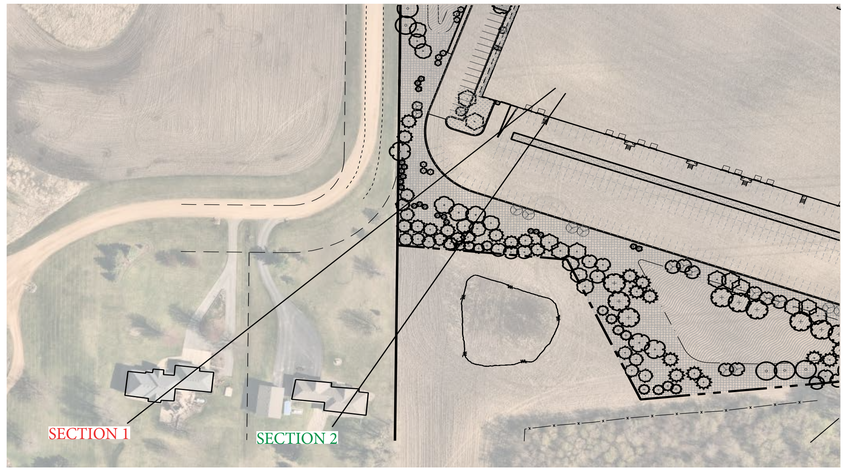

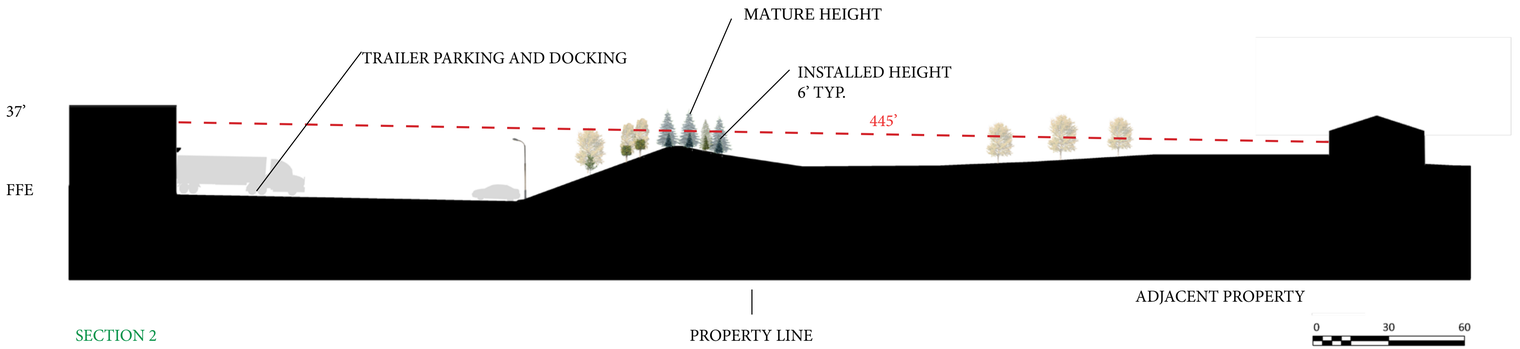

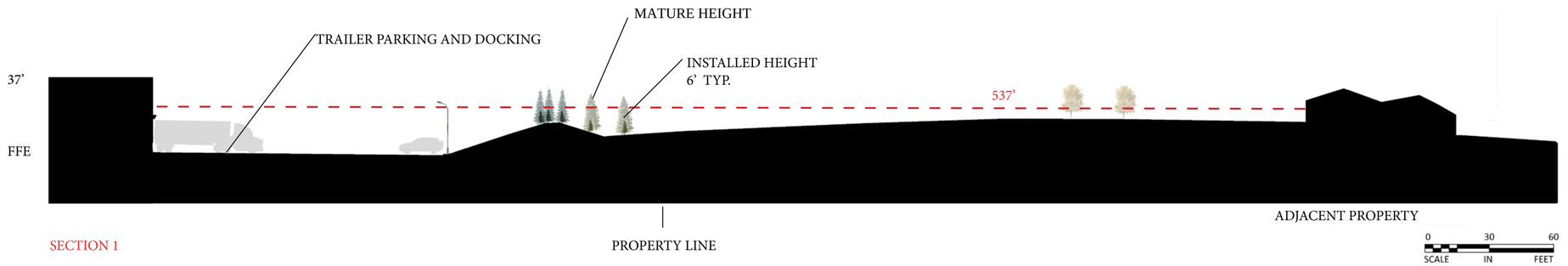

NO.	DATE	BY	CKD	APPR	COMMENT

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Print Name: _____

Date _____ License # _____

PRELIMINARY
DESIGN REVIEW
PERMIT SUBMITTAL
CONSTRUCTION DOCUMENTS

DRAWN BY
DESIGNED BY
CHECKED BY
PROJECT NO. 50241

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LANDSCAPE SCREENING EXHIBIT

OPPIDAN
CHASKA CREEK INDUSTRIAL
PHASE III
CHASKA, MN

SHEET
L1.03
OF
REV. ----

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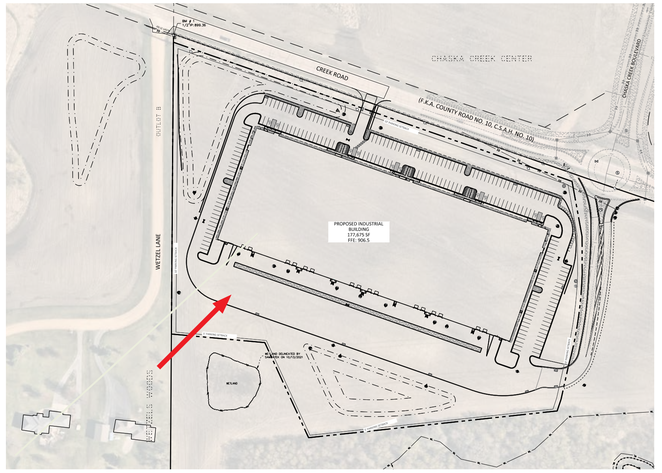
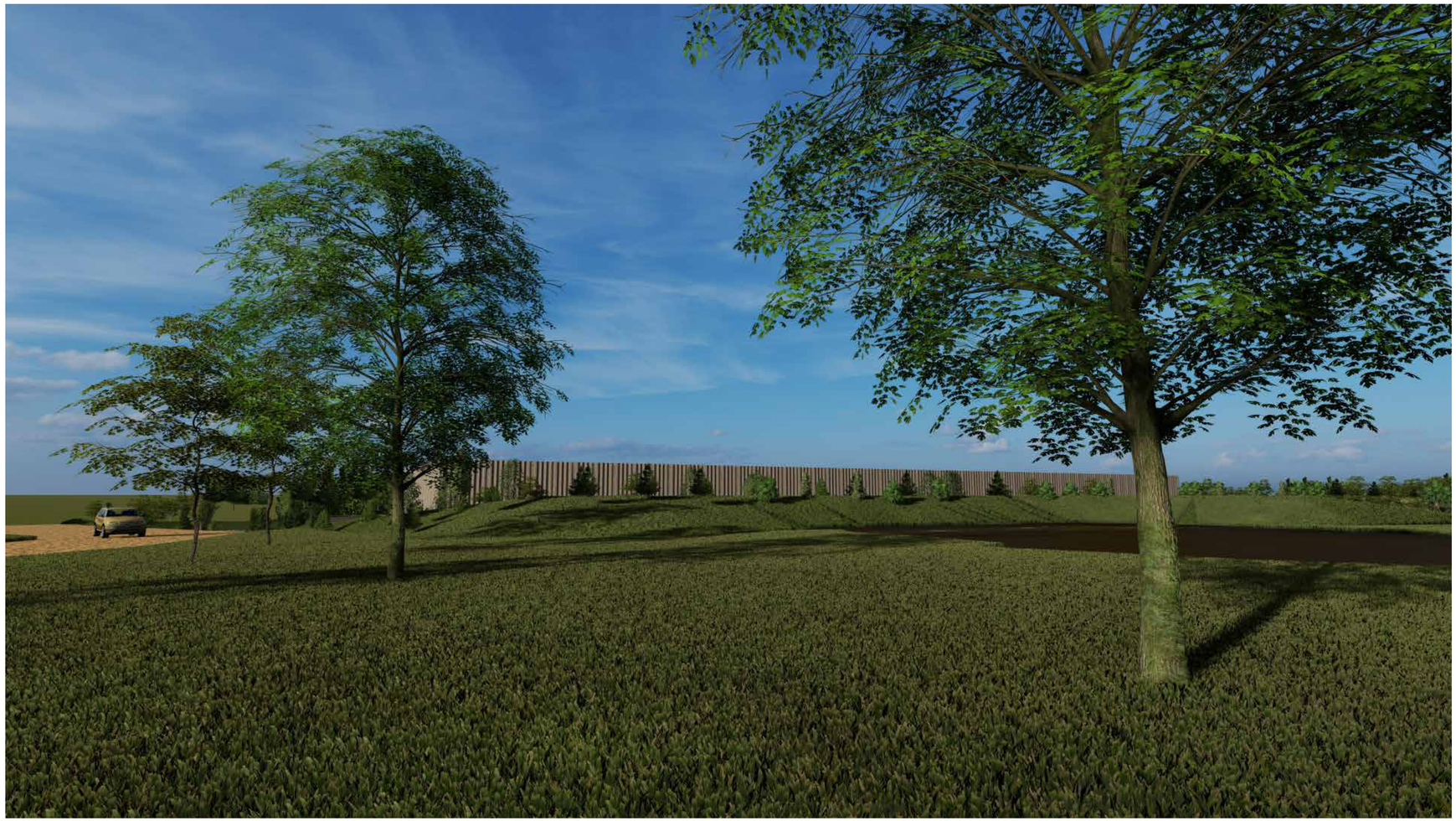
KEY MAP



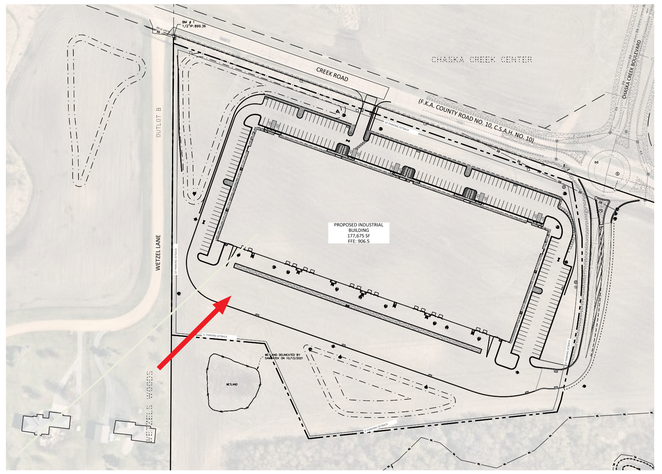
INSTILLATION HEIGHT



Screening Exhibit - Wetzel Lane Perspective

OPPIDAN

KEY MAP



MATURE HEIGHT

Screening Exhibit - Wetzel Lane Perspective

OPPIDAN

Luminaire Schedule							
Symbol	Qty	Label	Arrangement	LLF	Description	Arr. Watts	Lum. Lumens
	34	AA	Single	0.900	RAYON T631LED-84-UNV-40-T4-BZ WALL MOUNTED AT 18FT	83.89	8557
	7	BB-HS	Single	0.675	RAYON T321LED-200-UNI12-40-T3-HS MOUNTED ON 22FT POLE 3FT BASE	200	25965
	10	BB1-HS	Single	0.450	RAYON T321LED-150-UNI12-40-T3-HS MOUNTED ON 22FT POLE 3FT BASE	150	25965
	11	DD	Single	0.900	RAYON RBC6-LS1(2000 lm)-CTS(40K)-UNV-H-W-FN-X MOUNTED IN CANOPY @ 12FT	26.5	2386

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PROPERTY LINE N & E	Illuminance	Fc	0.01	0.3	0.0	N.A.	N.A.
PROPERTY LINE SOUTH	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.
PROPERTY LINE WEST	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.
SITE GROUND	Illuminance	Fc	1.04	14.7	0.0	N.A.	N.A.
EAST PARKING	Illuminance	Fc	2.79	6.7	0.6	4.65	11.17
NORTH PARKING	Illuminance	Fc	2.80	6.8	0.9	3.11	7.56
SOUTH TRUCK DOCK DOORS	Illuminance	Fc	2.12	6.1	1.0	2.12	6.10
WEST PARKING	Illuminance	Fc	2.66	7.0	0.7	3.80	10.00

TYPE BB/BB1-HS

TYPE AA

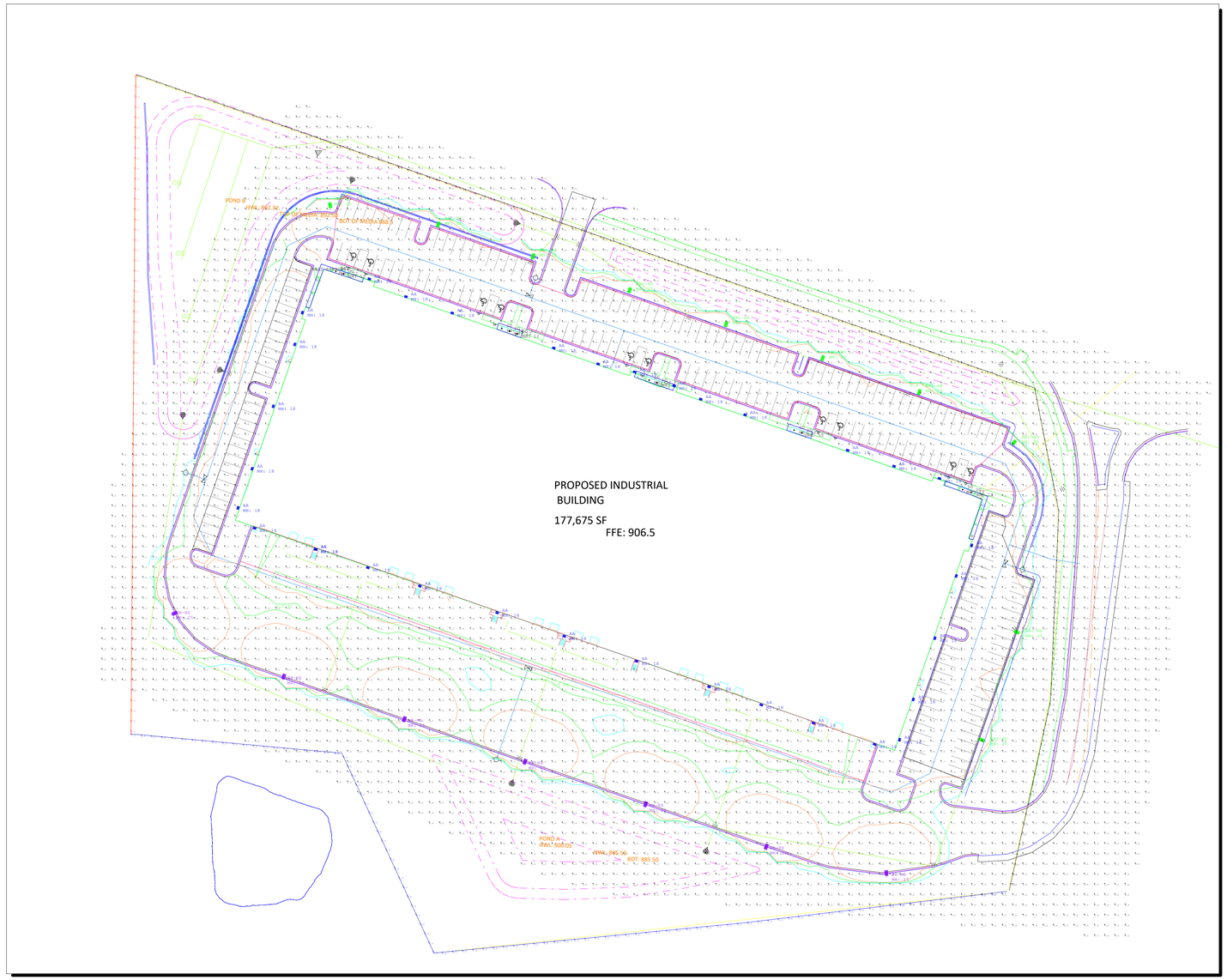
TYPE DD

GENERAL NOTES:

A. PULSE PRODUCTS DOES NOT ASSUME RESPONSIBILITY FOR THE INTERPRETATION OF THIS CALCULATION OR COMPLAINCE TO THE LOCAL, STATE, OR FEDERAL LIGHTNG CODES OR ORDINANCES.

B. LIGHTING LAYOUT IS NOT INTENDED FOR CONSTRUCTION DOCUMENTS BUT ONLY TO ILLUSTRATE THE PERFORMANCE OF THE PRODUCT.

C. ALL READINGS/CALCULATIONS SHOWN ARE SHOWN ON OBJECTS/SURFACES.



Plan View
Scale: 1 inch= 60 Ft.

PULSE never ordinary

#	Date	Comments

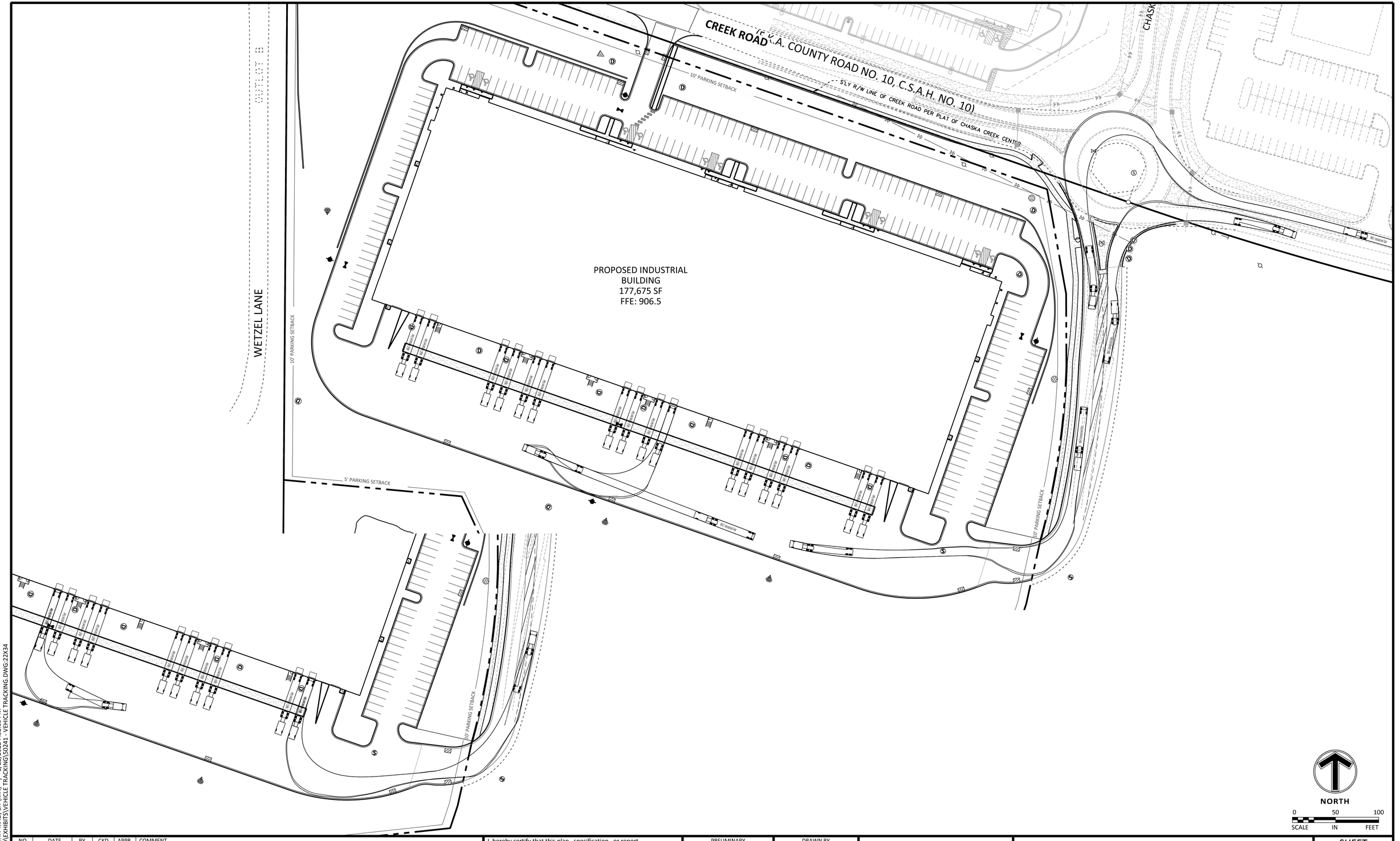
Revisions

Drawn By: SANDY
Checked By: JILL
Date:2/6/2022
Scale: AS NOTED

CHASKA CREEK III

CHASKA, MN

PAGE 1 OF 1



NO	DATE	BY	CKD	APPR	COMMENT
	02/01/2022				REVISED PER CITY COMMENTS

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: _____

Date _____ License # _____

PRELIMINARY 01/04/2022	DRAWN BY RM
DESIGN REVIEW	DESIGNED BY JRM
PERMIT SUBMITTAL	CHECKED BY JDB
CONSTRUCTION DOCUMENTS	PROJECT NO. 50241

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TRUCK TURNING EXHIBIT

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NO	DATE	BY	CKD	APPR	COMMENT
	02/01/2022				REVISED PER CITY COMMENTS

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: _____

Date _____ License # _____

PRELIMINARY 01/04/2022	DRAWN BY RM
DESIGN REVIEW	DESIGNED BY JRM
PERMIT SUBMITTAL	CHECKED BY JDB
CONSTRUCTION DOCUMENTS	PROJECT NO. 50241

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AERIAL SITE EXHIBIT

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OF
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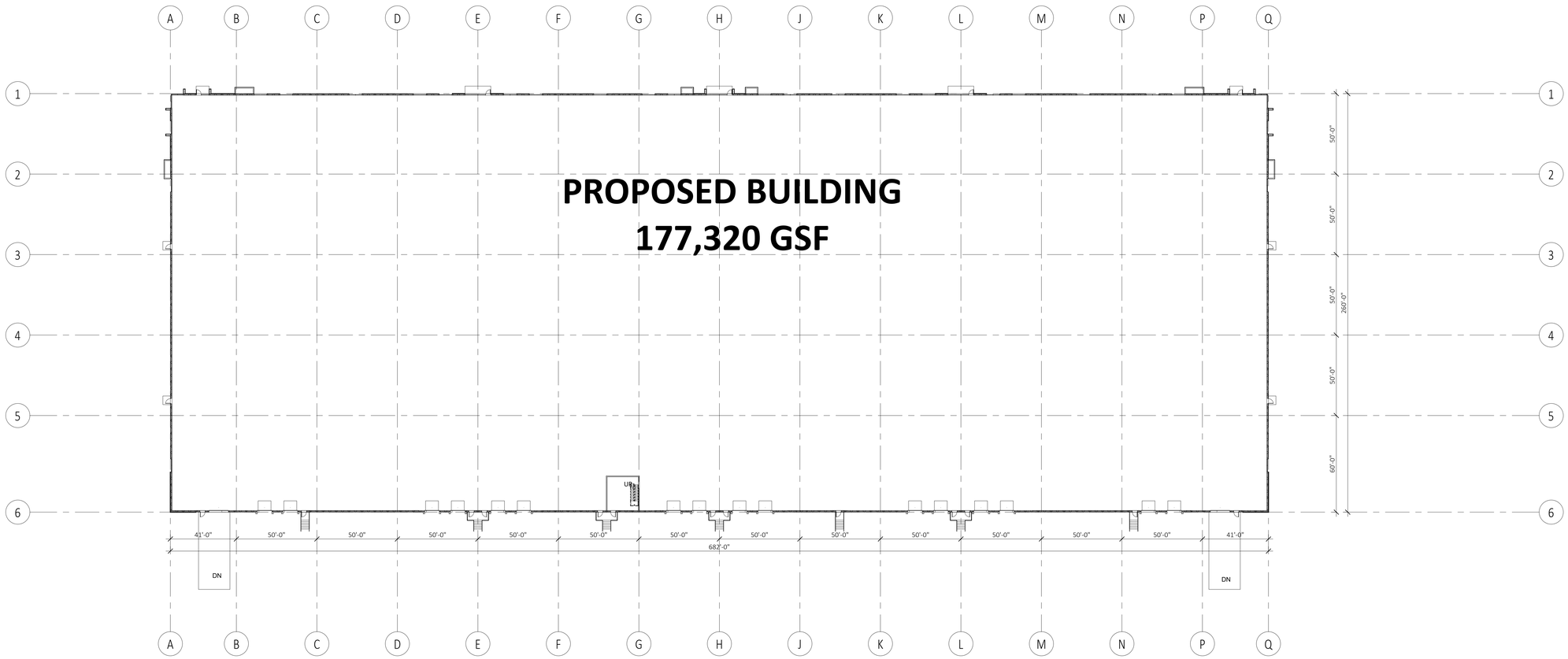
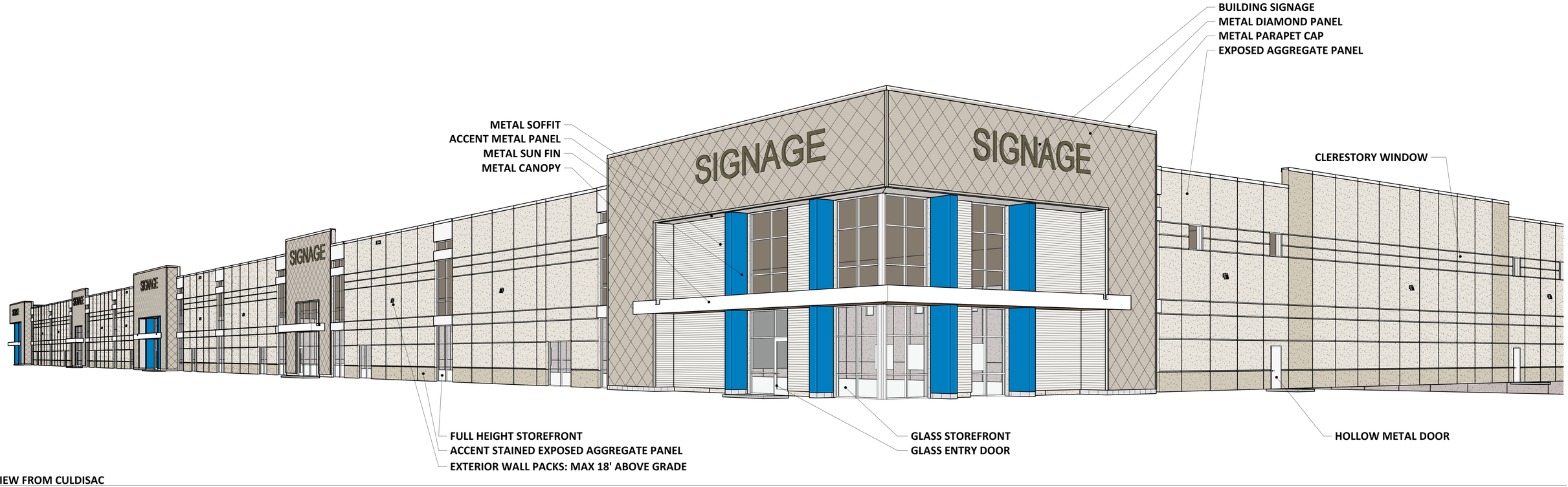


1 SHELL PLAN - CITY SUBMITTAL
P001 1" = 30'-0"

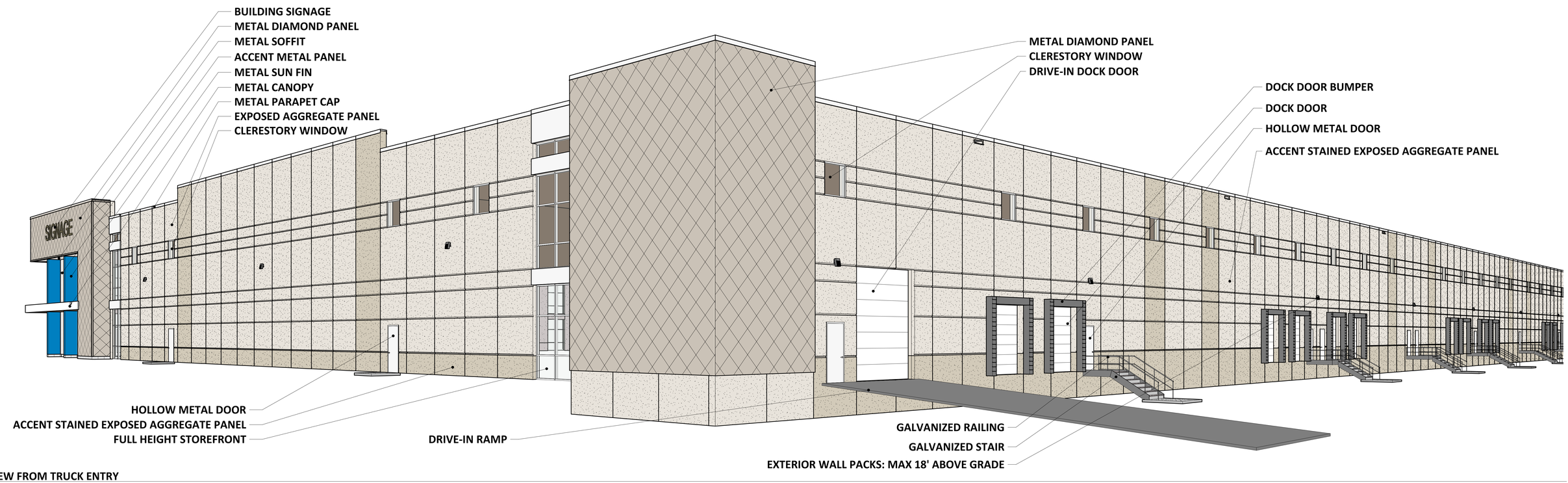
PRELIMINARY CITY SUBMITTAL - CONCEPTUAL FLOOR PLAN
CHASKA, MN
01-03-2022

CHASKA CREEK INDUSTRIAL - PHASE 3

MOHAGEN HANSEN
Architecture | Interiors



1 P002 VIEW FROM CULDISAC

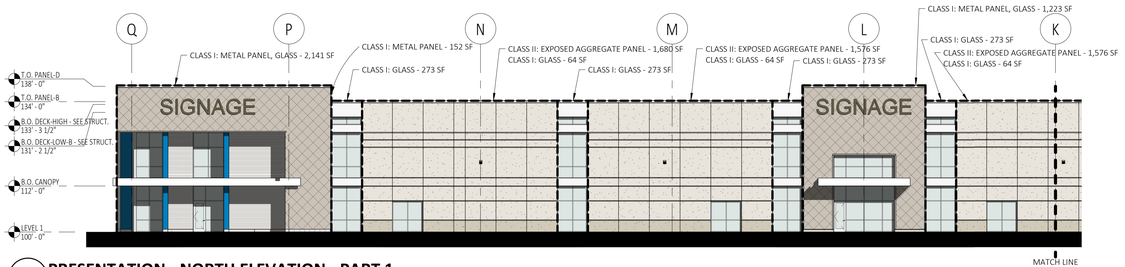


2 P002 VIEW FROM TRUCK ENTRY

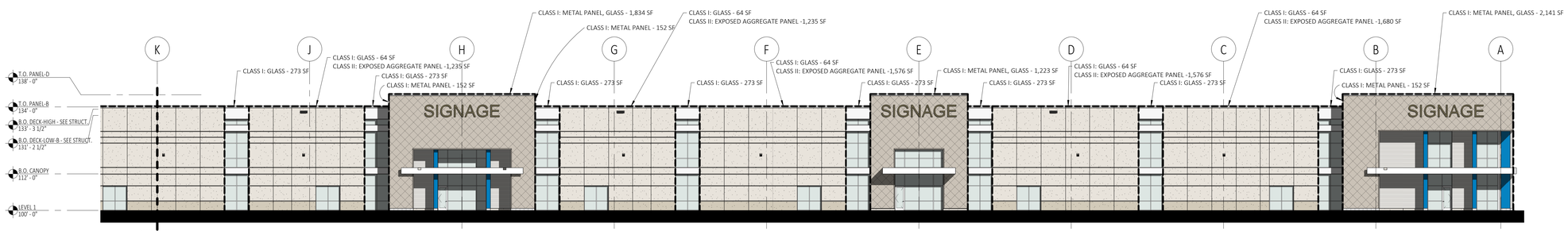
PRELIMINARY CITY SUBMITTAL - CONCEPTUAL 3D IMAGES
CHASKA, MN
01-03-2022

CHASKA CREEK INDUSTRIAL – PHASE 3

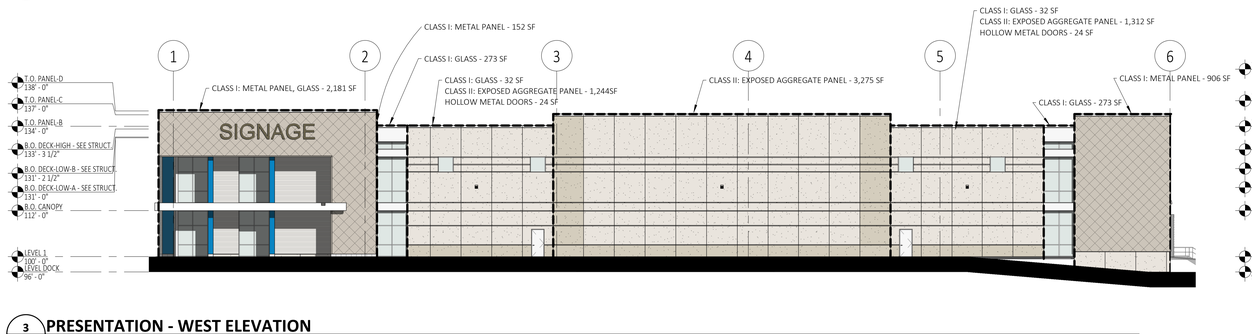
MOHAGEN HANSEN
Architecture | Interiors



1 P003 **PRESENTATION - NORTH ELEVATION - PART 1**
1/16" = 1'-0"



2 P003 **PRESENTATION - NORTH ELEVATION - PART 2**
1/16" = 1'-0"



3 P003 **PRESENTATION - WEST ELEVATION**
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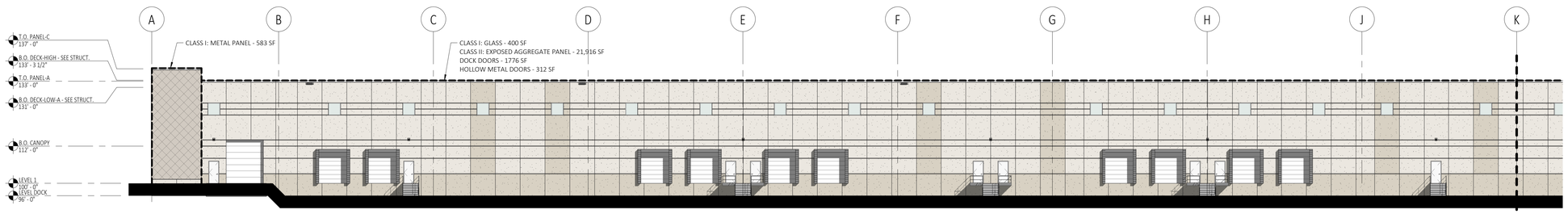

4 P003 **PRESENTATION - SOUTH ELEVATION - PART 1**
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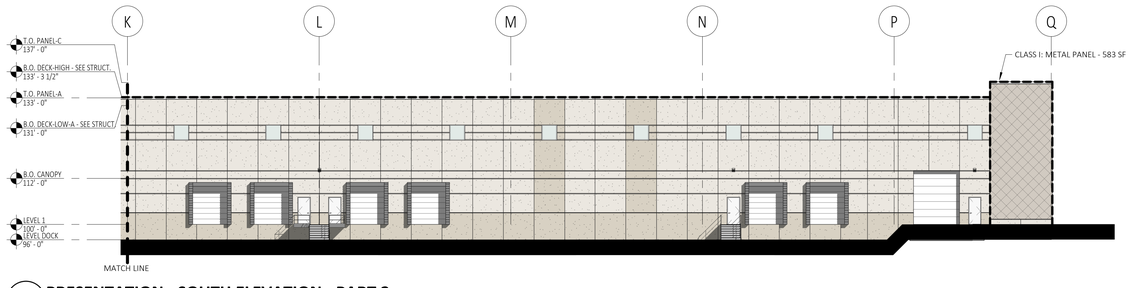


5 P003 **PRESENTATION - SOUTH ELEVATION - PART 2**
1/16" = 1'-0"

6 P003 **PRESENTATION - EAST ELEVATION**
1/16" = 1'-0"

CLASS I:
i) Brick-modular
ii) Natural Stone
iii) Glass
iv) Copper
v) Other comparable or superior materials, as determined by the City Council.

= 22,222 SF / 70,118 SF
= 32%

CLASS II:
i) Brick-Utility
ii) Cast-stone
iii) Specialty concrete block such as textured, burnished block or rock faced block
iv) Architecturally textured precast concrete panels (except raked finish)
v) Masonry stucco/ Exterior finish insulation system (EFIS)
vi) Other comparable or superior materials, as determined by the City Council.

= 45,712 SF / 70,118 SF
= 65%

DOCK DOORS AND HOLLOW METAL DOORS:

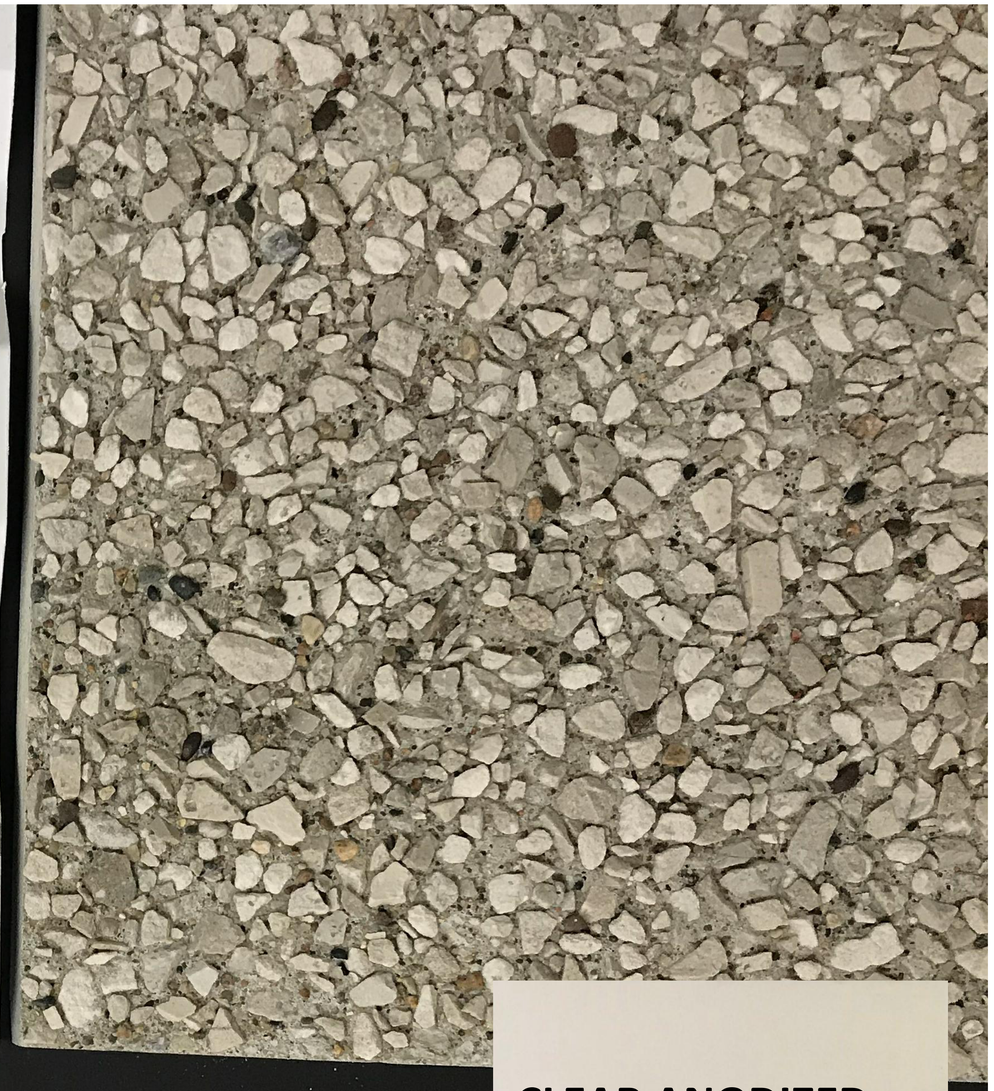
=2,184 SF / 70,118 SF
= 3%

PRELIMINARY CITY SUBMITTAL - EXTERIOR ELEVATIONS
CHASKA, MN
01-03-2022

CHASKA CREEK INDUSTRIAL – PHASE 3

MOHAGEN HANSEN
Architecture | Interiors

WARM WHITE RIBBED ACCENT METAL PANEL



BLUE METAL SUN FIN

WARM OFF-WHITE EXPOSED AGGREGATE PANEL

CLEAR ANODIZED MULLION

WARM WHITE SOFFIT AND PARAPET CAP

WARM LIGHT GREY METAL DIAMOND PANEL

WARM WHITE METAL CANOPY

WARM GREY DOOR PAINT

REQUEST FOR ACTION
CHASKA CITY COUNCIL
03/21/2022

Subject: **Ensconced Woods (Carlson & Robling) – Preliminary Plat and Rezoning**

Applicant: Johnson-Reiland Builders and Remodelers

Location: 3675 Big Woods Blvd (Carlson) and 3625 Big Woods Blvd (Robling); South of County Road 44 (Big Woods Blvd) and east of Founders Ridge

Case No.: 2022-17

Synopsis: Applicant seeks to obtain approval of a 29 lot development (28 new lots, 1 lot for the existing Robling residence) on approximately 25 acres of land on Carlson and Robling's land

Prepared By: Elizabeth Hanson

Staff Recommendation: Motion to adopt resolution

BACKGROUND

Founders Ridge was approved in November 2013 and the 2nd addition in February 2015. The development has since been fully built. Within that development stub streets were provided to access neighboring properties for future development. One of those streets is Founders Path, which stubs up to the east edge of the development abutting Linda Carlson's property.

May of 2021, the Concept Plan was approved for Ensconced Woods, which included both Carlson (north of the ravine) and Robling's properties.

Project Goals

The identified goals in creating this new neighborhood include the following:

- Create a new neighborhood on a developable piece of property that has utilities and right-ofway access available.
- Provide a unique, larger lot opportunity for high-end custom homes.
- Save as many trees as possible while still meeting the minimum comprehensive plan density range.
- Maintain the creek and wooded slopes in an easement to be conserved in perpetuity.
- Design this new neighborhood with a sense of community and connection.
- Create a development for a unique, high-end housing product that stands out in its custom designs while at the same time fits into Chaska's sense of community and small-town values.

Changes Since Concept Plan Approval

The following are changes that have occurred on the plan since Concept Plan:

- Lot count changed from 30 lots to 29 lots; one lot was eliminated from the overall plan to help save more trees

- Lot sizes reduced to 75 feet versus 80 feet; this change allowed the cul de sac design to be pulled back roughly 50 feet from the easterly edge, allowing the preservation of more trees on the southeasterly edge.
- Robling Driveway on CR44 eliminated; the Robling driveway currently located on County Road 44/Big Woods Boulevard will be eliminated per Carver County requirements. A new driveway access will be provided from the proposed public street section in the development.
- Private Drive serving 4 lots eliminated; the previous concept plan showed a private drive off the public street that would access 4 lots. Staff advised to eliminate this private drive as it would create more nuances with public utilities under a private road.

Comprehensive Plan

The Comprehensive Plan guides this area to be Low Density Residential. The proposal tonight is consistent with this guidance.

CURRENT PROPOSAL

The request is for preliminary plat and rezoning. The 29-lot detached single-family proposal on approximately 25-acres of property is located south of County Road 44 (Big Woods Blvd) and east of the Founders Ridge development on both Carlson and Robling's land. Only the area on the north side of the creek is proposed to be developed for both Carlson and Robling. The area south of the creek on Linda Carlson's land will be retained by Linda Carlson for future development; the area south of the creek on the Robling land is wooded steep slope and won't be further developed. This new development will be an extension off Founders Path, but will not be part of the Founders Ridge development.

Adjacent properties

The site is bound on the north by County Road 44 (Big Woods Boulevard) and the Guardian Angels Cemetery; to the west by Founders Ridge; the south by additional Carlson owned land and the Lano Gravel Pit; and the east by residential.

Existing Conditions

The Carlson property consists of about 30 Acres of wooded, rolling terrain, with one wetland and a creek dividing the property in half. There is currently a home and outbuildings on the property, all of which will be removed at the time of development. Only the roughly 15 acres on the north side of the creek is proposed to be developed at this time.

Of the 15-acre survey area of the Carlson property, approximately 12 acres is in woodland or forest cover of varying types. The remainder of the property includes the home surrounded by landscape trees, open grassland with a few scattered trees, and the wetland in the central part of the property. The woodlands consist of three cover types and include: altered, non-native woodland, big woods forest, and planted evergreen trees. There is wooded steep slope present just north of the creek and additionally south of Big Woods Boulevard. These delineations were defined shortly after Concept Plan approval was done in 2020.

A wetland is located in the north, central part of the property in a closed depressional area. This wetland is mainly an open water body with a narrow fringe of fresh wet meadow that is dominated by reed canary grass. The floating plant lesser duckweed was observed across much of the open water part of the wetland at the time of the survey in early May of 2020. The

applicant has not been able to do an official wetland report yet. Staff would require that a wetland delineation report be completed and provided at time of their preliminary submittal.

The Robling property consists of 10 acres of wooded, rolling terrain with a creek running along the south boundary. There is an existing dwelling on the northwest portion of the property, which gains driveway access from Big Woods Boulevard. This dwelling and driveway will remain as is. The slopes going down to the creek will be left undisturbed so as to maintain the nice views to the south. The woodlands consist of primarily southern mesic maple-basswood forest and scattering of large trees. Wooded steep slope exists on the areas just north of the creek, north of the existing pond, and the northeast portion of the property.

Land Use
The proposed 25-acre plan consists of 28 new single family lots (29 lots if including Robling's existing residence and lot) with a lot size averaging 75 feet wide with a minimum lot area of 9,000 square feet (~0.21 acres). The dimensions are generally similar to the homes in Founders Ridge that average out to be 75-80 feet wide and approximately 0.25 acres.

The parcels of land that this development encompasses are currently zoned R1 and Open (O), which is a 'holding zone' until it develops. The area in question will be rezoned to a more appropriate zoning district, such as Planned Residential Development (PRD).

Layout
Due to its natural topography and the creek the Carlson property is divided north and south. The North portion is proposed to be developed first due to its proximity to road stubs and utilities. The South portion will likely wait until development south of Founders Ridge occurs.

The layout of the site will come from the extension of Founders Path to the west from Founders Ridge. The road will travel easterly until the eastern limits where it will terminate into a cul de sac on the eastern limits of Robling's land. A cul de sac is proposed as a north-south extension off of Founders Path on the northwest portion of the Carlson site. These roads will provide access to 29 lots. The Robling residence will remove their access on the County Road and stub into the new public street system.

Transportation/ROW/Construction Traffic
The preliminary plan proposes to provide for a network of internal residential roadways with connectivity to arterial roadways. Specifically, Founders Path is extended to the east to provide access to the development area. Founders Path will terminate into a cul de sac near the eastern edge of the Robling property. Another cul de sac is proposed just north of Founders Path on Carlson's side. The existing driveway access on Big Woods Boulevard (CR 44) for Carlson's site will be removed and all access will come from Founders Path for the new development and existing Robling property.

The current concept plan appears to show road right-of-way widths that are consistent with the City's typical 60 foot wide ROWs as they are matching up with the stub street of Founders Path.

Construction traffic is proposed to come from the existing Carlson driveway access which comes off of Big Woods Boulevard. The developer will have to work with the City Engineer and Carver County to obtain the necessary permits and regulations.

Utilities
Sewer and water utilities are available.

Stormwater
Stormwater ponding is proposed as a part of this proposal; 4 ponding areas have been delineated on the plan. Adequate maintenance accesses are shown into these areas and on separate outlots. Stormwater ponding will have to meet all Carver County WMO and City standards.

Setbacks
Minimum setbacks proposed are front setbacks of 25 feet, rear setbacks of 25 feet, side setbacks of 7.5 feet, and corner setbacks are 15 feet.

In addition to the above, the development must meet the following setbacks:

SETBACKS	
Direction	**Setback**
Wooded Steep Slopes	50 feet building setback and 30 feet no grade/no mow setback
Wetlands	30 feet
County Road 44	125 feet from centerline

Architecture & Anti Monotony
Johnson-Reiland Builders and Remodelers will be the sole builder in this development. They are a custom-home builder offering homes starting in the upper $600,000 price range.

City ordinance dictates that housing may not be similar within two houses to each side, directly across the street or diagonal from the house in question. This ordinance also requires that homes provide LP Smartside on the front elevations, at least 4 inch window trim on all windows, and provide varied color packages on homes within one home on each side and directly across the street. In addition, 360 architecture will be required on homes/elevations on corners and/or homes/elevations that abut major roadways. This ordinance has been very successful in other newer residential developments.

The following lots were subject to 360 degree architecture per the preliminary plat drawing of the full development dated February 17, 2022:

- Lots 1 & 8, Block 1
- Lot 2, Block 2
- Lot 2, Block 5

Trails & Sidewalks
There are no trails proposed as a part of this development nor are there trails called out for this area in the Comprehensive Plan. Because of this the developer will be required to pay trail fees, which will be wrapped into the Developer's Agreement. A public trail has been extended

on the north side of Big Woods Boulevard to the Highway 212 intersection when construction on County Road 44 was completed.

The developer will be required to provide sidewalks on both sides of the streets up to the bulbs of cul de sacs per City policy. The developer shows this in their preliminary submittal.

Screening, Landscaping & Tree Preservation

Because this development abuts a major roadway (Big Woods Boulevard; CR 44) it will be important that the homes that back up to this use have adequate screening. The site currently contains a rich vegetative buffer on the County Road that the plans are showing to keep a majority of; the existing Carlson driveway creates a small gap between the trees, which the plans are showing to fill in. The Carlson side will provide a buffer to the County Road from the existing home and wooded steep slope area.

Trees will be required in the boulevard in order to meet the City's Boulevard Tree Policy. It should be noted that the boulevard is the area between the sidewalk and the street.

Tree Preservation will be an important piece of this development. The applicant has conducted and submitted a tree survey as a part of this proposal. The woodlands consist of four cover types and include: altered/non-native woodland, big woods forest, planted evergreen trees and southern mesic maple-basswood forest.

Altered, Non-Native Woodland

This tree cover type occupies approximately 7.28 acres of the 14.5-acre survey area and is made up of trees that are relatively younger in age (40-60 years old) and are likely volunteer trees that have established over the years as the site was altered for pasturing and typical farming use. Trees that are found growing in this type of woodland include: box elder, American elm, green ash, silver maple, black walnut, quaking aspen, cottonwood, hackberry, and black cherry. This tree cover is situated mainly in the center and northern parts of the site.

Big Woods Forest

This tree cover type occupies approximately 3.95 acres of the 14.5-acre survey area and is made up of trees that range in age from young to large, mature trees that are part of the original forest cover type I this part of Chaska. In general, this forest type is relatively undisturbed and was likely not utilized for pasturing and typical farming activities. Trees that are found growing in this type of forest include: sugar maple, northern red oak, basswood, bur oak, hackberry, American elm, and black cherry. This tree cover is situated mainly in the southeast portion of the site and along the bluff edge.

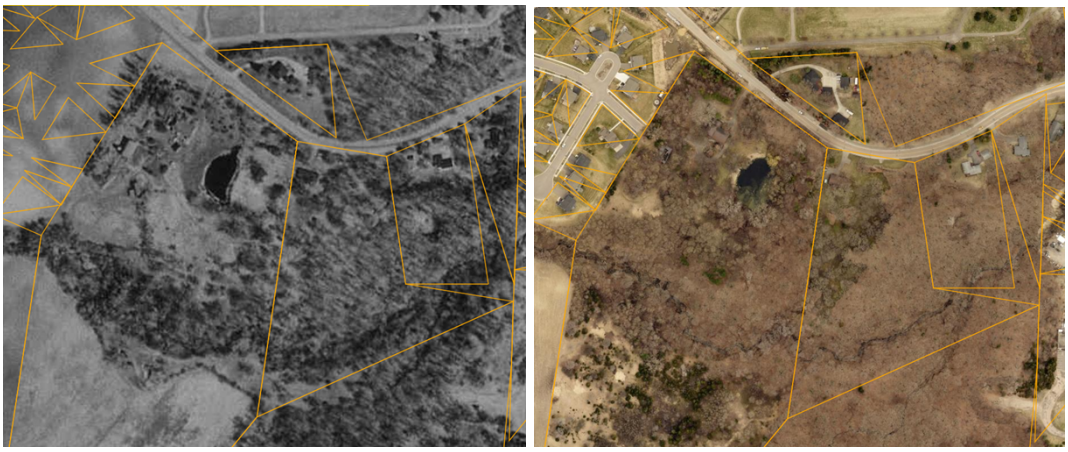
Planted Evergreen Trees

This tree cover type occupies approximately 0.79 acre of the 14.5-acre survey area and is made up of trees that range in age from young to mature trees that were planted sometime in the past by the land owner. Trees that are found growing in these planted areas include: red pine, red cedar, and white spruce. This tree cover area is situated mainly in the northwest and south portions of the site.

Southern Mesic Maple-Basswood Forest

The Southern Mesic Maple-Basswood Forest cover type is made up of young to mature deciduous trees that are typical of this native plant community. This plant community is commonly found associated with ravines with moderate to steep slopes in this part of Carver County along the Minnesota River valley. In general, the forested area on-site of the Robling property, consists of occasional large diameter trees with a DBH of greater than 20" (10.8% of all trees inventoried) with a moderate amount of medium-sized trees with a DBH ranging from 11-20" (33.5% of all trees inventoried) and a large number of smaller trees with a DBH ranging from 4-10" (55.7% of all trees inventoried). The larger trees found throughout this native plant community onsite are mainly bur oak with sugar maple, red oak, basswood, and hackberry. The subcanopy includes bur oak, sugar maple, hackberry, American and red elm, and basswood. The sapling to small tree strata includes almost all sugar maple with a few other tree species like basswood and ironwood. Throughout the forested areas on-site, the shrub layer was sparse with only an occasional common buckthorn or honeysuckle shrub.

The developer is showing areas for tree preservation, mainly along the edges of the site and around the wetland. From staff's perspective, the areas encompassed by Big Woods Forest and Southern Mesic Maple-Basswood Forest noted above should receive priority for preservation. The trees in this area are larger and more significant than the other areas, which is primarily on the Robling lot; these tree areas have also been more established on the property over time (see historical aerial comparisons below).



Historic Aerials (1991 to left; 2020 to right)

Approximately 2,200 trees were surveyed on the site. Of the inventoried trees approximately 1,350 trees will be saved, which amounts to 61% of the total trees. The Robling Property is fully wooded with a total of about 7 acres of Southern Mesic Maple-Basswood Forest and 2.6 acres of Scattered Large Trees that were planted as part of the Robling yard. Of the 7 acres of Mesic Forest, 2.7 acres is steep slope that will remain untouched. A total of 2.8 additional acres of Mesic Forest will be saved outside of the steep slopes for a total of 5.5 acres of saved Mesic Forest. Of the 2.8 acres of Mesic Forest saved outside of steep slopes, 0.9 acre is located north of the creek, 1.9 acres is located south of the creek. A total of about 1.5 acres of Mesic Forest (21%) will be removed for development.

The areas slated for tree preservation on the site appears generally consistent with the previous concept plan approved in 2021; more trees are saved with this new plan however. The street

section and required ponding will unfortunately disrupt a handful of trees. The trees along Robling's residence and on the north side of the site are shown to be preserved. The one exception is the required Robling driveway that will come from the new street section will eliminate some trees. Perimeter trees along the rear portions of the lots are the prime areas for preservation and are shown in a couple areas on the site. These areas encompass the Southern Mesic Maple-Basswood Forest area that is noted as the most significant trees on the site.

With the elimination of the private drive that was shown on the concept plan, more trees are preserved around the wetland area and Robling home. In addition, the cul de sac has been pulled back from the easterly lot line. Doing so provides additional tree preservation near the southeasterly portion of the site. This area also encompasses the Southern Mesic Maple-Basswood Forest area.

Parkland
Parkland is not proposed as a part of this development, nor does the Comprehensive Plan guide a park in this area. It will be required of the developer to pay park dedication fees.

Development Costs (Infrastructure Improvements)
The City of Chaska has a number of area-wide development cost such as, but not limited to:

- Arterial Road Network
- Collector Roads
- Storm Sewer
- Trails
- Parks

Prior to final platting, the developer will need to work with City Staff to determine which of these are applicable and what those fees will be.

Preliminary Plat
The site is proposed to be platted into 29 single-family lots. There are a number of outlots as well, and their dispositions are as follows:

- Outlot A: wetland and tree preservation to be dedicated to the City of Chaska
- Outlot B: stormwater ponding to be dedicated to the City of Chaska
- Outlot C: stormwater ponding to be dedicated to the City of Chaska
- Outlot D: bluff area to be dedicated to the City of Chaska
- Outlot E: stormwater ponding to be dedicated to the City of Chaska
- Outlot F: stormwater ponding to be dedicated to the City of Chaska
- Outlot G: bluff area to be dedicated to the City of Chaska

Rezoning
The property is being rezoned from Low Density Residence (R1) and Open (O) to Planned Residential District No. 81 (PRD-81).

Deadline for Agency Actions
The City of Chaska received the complete application for this request on Thursday, February 17, 2022. Pursuant to Minnesota State Statutes the City must act on this request by **Monday, April 18, 2022** (60 days), unless the City provides the petitioner with written reasons for an

additional 60-day review period. The additional review period would extend to *Friday, June 17, 2022*. The City may with the petitioners consent extend the review period beyond the Friday, June 17, 2022. Lastly, if the City denies the petitioners request "… it must state in writing the reasons for the denial at the time it denies the request."

PLANNING COMMISSION ACTION TAKEN 03/09/2022:

Motion to recommend to City Council approval of the Ensconced Woods Preliminary Plat for a 29-lot subdivision on 25 acres of land, subject to the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Project Narrative (pgs 1-9), prepared by Paul Reiland, Johnson-Reiland Builders and Remodelers, dated January 20, 2022
    b. Cover, prepared by Pioneer Engineering, dated February 17, 2022
    c. Legend, prepared by Pioneer Engineering, dated February 17, 2022
    d. Existing Conditions, prepared by Pioneer Engineering, dated February 17, 2022
    e. Preliminary Plat, prepared by Pioneer Engineering, dated February 17, 2022
    f. Preliminary Removal Plan, prepared by Pioneer Engineering, dated February 17, 2022
    g. Preliminary Overall Site & Construction Access Plan, prepared by Pioneer Engineering, dated February 17, 2022
    h. Preliminary Site Plan (pgs 2.2 & 2.3), prepared by Pioneer Engineering, dated February 17, 2022
    i. Preliminary Overall Grading Plan, prepared by Pioneer Engineering, dated February 17, 2022
    j. Preliminary Grading Plan (pgs 3.2 & 3.3), prepared by Pioneer Engineering, dated February 17, 2022
    k. Preliminary Erosion Control Plan (pgs 4.1 & 4.2), prepared by Pioneer Engineering, dated February 17, 2022
    l. Stormwater Pollution Prevention Plan, prepared by Pioneer Engineering, dated February 17, 2022
    m. Preliminary Seeding Plan, prepared by Pioneer Engineering, dated February 17, 2022
    n. Preliminary Details (pgs 7.1-7.3), prepared by Pioneer Engineering, dated February 17, 2022
    o. Preliminary Overall Utility Plan, prepared by Pioneer Engineering, dated February 17, 2022
    p. Preliminary Sanitary Sewer & Watermain Plan (pgs 9.1 & 9.2), prepared by Pioneer Engineering, dated February 17, 2022
    q. Preliminary Storm Sewer Plan (pgs 10.1-10.3), prepared by Pioneer Engineering, dated February 17, 2022
    r. Landscape Plan, prepared by Pioneer Engineering, dated February 17, 2022
    s. Tree Preservation (pgs T1-T6), prepared by Pioneer Engineering, dated February 17, 2022
2. Adherence with the City Engineer's Memo dated March 9, 2022.
3. Provision that all lot lines are outside of wetland areas and their required buffers.
4. Adherence to the City's Boulevard Tree Policy and local street section design.
5. Provision that boulevard trees are placed between the sidewalk and street.
6. Provision of sidewalks on both sides of all local streets up to the bulb of cul de sacs.
7. Adherence to the following building setbacks:
    a. Front (house): 25 feet
    b. Rear: 25 feet
    c. Side(house/garage): 7.5 feet
    d. Side (corner): 15 feet
8. Adherence to the 125 foot centerline building setback from County Road 44.
9. Prior to final plat approval, developer shall enter into an agreement with the City for the provision of necessary infrastructure and associated development costs.
10. Compliance with the City's anti-monotony and design requirements zoning ordinance (Section 15.28.290).
11. Preservation of the wooded steep slopes, including 30-foot buffer and a 50-foot setback from that wooded steep slope.

12. Provision of developer responsibility to remove any hazardous trees or limbs on site as determined by the Public Works Director, prior to issuance of a building permit.
13. Provision of a storm water management plan meeting City and Carver County WMO standards.
14. Provision of a construction traffic plan to utilize the existing Carlson driveway and in adherence with Carver County requirements.
15. No direct vehicular access onto County Road 44 will be permitted.
16. Provision that 360-degree architecture shall be provided for all corner lots and all lots whose rear or sides are visible from public right's-of-way or across from open spaces, more specifically for these lots as seen in the preliminary plat of Ensconced Woods dated February 17, 2022:
    a. Lots 1 & 8, Block 1
    b. Lot 2, Block 2
    c. Lot 2, Block 5

Motion to recommend approval of the rezoning for Ensconced Woods from Low Density Residence (R1) and Open (O) to Planned Residential District No. 81 (PRD-81).

CITY COUNCIL ACTION REQUESTED

Motion to adopt Resolution No. 2022-24 approving the Ensconced Woods Preliminary Plat (PC #2022-17).

Motion to adopt Ordinance No. 1010 approving the rezoning for Ensconced Woods from Low Density Residence (R1) and Open (O) to Planned Residential District No. 81 (PRD-81).

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 03/21/2022 RESOLUTION NO. 2022-24

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

Resolution approving the Preliminary Plat for Ensconced Woods/Johnson-Reiland Builders and Remodelers/PC #2022-17

WHEREAS, the 29-lot detached single-family proposal on approximately 25-acres of property is located south of County Road 44 (Big Woods Blvd) and east of the Founders Ridge development on both Carlson and Robling's land; and

WHEREAS, the area south of the creek on Linda Carlson's land will be retained by Linda Carlson for future development; the area south of the creek on the Robling land is wooded steep slope and won't be further developed; and

WHEREAS, the Robling residence will remove their access on the County Road and stub into the new public street system; and

WHEREAS, construction traffic is proposed to come from the existing Carlson driveway access which comes off of Big Woods Boulevard; and

WHEREAS, the developer will have to work with the City Engineer and Carver County to obtain the necessary permits and regulations; and

WHEREAS, there are no trails proposed as a part of this development nor are there trails called out for this area in the Comprehensive Plan, and because of this the developer will be required to pay trail fees, which will be wrapped into the Developer's Agreement; and

WHEREAS, parkland is not proposed as a part of this development, nor does the Comprehensive Plan guide a park in this area, and it will be required of the developer to pay park dedication fees; and

WHEREAS, approximately 2,200 trees were surveyed on the site, and of the inventoried trees approximately 1,350 trees will be saved, which amounts to 61% of the total trees; and

WHEREAS, the Robling Property is fully wooded with a total of about 7 acres of Southern Mesic Maple-Basswood Forest and 2.6 acres of Scattered Large Trees that were planted as part of the Robling yard; and

WHEREAS, of the 7 acres of Mesic Forest, 2.7 acres is steep slope that will remain untouched, and a total of 2.8 additional acres of Mesic Forest will be saved outside of the steep slopes for a total of 5.5 acres of saved Mesic Forest; and

WHEREAS, a total of about 1.5 acres of Mesic Forest (21%) will be removed for development; and

WHEREAS, the site is proposed to be platted into 29 single-family lots, and there are a number of outlots as well, and their dispositions are as follows:

- Outlot A: wetland and tree preservation to be dedicated to the City of Chaska
- Outlot B: stormwater ponding to be dedicated to the City of Chaska
- Outlot C: stormwater ponding to be dedicated to the City of Chaska
- Outlot D: bluff area to be dedicated to the City of Chaska
- Outlot E: stormwater ponding to be dedicated to the City of Chaska
- Outlot F: stormwater ponding to be dedicated to the City of Chaska
- Outlot G: bluff area to be dedicated to the City of Chaska; and

WHEREAS, on March 9, 2022 the Planning Commission recommended approval to the City Council of Preliminary Plat for Ensconced Woods (PC#2022-17); and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota, hereby approves Preliminary Plat for Ensconced Woods (PC#2022-17), subject to the aforementioned stipulations and following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Project Narrative (pgs 1-9), prepared by Paul Reiland, Johnson-Reiland Builders and Remodelers, dated January 20, 2022
    b. Cover, prepared by Pioneer Engineering, dated February 17, 2022
    c. Legend, prepared by Pioneer Engineering, dated February 17, 2022
    d. Existing Conditions, prepared by Pioneer Engineering, dated February 17, 2022
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    q. Preliminary Storm Sewer Plan (pgs 10.1-10.3), prepared by Pioneer Engineering, dated February 17, 2022
    r. Landscape Plan, prepared by Pioneer Engineering, dated February 17, 2022
    s. Tree Preservation (pgs T1-T6), prepared by Pioneer Engineering, dated February 17, 2022
2. Adherence with the City Engineer's Memo dated March 9, 2022.
3. Adherence with Carver County Public Works Memo dated March 16, 2022.
4. Provision that all lot lines are outside of wetland areas and their required buffers.
5. Adherence to the City's Boulevard Tree Policy and local street section design.
6. Provision that boulevard trees are placed between the sidewalk and street.
7. Provision of sidewalks on both sides of all local streets up to the bulb of cul de sacs.
8. Adherence to the following building setbacks:
    a. Front (house): 25 feet
    b. Rear: 25 feet
    c. Side(house/garage): 7.5 feet
    d. Side (corner): 15 feet
9. Adherence to the 125 foot centerline building setback from County Road 44.
10. Prior to final plat approval, developer shall enter into an agreement with the City for the provision of necessary infrastructure and associated development costs.
11. Compliance with the City's anti-monotony and design requirements zoning ordinance (Section 15.28.290).

12. Preservation of the wooded steep slopes, including 30-foot buffer and a 50-foot setback from that wooded steep slope.
13. Provision of developer responsibility to remove any hazardous trees or limbs on site as determined by the Public Works Director, prior to issuance of a building permit.
14. Provision of a storm water management plan meeting City and Carver County WMO standards.
15. Provision of a construction traffic plan to utilize the existing Carlson driveway and in adherence with Carver County requirements.
16. No direct vehicular access onto County Road 44 will be permitted.
17. Provision that 360-degree architecture shall be provided for all corner lots and all lots whose rear or sides are visible from public right's-of-way or across from open spaces, more specifically for these lots as seen in the preliminary plat of Ensconced Woods dated February 17, 2022:
    a. Lots 1 & 8, Block 1
    b. Lot 2, Block 2
    c. Lot 2, Block 5

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 21st day of March, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Chaska Deputy Clerk

CITY OF CHASKA

ORDINANCE # 1010

MOTION BY COUNCILMEMBER _____, SECOND BY COUNCILMEMBER _____

AN ORDINANCE AMENDING ORDINANCE NO. 229 (ZONING ORDINANCE) BY REZONING CERTAIN REAL ESTATE WITHIN THE CITY OF CHASKA

THE CITY COUNCIL OF THE CITY OF CHASKA DO ORDAIN:

Section I. Rezoning. The boundaries of the Zoning Districts as established by Ordinance No. 229 and as shown on the Zoning Map of Chaska, Minnesota are hereby amended as follows:

The following described real estate is hereby removed from the Low Density Residence (R1) and Open (O) zoning districts and rezoned to Planned Residential District No. 81 (PRD-81) for all of Blocks 1-5 of the recorded plat of Ensconced Woods.

The following graphic exhibits shall serve as the general guide for development of the Ensconced Woods area:

1. Cover, prepared by Pioneer Engineering, dated February 17, 2022
2. Legend, prepared by Pioneer Engineering, dated February 17, 2022
3. Existing Conditions, prepared by Pioneer Engineering, dated February 17, 2022
4. Preliminary Plat, prepared by Pioneer Engineering, dated February 17, 2022
5. Preliminary Removal Plan, prepared by Pioneer Engineering, dated February 17, 2022
6. Preliminary Overall Site & Construction Access Plan, prepared by Pioneer Engineering, dated February 17, 2022
7. Preliminary Site Plan (pgs 2.2 & 2.3), prepared by Pioneer Engineering, dated February 17, 2022
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12. Preliminary Seeding Plan, prepared by Pioneer Engineering, dated February 17, 2022

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16. Preliminary Storm Sewer Plan (pgs 10.1-10.3), prepared by Pioneer Engineering, dated February 17, 2022
17. Landscape Plan, prepared by Pioneer Engineering, dated February 17, 2022
18. Tree Preservation (pgs T1-T6), prepared by Pioneer Engineering, dated February 17, 2022

Section II. **PRD-81 District regulations.** Permitted uses and regulations applicable to the PRD-81 District shall be as follows:

A. Intent

The intent of PRD-81 is to create a Low Density Residential neighborhood with the following Key Elements, which is reflective of the SW Chaska Growth and Development Plan:

- Housing is predominately single-family detached houses.
- A mix of single-family detached lot sizes, housing sizes, prices and ownership styles provided.
- Large-lot, higher-priced housing opportunities are located proximate to downtown, at neighborhood edges and adjacent to natural areas.
- Block sizes and curvilinear grid street network that support a walkable residential neighborhood environment; smaller blocks near the neighborhood center with larger blocks allowed on neighborhood edges.
- Housing is oriented to streets to create an attractive and walkable residential neighborhood environment.
- Streets designed to balance walking, biking and driving needs.

B. Guiding Principles

The Guiding Principles for Neighborhoods in the SW Chaska Growth and Development Plan are as follows:

- Neighborhoods that have an identifiable center and edges.
- Neighborhoods where the most important and visible property is utilized by public gathering places (e.g. civic buildings, schools, parks, plazas).
- Neighborhoods whose size is limited by the distance from the edge to the center, generally a five to ten minute walk (1/4 to 1/2 mile radius).

- Neighborhoods that consist of an integrated network of walkable streets.
- Neighborhoods that have strong physical connections to the overall community, including the historic downtown, community facilities and parks, street network, open space and trails network.
- Neighborhoods that contain diversity in land uses, housing types, housing sizes, housing prices, and styles of ownership, thereby, providing good lifecycle and affordable housing options for residents.

C. <u>SW Chaska Growth & Development Plan</u>

The document entitled "SW Chaska Growth and Development Plan" shall serve as the development guide for this development.

D. <u>Detached Single Family</u>

The following described real estate shall be limited in its use to Detached Single Family all of Blocks 1-5, all in the plat of Ensconced Woods, Carver County, Minnesota.

1. Permitted Uses shall be those as found in the R1-Low Density Residence, zoning ordinance Section 15.12.050, Special uses shall be those as found in the zoning ordinance Section 15.12.050C, and Accessory uses shall be as found in the zoning ordinance Section 15.12.050D.
2. The principal building setbacks for the development shall be:
    a. Front: 25 feet
    b. Rear: 25 feet
    c. Side: 7.5 feet
    d. Side (corner): 15 feet
    e. Centerline of County Road 44 (Big Woods Blvd): 125 feet
3. The accessory structure setbacks for the development shall be:
    a. Front: 25 feet
    b. Rear: 10 feet
    c. Side, corner: 15 feet
    d. Side, interior: 5 feet
    e. Centerline of County Road 44 (Big Woods Blvd): 125 feet
    f. In addition, no swimming pools or other recreational courts or appurtenant equipment shall be located in a front or side yard. Setbacks shall be measured from the impervious surfaces of such uses.
4. Preservation of wooded steep slopes, including 30-foot no grade/no mow from the wooded steep slope edge, and a 50-foot building setback from the wooded steep slope edge.
5. 360-degree architecture shall be provided for all corner lots and all lots whose rear or sides are visible from public right's-of-way or across from open spaces, and are as follows per the preliminary plat of Ensconced Woods dated February 17, 2022:
    a. Lots 1 & 8, Block 1

b. Lot 2, Block 2
c. Lot 2, Block 5

E. Outlots

The following described real estate shall be limited in its use to the following:

- **Outlot A:** wetland and tree preservation to be dedicated to the City of Chaska
- **Outlot B:** stormwater ponding to be dedicated to the City of Chaska
- **Outlot C:** stormwater ponding to be dedicated to the City of Chaska
- **Outlot D:** bluff area to be dedicated to the City of Chaska
- **Outlot E:** stormwater ponding to be dedicated to the City of Chaska
- **Outlot F:** stormwater ponding to be dedicated to the City of Chaska
- **Outlot G:** bluff area to be dedicated to the City of Chaska

all in the plat of Ensconced Woods, Carver County, Minnesota.

Section III. Effective Date. This Ordinance shall be in full force and effect from and after its date of passage, adoption, and publication according to law.

Passed and adopted by the City Council of the City of Chaska, Minnesota this 21st day of March, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Deputy Clerk

City of Chaska
Memorandum

To: **Planning Commission**
From: **Matt Clark**
Date: **March 9, 2022**
Subject: **Ensconced Woods – Carlson and Robling Property – Preliminary Plat**

The Carlson and Robling development represents a continuation of City's comprehensive planned residential development in the SW area of Chaska. In anticipation of this development activity, trunk sanitary sewer and water main utilities to service the proposed development from Big Wood Boulevard (CSAH 44).

The wetland that exists over the central area of the Carlson property is being preserved and the site plan proposes no impacts. The final site plan will need adhere to City standards for buffer requirements. The storm water management and grading plan for the site requires City and watershed approval prior to grading work occurring.

Construction access into the development via Big Woods Boulevard will need to be coordinated with Carver County Public Works for permitting. Sewer and water utility connections into the County highway will need to be coordinated with Carver County and City staff and a traffic control plan will need to be included with the construction plans. The final construction plans will need to be coordinated with public works and engineering, and a development agreement will be required with the final plat approval.

ONE CITY HALL PLAZA/CHASKA, MN 55318-1962/PH: (952) 448-2851/ FX: (952) 448-9300

To: City of Chaska

From: Paul Reiland, Johnson-Reiland Builders and Remodelers

Re: Ensconced Woods Preliminary Plat and Re-Zoning

Date: January 20, 2022

Thank you for taking the time to review our preliminary plat and rezoning applications for Ensconced Woods.

The Property and Site Features

The property is located south of County Road 44 and the Guardian Angels Cemetery and east of Founder's Ridge. There are two properties that are part of this application, the Carlson property and the Robling property. The Carlson property consists of about 30 acres of wooded, rolling terrain, with one wetland and a creek dividing the property in half. There is currently a home and outbuildings on the property, all of which will be removed at the time of development of a future phase. Only the roughly 15 acres on the north side of the creek is proposed to be developed at this time. The Robling piece is about 10 acres of wooded, rolling terrain also with a creek running along the south boundary. The slopes going down to the creek will be left undisturbed creating nice views to the south. The proposed development around the wetland will be sensitive to maintaining existing vegetation around the wetland, specifically the large willow along the east side. Access to the property will be through Founders Ridge with a temporary construction easement provided at the current Carlson property access onto County Road 44. Much of the property is enveloped in defined steep slope as shown on the grading plan. This area will remain undisturbed and be kept in its natural wooded state keeping views toward the creek at the south end of the development area.

Johnson-Reiland is purchasing the land north of the creek on the Carlson Property and purchasing the entire Robling property with the area south of the creek remaining undeveloped. The Carlsons will stay in their home only until sometime in the summer of 2022. The house will be torn down as part of the one phase construction of the entire project.

Location

This larger lot neighborhood with custom homes is conducive to the existing features on site while meeting the minimum density requirement, saving a large portion of the existing quality woodland on site, creating no impact to the steep slopes, and providing a large open space area along the creek which may be privately or publicly held maintained in a conservation easement in perpetuity. The previously approved site plan on the Carlson property was denser with smaller lots. This new application will strive to save even more trees through the design of custom homes on fewer lots.

Changes to Concept From April to September 2021

The changes to the site plan that was submitted in April 2021 to the site plan submitted September 2021 were made to the lot sizes and cul-de-sac length. The lot sizes were reduced down from 80' to 75' in compliance with R-1 zoning in an effort to save as many trees as possible. We managed to save more trees primarily in the northwest corner where the cul-de-sac was pulled back about 50'. In doing this, we had to reduce the lot sizes to maintain the density.

Changes to Preliminary Plat From the September 2021 Concept Plan

At the request of the City, the private drive shared by four lots was removed and in doing this, one lot was removed from the site plan. The ponds were enlarged to ensure compliance with all City engineering requirements. The Robling home will still remain but will be provided a new access into the new development with the existing driveway onto County Road 44 removed. The Robling House will be renovated, as part of that renovation a sprinkler system will be installed to meet Fire Code.

Zoning

The property is currently zoned R1&O. We will request a rezoning to R1 PUD.

Land Use

The 2040 comprehensive plan designates the property for Low Density Residential which allows for 2-5 units/acre net. The concept plan as shown is the minimum 2 units/acre net.

PUD Flexibility

The R1 zoning requires minimum 75' width and 9,000 sf area. We are proposing all lots meet these R1 width and area requirements except 2. The two lots behind the existing Robling house will be 66' and 73' wide to accommodate the relocated Robling driveway in order to remove their access from County Road 44. We are requesting 25' front yard setbacks as opposed to the 30' required in R-1 districts. Reducing the front yard setback to 25' is becoming standard across the metro as it reduces the amount of impervious surface coverage with shorter driveways, as well as allows shorter, more efficient services to the individual homes. R-1 requires 30' rear yard setback. We are requesting 25' rear yard setback where the yards abut interior features such as wooded open space, steep slopes, or wetland and 30' where a rear yard abuts the project boundary. This 5' reduction on the interior allows us to dedicate more land to open space containing wetlands, woodlands, and steep slopes. We are also requesting 5' side yard setbacks to help maintain the minimum density and provide enough area on the lots to build our homes. We are proposing most lots that meet the R1 area and width requirements and we are just meeting the low end of the required density as per the 2040 land use plan. We are asking for some setback reductions for efficiency and to help accommodate our homes on our proposed lots.

All outlots will be dedicated to the City.

Infrastructure

We are proposing a public road connection to the Founder's Ridge stub street on the west property line. There will not be direct access to County Road 44. It is not anticipated that this few lots will have any significant impact to traffic through Founder's Ridge and ultimately up to County Road 44. It was always anticipated that this stub street on the east edge of Founders Ridge would be extended into Carlson and then Robling. We are proposing to finish this idea. The County is not allowing a direct access onto County Road 44. We are proposing a temporary construction access at the current Carlson property access onto 44.

Ponding will be engineered to meet all state and local stormwater requirements and were enlarged from the original submitted concept plans to meet all requirements.

We will propose sanitary sewer to connect at Founder's Ridge running along our proposed right-of-way connecting back to County Road 44 east of the Robling house. The site will connect to the community to Big Woods Boulevard via Founders Path. This will give people pedestrian, bicycle, or vehicle access directly into downtown Chaska with easy access to County Road 41. The site will be mass graded leaving as many of the perimeter trees in tact as possible as well as leaving the sloped woodland down to the creek undisturbed and the wetland and wetland buffer.

Brand

Johnson-Reiland Homes has worked for decades to build our award-winning brand and look forward to constructing our custom homes and with those, our image and reputation in this new neighborhood and the City of Chaska. We are still determining how best to identify our neighborhood but one option may be a monument of some kind on the western edge of the property at Founders Path. It is our expectation that our custom homes will speak volumes in terms of our brand, our quality, and the pride we have in our designs and workmanship.

The Homes

We will be offering custom homes starting in the upper $600's. Please see attached informational sheets which show examples of some of the homes you may see here.

Grading and Tree Preservation

It is anticipated that the site will be mass graded for the 28 proposed lots (this excludes the existing Robling home that will remain mostly undisturbed). In order to reasonably grade the proposed road and building pads, the trees that currently exist within the proposed road, front yards, and building pads will be removed. We understand that the woodlands are of importance to the City and we will make every effort to save what can be saved. The steep slopes and wetland buffers will remain in their natural state saving a large portion of the existing woodland. By reducing the front yard setbacks and interior rear yard setbacks (reduced rear yard interior setbacks places more land within the outlots), we are doing all we can to save woodland while meeting the absolute bare minimum density requirement as per the City's land use plan. If we drop below the 29 lots we are proposing, we fall below the minimum density requirement. We ask the City to take into consideration everything we are doing to ensure the most woodland that can be saved will be saved while meeting the 2040 guide plan density requirement and creating a new neighborhood that is not only feasible for us but one that we will be proud to build in the City of Chaska.

It is anticipated that most trees located in this application from the proposed right-of-way out to the finished building pads will be removed. This will be graded as a traditional development mass grading the road to the pads. In our revisions to the previous site plans, we worked hard at saving trees along the west and east edge at the direction of the City. Below is a detailed analysis of each of the tree cover types as well as areas of saved and removed trees. We are saving the majority of the Mesic and Big Woods Forest. The largest number of trees being removed are Non-Natives. A full tree inventory and tree preservation plan are submitted with this application.

Ken Arndt, an urban forester from Midwest Natural Resources, has conducted several site visits and inventoried the trees on both properties as well as provided analysis of the woodland cover types. Ken's

cover type exhibits are included with this narrative. Much of the nearly 25 acres proposed to be developed is wooded. Both properties include a home surrounded by landscape trees, some open grassland with a few scattered trees on Carlson, and the wetland in the central part of the property. The woodlands consist of three cover types and include: altered, non-native woodland, big woods forest, and planted evergreen trees. The following descriptions of the woodland cover types are provided by Ken Arndt with analysis of the removal in italics by Pioneer Engineering:

Altered, Non-Native Woodland

This tree cover type is made up of trees that are relatively younger in age (40-60 years old) and are likely volunteer trees that have established over the years as the site was altered for pasturing and typical farming use. Trees that are found growing in this type of woodland include: box elder, American elm, green ash, silver maple, black walnut, quaking aspen, cottonwood, hackberry, and black cherry.

The majority of the 2.6 acres of Non-Native Woodland on the Robling and 7 acres on the Carlson Properties will be removed with small areas being saved on the Carlson Property along the north and northeast property lines as well as the southwest corner. The proposed landscape plan will be replacing these removed non-natives with high quality maple, honeylocust, oak, hackberry, and linden.

Big Woods Forest

This tree cover type is made up of trees that range in age from young to large, mature trees that are part of the original forest cover type in this part of Chaska. In general, this forest type is relatively undisturbed and was likely not utilized for pasturing and typical farming activities. Trees that are found growing in this type of forest include: sugar maple, northern red oak, basswood, bur oak, hackberry, American elm, and black cherry.

The Carlson Property consists of about 4 acres of Big Woods. Of the 4 acres of Big Woods, 2.4 acres is steep slope to remain untouched. An additional 1 acre will be saved outside of steep slopes for a total of 3.4 acres of saved Big Woods. A total of about 0.5 acres (12.5%) of Big Woods will be removed for development.

Planted Evergreen Trees

This tree cover type is made up of trees that range in age from young to mature trees that were planted sometime in the past by the land owner. Trees that are found growing in these planted areas include: red pine, red cedar, and white spruce.

The Planted Evergreens are located solely on the Carlson Property and the majority will be saved along the north property line as well as most of those on the east property line near the Robling house.

Southern Mesic Maple-Basswood Forest

The Southern Mesic Maple-Basswood Forest cover type is made up of young to mature deciduous trees that are typical of this native plant community. This plant community is commonly found associated with ravines with moderate to steep slopes in this part of Carver County along the Minnesota River valley. In general, the forested area on-site, consists of occasional large diameter trees with a DBH of greater than 20" (10.8% of all trees inventoried) with a moderate amount of medium-sized trees with a DBH ranging

from 11-20" (33.5% of all trees inventoried) and a large number of smaller trees with a DBH ranging from 4-10" (55.7% of all trees inventoried). The larger trees found throughout this native plant community on-site are mainly bur oak with sugar maple, red oak, basswood, and hackberry. The subcanopy includes bur oak, sugar maple, hackberry, American and red elm, and basswood. The sapling to small tree strata includes almost all sugar maple with a few other tree species like basswood and ironwood. Throughout the forested areas on-site, the shrub layer was sparse with only an occasional common buckthorn or honeysuckle shrub.

The Robling Property is fully wooded with a total of about 7 acres of Southern Mesic Maple-Basswood Forest and 2.6 acres of Scattered Large Trees that were planted as part of the Robling yard. Of the 7 acres of Mesic Forest, 2.7 acres is steep slope that will remain untouched. A total of 2.8 additional acres of Mesic Forest will be saved outside of the steep slopes for a total of 5.5 acres of saved Mesic Forest. Of the 2.8 acres of Mesic Forest saved outside of steep slopes, 0.9 acre is located north of the creek, 1.9 acres is located south of the creek. A total of about 1.5 acres of Mesic Forest (21%) will be removed for development.

From a recent conversation with the current land-owner, it was noted that prior to him taking ownership of the Robling property 37-years ago, the forested areas on-site were used for pasturing. This past land use has influenced the succession of trees which can be observed today with the presence of a large number of younger trees that began to establish once pasturing was no longer taking place.

A total of 1,210 significant trees were inventoried within the 14.5-acre survey area on the Carlson property and the following is a breakdown of the trees that were inventoried:

Box Elder	22.9%	(277 trees)	Norway Maple	0.9%	(11 trees)
American Elm	13.2%	(160 trees)	Butternut	0.5%	(6 trees)
Red Pine	13.1%	(158 trees)	Black Cherry	0.4%	(5 trees)
Sugar Maple	7.3%	(89 trees)	Quaking Aspen	0.4%	(5 trees)
Red Oak	6.8%	(82 trees)	Mulberry	0.3%	(4 trees)
Green Ash	5.9%	(71 trees)	Colorado Blue Spruce	0.3%	(4 trees)
Red Cedar	4.6%	(56 trees)	Apple	0.2%	(3 trees)
Black Walnut	3.3%	(40 trees)	White Cedar	0.2%	(3 trees)
Silver Maple	3.1%	(38 trees)	Paper Birch	0.2%	(2 trees)
White Spruce	2.7%	(33 trees)	Austrian Pine	0.1%	(1 tree)
Hackberry	2.6%	(32 trees)	Balsam Fir	0.1%	(1 tree)
Bur Oak	2.5%	(30 trees)	Honey Locust	0.1%	(1 tree)
Cottonwood	2.1%	(25 trees)	Ironwood	0.1%	(1 tree)
Crabapple	2.1%	(25 trees)	Ohio Buckeye	0.1%	(1 tree)
Whitecrack Willow	1.6%	(19 trees)	Weeping Willow	0.1%	(1 tree)
Basswood	1.1%	(13 trees)	White Oak	0.1%	(1 tree)
Siberian Elm	1.1%	(13 trees)			

A total of 998 significant trees were inventoried within the survey area north of the stream on the Robling property and the following is a breakdown of the trees that were inventoried:

Bur Oak	28.3%	(282 trees)
Sugar Maple	18.8%	(188 trees)
Red Oak	14.5%	(145 trees)
Basswood	12.7%	(127 trees)
Hackberry	6.9%	(69 trees)
Red Cedar	5.9%	(59 trees)
American Elm	3.7%	(37 trees)
Siberian Elm	2.4%	(24 trees)
Red Elm	2.0%	(20 trees)
Ironwood	1.7%	(17 trees)
Bitternut Hickory	1.4%	(14 trees)
Black Ash	0.7%	(7 trees)
Green Ash	0.4%	(4 trees)
Box Elder	0.3%	(3 trees)
Black Cherry	0.1%	(1 tree)
Apple	0.1%	(1 tree)

Wetlands

Wetland A is located in the north, central part of the property in a closed depressional area. This wetland is mainly an open water body with a narrow fringe of fresh wet meadow that is dominated by reed canary grass. The floating plant lesser duckweed was observed across much of the open water part of the wetland at the time of the survey in early May.

Based on review of historical air photo imagery from the University of Minnesota, sometime between 1957 and 1964 this wetland was excavated and converted from a fresh wet meadow type wetland to more of an open water wetland. We are not proposing any wetland impact and upon development of this property, we will provide the required buffer.

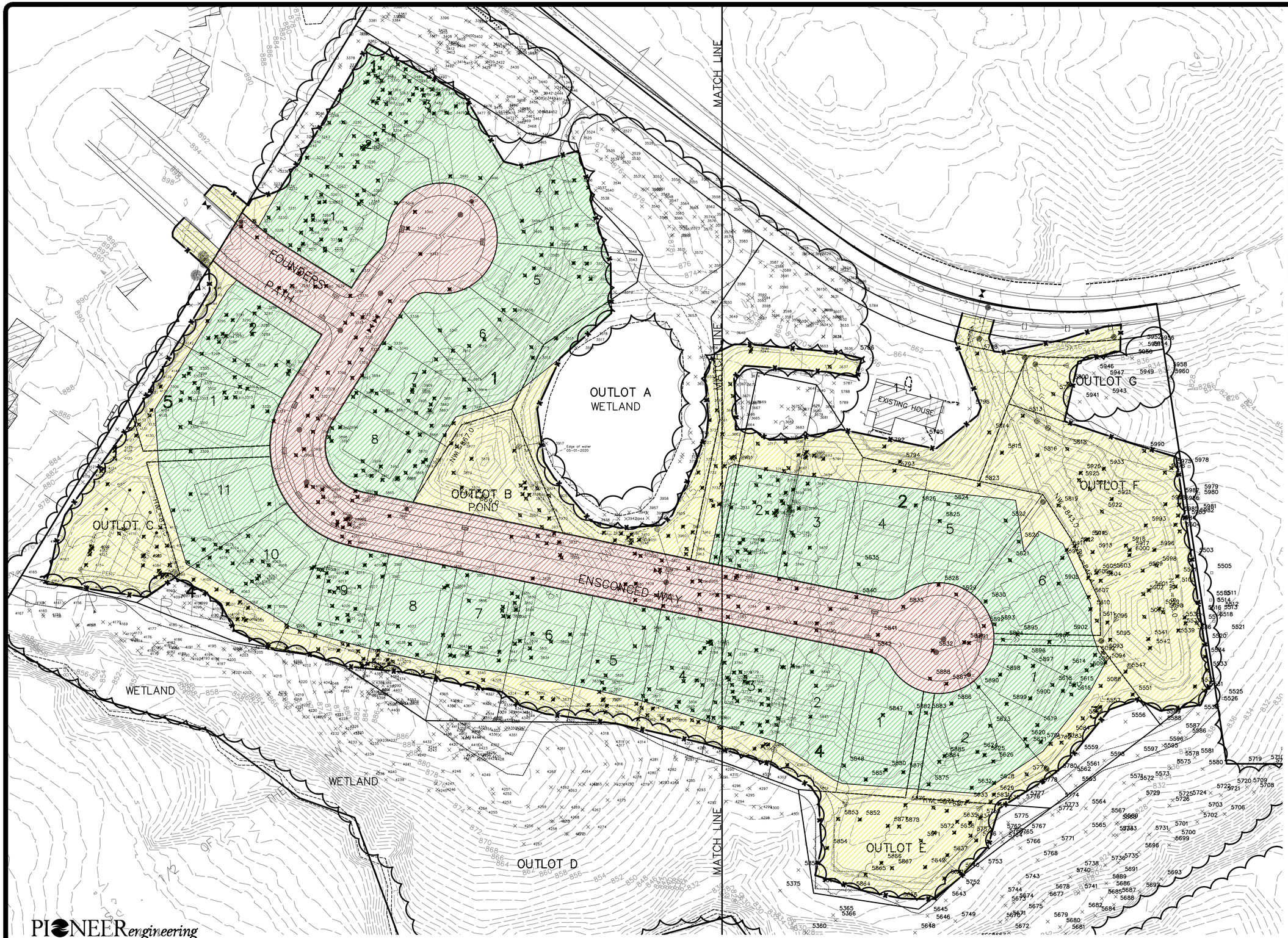
Chaska's Mission Statement and Core Strategies

The City has goals of well-planned, orderly development and sense of community and small town values. The development we are proposing is sensitive to the environmental features of the site by placing the creek and wooded steep slopes into an easement to be conserved in perpetuity, in keeping with the comprehensive plan. These lots will provide the ability to build unique, high-quality homes creating a beautiful sense of neighborhood.

Project Goals and Guiding Principals

- Create a new neighborhood on a developable piece of property that has utilities and right-of-way access available.
- Provide a unique, larger lot opportunity for high-end custom homes.
- Save as many trees as possible while still meeting the minimum comprehensive plan density range.
- Maintain the creek and wooded slopes in an easement to be conserved in perpetuity.
- Design this new neighborhood with a sense of community and connection.
- Create a development for a unique, high-end housing product that stands out in its custom designs while at the same time fits into Chaska's sense of community and small-town values.

We appreciate the City taking the time to review our concept plan application. We look forward to working with Chaska as we move forward with our application.



PIONEERengineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS

2422 Enterprise Drive
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www.pioneereng.com

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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 Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 9-7-21

Revisions
1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed TLM
Drawn TLM

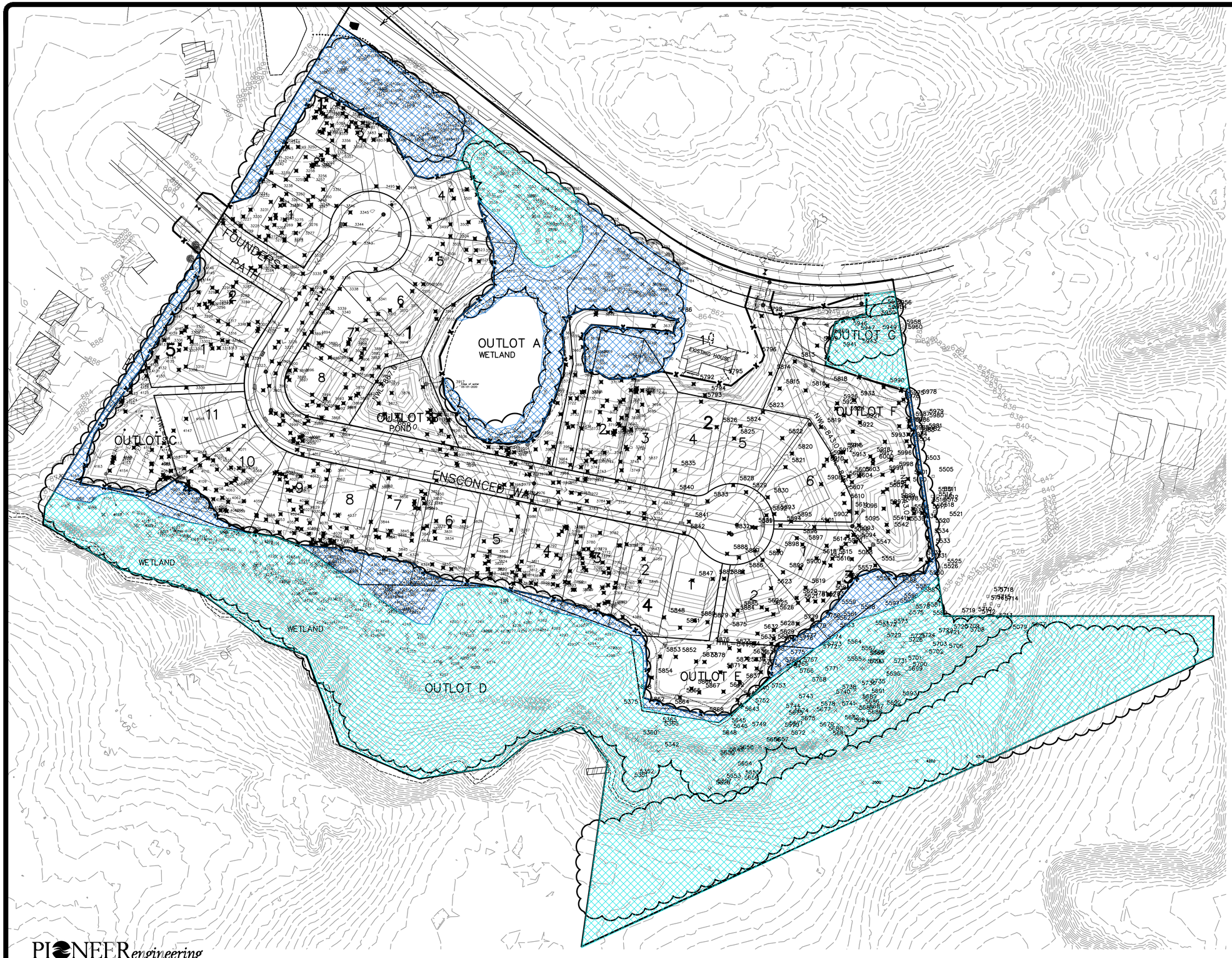
TREE PRESERVATION

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

E1 OF 2

01-PLAN-120158-SHEET-TREE.DWG



TREES SAVED::

OUTSIDE STEEP SLOPE AREAS

WITHIN STEEP SLOPE AREAS

N

0 35 70 140

GRAPHIC SCALE IN FEET

01-PLAN-120158-SHEET-TREE.DWG

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Checked JLT

TREE PRESERVATION

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

E2 OF 2

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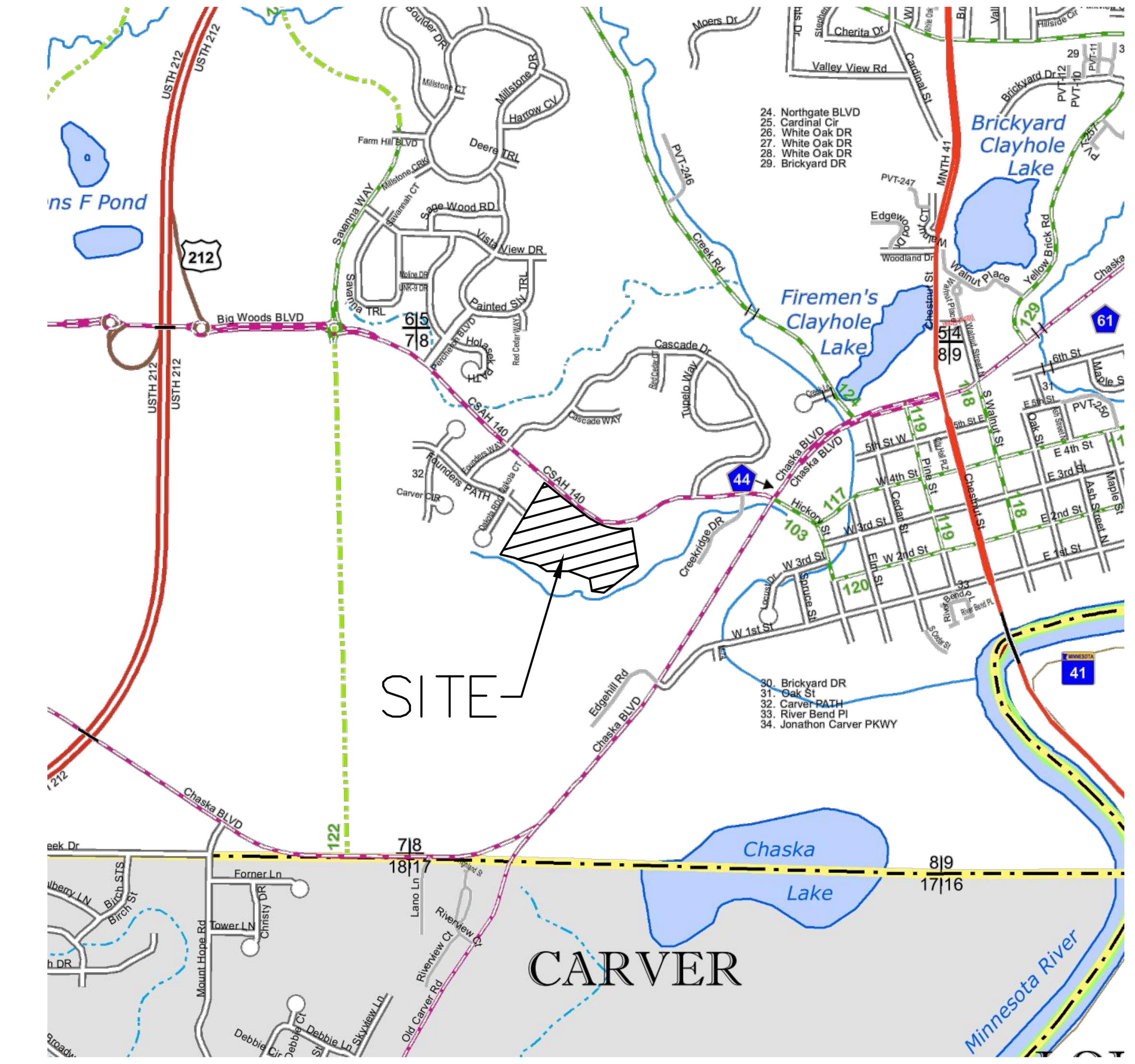
ENSCONCED WOODS P.U.D.
PRELIMINARY PLAT
CHASKA, MINNESOTA



LOCATION MAP

0 40 80 160
GRAPHIC SCALE IN FEET

SHEET INDEX

0.1	COVER
0.2	LEGEND
1.1	EXISTING CONDITIONS
1.2	PRELIMINARY PLAT
1.3	PRELIMINARY REMOVAL PLAN
2.1	PRELIMINARY OVERALL SITE PLAN
2.2-2.3	PRELIMINARY SITE PLAN
3.1	PRELIMINARY OVERALL GRADING PLAN
3.2-3.3	PRELIMINARY GRADING PLAN
4.1-4.2	PRELIMINARY EROSION CONTROL PLAN
5.1	PRELIMINARY SWPPP
6.1	PRELIMINARY SEEDING PLAN
7.1-7.3	PRELIMINARY GRADING DETAILS
8.1	PRELIMINARY OVERALL UTILITY PLAN
9.1-9.2	PRELIMINARY SANITARY SEWER & WATERMAIN PLAN
10.1-10.3	PRELIMINARY STORM SEWER PLAN
L1	PRELIMINARY LANDSCAPE PLAN
T1-T6	PRELIMINARY TREE PRESERVATION PLAN

Know what's **below.**
Call before you dig.

BENCH MARK
TOP NUT HYDRANT AT NORTHWEST CORNER OF FOUNDERS PATH AND DAKOTA COURT
EL=896.15 (NAVD88)

00-ENG-120158-SHEET-COVR

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Name Brian N. Molinaro
Reg. No. 47504 Date 9-7-21

Revisions
1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed NAP
Drawn MSN/MBG

COVER

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

0.1 OF 24

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LEGEND

UTILITY LINES

EXISTING	PROPOSED	FUTURE	DESCRIPTION
			SANITARY MANHOLE
			SANITARY SEWER (SANITARY & WATERMAIN PLANS)
			SANITARY SEWER (STORM SEWER PLANS)
FM	FM	FM	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
	PERF	PERF	PERFORATED DRAINTILE
	DT	DT	SOLID DRAINTILE SERVICE
			CASING
e	e	e	UNDERGROUND ELECTRIC LINE
fo	fo	fo	UNDERGROUND FIBER OPTIC LINE
g	g	g	UNDERGROUND GAS PIPELINE
petro	petro	petro	UNDERGROUND PETROLEUM PIPELINE
t	t	t	UNDERGROUND TELEPHONE LINES
tv	tv	tv	UNDERGROUND TELEVISION LINE
oh	oh	oh	OVERHEAD UTILITY LINES

SITE LINES

EXISTING	PROPOSED	FUTURE	DESCRIPTION
			SURMOUNTABLE CURB & GUTTER
			B-STYLE CURB & GUTTER
			RIBBON CURB & GUTTER
			EDGE OF BITUMINOUS
			YELLOW PAVEMENT STRIPING (SINGLE/DOUBLE)
			WHITE PAVEMENT STRIPING (SINGLE/DOUBLE)
			PHASE LINE
			CENTERLINE
902	902	902	2' CONTOUR LINE
900	900	900	10' CONTOUR LINE
	OUTLET=987.0	OUTLET=987.0	BASIN OUTLET LINE
	HWL=900.2	HWL=900.2	BASIN HIGH WATER LINE
	84.3		PROPOSED SPOT ELEVATION
			EMERGENCY OVERFLOW
			DRAINAGE FLOW ARROW
			DELINEATED / PROPOSED WETLAND LINE
BUFFER	BUFFER	BUFFER	WETLAND BUFFER
			TREE LINE
FEMA	FEMA	FEMA	FEMA FLOODPLAIN BOUNDARY
			RETAINING WALL
x	x	x	FENCE (BARBED WIRE)
#	#	#	FENCE (CHAIN LINK)
[]	[]	[]	FENCE (WOOD)
	C		CONSERVATION AREA SIGN
	W		WETLAND BUFFER SIGN
			TYPE III BARRICADE
			LIGHT POLE
			STREET SIGNS
			PEDESTRIAN RAMP

SURVEY LINES

EXISTING	PROPOSED	FUTURE	DESCRIPTION
			BOUNDARY
			RIGHT OF WAY
			LOT LINE
			EASEMENT
			SET BACK LINE
			SECTION LINE
			RESTRICTED ACCESS

HATCH PATTERNS

- GRAVEL SURFACE
- BITUMINOUS SURFACE
- CONCRETE SURFACE
- RIP RAP
- SELECT BACKFILL MATERIAL
- EROSION CONTROL BLANKET MNDOT CATEGORY PER PLAN
- WETLAND
- WETLAND UPLAND BUFFER
- WETLAND MITIGATION
- PERMANENT TURF RESTORATION
- PERMANENT WET BASIN SEEDING
- UPLAND/NATURAL AREA SEEDING

TOPOGRAPHIC SYMBOLS

- CATCH BASIN
- CATCH BASIN BEEHIVE
- FLARED END SECTION
- GATE VALVE
- HYDRANT
- WATER SERVICE
- WELL — WATER WELL
- MONITORING WELL
- CLEANOUT
- HAND HOLE
- MANHOLE OTHER THAN SANITARY OR STORM
- SANITARY OR STORM MANHOLE
- LV — LAWN SPRINKLER VALVE
- LAWN SPRINKLER HEAD
- UTILITY POLE
- T — TRANSFORMER BOX
- FO — FIBER OPTIC BOX
- ELECTRIC BOX
- NATURAL GAS METER
- LIGHT POLE
- SEMAPHORE
- TELEPHONE BOX
- CABLE BOX
- CAST IRON MONUMENT
- FOUND IRON PIPE
- JM — JUDICIAL LAND MARK
- PK NAIL
- CONTROL POINT
- SPIKE
- FLAG POLE
- TEST HOLE
- MAILBOX
- SIGN
- BOLLARD
- CONSERVATION POST
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB / BUSH

EROSION & SEDIMENT CONTROL

- STANDARD EROSION CONTROL
- HEAVY-DUTY EROSION CONTROL
- SECONDARY EROSION CONTROL FENCE
- EROSION CONTROL AT BACK OF CURB
- TREE FENCE
- TEMPORARY DIVERSION DITCH
- CATCH BASIN INLET PROTECTION
- STRAW BIO ROLLS
- ROCK BERM
- SUMPED RIP RAP PERMANENT ENERGY DISSIPATER
- DISCHARGE LOCATION
- GRAVEL CONSTRUCTION ENTRANCE
- TEMPORARY OUTLET FLOATING SKIMMER
- BASIN ACCESS 8% SLOPE MAX.
- STABILIZED EMERGENCY OVERFLOW
- STEEP SLOPE 3:1 (H:V) (33.3%) OR STEEPER GRADE

CURB LEGEND

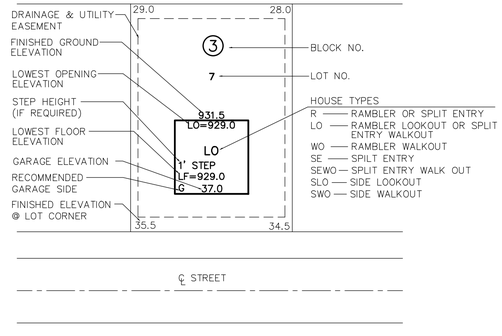
- 08.15 / 4+46.57 = GUTTERLINE ELEVATION FOR SURMOUNTABLE CURB
- 08.15 T.O. / 4+46.57 = GUTTERLINE ELEVATION FOR SURMOUNTABLE CURB (TIP OUT GUTTER)
- 08.32 / 4+46.57 = GUTTERLINE ELEVATION FOR B618 CURB
- 08.32 T.O. / 4+46.57 = GUTTERLINE ELEVATION FOR B618 CURB (TIP OUT GUTTER)
- 07.82 / 4+46.57 = BITUMINOUS ELEVATION

ABBREVIATIONS

A	ALGEBRAIC DIFFERENCE
B-B	BACK TO BACK
BV	BUTTERFLY VALVE
BOC	BACK OF CURB
BFE	BASE FLOOD ELEVATION
BMP	BEST MANAGEMENT PRACTICE
℄	CENTER LINE
CB	CATCHBASIN
CBMH	CATCHBASIN MANHOLE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CS	CURB STOP
DIP	DUCTILE IRON PIPE
DT	DRAINTILE
EL/ELEV	ELEVATION
EX	EXISTING
FES	FLARED END SECTION
F-F	FACE TO FACE
FM	FORCEMAIN
GB	GRADE BREAK
GND	GROUND
GV	GATE VALVE
HP	HIGH POINT
HYD	HYDRANT
HWL	HIGH WATER LEVEL
INV	INVERT
K	CURVE COEFFICIENT
L	LENGTH
LF	LOWEST FLOOR
LO	LOOKOUT
LO	LOWEST OPENING
LP	LIQUID PETROLEUM
LP	LOW POINT
MH	MANHOLE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
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	TOP NUT HYDRANT
TYP	TYPICAL
WM	WATER MAIN
WO	WALKOUT

LOT INFORMATION

(TYPICAL SECTION NOT TO SCALE)



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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: Brian N. Molinaro
Reg. No. 47504 Date 9-7-21

Revisions
1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed NAP
Drawn MSN/MBK
Checked BNM

LEGEND

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

0.2 OF 24

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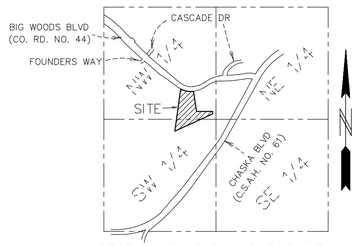
100 50 0 100

Scale in Feet

VICINITY MAP

NO SCALE



SECTION 08, TWP. 115, RGE. 23
CARVER COUNTY, MINNESOTA

LEGAL DESCRIPTION FOR PRELIMINARY PURPOSES ONLY

That part of the Northwest Quarter and the North Half of the North Half of the Southwest Quarter of Section 8, Township 115, Range 23, Carver County, Minnesota, described as follows:

Commencing at the northeast corner of the Northwest Quarter of said Section 8; thence on an assumed bearing of South 01 degrees 18 minutes 02 seconds West along the east line of said Northwest Quarter, a distance of 2430.30 feet; thence South 65 degrees 20 minutes 32 seconds West, a distance of 1026.71 feet to the actual point of beginning of tract to be described; thence South 39 degrees 14 minutes 59 seconds West, a distance of 565.15 feet to the north line of the South Half of the North Half of said Southwest Quarter; thence North 88 degrees 57 minutes 33 seconds West, along said north line, a distance of 585.80 feet, to the southeast corner of Outlot D, FOUNDERS RIDGE, according to the recorded plat thereof, said Carver County; thence North 07 degrees 57 minutes 43 seconds East, along the east line of said Outlot D, a distance of 1087.39 feet, to the northeast corner of said Outlot D; thence North 31 degrees 16 minutes 50 seconds East, along the east line of said FOUNDERS RIDGE, a distance of 842.28 feet, to the east line of the West Half of the Northwest Quarter of said Section 8; thence continuing North 31 degrees 16 minutes 50 seconds East, a distance of 49.19 feet, to the centerline of County Road No. 140; thence southeasterly, along said centerline to the intersection with a line that bears North 07 degrees 58 minutes 02 seconds East, from the point of beginning; thence South 07 degrees 58 minutes 02 seconds West, a distance of 1049.52 feet to the point of beginning.

Except that part thereof lying south of the following described line:

Commencing at the southeast corner of said Outlot D; thence North 07 degrees 57 minutes 43 seconds East, along the easterly line of said Outlot D, a distance of 1061.44 feet, to the point of beginning of the line to be described; thence South 59 degrees 39 minutes 01 seconds East, a distance of 129.63 feet; thence South 73 degrees 51 minutes 18 seconds East, a distance of 125.61 feet; thence South 53 degrees 22 minutes 55 seconds East, a distance of 121.30 feet; thence South 70 degrees 22 minutes 56 seconds East, a distance of 63.16 feet; thence South 20 degrees 15 minutes 55 seconds East, a distance of 141.68 feet; thence South 67 degrees 18 minutes 09 seconds East, a distance of 128.30 feet; thence North 80 degrees 59 minutes 37 seconds East, a distance of 119.84 feet; thence North 50 degrees 33 minutes 30 seconds East, a distance of 57.19 feet; thence North 74 degrees 35 minutes 47 seconds East, a distance of 79.84 feet; thence South 37 degrees 31 minutes 18 seconds East, a distance of 62.90 feet to the intersection with a line that bears North 07 degrees 58 minutes 02 seconds East, from the point of beginning and there terminating.

Together with:

That part of the East Half of the West Half of Section 8, Township 115, Range 23, Carver County, Minnesota, described as follows:

Commencing at the northeast corner of the Northwest Quarter of said Section 8; thence on an assumed bearing of South 01 degrees 18 minutes 02 seconds West, along the east line of said Northwest Quarter, a distance of 2370.30 feet; thence North 89 degrees 59 minutes 38 seconds West, a distance of 398.66 feet, to a point hereinafter referred to as Point A; thence North 08 degrees 38 minutes 28 seconds West, a distance of 503.39 feet to a point on the center line of County Road No. 140, said point also being the point of beginning of the tract to be described; thence South 08 degrees 38 minutes 28 seconds East, a distance of 503.39 feet, to said Point A; thence South 89 degrees 59 minutes 38 seconds East, a distance of 398.66 feet to said east line of the Northwest Quarter of Section 8, thence South 01 degrees 18 minutes 02 seconds West along said east line of the Northwest Quarter of Section 8, a distance of 60.00 feet; thence South 65 degrees 20 minutes 32 seconds West, a distance of 1026.71 feet; thence North 07 degrees 58 minutes 02 seconds East, a distance of 1049.51 feet to said center line of County Road No. 140; thence southeasterly along said center line to the point of beginning.

LEGEND

- Denotes concrete
- Denotes gravel
- Denotes bituminous
- Denotes riprap
- Denotes steep slope per city
- Denotes tree line
- Denotes storm sewer line
- Denotes sanitary sewer line
- Denotes water line
- Denotes overhead utility lines
- Denotes underground television line
- Denotes underground telephone line
- Denotes underground fiber optic line
- Denotes underground electric line
- Denotes underground gas line
- Denotes fence (barbed wire)
- Denotes fence (chain link)
- Denotes fence (wood)
- Denotes catch basin
- Denotes catch basin beehive
- Denotes deciduous tree
- Denotes coniferous tree
- Denotes erosion control fence
- Denotes flared end section
- Denotes gate valve
- Denotes hydrant
- Denotes service
- Denotes water well
- Denotes cleanout
- Denotes manhole other than sanitary or storm
- Denotes sanitary or storm manhole
- Denotes utility pole
- Denotes transformer box
- Denotes fiber optic box
- Denotes electric box
- Denotes telephone box
- Denotes television box
- Denotes cast iron monument
- Denotes found iron pipe
- Denotes spike
- Denotes mailbox
- Denotes sign

BENCH MARK
TOP NUT HYDRANT AT NORTHWEST CORNER OF FOUNDERS PATH AND DAKOTA COURT
EL=896.15 (NAVD88)

EX-SURV-120158-BASE.DWG

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
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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 9-7-21

Revisions
1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed NAP
Drawn MSN/MBC
Checked PJH

EXISTING CONDITIONS

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

1.1 OF 24

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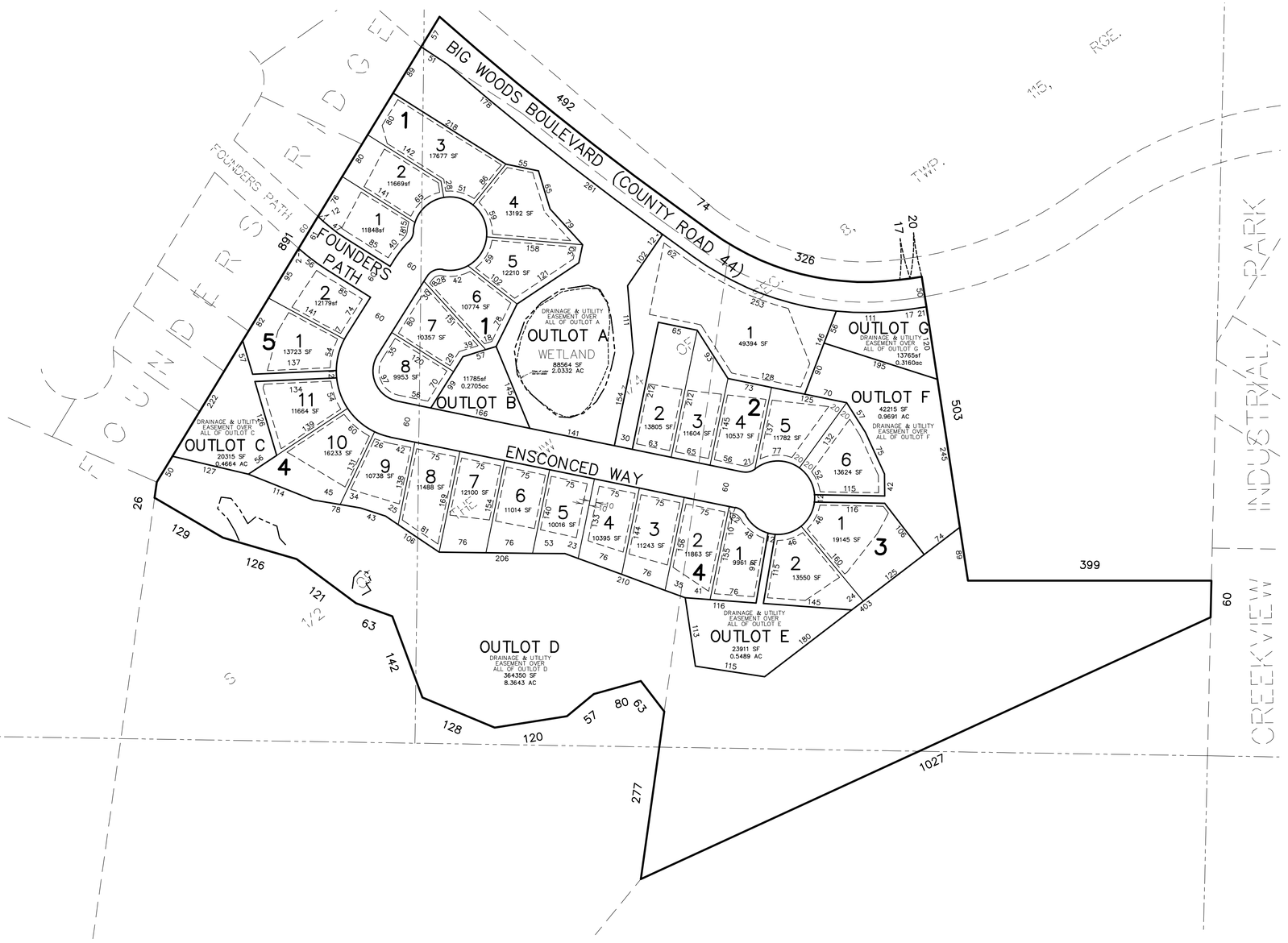
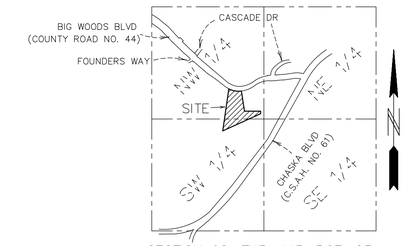


VICINITY MAP
NO SCALE



SECTION 08, TWP. 115, RGE. 23
CARVER COUNTY, MINNESOTA

100 50 0 100
Scale in Feet

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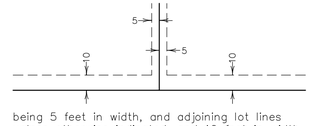
DRAINAGE AND UTILITY
EASEMENTS ARE SHOWN THUS:



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
TOP NUT HYDRANT AT NORTHWEST CORNER OF FOUNDERS PATH AND DAKOTA COURT
EL=896.15 (NAVD88)

00-SURV-120158-BASE.DWG

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2422 Enterprise Drive
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Fax: 681-9488
www.pioneereng.com

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Name Peter J. Hawkinson
Reg. No. 42299 Date 9-7-21

Revisions
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2. 2-17-2022 City Comments

Date 9-7-21
Designed NAP
Drawn MSN/MRC
Checked PJH

PRELIMINARY PLAT

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

1.2 OF 24

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NOTE: SEE SHEETS T1–T6 FOR TREE REMOVAL

BIG WOODS BLVD

REMOVE EXISTING WATER SERVICE

REMOVE EXISTING 52' – 24" RCP CULVERT & RE-GRADE DITCH

REMOVE EXISTING FIBER

FOUNDERS PATH

REMOVE & REPLACE EXISTING ROAD SECTION & SIDEWALKS

SALVAGE EXISTING HYDRANT

CONTRACTOR TO CAP AND SEAL EXISTING WELLS

REMOVE EXISTING GAS SERVICE

REMOVE & REPLACE EXISTING DRIVEWAY AS REQUIRED

REMOVE EXISTING POWER POLE & OVERHEAD POWER LINE

REMOVE EXISTING 26' – 12" CMP CULVERT

REMOVE EXISTING SEPTIC SYSTEM

REMOVE EXISTING DRIVEWAY ACCESS TO BIG WOODS BLVD.

REMOVE SIGNS

DEMO & REMOVE EXISTING HOUSE & OUTBUILDINGS

REMOVE EXISTING WIRE FENCE

REMOVE EXISTING 11' – 12" CMP CULVERT

FOUNDERS RIDGE

THE NW 1/4 OF SEC. 8, TWP. 115, RGE. 23

0 25 50 100

GRAPHIC SCALE IN FEET

BENCH MARK
TOP NUT HYDRANT AT NORTHWEST CORNER OF FOUNDERS PATH AND DAKOTA COURT
EL=896.15 (NAVD88)

00-ENG-120158-SHEET-DEMO

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Name Brian N. Molinaro
Reg. No. 47504 Date 9-7-21

Revisions
1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed NAP
Drawn NSN/MBK
Checked BNM

PRELIMINARY REMOVAL PLAN

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

1.3 OF 24

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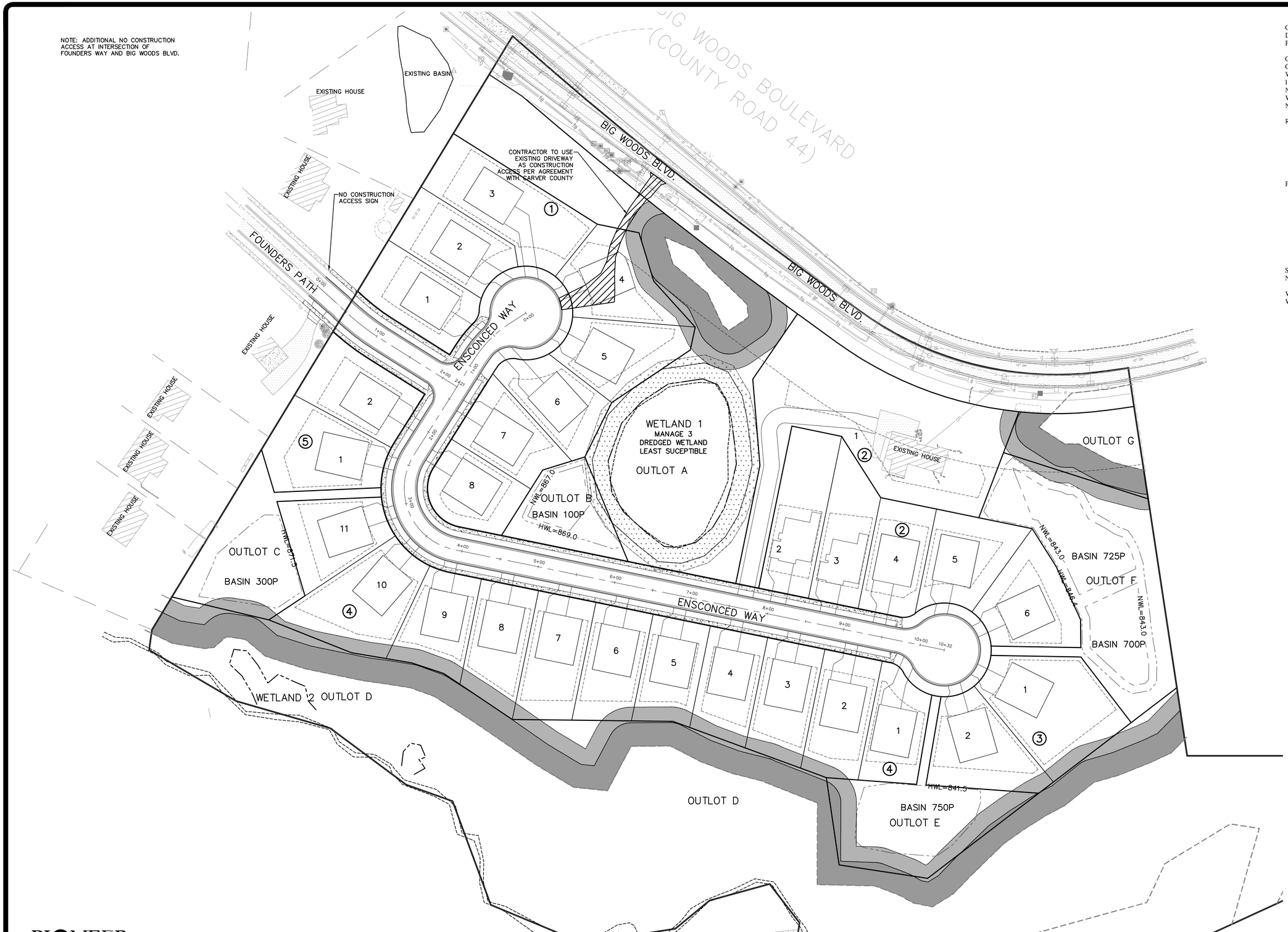
NOTE: ADDITIONAL NO CONSTRUCTION ACCESS AT INTERSECTION OF FOUNDERS WAY AND BIG WOODS BLVD.



CURRENT ZONING: R1/O - LOW DENSITY RESIDENCE & OPEN DEVELOPMENT
PROPOSED ZONING: PUD

GROSS AREA=25.07 AC
CR44 AREA=0.77 AC
WETLAND AREA=0.61 AC
18% SLOPE AREA=5.40 AC
NET AREA (GROSS AREA - 18%SLOPES - WETLAND AREA - CR44 AREA) = 18.29 AC
NET DENSITY=1.6 UNITS/ACRE

R1 - LOW DENSITY RESIDENCE ZONING STANDARDS
- LOT AREA: 9,000 SF
- LOT WIDTH: 75'
- FRONT SETBACK: 30'
- REAR SETBACK: 30'
- SIDE SETBACK: 10', 7'
- SIDE SETBACK CORNER: 15'

PUD PROPOSED STANDARDS
- LOT AREA: 9,600 SF
- LOT WIDTH: 65'
- FRONT SETBACK: 25'
- REAR SETBACK-INTERIOR: 25'
- REAR SETBACK-PERIMETER: 30'
- SIDE SETBACK: 5'
- SIDE SETBACK CORNER: 15'
- PROJECT PERIMETER SETBACK: 30'
- SETBACK FROM CL OF CR 44: 125'

SETBACK FROM 18% SLOPE: 50'
NO GRADING FROM 18% SLOPE: 30'

WETLAND BUFFER: 20'
WETLAND SETBACK: 30'

18% NO GRADE ZONE

18% SLOPE SETBACK

WETLAND BUFFER

WETLAND SETBACK

0 30 60 120
GRAPHIC SCALE IN FEET

BENCH MARK
TOP NUT HYDRANT AT NORTHWEST CORNER OF FOUNDERS PATH AND DAKOTA COURT
EL=896.15 (NAVD88)

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Drawn MSN/MBC
Checked BNM

PRELIMINARY OVERALL SITE & CONSTRUCTION ACCESS PLAN

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

2.1 OF 24

00-ENG-120158-SHEET-SITE-OVERALL

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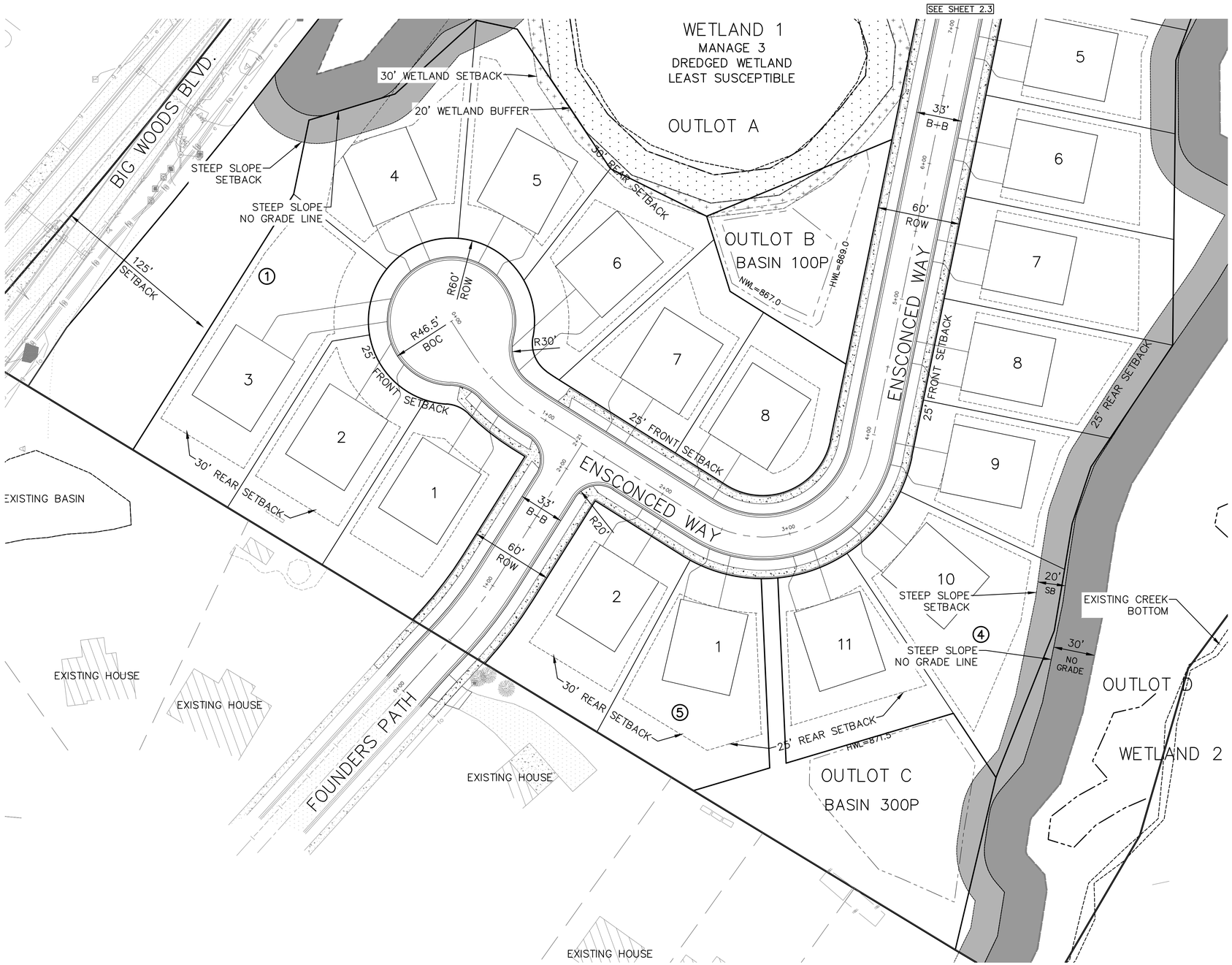

CURRENT ZONING: R1/O - LOW DENSITY RESIDENCE & OPEN DEVELOPMENT
PROPOSED ZONING: PUD

GROSS AREA=25.07 AC
CR44 AREA=0.77 AC
WETLAND AREA=0.61 AC
18% SLOPE AREA=5.40 AC
NET AREA (GROSS AREA - 18%SLOPES - WETLAND AREA - CR44 AREA) = 18.29 AC
NET DENSITY=1.6 UNITS/ACRE

R1 - LOW DENSITY RESIDENCE ZONING STANDARDS
- LOT AREA: 9,000 SF
- LOT WIDTH: 75'
- FRONT SETBACK: 30'
- REAR SETBACK: 30'
- SIDE SETBACK: 10' , 7'
- SIDE SETBACK CORNER: 15'

PUD PROPOSED STANDARDS
- LOT AREA: 9,600 SF
- LOT WIDTH: 65'
- FRONT SETBACK: 25'
- REAR SETBACK-INTERIOR: 25'
- REAR SETBACK-PERIMETER: 30'
- SIDE SETBACK: 5'
- SIDE SETBACK CORNER: 15'
- PROJECT PERIMETER SETBACK: 30'
- SETBACK FROM CL OF CR 44: 125'

SETBACK FROM 18% SLOPE: 50'
NO GRADING FROM 18% SLOPE: 30'

WETLAND BUFFER: 20'
WETLAND SETBACK: 30'

18% NO GRADE ZONE
18% SLOPE SETBACK
WETLAND BUFFER
WETLAND SETBACK

0 20 40 80
GRAPHIC SCALE IN FEET

BENCH MARK
TOP NUT HYDRANT AT NORTHWEST CORNER OF FOUNDERS PATH AND DAKOTA COURT
EL=896.15 (NAVD88)

00-ENG-120158-SHEET-SITE

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Reg. No. 47504 Date 9-7-21

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Date 9-7-21
Designed NAP
Drawn MSN/MBD
Checked BNM

PRELIMINARY SITE PLAN

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

2.2 OF 24

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SEE SHEET 2.2

CURRENT ZONING: R1/O - LOW DENSITY RESIDENCE & OPEN DEVELOPMENT
PROPOSED ZONING: PUD

GROSS AREA=25.07 AC
CR44 AREA=0.77 AC
WETLAND AREA=0.61 AC
18% SLOPE AREA=5.40 AC
NET AREA (GROSS AREA - 18%SLOPES - WETLAND AREA - CR44 AREA) = 18.29 AC
NET DENSITY=1.6 UNITS/ACRE

R1 - LOW DENSITY RESIDENCE ZONING STANDARDS
- LOT AREA: 9,000 SF
- LOT WIDTH: 75'
- FRONT SETBACK: 30'
- REAR SETBACK: 30'
- SIDE SETBACK: 10' , 7'
- SIDE SETBACK CORNER: 15'

PUD PROPOSED STANDARDS
- LOT AREA: 9,600 SF
- LOT WIDTH: 65'
- FRONT SETBACK: 25'
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SETBACK FROM 18% SLOPE: 50'
NO GRADING FROM 18% SLOPE: 30'

WETLAND BUFFER: 20'
WETLAND SETBACK: 30'

18% NO GRADE ZONE
18% SLOPE SETBACK
WETLAND BUFFER
WETLAND SETBACK

0 20 40 80
GRAPHIC SCALE IN FEET

BENCH MARK
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00-ENG-120158-SHEET-SITE

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PRELIMINARY SITE PLAN

JOHNSON - REILAND
616 HIGHWAY 3
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ENSCONCED WOODS
CHASKA, MINNESOTA

2.3 OF 24

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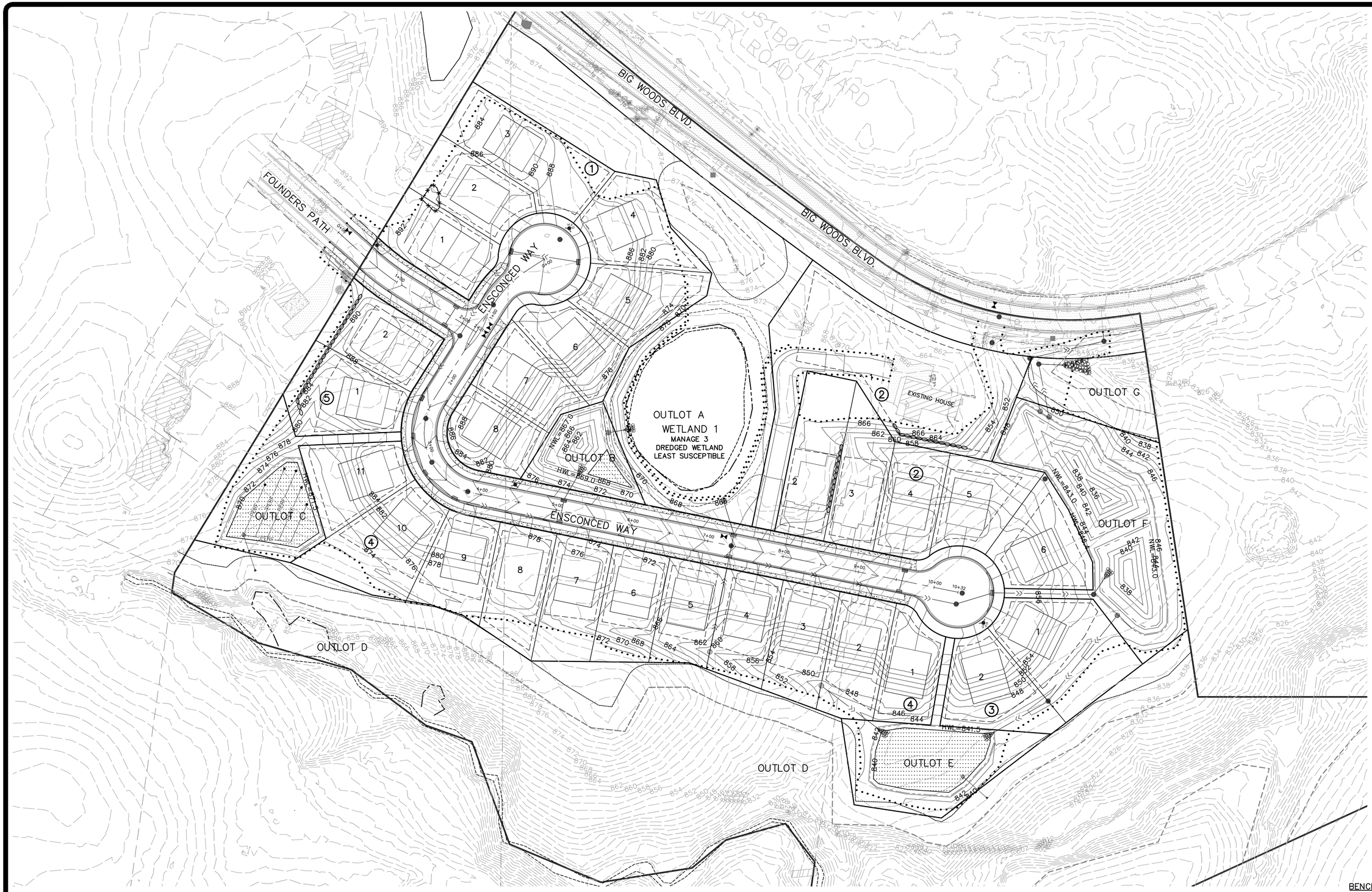

STORMWATER SETBACKS
LOW OPENING ADJACENT GROUND
2' + HWL
1' + EOF

BENCH MARK
TOP NUT HYDRANT AT NORTHWEST CORNER OF FOUNDERS PATH AND DAKOTA COURT
EL=896.15 (NAVD88)

00-ENG-120158-SHEET-GRAD-OVERALL

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Drawn	MSN/MBC

PRELIMINARY OVERALL GRADING PLAN

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

3.1 OF 24

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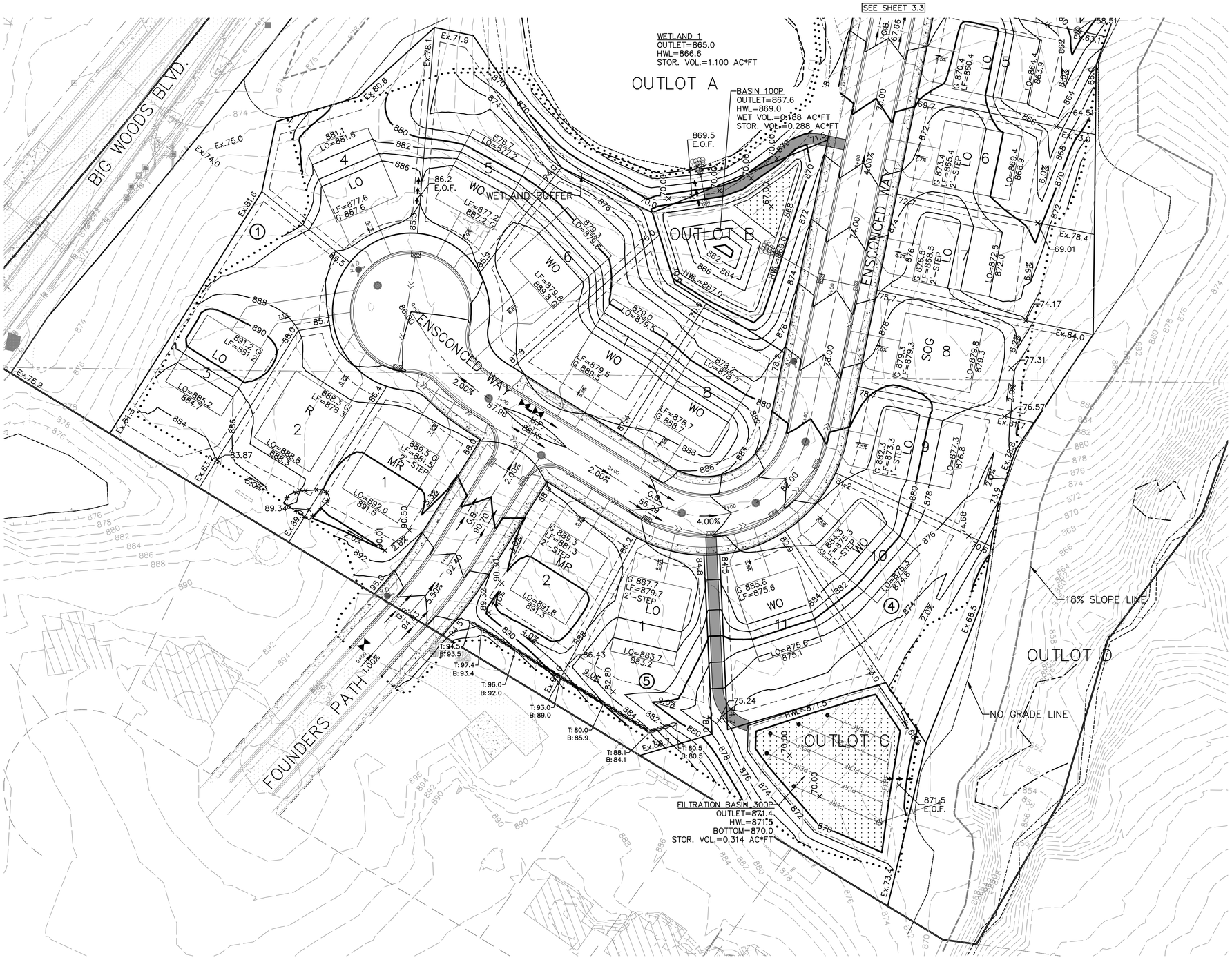

STORMWATER SETBACKS
LOW OPENING ADJACENT GROUND
2' + HWL
1' + EOF

LEGEND

- PERIMETER EROSION CONTROL FENCE. INSTALL BEFORE START OF GRADING
- TREE FENCE INSTALL BEFORE START OF GRADING
- BASIN ACCESS 8% SLOPE MAX. TO BE CONSTRUCTED WITH SUITABLE SOIL CAPABLE OF SUPPORTING VEHICLE TRAFFIC
- INFILTRATION/FILTRATION AREA TO BE PROTECTED DURING CONSTRUCTION.

0 20 40 80
GRAPHIC SCALE IN FEET

BENCH MARK
TOP NUT HYDRANT AT NORTHWEST CORNER OF FOUNDERS PATH AND DAKOTA COURT
EL=896.15 (NAVD88)

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1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed NAP
Drawn MSN/MBG

PRELIMINARY GRADING PLAN

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

3.2 OF 24

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STORMWATER SETBACKS
LOW OPENING ADJACENT GROUND
2' + HWL
1' + EOF

LEGEND

- PERIMETER EROSION CONTROL FENCE. INSTALL BEFORE START OF GRADING
- TREE FENCE INSTALL BEFORE START OF GRADING
- BASIN ACCESS 8% SLOPE MAX. TO BE CONSTRUCTED WITH SUITABLE SOIL CAPABLE OF SUPPORTING VEHICLE TRAFFIC
- INFILTRATION/FILTRATION AREA TO BE PROTECTED DURING CONSTRUCTION.

0 20 40 80
GRAPHIC SCALE IN FEET

BENCH MARK
TOP NUT HYDRANT AT NORTHWEST CORNER OF FOUNDERS PATH AND DAKOTA COURT
EL=896.15 (NAVD88)

00-ENG-120158-SHEET-GRAD

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota
Name Brian N. Molinaro
Reg. No. 47504 Date 9-7-21

Revisions
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Drawn NSN/MRG
Checked BNM

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3.3 OF 24

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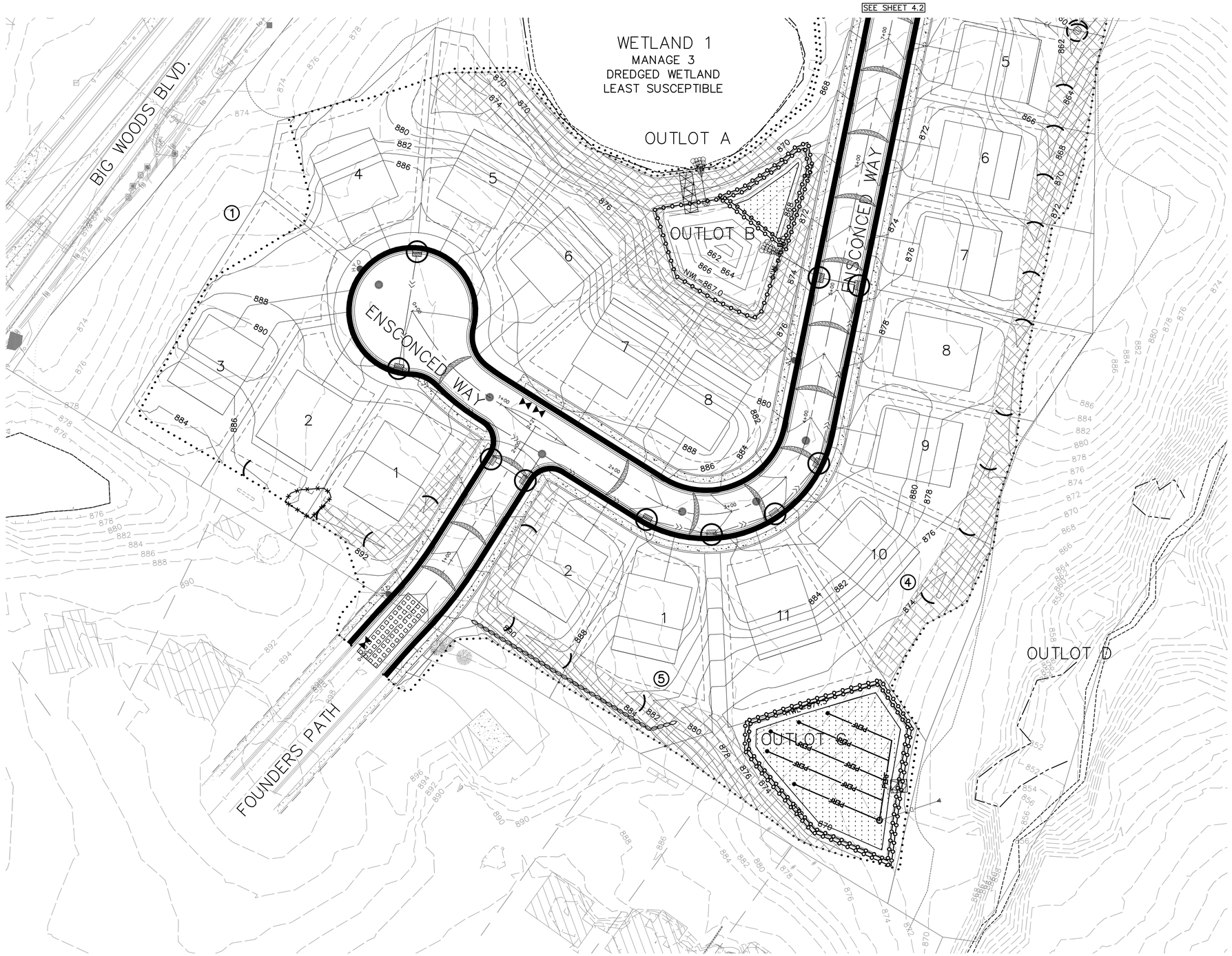

LEGEND

- ROCK CONSTRUCTION ENTRANCE INSTALL BEFORE START OF GRADING
- PERIMETER EROSION CONTROL FENCE. INSTALL BEFORE START OF GRADING
- TREE FENCE INSTALL BEFORE START OF GRADING
- SECONDARY EROSION CONTROL FENCE. TO BE INSTALLED 48 HOURS AFTER COMPLETION OF GRADING.
- 2' SOD OR EROSION CONTROL FENCE AT BACK OF CURB. TO BE INSTALLED AFTER COMPLETION OF SIDEWALK CONSTRUCTION.
- SUMPED RIP RAP PERMANENT ENERGY DISSIPATER, INSTALL WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER.
- CATCH BASIN INLET PROTECTION TO BE INSTALLED AFTER 1ST LIFT OF BITUMINOUS.
- CATCH BASIN INLET PROTECTION TO BE INSTALLED WITH CATCH BASIN GRATE.
- STRAW BIO ROLLS. INSTALL WITHIN 7 DAYS OF GRADING COMPLETION OR BEFORE 1ST RAINFALL EVENT WHICHEVER IS FIRST
- ROCK BERM. INSTALL WITHIN 7 DAYS OF GRADING COMPLETION OR BEFORE 1ST RAINFALL EVENT WHICHEVER IS FIRST
- STABILIZED EMERGENCY OVERFLOW
- MNDOT CAT 20 EROSION CONTROL BLANKET. INSTALL WITHIN 7 DAYS OF GRADING COMPLETION
- INFILTRATION/FILTRATION AREA TO BE PROTECTED DURING CONSTRUCTION.

0 20 40 80

GRAPHIC SCALE IN FEET

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00-ENG-I20158-SHEET-EROS

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PRELIMINARY EROSION CONTROL PLAN

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ENSCONCED WOODS
CHASKA, MINNESOTA

4.1 OF 24

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OUTLOT G

OUTLOT F

NWL=843.0

NWL=843.0

OUTLOT E

OUTLOT D

EXISTING HOUSE

BIG WOODS BLVD.

ENSCONCED WAY

OUTLOT A

WETLAND 1
MANAGE 3
DREDGED WETLAND
LEAST SUSCEPTIBLE

SEE SHEET 4.1

LEGEND

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CHASKA, MINNESOTA

4.2 OF 24

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STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

TO COMPLY WITH THE GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY

THE FULL SWPPP IS A SEPARATE DOCUMENT AVAILABLE UPON REQUEST

CONSTRUCTION ACTIVITY INFORMATION

PROJECT NAME: ENSCONCED WOODS
PROJECT LOCATION:
FOUNDERS PATH & BIG WOODS BLVD
CHASKA, MINNESOTA 55318
CARVER COUNTY
LATITUDE/LONGITUDE: 44.785839, -93.614129

TOTAL PROJECT AREA DISTURBED: 11.5 ACRES
TOTAL EXISTING IMPERVIOUS AREA: 1.0 ACRES
TOTAL PROPOSED IMPERVIOUS AREA: 4.4 ACRES

RECEIVING WATERS:
CHASKA CREEK

DATES OF CONSTRUCTION:
CONSTRUCTION START DATE: NOVEMBER 1, 2021 EST. COMPLETION DATE: DECEMBER 31, 2023

CONTACT INFORMATION

PROJECT OWNER
JOHNSON-REILAND
PAUL REILAND - OWNER
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019
PAUL@JOHNSONREILANDHOMES.COM

CONTRACTOR:
XXXXX
XXXXX
XXXXX
XXXXX

GENERAL CONSTRUCTION PROJECT INFORMATION

THE CONSTRUCTION OF NEW ROADWAYS, FOUNDERS PATH, AND STREET A, AND 29 LOTS FOR RESIDENTIAL DEVELOPMENT. THIS CONSTRUCTION WILL COMPLETE GRADING, INSTALLATION OF SANITARY SEWER, WATERMAIN, STORM SEWER, CONCRETE CURB AND GUTTER, BITUMINOUS SURFACING, STREET LIGHTING, LANDSCAPING, EROSION CONTROL, AND TURF ESTABLISHMENT.

BASED ON THE SOIL BORINGS THAT WERE RETRIEVED FROM THE SITE, SOILS ENCOUNTERED ON SITE ARE CLAYEY SAND, SANDY LEAN CLAY, AND POORLY GRADED SAND.

GENERAL SITE INFORMATION (III.A)

1. THE PROJECT IS REQUIRED TO MEET THE CONSTRUCTION STORMWATER REQUIREMENTS FOR THE NPDES GENERAL STORMWATER PERMIT AND MNDOT SPEC. 1717, 2573, AND 2575.
2. THE CONTRACTOR SHALL INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO STARTING WORK WITHIN THE APPLICABLE PORTION OF THE SITE.
3. LOCATIONS, TYPE AND QUANTITY OF TEMPORARY AND PERMANENT EROSION CONTROL MEASURES CAN BE FOUND WITHIN THE CONSTRUCTION PLANS.
4. THE PROJECT IS LOCATED WITHIN 1 MILE AND FLOWS TO AN IMPAIRED WATER BODY. THEREFORE, THE PROJECT WILL NEED TO STABILIZE ALL EXPOSED SOILS NO LATER THAN 7 DAYS. DITCHES OR RAVINES THROUGHOUT THE PROJECT THAT ARE DISTURBED SHALL BE STABILIZED WITHIN 24 HOURS.
5. THE CONTRACTOR SHALL INSTALL ADDITIONAL BMP'S AS NECESSARY AS DIRECTED BY THE ENGINEER TO PREVENT SEDIMENT TRANSPORT.
6. INLET PROTECTION, SILT FENCE AND BIOROLLS SHALL BE INSTALLED IN THE FIELD AS SHOWN ON THE PLANS AS DIRECTED BY THE ENGINEER.

ENVIRONMENTALLY SENSITIVE AREAS:
1. IMPAIRED WATERS – CHASKA CREEK, UNNAMED CREEK (EAST CREEK) MINNESOTA RIVER.
2. TMDL – TURBIDITY, FECAL COLIFORM, MERCURY IN FISH TISSUE, MERCURY IN WATER COLUMN.
3. SCIENTIFIC OR NATURAL AREAS – THERE ARE **NO** SNA WITHIN 1 MILE OF THE PROJECT.
4. KARST AREA – THE PROJECT IS **NOT** LOCATED WITHIN A KARST AREA.
5. CALCAREOUS FENS – THE PROJECT DOES **NOT** DISCHARGE TO A FEN.

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

TRAINING (21.1)

THE CONTRACTOR SHALL ENSURE THAT THE TRAINING REQUIREMENTS IN PART 21.1 OF THE GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY ARE COMPLIED WITH. THE INDIVIDUALS TRAINED WILL BE RECORDED IN THE SWPPP BEFORE THE START OF CONSTRUCTION OR AS SOON AS PERSONNEL FOR THE PROJECT HAVE BEEN DETERMINED.

PROVIDE INFORMATION IN THE SPACE PROVIDED BELOW FOR ADDITIONAL PERSONNEL ON THE PROJECT AS REQUIRED BY THE PERMIT.

NAME	DATE	TRAINING PROGRAM
NICHOLAS POLTA–CONSTRUCTION SWPPP DESIGNER	6–1–2020	UNIVERSITY OF MINNESOTA

PERMANENT STORMWATER MANAGEMENT SYSTEM (15.1)

1. THE PROJECT WILL CREATE A NEW CUMULATIVE IMPERVIOUS SURFACE GREATER THAN OR EQUAL TO ONE ACRE. THE PROJECT PROPOSES TO CONSTRUCT A STORMWATER TREATMENT SYSTEM TO COLLECT RUNOFF TO BE DISCHARGED OFFSITE. TREATMENT FOR THE RUNOFF IS TO BE EXECUTED BY THE PROPOSED STORMWATER MANAGEMENT SYSTEM. CALCULATIONS DETAILING THE BASINS ARE AVAILABLE UPON REQUEST.

EROSION PREVENTION PRACTICES (8.1)

1. THE CONTRACTOR SHALL PHASE THE WORK TO LIMIT THE OVERALL DISTURBANCE OF THE PROJECT AT ANY GIVEN TIME. NATURAL VEGETATIVE BUFFERS SHALL BE MAINTAINED BETWEEN THE WORK LIMITS AND ALL SURFACE WATERS OR WETLANDS THROUGHOUT THE COURSE OF CONSTRUCTION.
2. THE AREAS NOT TO BE DISTURBED WILL BE DELINEATED THROUGH THE USE OF SILT FENCE, BIOROLLS AND CONSTRUCTION STAKING.
3. THE CONTRACTOR SHALL MAINTAIN A NATURAL, VEGETATED BUFFER ADJACENT TO THE WETLANDS WHEREVER POSSIBLE DURING CONSTRUCTION.
4. TEMPORARY COVER SHALL BE PROVIDED USING TEMPORARY SEED WITH EROSION CONTROL BLANKET OR HYDROMULCH.
5. PERMANENT COVER SHALL BE PROVIDED AS DETAILED ON THE CONSTRUCTION PLANS USING SEED WITH EROSION CONTROL BLANKET OR HYDROMULCH.
6. THE CONTRACTOR IS REQUIRED TO PROVIDE ANY ADDITIONAL EROSION PREVENTION MEASURES NECESSARY FOR CONFORMANCE TO THE NPDES CONSTRUCTION PERMIT THROUGHOUT CONSTRUCTION.

SEDIMENT CONTROL PRACTICES (9.1)

1. SILT FENCE AND ALL OTHER DOWN GRADIENT PERIMETER CONTROL DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLAN SHEETS PRIOR TO ANY LAND DISTURBANCE ACTIVITY.
2. EROSION CONTROL BLANKET AND BIOROLLS SHALL BE PLACED WITHIN THE DITCH BOTTOMS WITHIN 24 HOURS AFTER FINE GRADING.
3. TEMPORARY STOCKPILES LOCATED ON SITE SHALL BE SEEDED, MULCHED OR BLANKETED AND HAVE SILT FENCE OR A BMP APPROVED BY THE ENGINEER IN THE FIELD PLACED AROUND THE BASE OF THE STOCKPILE.

DEWATERING AND BASIN DRAINING (10.1)

1. DEWATERING IS NOT ANTICIPATED ON THIS PROJECT. HOWEVER, IF DEWATERING IS NECESSARY, THE CONTRACTOR SHALL SUBMIT A PLAN TO THE ENGINEER FOR ACCEPTANCE.
2. IF THE DEWATERING OR PUMPING PROCESS IS TURBID OR CONTAINS SEDIMENT LADEN WATER, IT MUST BE TREATED THROUGH THE USE OF SEDIMENT TRAPS, VEGETATIVE FILTER STRIPS, FLOCCULANTS OR OTHER SEDIMENT REDUCING MEASURES SUCH THAT DISCHARGE IS NOT VISIBLY DIFFERENT THAN THE RECEIVING WATER.
3. DISCHARGE DIRECTLY INTO A SURFACE WATER OR WETLAND IS NOT PERMITTED.
4. ALL CONSTRUCTION DEWATERING SHALL BE DISCHARGED TO AN APPROVED LOCATION FOR TREATMENT PRIOR TO DISCHARGE TO THE RECEIVING WATER. THE DEWATERING PLAN SHALL BE DEVELOPED AND SUBMITTED TO THE ENGINEER FOR REVIEW IN ACCORDANCE WITH MNDOT SPEC. 1717.2E.
5. CONDITIONS OF THE SITE MAY REQUIRE A PERMIT TO BE OBTAINED FROM THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES FOR WATER APPROPRIATIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS FOR DEWATERING.

INSPECTIONS AND MAINTENANCE (11.1)

1. THE CONTRACTOR SHALL IDENTIFY A CERTIFIED EROSION AND SEDIMENT CONTROL SUPERVISOR TO CONDUCT WEEKLY SITE INSPECTIONS FOR THE PROJECT.
2. THE CONSTRUCTION SITE SHALL BE OBSERVED AT LEAST ONCE EVERY 7 DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS AND 7 DAYS AFTER THAT.
3. WHEN SEDIMENT IS OBSERVED UP TO APPROXIMATELY ONE–THIRD OF THE HEIGHT OF SILT FENCE, SEDIMENT SHALL BE REMOVED. SILT FENCE WILL BE REPLACED, OR SUPPLEMENTED IF IT BECOMES NON–FUNCTIONAL.
4. WHEN NON–FUNCTIONAL BMP'S ARE FOUND THEY MUST BE REPAIRED, REPLACED OR SUPPLEMENTED WITH FUNCTIONAL BMP'S WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.

POLLUTION PREVENTION MANAGEMENT MEASURES (12.1)

ALL WORK NECESSARY TO PROVIDE PROPER POLLUTION PREVENTION MEASURES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
1. COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, AND OTHER WASTE MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.
2. OIL, GASOLINE, PAINT AND ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGES. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.
3. EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES IS NOT ALLOWED ON SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF. NO ENGINE DEGREASING IS ALLOWED ON SITE.
4. ALL LIQUID AND SOLID WASTE GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK–PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. A COMPACTED CLAY LINER THAT DOES NOT ALLOW WASHOUT LIQUIDS TO ENTER THE GROUND WATER IS CONSIDERED AN IMPERMEABLE LINER. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTE MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.
5. ANY SPILLS OF HAZARDOUS MATERIALS AND/OR A MINIMUM OF 5–GALLONS PETROLEUM SHALL BE IMMEDIATELY REPORTED TO THE MPCA (STATE DUTY OFFICER: 1.800.422.0798 OR 651.297.8610). ANY SPILLS ABOVE THE REPORTABLE QUANTITIES LIMITS IN THE CODE OF FEDERAL REGULATIONS (CFR) TITLE 40, PART 302 SHALL BE REPORTED TO THE EPA NATIONAL RESPONSE CENTER (1.800.424.8802). IN ORDER TO REDUCE THE RISK OF HAZARDOUS MATERIALS COMING INTO CONTACT WITH STORM WATER, THE FOLLOWING PRACTICES WILL BE FOLLOWED: A) AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCTS REQUIRED TO DO THE WORK, B) ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND IF POSSIBLE, UNDER COVER, C) PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL UNLESS THE ORIGINAL CONTAINER CANNOT BE RESEALED, IN WHICH CASE THE ORIGINAL LABEL AND MATERIALS SAFETY DATA SHALL BE RETAINED, D) SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER, E) WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED BEFORE DISPOSING OF THE CONTAINER, F) THE MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED, AND G) THE OPERATOR WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ON SITE. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
6. ALL SANITARY WASTE WILL BE COLLECTED BY TEMPORARY SANITARY FACILITIES PROVIDED AT THE SITE BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROJECT. ALL CONSTRUCTION PERSONNEL SHALL UTILIZE TEMPORARY SANITARY FACILITIES, WHICH SHALL BE REGULARLY SERVICE BY A COMMERCIAL OPERATOR. TEMPORARY SANITARY FACILITIES SHALL BE PLACED IN A LOCATION WHERE ACCIDENTAL SPILLAGE OF THE FACILITY SHALL NOT DISCHARGE TO THE STORM SEWER SYSTEM.

FINAL STABILIZATION (4.1)

1. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED AS SHOWN ON THE CONSTRUCTION PLANS. METHODS TO ACHIEVE FINAL STABILIZATION INCLUDE: SEED WITH MULCH OR EROSION CONTROL BLANKET AND SOD.
2. ALL AREAS SEEDED BY MEANS OF BROADCAST SEEDING SHALL BE HAND RAKED TO INCORPORATE THE SEEDS INTO THE TOPSOIL.
3. EROSION CONTROL BLANKETS SHALL BE PLACED IN THE DITCH BOTTOM WITHIN 24 HOURS AFTER FINE GRADING. BIOROLLS SHALL BE PLACED IN CONJUNCTION WITH THE BLANKET IN THE DITCH BOTTOMS. THE BIOROLLS ARE INTENDED TO SERVE AS PERMANENT DITCH CHECKS.
4. THE PERMITTEE WILL SUBMIT A NOTICE OF TERMINATION (NOT) WITHIN 30 DAYS AFTER FINAL STABILIZATION.

RECORDS RETENTION (5.1&6.1)

1. RECORDS TO BE KEPT ON SITE DURING CONSTRUCTION INCLUDE:
   A. COPY OF THE SWPPP AND AMENDMENTS
   B. TRAINING DOCUMENTATION
   C. INPSECTION AND MAINTENANCE RECORDS
2. THIS SWPPP WILL BE AMENDED AS NEEDED AND/OR AS REQUIRED BY PROVISIONS OF THE PERMIT. ANY CHANGES TO TEH SWPPP SHALL BE NOTED BELOW AND ON THE APPLICABLE PLAN SHEETS.
3. THE CONTRACTOR WILL RECORD CHANGES TO THE SWPPP AND MAINTAIN DOCUMENTATION OF THESE CHANGES ON SITE AT ALL TIMES. A SUMMARY MAINTENANCE/CONSTRUCTION OBSERVATION REPORT WILL BE RECORDED AFTER EACH SITE INSPECTION/OBSERVATION.
4. THE CONTRACTOR WILL BE RESPONSIBLE TO MAINTAIN AND REPAIR THE EROSION AND SEDIMENT CONTROL BMP'S UNTIL FINAL STABILIZATION IS COMPLETE AND A NOTICE OF TERMINATION (NOT) IS SUBMITTED.

PROVIDE INFORMATION IN THE SPACE PROVIDED BELOW FOR AMENDMENTS TO THE SWPPP AS REQUIRED BY THE PERMIT.

AMENDMENT	BY	DATE

00-ENG-120158-SHEET-SWPPP

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STORMWATER POLLUTION PREVENTION PLAN

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CHASKA, MINNESOTA

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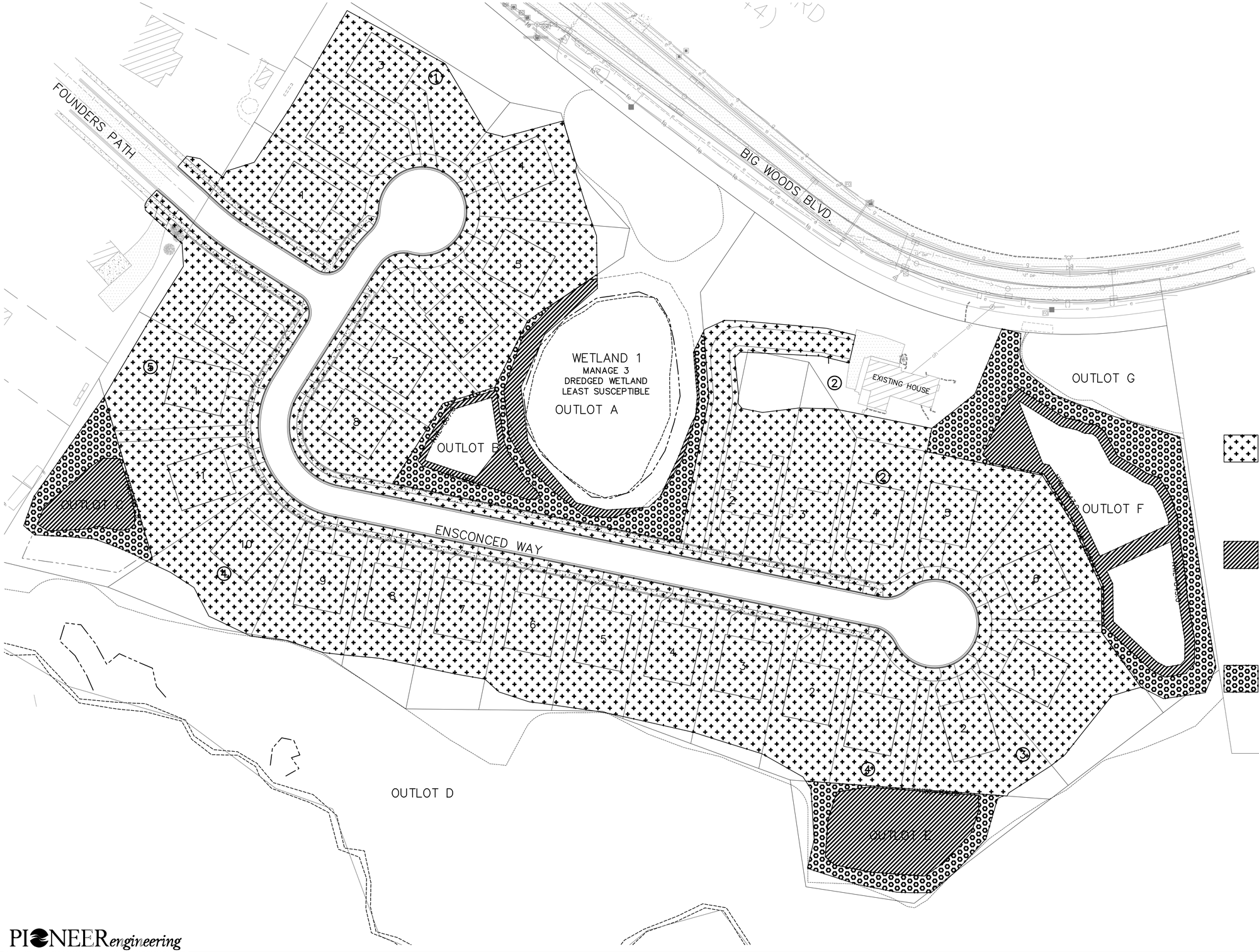

TEMPORARY SEED SHALL BE DONE IN ACCORDANCE WITH MNDOT 2575 & 3876 CONSISTING OF:

- MAY 1 – AUGUST 1: MINNESOTA STATE SEED MIXTURE **21–111 (OATS COVER CROP) @ 100.0** POUNDS PER ACRE OR APPROVED EQUAL.
- AUGUST 1 – OCTOBER 1: MINNESOTA STATE SEED MIXTURE **21–112 (WINTER WHEAT COVER CROP) @ 100.0** POUNDS PER ACRE OR APPROVED EQUAL.
- MULCH SHALL BE MNDOT 3882, TYPE 1 @ 2 TONS PER ACRE OR APPROVED EQUAL AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMUM 90% COVERAGE OF THE SURFACE AREA DISTURBED.
- MNDOT 3881, TYPE 1 FERTILIZER, 10–10–20 @ 200 POUNDS PER ACRE.

PERMANENT TURF RESTORATION SHALL BE DONE IN ACCORDANCE WITH MNDOT 2575 & 3876 CONSISTING OF:

- MINNESOTA STATE SEED MIXTURE 25–121 (SANDY GENERAL ROADSIDE) AT 61.0 POUNDS PER ACRE.
- MULCH SHALL BE MNDOT 3882, TYPE 1 @ 2 TONS PER ACRE OR APPROVED EQUAL AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMUM 90% COVERAGE OF THE SURFACE AREA DISTURBED.
- MNDOT 3881, TYPE 3 SLOW–RELEASE FERTILIZER, 22–5–10, MINIMUM 70% WATER–INSOLUBLE NITROGEN @ 350 POUNDS PER ACRE.

PERMANENT BASIN SEEDING SHALL BE DONE IN ACCORDANCE WITH MNDOT 2575 & 3876 CONSISTING OF:

- WET BASIN BENCH/(IN)FILTRATION BASIN: MINNESOTA STATE SEED MIXTURE **35–261 (STORMWATER SOUTH AND WEST)** AT **35.0** POUNDS PER ACRE.
- ABOVE BASIN BENCH TO HIGH WATER LEVEL: MINNESOTA STATE SEED MIXTURE **35–241 (MESIC PRAIRIE GENERAL)** AT **36.5** POUNDS PER ACRE.
- MULCH SHALL BE MNDOT 3882, TYPE 3 @ 2 TONS PER ACRE OR APPROVED EQUAL AND DISK ANCHORED IN PLACE OR APPROVED EQUAL.
- MNDOT 3881, TYPE 4 NATURAL–BASED FERTILIZER, 18–1–8 @ 120 POUNDS PER ACRE OR 17–10–7 @ 150 POUNDS PER ACRE

UPLAND AREA

- MINNESOTA STATE SEED MIXTURE 35–621 (DRY PRAIRIE SOUTHEAST) AT 11.0 POUNDS PER ACRE.
- MULCH SHALL BE MNDOT 3882, TYPE 3 @ 2 TONS PER ACRE OR APPROVED EQUAL AND DISK ANCHORED IN PLACE OR APPROVED EQUAL,
- MNDOT 3881, TYPE 4 NATURAL–BASED FERTILIZER, 18–1–8 OR 17–10–7 @ 100 LBS PER ACRE

BENCH MARK
TOP NUT HYDRANT AT NORTHWEST CORNER OF FOUNDERS PATH AND DAKOTA COURT
EL=896.15 (NAVD88)

00-ENG-120158-SHEET-SEED

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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: Brian N. Molinaro
Reg. No. 47504 Date 9-7-21

Revisions
1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed NAP
Drawn MSN/MBG

PRELIMINARY SEEDING PLAN

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

6.1 OF 24

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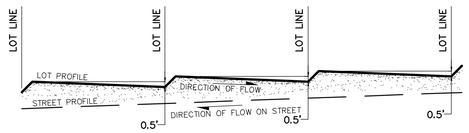
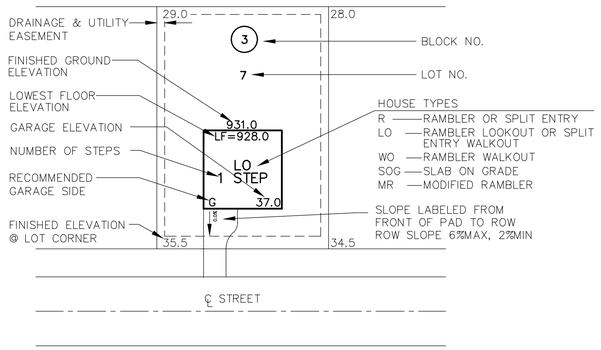


LOT BENCHING DETAIL

NO SCALE

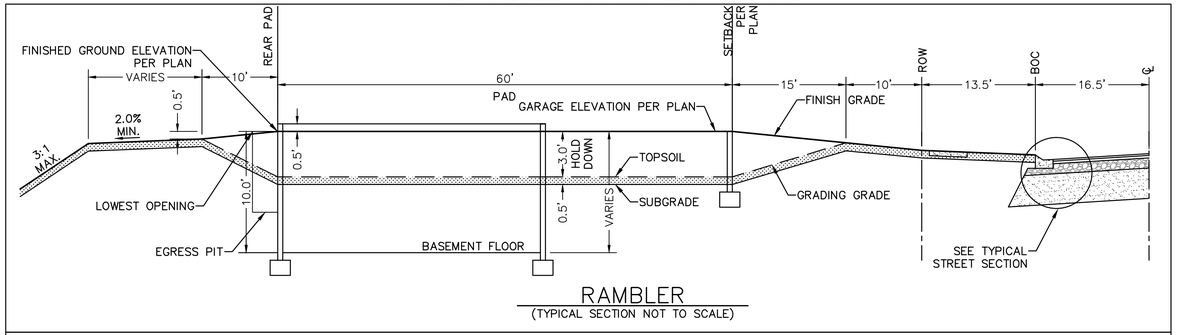


LOT INFORMATION

(TYPICAL SECTION NOT TO SCALE)

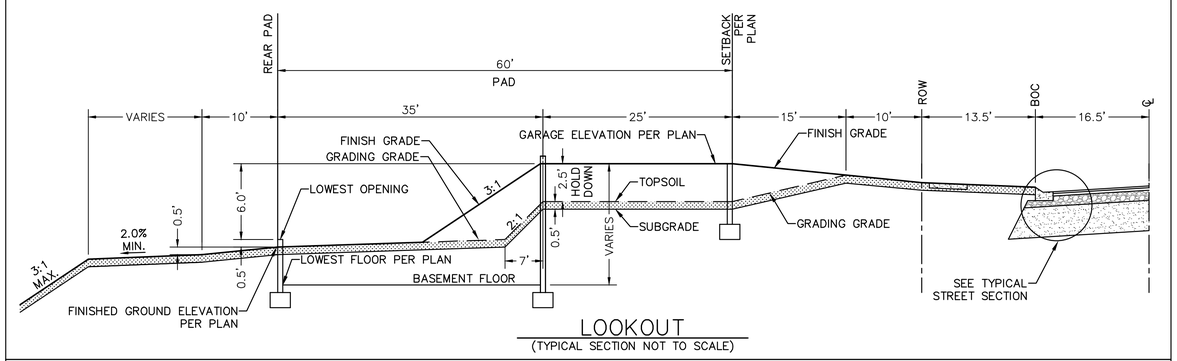
DRIVEWAY GRADES (SHOWN ON GRADING PLAN) FROM THE GARAGE TO THE ROW. DRIVEWAY GRADES WITHIN THE RIGHT-OF-WAY SHALL HAVE MINIMUN OF 2% WITH A MAXIMUM OF 6%.

SINGLE FAMILY LOTS



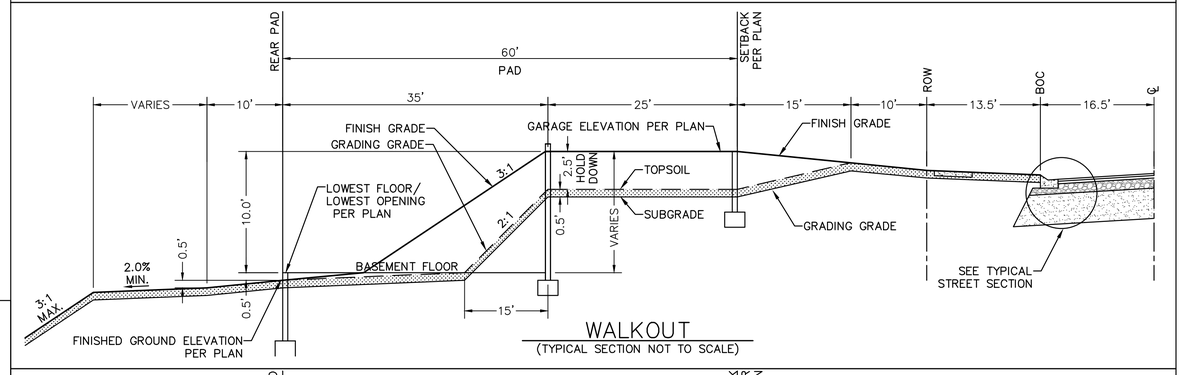
RAMBLER

(TYPICAL SECTION NOT TO SCALE)



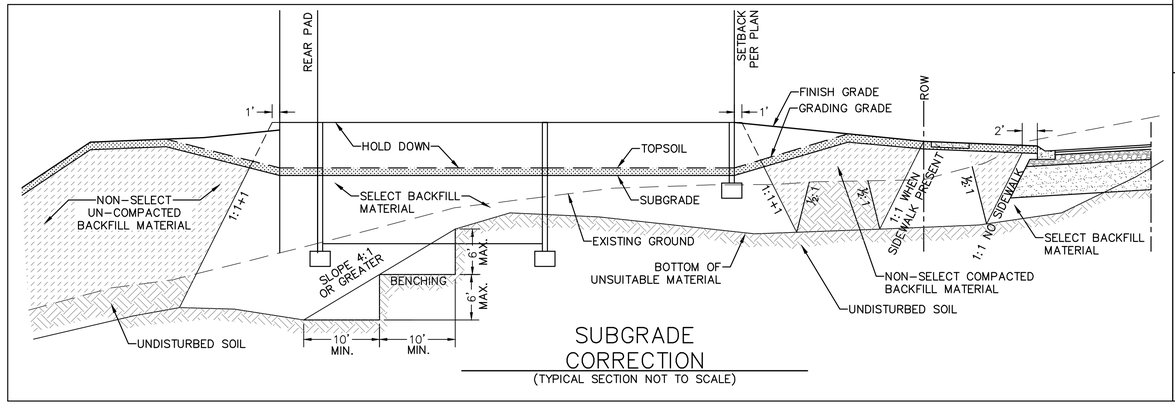
LOOKOUT

(TYPICAL SECTION NOT TO SCALE)



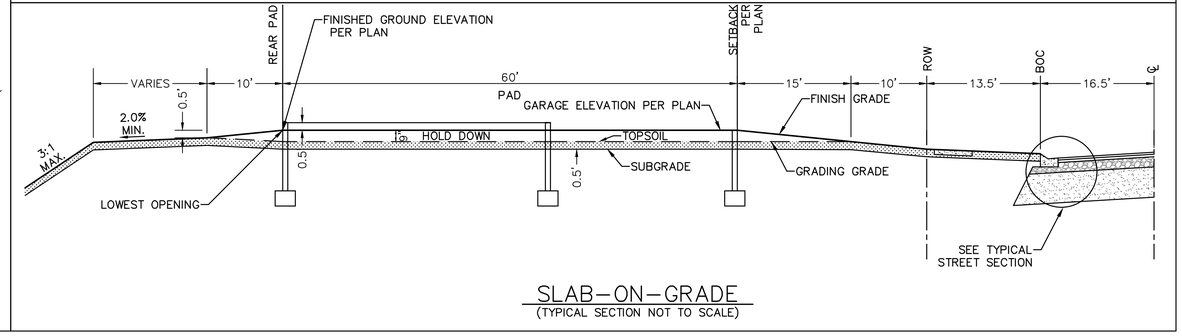
WALKOUT

(TYPICAL SECTION NOT TO SCALE)



SUBGRADE CORRECTION

(TYPICAL SECTION NOT TO SCALE)



SLAB-ON-GRADE

(TYPICAL SECTION NOT TO SCALE)

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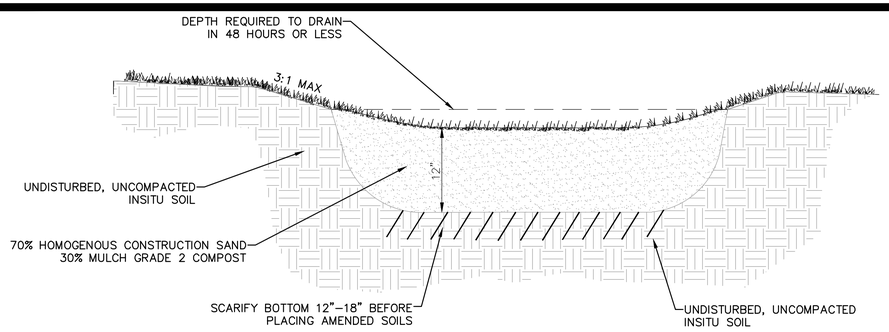


INFILTRATION FACILITY CROSS SECTION

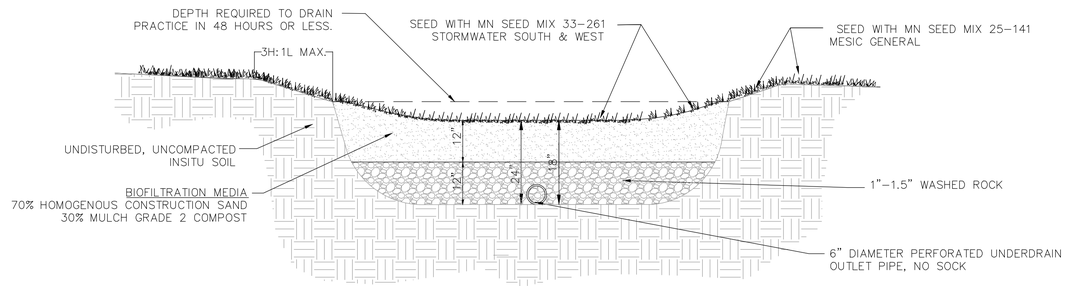
INFILTRATION BASIN CONSTRUCTION NOTES

CONSTRUCTION SEQUENCING

1. INSTALL SILT FENCE AND/OR OTHER APPROPRIATE EROSION CONTROL DEVICES TO PREVENT SEDIMENT FROM LEAVING OR ENTERING THE PRACTICE DURING CONSTRUCTION.
2. ALL DOWN-GRADIENT PERIMETER SEDIMENT CONTROL BMPS MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITY BEGINS.
3. PERFORM CONTINUOUS INSPECTIONS OF EROSION CONTROL PRACTICES.
4. INSTALL UTILITIES (WATER, SANITARY SEWER, ELECTRIC, PHONE, FIBER OPTIC, ETC) PRIOR TO SETTING FINAL GRADE OF RETENTION DEVICE.
5. ROUGH GRADE THE SITE. DO NOT USE RETENTION AREA AS TEMPORARY SEDIMENT BASINS.
6. PERFORM ALL OTHER SITE IMPROVEMENTS.
7. SEED AND MULCH ALL AREAS AFTER DISTURBANCE.
8. CONSTRUCT RETENTION DEVICE UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA.
9. IMPLEMENT TEMPORARY AND PERMANENT EROSION CONTROL PRACTICES.
10. PLANT AND MULCH RETENTION DEVICE.
11. REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE CONTRIBUTING DRAINAGE AREA IS ADEQUATELY VEGETATED.

GENERAL NOTES

1. IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION, THIS MATERIAL SHALL BE REMOVED FROM THE PRACTICE PRIOR TO CONTINUING CONSTRUCTION.
2. GRADING OF RETENTION DEVICES SHALL BE ACCOMPLISHED USING LOW-COMPACTION EARTH-MOVING EQUIPMENT TO PREVENT COMPACTION OF UNDERLYING SOILS.
3. ALL SUB MATERIALS BELOW THE SPECIFIED BIORETENTION DEPTH (ELEVATION) SHALL BE UNDISTURBED, UNLESS OTHERWISE NOTED.
4. POST CONSTRUCTION TEST ON INFILTRATION BASIN SHALL BE REQUIRED. BASIN SHALL BE FILLED WITH WATER TO A MINIMUM DEPTH OF SIX INCHES (6") AND THE TIME TO DRAIN MUST BE DOCUMENTED. THE CITY OF CHASKA MUST BE NOTIFIED PRIOR TO TESTING TO OBSERVE THE RESULTS.



FILTRATION FACILITY CROSS-SECTION

NOT TO SCALE

FILTRATION BASIN CONSTRUCTION NOTES

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3. PERFORM CONTINUOUS INSPECTIONS OF EROSION CONTROL PRACTICES.
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9. IMPLEMENT TEMPORARY AND PERMANENT EROSION CONTROL PRACTICES.
10. PLANT AND MULCH RETENTION DEVICE.
11. REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE CONTRIBUTING DRAINAGE AREA IS ADEQUATELY VEGETATED.
12. LIMIT HEAVY MACHINERY IN THE FILTRATION BASIN. IF OVER-COMPACTED AND WATER DOESN'T FILTER, CONTRACTOR TO SCARIFY AREA TO PROMOTE FILTRATION.

GENERAL NOTES

1. IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION, THIS MATERIAL SHALL BE REMOVED FROM THE PRACTICE PRIOR TO CONTINUING CONSTRUCTION.
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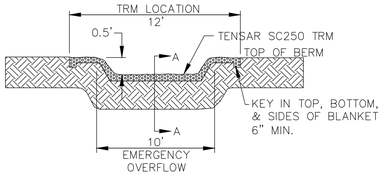
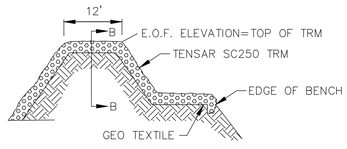


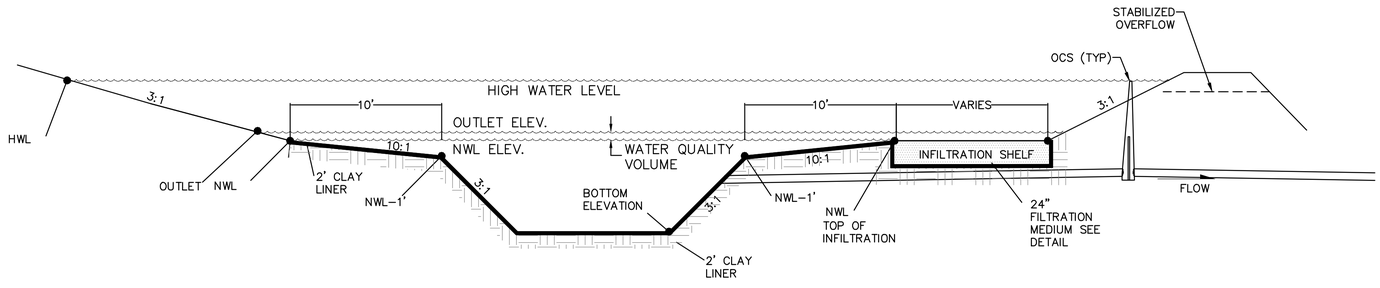
STABILIZED EMERGENCY OVERFLOW DETAIL

SECTION B-B



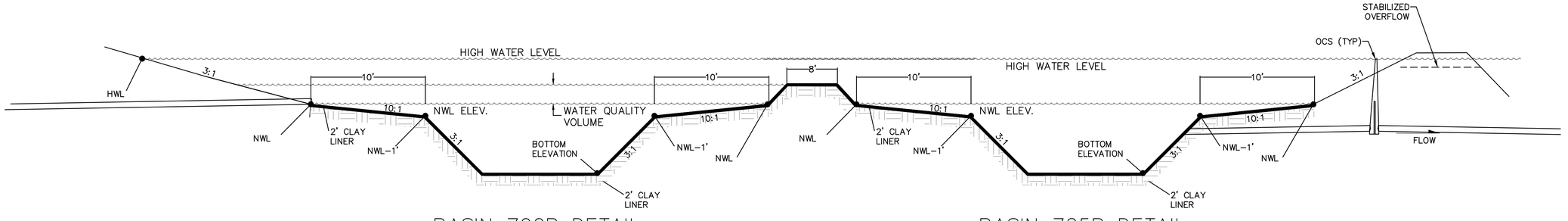
STABILIZED EMERGENCY OVERFLOW DETAIL

SECTION A-A



INFILTRATION BASIN 100P DETAIL

N.T.S.



BASIN 700P DETAIL

N.T.S.

BASIN 725P DETAIL

N.T.S.

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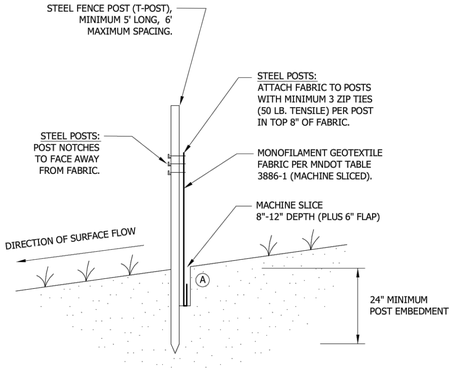

NOTE:
THE MACHINE SLICED METHOD (THIS DETAIL) IS THE STANDARD SILT FENCE INSTALLATION METHOD. HEAVY DUTY (ERO-1B) SILT FENCE INSTALLATION METHODS SHOULD ONLY BE USED WHEN APPROVED OR DIRECTED BY THE CITY.

(A) COMPACTION:
AFTER "SLICING" IN THE FABRIC AND *BEFORE* INSTALLATION OF STEEL POSTS, DRIVE INSTALLATION EQUIPMENT OVER THE "SLICE" WHILE FABRIC IS LAYING ON THE GROUND. *THEN* INSTALL THE POSTS AND PULL UP FABRIC TO ATTACH AT A UNIFORM HEIGHT.

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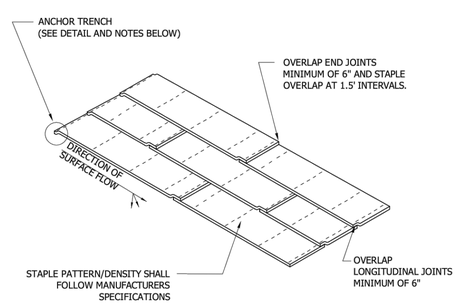
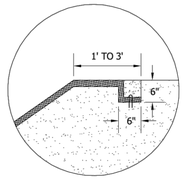
SILT FENCE
MACHINE SLICED

CHASKA, MN

LAST REVISION: APRIL 2011
PLATE NO. ERO-1A



ANCHOR TRENCH
1. DIG 6" X 6" TRENCH
2. LAY BLANKET IN TRENCH
3. STAPLE AT 1.5' INTERVALS
4. BACKFILL WITH NATURAL SOIL AND COMPACT
5. BLANKET LENGTH SHALL NOT EXCEED 100' WITHOUT AN ANCHOR TRENCH



NOTE:
SLOPE SURFACE SHALL BE FREE OF ROCKS, SOIL CLUMPS, STICKS, VEHICLE IMPRINTS, AND GRASS. BLANKETS SHALL HAVE GOOD SOIL CONTACT.

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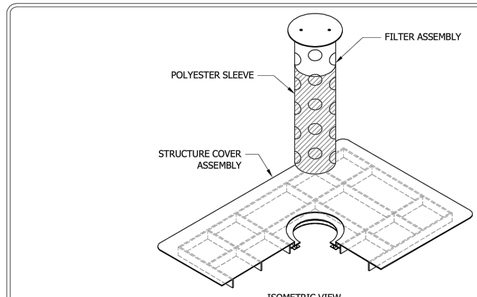
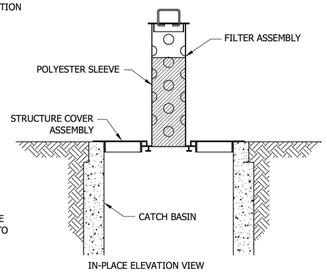
EROSION CONTROL BLANKET INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: APRIL 2008
PLATE NO. ERO-2



DEVICES TO BE INSTALLED IMMEDIATELY UPON INSTALLATION OF CONCRETE STRUCTURE OR TOP SLAB.



NOTE: ALL OTHER INLET PROTECTION DEVICES MUST BE APPROVED BY OWNER PRIOR TO INSTALLATION.

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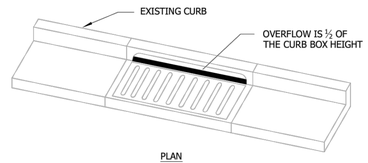
INLET PROTECTION FOR CATCH BASIN BEFORE CURB CONSTRUCTION

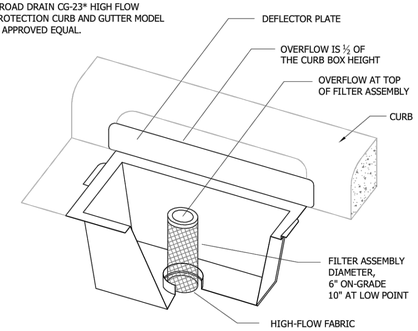
CHASKA, MINNESOTA

LAST REVISION: APRIL 2008
PLATE NO. ERO-4A



PLAN

WIMCO ROAD DRAIN CG-23* HIGH FLOW INLET PROTECTION CURB AND GUTTER MODEL OR CITY APPROVED EQUAL.



* FOR THE NEW R-3290-VB STANDARD CASTING, INSTALL WIMCO ROAD DRAIN CG-3290 OR CITY APPROVED EQUAL.

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INLET PROTECTION - CATCH BASIN INSERT AFTER CURB CONSTRUCTION

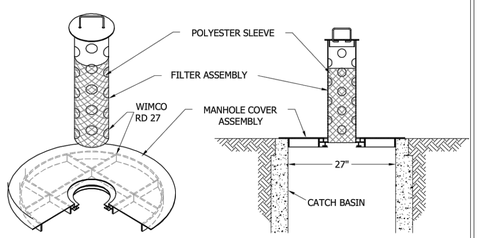
CHASKA, MINNESOTA

LAST REVISION: APRIL 2008
PLATE NO. ERO-4B

DEVICES TO BE INSTALLED IMMEDIATELY UPON INSTALLATION OF CONCRETE STRUCTURE CONE OR TOP SLAB.

DEVICES SHOWN ARE AS MANUFACTURED BY WIMCO. MODEL NO. OF UNIT SHOWN: RD 27.

OTHER APPROVED INLET PROTECTION DEVICES FOR BEEHIVE CASTINGS ARE:
- ROYAL ENTERPRISES - MODEL NO 27 INFRASAFE SEDIMENT CONTROL BARRIER - DG.
- PRE MANUFACTURED UNIT BY CIRCLE "H" ENTERPRISES.



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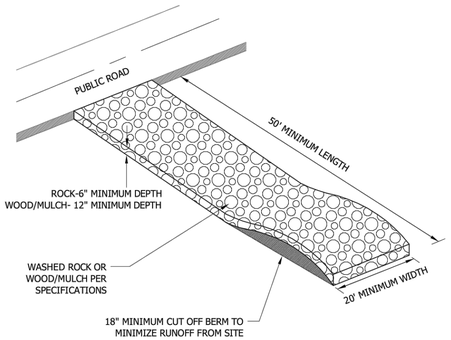
INLET PROTECTION BEEHIVE CASTING

CHASKA, MINNESOTA

LAST REVISION: APRIL 2008
PLATE NO. ERO-4C



NOTES:
1. MnDOT 3733 TYPE 4 FILTER FABRIC SHALL BE PLACED UNDER ROCK OR MULCH TO STOP MUD MIGRATION THROUGH MATERIAL.
2. FUGITIVE ROCK OR MULCH WILL BE REMOVED FROM ADJACENT ROADWAYS DAILY OR MORE FREQUENTLY AS NECESSARY.
3. CONSTRUCTION ENTRANCE MUST BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF GRADING OPERATIONS ON THE SITE.
4. THE ENTRANCE MUST BE MAINTAINED IN PROPER CONDITION TO PREVENT TRACKING OF MUD OFF THE SITE. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL ROCK, WOOD/MULCH, OR REMOVAL AND REINSTALLATION OF THE PAD.
5. THIS ENTRANCE WILL BE USED BY ALL VEHICLES ENTERING OR LEAVING THE PROJECT.
6. THE CONSTRUCTION ENTRANCE WILL BE REMOVED PRIOR TO THE PLACEMENT OF BITUMINOUS SURFACING.

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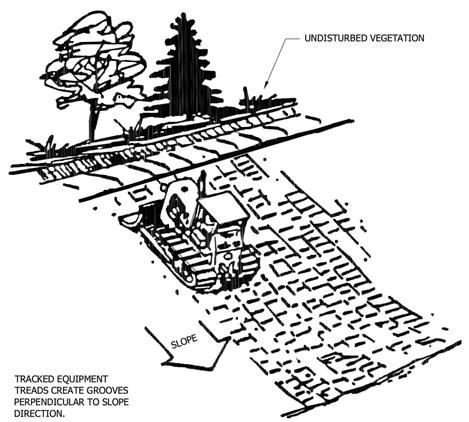
ROCK CONSTRUCTION ENTRANCE

CHASKA, MINNESOTA

LAST REVISION: APRIL 2008
PLATE NO. ERO-7



TRACKED EQUIPMENT TREADS CREATE GROOVES PERPENDICULAR TO SLOPE DIRECTION.

NOTE:
ALL SLOPES WITH A GRADE EQUAL TO OR STEEPER THAN 3:1 REQUIRE SLOPE TRACKING. SLOPES WITH A GRADE MORE GRADUAL THAN 3:1 REQUIRE SLOPE TRACKING IF THE STABILIZATION METHOD IS EROSION CONTROL BLANKET OR HYDROMULCH.

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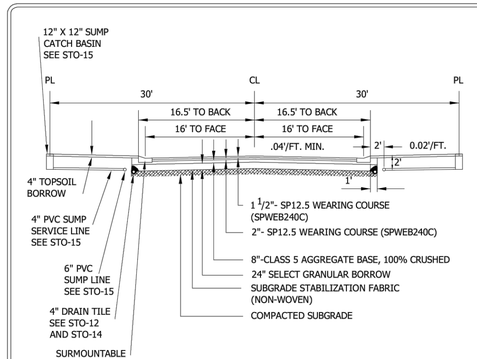
SLOPE TRACKING

CHASKA, MINNESOTA

LAST REVISION: FEB 2004
PLATE NO. ERO-10



STANDARD STREET SECTION (7 TON)

NOTES:
1. ALL ORGANIC OR OTHER UNSUITABLE MATERIALS SHALL BE REMOVED FROM BENEATH THE ROADWAY.
2. A TEST ROLL OF THE PREPARED SUBGRADE SHALL BE PERFORMED BY THE OWNER IN THE PRESENCE OF A CITY INSPECTOR. THE CITY HAS THE AUTHORITY TO REQUIRE ADDITIONAL SUBGRADE CORRECTION OR ELIMINATE THE STABILIZATION FABRIC.
3. THE CITY RESERVES THE RIGHT TO MODIFY STREET SECTION AS REQUIRED.
4. NO CONCRETE WORK OR BITUMINOUS PAVING SHALL OCCURE AFTER OCTOBER 31ST UNLESS AUTHORIZED BY THE CITY OF CHASKA.
5. STREET WIDTH TO BE DETERMINED BY PROJECTED TRAFFIC VOLUMES.
6. RECYCLE MATERIAL ACCEPTED AS CLASS 5 AGGREGATE BASE SUBSTITUTE IF MEETING GUIDELINES.

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TYPICAL SECTIONS FOR RESIDENTIAL STREETS 7 TON SECTION

CHASKA, MINNESOTA

LAST REVISION: JUNE 2012
PLATE NO. STR-7

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ENSCONCED WOODS
CHASKA, MINNESOTA

00-ENG-120158-SHEET-DTLS

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BIG WOODS BLVD.

FOUNDERS PATH

ENSCONCED WAY

WETLAND 1
MANAGE 3
DREDGED WETLAND
LEAST SUSCEPTIBLE

OUTLOT A

OUTLOT B

OUTLOT C

OUTLOT D

OUTLOT E

OUTLOT F

OUTLOT G

EXISTING HOUSE

MH-1
MH-2
MH-3
MH-4
MH-5
MH-6
MH-7
MH-8
MH-9
MH-10
CBMH-EX
STMH-731
STMH-732
STMH-725B
FES-725C
OCS-725
OCS-730
CBMH-109
CB-110
CB-112
CBMH-111
STMH-108
CBMH-107
CBMH-106
FES-100B
OCS-100
NWL=867.0
CBMH-102
HWL=869.0
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OCS-W1
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CB-711
CBMH-105
CBMH-104
HWL=871.5
PERF
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CBMH-706
CB-721
CBMH-705
STMH-704
CBMH-703
FES-701
OCS-700
STMH-702
HWL=843.0
HWL=846.4
NWL=843.0
CBMH-752
FES-751
STMH-762
FES-761
HWL=841.5
8" C900 WM

0 30 60 120
GRAPHIC SCALE IN FEET

BENCH MARK
TOP NUT HYDRANT AT NORTHWEST CORNER OF FOUNDERS PATH AND DAKOTA COURT
EL=896.15 (NAVD88)

00-ENG-120158-SHEET-UTIL-OVERALL

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota
Name Brian N. Molinaro
Reg. No. 47504 Date 9-7-21

Revisions
1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed NAP
Drawn NSN/MBO
Checked BNM

PRELIMINARY OVERALL UTILITY PLAN

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

8.1 OF 24

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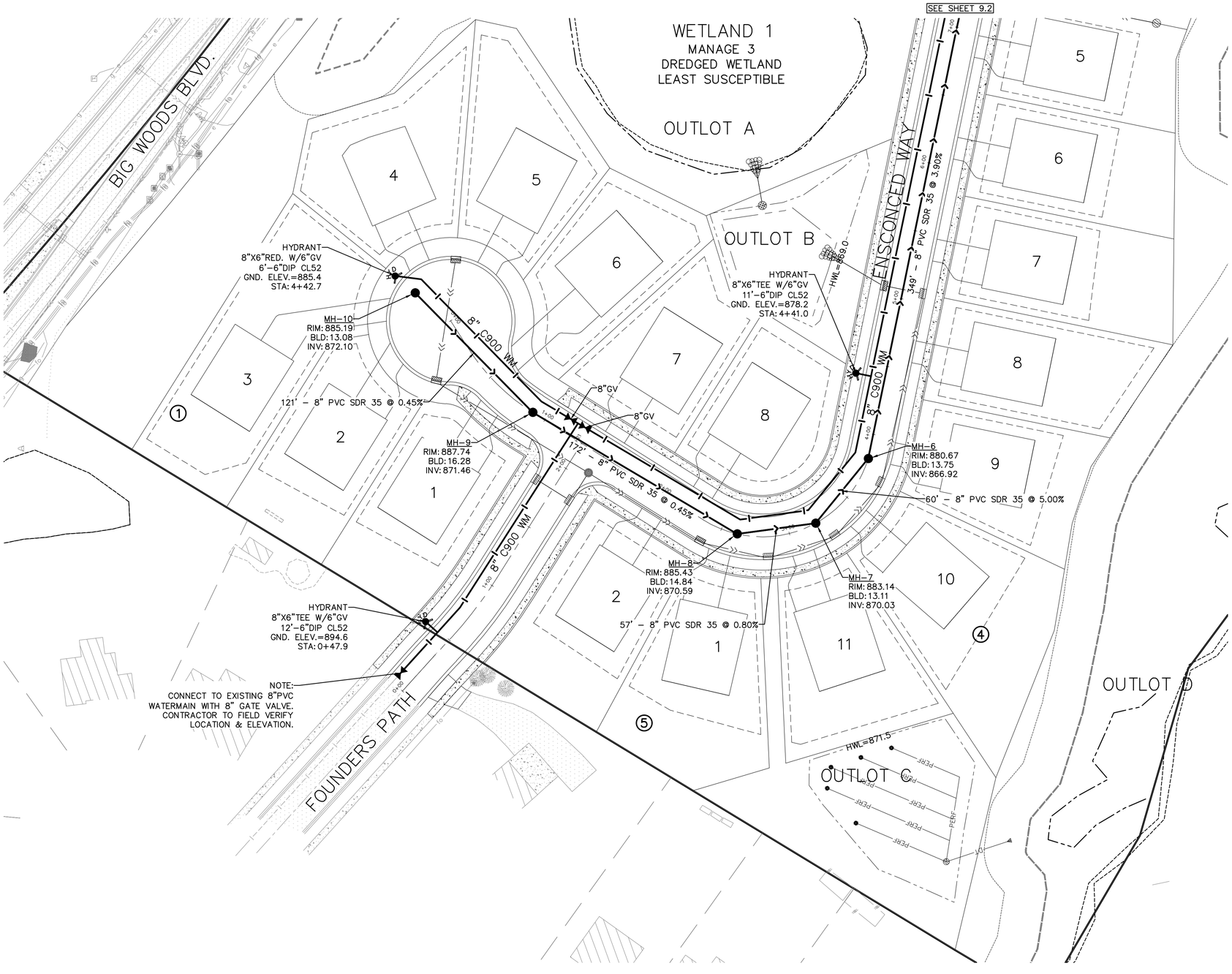

BENCH MARK
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PRELIMINARY SANITARY SEWER & WATERMAIN PLAN

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

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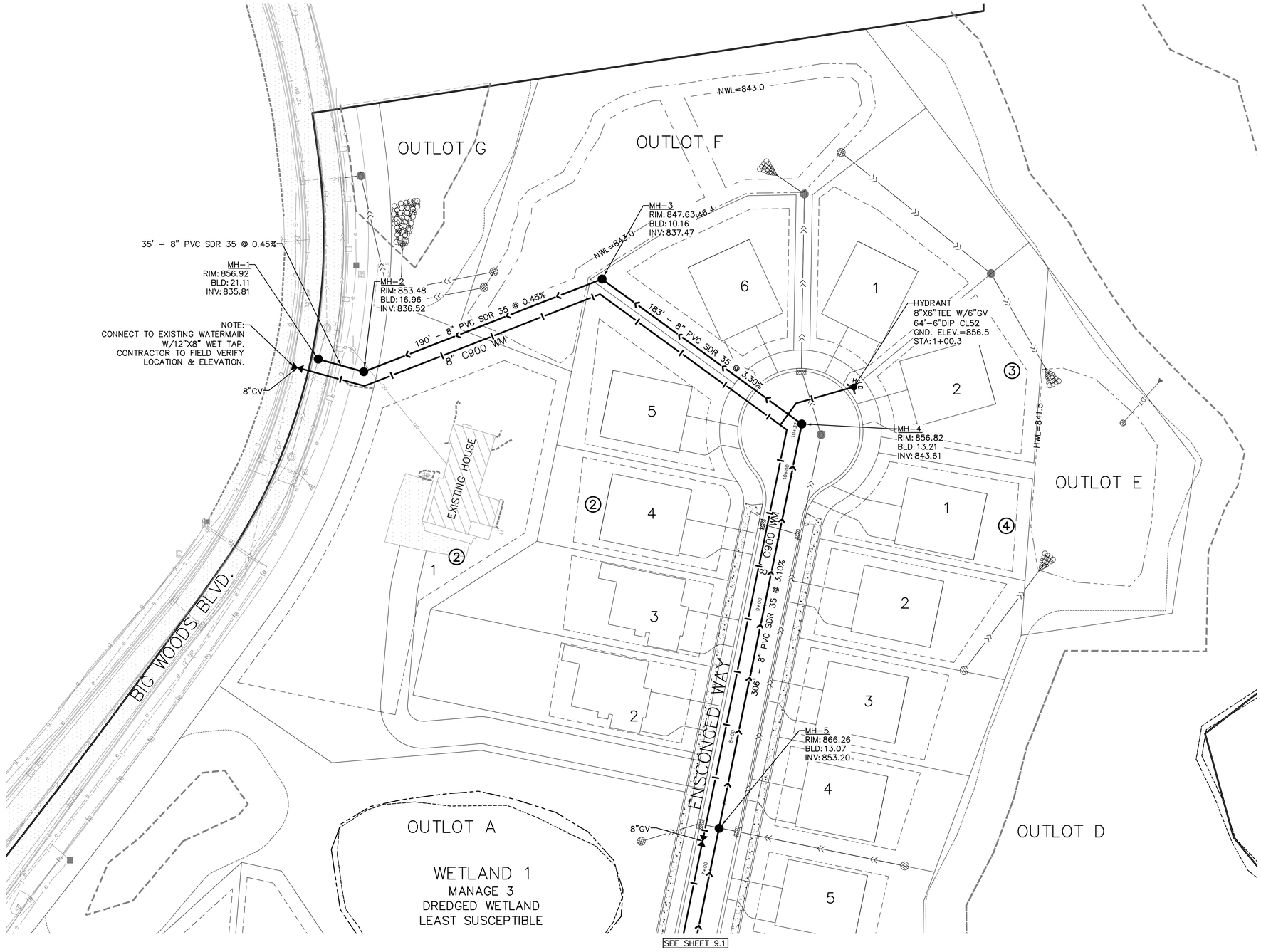

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ENSCONCED WOODS
CHASKA, MINNESOTA

9.2 OF 24

8.C. Adopt Resolution 2022-24 and
Page 47 of 69
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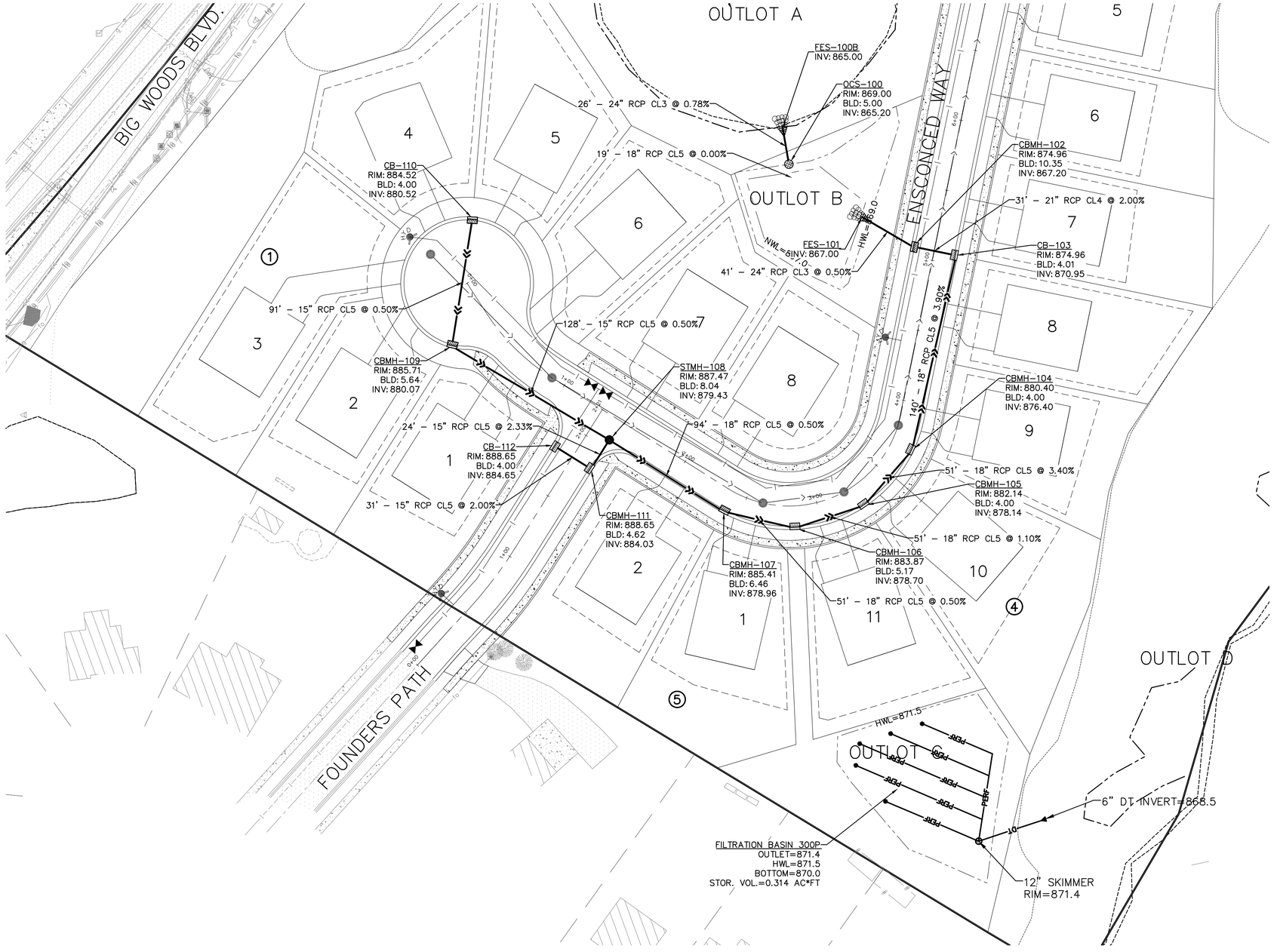
SEE SHEET 10.2



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GRAPHIC SCALE IN FEET

BENCH MARK

TOP NUT HYDRANT AT NORTHWEST CORNER OF FOUNDERS PATH AND DAKOTA COURT
EL=896.15 (NAVD88)

00-ENG-120158-SHEET-STRM

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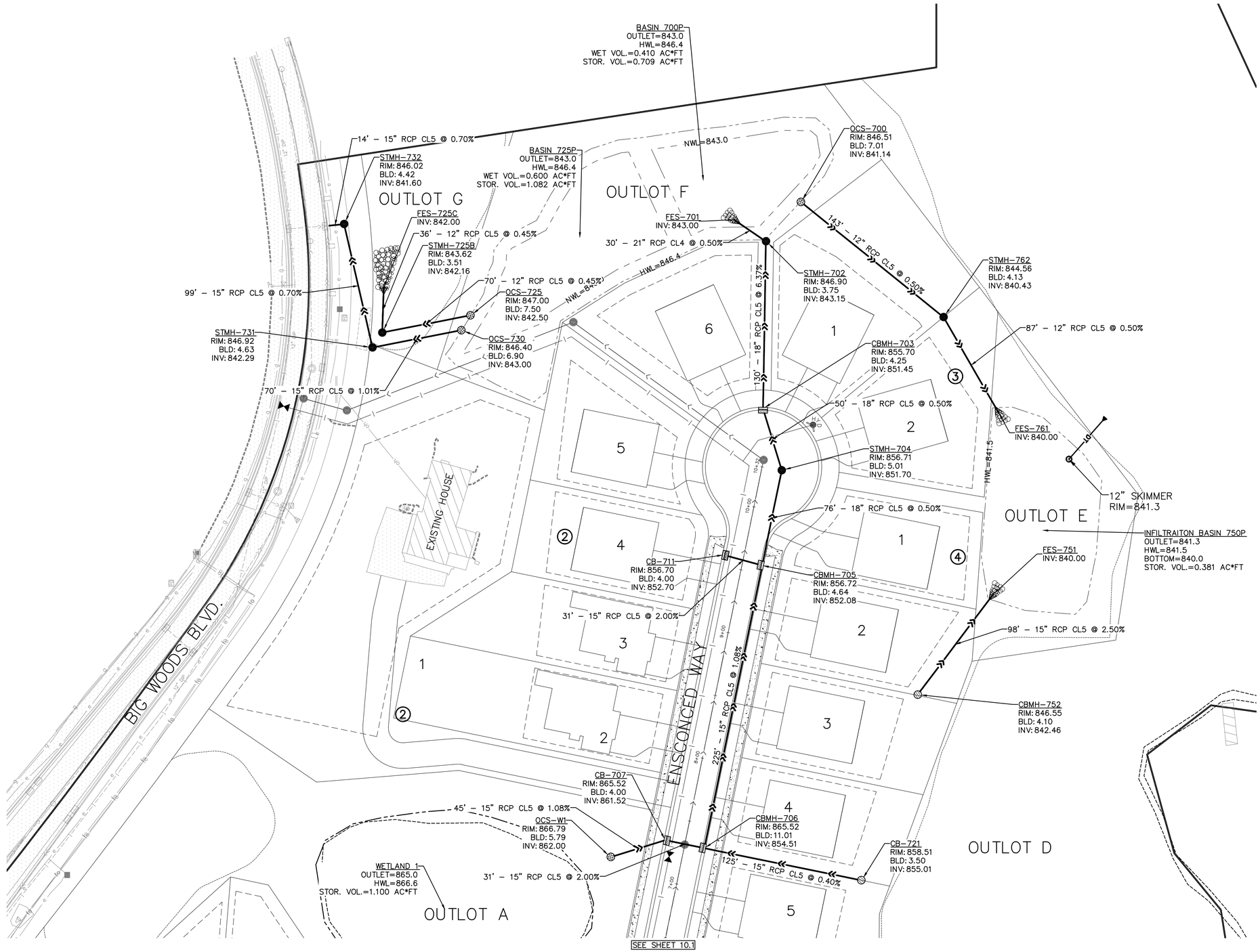

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CHASKA, MINNESOTA

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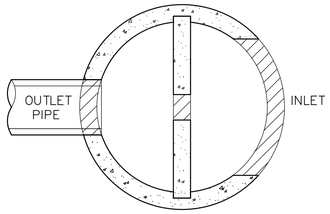

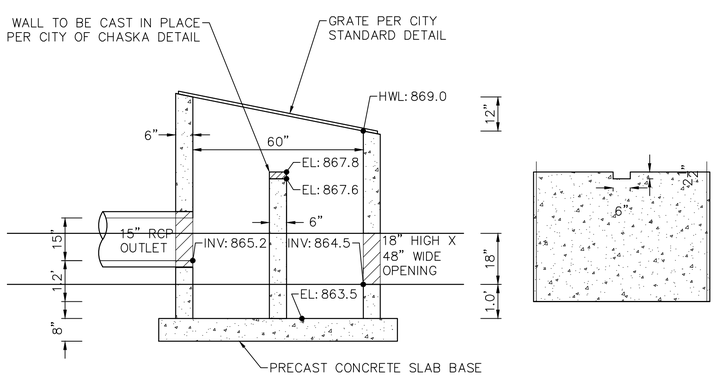

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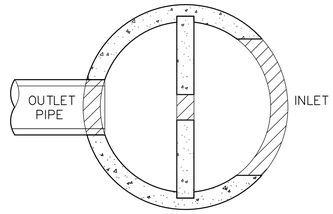
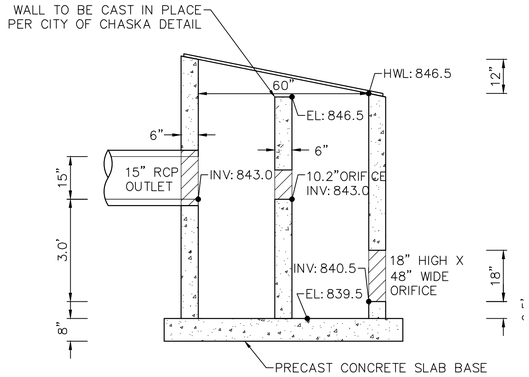
(NOT TO SCALE)





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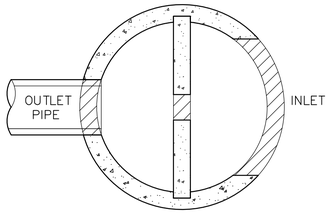

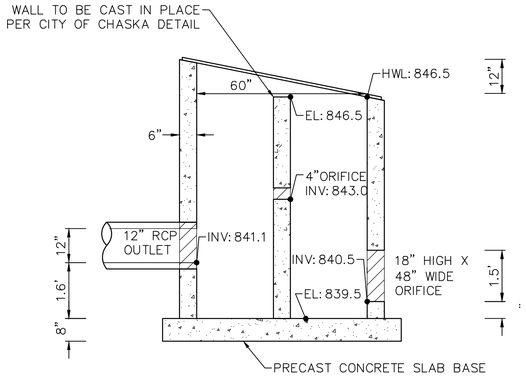

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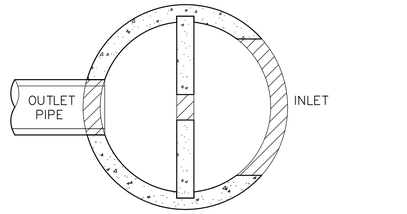

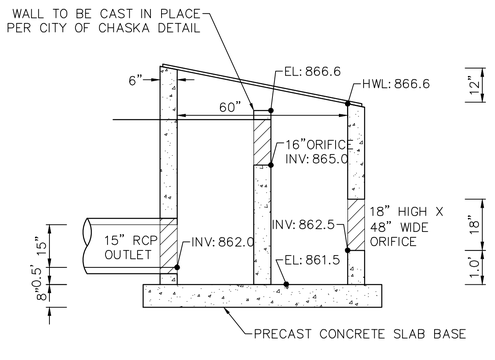

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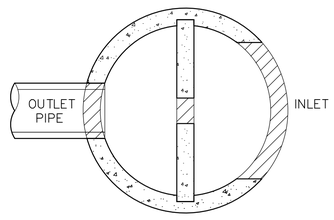
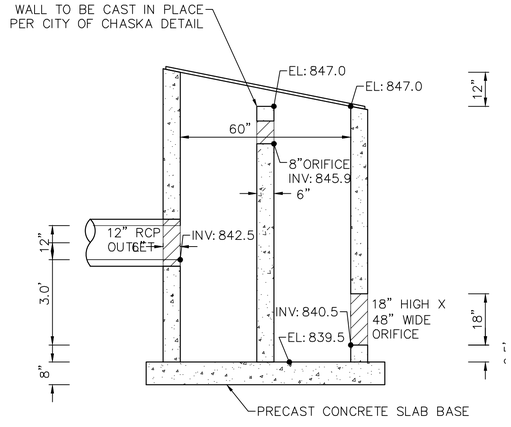
(NOT TO SCALE)





POND OUTLET CONTROL STRUCTURE OCS-725
(NOT TO SCALE)

BENCH MARK
TOP NUT HYDRANT AT NORTHWEST CORNER OF FOUNDERS PATH AND DAKOTA COURT
EL=896.15 (NAVD88)

00-ENG-120158-SHEET-STRM

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Reg. No. 47504 Date 9-7-21

Revisions
1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed NAP
Drawn MSN/MBD
Checked BNM

PRELIMINARY STORM SEWER PLAN

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

10.3 OF 24

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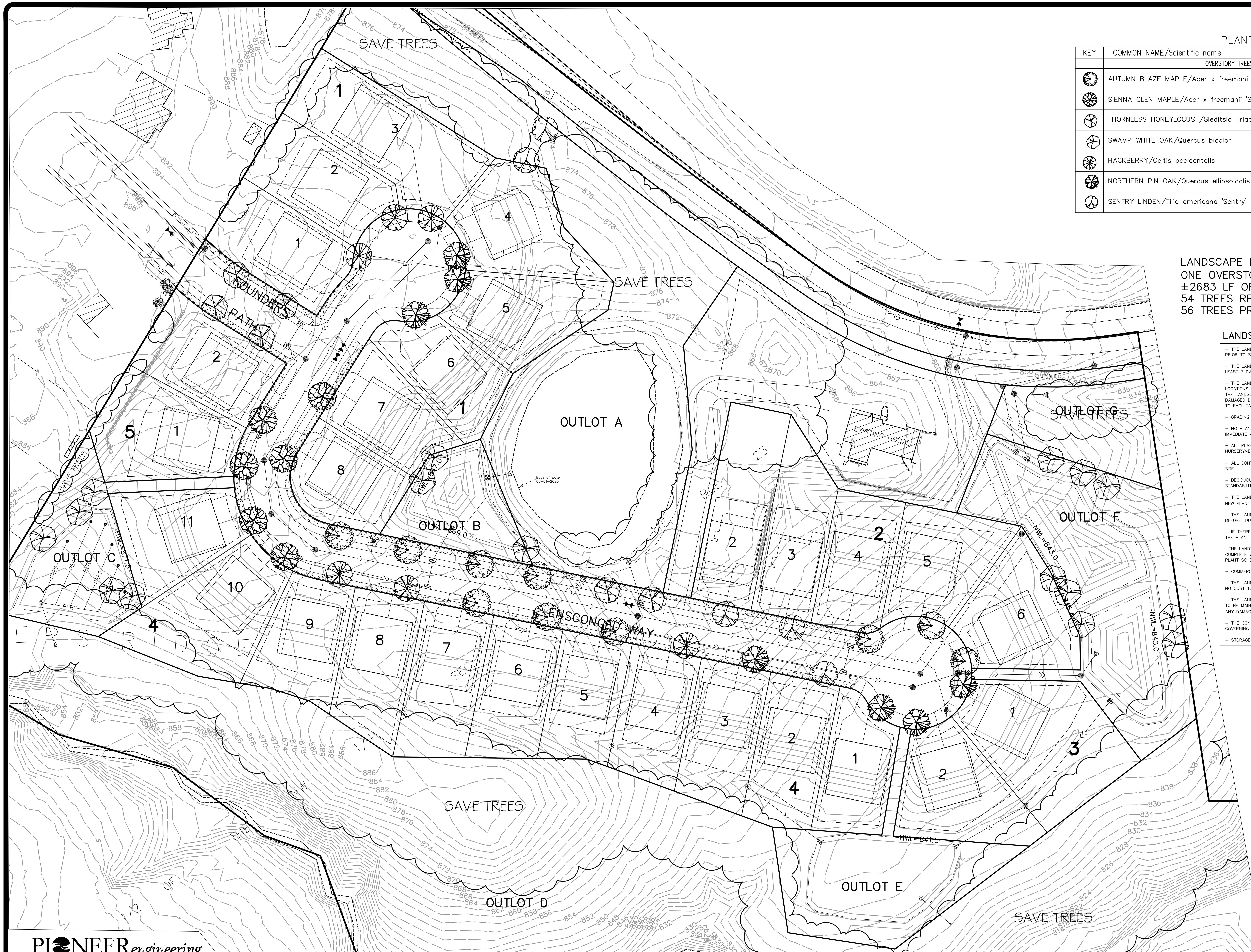

PLANT SCHEDULE

KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	NOTES
	OVERSTORY TREES			
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	10	
	SIENNA GLEN MAPLE/Acer x freemanii 'Sienna'	2.5" B&B	6	
	THORNLESS HONEYLOCUST/Gleditsia Triacanthos form inermis	2.5" B&B	7	
	SWAMP WHITE OAK/Quercus bicolor	2.5" B&B	16	Clump
	HACKBERRY/Celtis occidentalis	2.5" B&B	6	
	NORTHERN PIN OAK/Quercus ellipsoidalis	2.5" B&B	7	
	SENTRY LINDEN/Tilia americana 'Sentry'	2.5" B&B	5	

LANDSCAPE REQUIREMENTS:
ONE OVERSTORY TREE PER 50' OF ROAD FRONTAGE:
±2683 LF OF FRONTAGE
54 TREES REQUIRED
56 TREES PROPOSED

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.
- 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 STANDABILITY 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 DESCREPANCY 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.

GRAPHIC SCALE IN FEET: 0 25 50 100

01-PLAN-120158-SHEET-LAND.DWG

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Name: Jennifer L. Thompson
Reg. No. 44763 Date 9-7-21

Revisions
1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed JLT
Drawn JLT

LANDSCAPE PLAN

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

L1 OF 1

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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.

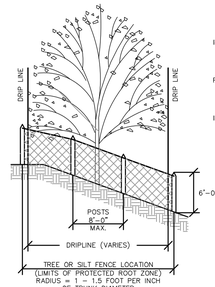
IF WOUNDING OF OAK TREES OCCUR ANYTIME BETWEEN APRIL TO AUGUST, A NON-TOXIC WOUND DRESSING MUST BE APPLIED IMMEDIATELY, (EXCAVATORS MUST HAVE A NON-TOXIC TREE WOUND DRESSING WITH THEM ON DEVELOPMENT SITES).

TREE PROTECTION DETAIL

NOT TO SCALE

TREES TO BE SAVED SHALL BE FENCED OFF WITH BRIGHT ORANGE POLYETHYLENE SAFETY NETTING OR HEAVY DUTY SILT FENCE AND STEEL STAKES AT THE DRIP LINE, OR AS DIRECTED BY THE OWNER'S CONSULTANT.

PROTECTION FENCE WILL HELP INSURE AGAINST DAMAGE BY VEHICLES, COMPACTION OF SOILS, AND/OR THE CHEMICAL ALTERATION OF SOILS DUE TO CONCRETE WASHOUT, PAINTS AND LEAKAGE OR SPILLAGE OF ANY TOXIC MATERIALS.



TREE OR SILT FENCE LOCATION
(LIMITS OF PROTECTED ROOT ZONE)
RADIUS = 1 ~ 1.5 FOOT PER INCH OF TRUNK DIAMETER

INSTALL TREE OR SILT FENCE PRIOR TO OR AT SAME TIME AS LAND CLEARING.

PROTECTION FENCE SHOULD REMAIN IN PLACE UNTIL ALL CONSTRUCTION IS COMPLETE.

IF PROTECTION FENCE IS DAMAGED OR REMOVED, NEW FENCING MUST BE PLACED BACK IN ORIGINAL POSITION UNTIL CONSTRUCTION IS COMPLETE.

TREE IDENTIFICATION PROVIDED BY:
KEN ARNDT, SR. FOREST ECOLOGIST, CWD
MIDWEST NATURAL RESOURCES, INC.

SEE LANDSCAPE PLAN FOR PROPOSED TREES

X 9248 = TREE TO BE SAVED

⊠ 9248 = TREE TO BE REMOVED

□ 9248 = TREE LOCATED OFF SITE

0 20 40 80
GRAPHIC SCALE IN FEET

01-PLAN-120158-SHEET-TREE.DWG

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Drawn TLM

TREE PRESERVATION

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ENSCONCED WOODS
CHASKA, MINNESOTA

T1 OF 6

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MATCH LINE

MATCH LINE

EXISTING HOUSE

NWL=843.0

NWL=840.4

NWL=843.0

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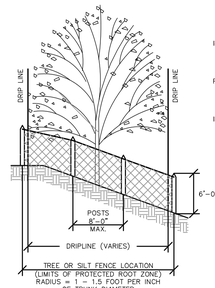

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KEN ARNDT, SR. FOREST ECOLOGIEST, CWD
MIDWEST NATURAL RESOURCES, INC.

SEE LANDSCAPE PLAN FOR PROPOSED TREES

X 9248 = TREE TO BE SAVED

⊠ 9248 = TREE TO BE REMOVED

□ 9248 = TREE LOCATED OFF SITE

0 20 40 80

GRAPHIC SCALE IN FEET

01-PLAN-120158-SHEET-TREE.DWG

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
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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 Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 9-7-21

Revisions
1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed TLM
Drawn TLM

TREE PRESERVATION

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

T2 OF 6

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Tag #	DBH	Common Name	Scientific Name	Notes	Status
3226	12	American Elm	*Ulmus americana*		Remove
3227	10	Box Elder	*Acer negundo*		Remove
3228	14	Red Cedar	*Juniperus virginiana*		Remove
3229	66	Cottonwood	*Populus deltoides*	in decline, 40% top dead	Remove
3230	14,11	Red Cedar	*Juniperus virginiana*		Remove
3231	16	Red Cedar	*Juniperus virginiana*		Remove
3232	15	Red Cedar	*Juniperus virginiana*		Save
3233	6	American Elm	*Ulmus americana*		Save
3234	10	Hackberry	*Celtis occidentalis*		Save
3235	11	American Elm	*Ulmus americana*		Save
3236	7	Hackberry	*Celtis occidentalis*		Save
3237	7	Hackberry	*Celtis occidentalis*		Save
3238	11	Hackberry	*Celtis occidentalis*		Remove
3239	7	Bur Oak	*Quercus macrocarpa*		Remove
3240	6	Hackberry	*Celtis occidentalis*		Save
3241	10	American Elm	*Ulmus americana*		Save
3242	6	Hackberry	*Celtis occidentalis*		Save
3243	15,8	Hackberry	*Celtis occidentalis*		Save
3244	6	American Elm	*Ulmus americana*		Save
3245	6	Hackberry	*Celtis occidentalis*		Save
3246	14	American Elm	*Ulmus americana*		Save
3247	7	Hackberry	*Celtis occidentalis*		Save
3248	16	Red Cedar	*Juniperus virginiana*		Save
3249	14	Box Elder	*Acer negundo*		Remove
3250	8	Box Elder	*Acer negundo*		Remove
3251	7	Green Ash	*Fraxinus pennsylvanica*		Remove
3252	18,17	Silver Maple	*Acer saccharinum*		Remove
3253	6	Green Ash	*Fraxinus pennsylvanica*		Remove
3254	13	Green Ash	*Fraxinus pennsylvanica*		Remove
3255	8	Green Ash	*Fraxinus pennsylvanica*		Remove
3256	15,8	Silver Maple	*Acer saccharinum*		Remove
3257	18,17,12	Silver Maple	*Acer saccharinum*		Remove
3258	6	Green Ash	*Fraxinus pennsylvanica*		Remove
3259	9	Green Ash	*Fraxinus pennsylvanica*		Remove
3260	6	Green Ash	*Fraxinus pennsylvanica*		Remove
3261	7	Green Ash	*Fraxinus pennsylvanica*		Remove
3262	22	Cottonwood	*Populus deltoides*		Remove
3263	6	Green Ash	*Fraxinus pennsylvanica*		Remove
3264	13	Mulbery	*Morus* sp.		Remove
3265	10	Green Ash	*Fraxinus pennsylvanica*		Remove
3266	6	Green Ash	*Fraxinus pennsylvanica*		Remove
3267	6	Green Ash	*Fraxinus pennsylvanica*		Remove
3268	6	Green Ash	*Fraxinus pennsylvanica*		Remove
3269	7	Black Cherry	*Prunus serotina*		Remove
3270	6	Green Ash	*Fraxinus pennsylvanica*		Remove
3271	7	Siberian Elm	*Ulmus pumila*		Remove
3272	13,13	Box Elder	*Acer negundo*		Remove
3273	14,13	Siberian Elm	*Ulmus pumila*		Remove
3274	9	Box Elder	*Acer negundo*		Remove
3275	6	American Elm	*Ulmus americana*		Remove
3276	8	American Elm	*Ulmus americana*		Remove
3277	15	Siberian Elm	*Ulmus pumila*		Remove
3278	9	Basswood	*Tilia americana*		Remove
3279	8	Crabapple	*Malus* sp.		Remove
3280	16	American Elm	*Ulmus americana*		Remove
3281	7	Green Ash	*Fraxinus pennsylvanica*		Remove
3282	6,6	White Cedar	*Thuja occidentalis*		Remove
3283	5,5	White Cedar	*Thuja occidentalis*		Remove
3284	10,8,8	Box Elder	*Acer negundo*		Remove
3285	11,10,9	White Cedar	*Thuja occidentalis*		Remove
3286	15	Box Elder	*Acer negundo*		Remove
3287	6	Box Elder	*Acer negundo*		Remove
3288	18	Siberian Elm	*Ulmus pumila*		Remove
3289	16,10	Silver Maple	*Acer saccharinum*		Remove
3290	10	Box Elder	*Acer negundo*		Remove
3291	9	Green Ash	*Fraxinus pennsylvanica*		Remove
3292	24	Whitecrack Willow	*Salix x rubens*		Remove
3293	10	Siberian Elm	*Ulmus pumila*		Remove
3294	10	Box Elder	*Acer negundo*		Remove
3295	6	Silver Maple	*Acer saccharinum*		Remove
3296	8	Hackberry	*Celtis occidentalis*		Remove
3297	6	Siberian Elm	*Ulmus pumila*		Remove
3298	8	Box Elder	*Acer negundo*		Remove
3299	9	Hackberry	*Celtis occidentalis*		Remove
3300	25,16	Whitecrack Willow	*Salix x rubens*	40% top dead or damaged	Remove
3301	11	Hackberry	*Celtis occidentalis*		Remove
3302	42	Cottonwood	*Populus deltoides*	in decline	Remove
3303	26	Whitecrack Willow	*Salix x rubens*	hollow	Remove
3304	7	Box Elder	*Acer negundo*		Remove
3305	12	Siberian Elm	*Ulmus pumila*		Remove
3306	11	Cottonwood	*Populus deltoides*		Remove
3307	8	American Elm	*Ulmus americana*		Remove
3308	13,10	Box Elder	*Acer negundo*		Remove
3309	14,11	Box Elder	*Acer negundo*		Remove
3310	31,13,11,11,11,6	Basswood	*Tilia americana*		Remove
3311	11	Box Elder	*Acer negundo*		Remove
3312	14	Silver Maple	*Acer saccharinum*		Remove
3313	15,14	Box Elder	*Acer negundo*		Remove
3314	13	Box Elder	*Acer negundo*		Remove
3315	8	Box Elder	*Acer negundo*		Remove
3316	12,7	Box Elder	*Acer negundo*		Remove
3317	18,9	Silver Maple	*Acer saccharinum*		Remove
3318	16,15	Box Elder	*Acer negundo*		Remove
3319	16	Box Elder	*Acer negundo*	split at base	Remove
3320	9	Box Elder	*Acer negundo*		Remove
3321	9	Green Ash	*Fraxinus pennsylvanica*		Remove
3322	12,11	American Elm	*Ulmus americana*		Remove
3323	7	Black Walnut	*Juglans nigra*		Remove
3324	7	Black Walnut	*Juglans nigra*		Remove
3325	8	Black Walnut	*Juglans nigra*		Remove
3326	11	Black Walnut	*Juglans nigra*		Remove
3327	8	Box Elder	*Acer negundo*		Remove
3328	11	Black Walnut	*Juglans nigra*		Remove
3329	8	White Spruce	*Picea glauca*		Remove
3330	8	Black Walnut	*Juglans nigra*		Remove
3331	8	Box Elder	*Acer negundo*		Remove
3332	12,9	Box Elder	*Acer negundo*		Remove
3333	9	Box Elder	*Acer negundo*		Remove
3334	9	Black Walnut	*Juglans nigra*		Remove
3335	11,10,10	Crabapple	*Malus* sp.		Remove
3336	21	White Spruce	*Picea glauca*		Remove
3337	23	Siberian Elm	*Ulmus pumila*		Remove
3338	19	Norway Maple	*Acer platanoides*		Remove
3339	12,10	Crabapple	*Malus* sp.	decay along trunk of 12"	Remove
3340	8	Red Oak	*Quercus rubra*		Remove
3341	22	Black Walnut	*Juglans nigra*		Remove
3342	21	Silver Maple	*Acer saccharinum*		Remove
3343	27	American Elm	*Ulmus americana*		Remove
3344	15	Honey Locust	*Gleditsia triacanthos*		Remove
3345	16	Green Ash	*Fraxinus pennsylvanica*		Remove
3346	12,10,6	Crabapple	*Malus* sp.		Remove
3347	12	Norway Maple	*Acer platanoides*		Remove
3348	7	American Elm	*Ulmus americana*		Remove
3349	7	American Elm	*Ulmus americana*		Remove
3350	8,6	Silver Maple	*Acer saccharinum*		Remove
3351	11,10,9	Paper Birch	*Betula papyrifera*		Remove
3352	9	Red Pine	*Pinus resinosa*		Remove
3353	6	Green Ash	*Fraxinus pennsylvanica*		Remove
3354	17	Green Ash	*Fraxinus pennsylvanica*		Remove
3355	9	Red Pine	*Pinus resinosa*		Remove
3356	10	Red Pine	*Pinus resinosa*		Remove
3357	9	Ohio Buckeye	*Aesculus glabra*		Remove
3358	9	Black Walnut	*Juglans nigra*		Remove
3359	15	Green Ash	*Fraxinus pennsylvanica*		Remove
3360	10,7	Green Ash	*Fraxinus pennsylvanica*		Remove
3361	6	American Elm	*Ulmus americana*		Remove
3362	7	Green Ash	*Fraxinus pennsylvanica*		Remove
3363	7	American Elm	*Ulmus americana*		Remove
3364	9	Green Ash	*Fraxinus pennsylvanica*		Remove
3365	11	Butternut	*Juglans cinerea*	70% dead, full of cankers	Remove
3366	4	Red Cedar	*Juniperus virginiana*	20' in height	Remove
3367	5	Red Cedar	*Juniperus virginiana*	25' in height	Remove
3368	5	Red Cedar	*Juniperus virginiana*	25' in height	Remove
3369	5	Red Cedar	*Juniperus virginiana*	25' in height	Remove
3370	5	White Spruce	*Picea glauca*	in very poor health	Remove
3371	5	Red Cedar	*Juniperus virginiana*	25' in height	Remove
3372	4	Red Cedar	*Juniperus virginiana*	20' in height	Remove
3373	11	Norway Maple	*Acer platanoides*		Remove
3374	13	Norway Maple	*Acer platanoides*		Remove
3375	6	White Oak	*Quercus alba*		Remove
3376	8	Hackberry	*Celtis occidentalis*		Save
3377	20	Cottonwood	*Populus deltoides*		Save
3378	9	American Elm	*Ulmus americana*		Off-site
3379	11	Box Elder	*Acer negundo*		Off-site
3380	8	American Elm	*Ulmus americana*		Off-site
3381	6	Green Ash	*Fraxinus pennsylvanica*		Off-site
3382	6	American Elm	*Ulmus americana*		Save
3383	14,12	American Elm	*Ulmus americana*		Save
3384	9	Red Pine	*Pinus resinosa*		Save
3385	7	Red Pine	*Pinus resinosa*		Save
3386	5	Red Pine	*Pinus resinosa*	20' in height	Save
3387	7	Red Pine	*Pinus resinosa*		Save
3388	10	Red Pine	*Pinus resinosa*		Save
3389	11	Red Pine	*Pinus resinosa*		Save
3390	9	Red Pine	*Pinus resinosa*		Save
3391	8	Red Pine	*Pinus resinosa*		Save
3392	9	Red Pine	*Pinus resinosa*		Save
3393	8	White Spruce	*Picea glauca*		Save
3394	13	White Spruce	*Picea glauca*		Save
3395	12	White Spruce	*Picea glauca*		Save
3396	7	Black Walnut	*Juglans nigra*		Save
3397	7	Colorado Blue Spruce	*Picea pungens*		Save
3398	11	Colorado Blue Spruce	*Picea pungens*		Save
3399	6	White Spruce	*Picea glauca*		Save
3400	8	White Spruce	*Picea glauca*		Save
3401	7	Red Pine	*Pinus resinosa*		Save
3402	8	White Spruce	*Picea glauca*		Save
3403	11	American Elm	*Ulmus americana*		Save
3404	5	Red Pine	*Pinus resinosa*	25' in height	Save
3405	6	Red Pine	*Pinus resinosa*		Save
3406	7	American Elm	*Ulmus americana*		Save
3407	9	Red Pine	*Pinus resinosa*		Save
3408	6	Red Pine	*Pinus resinosa*		Save
3409	7	Red Pine	*Pinus resinosa*		Save
3410	8	Red Pine	*Pinus resinosa*		Save
3411	8	Red Pine	*Pinus resinosa*		Save
3412	6	Red Pine	*Pinus resinosa*		Save
3413	6	Red Pine	*Pinus resinosa*		Save
3414	4	Red Cedar	*Juniperus virginiana*	20' in height	Save
3415	4	Red Pine	*Pinus resinosa*	20' in height	Save
3417	6	Red Cedar	*Juniperus virginiana*		Save
3418	4	Red Cedar	*Juniperus virginiana*	20' in height	Save
3420	5	Red Pine	*Pinus resinosa*	25' in height	Save
3421	4	Red Pine	*Pinus resinosa*	25' in height	Save
3422	9	Red Pine	*Pinus resinosa*		Save
3423	7	Red Pine	*Pinus resinosa*		Save
3424	4	White Spruce	*Picea glauca*	15' in height	Save
3425	8	White Spruce	*Picea glauca*		Save
3426	7	White Spruce	*Picea glauca*		Save
3427	8	White Spruce	*Picea glauca*		Save
3428	6	Red Pine	*Pinus resinosa*		Save
3429	8	American Elm	*Ulmus americana*		Save
3430	9	Red Cedar	*Juniperus virginiana*		Save
3431	5	White Spruce	*Picea glauca*	20' in height	Save
3432	8	White Spruce	*Picea glauca*		Save
3433	8	White Spruce	*Picea glauca*		Save
3434	7	White Spruce	*Picea glauca*		Save
3435	6	White Spruce	*Picea glauca*		Save
3436	5	Colorado Blue Spruce	*Picea pungens*	15' in height	Save
3437	5	Red Cedar	*Juniperus virginiana*	25' in height	Save
3438	3	Red Pine	*Pinus resinosa*	10' in height	Save
3439	3	Red Pine	*Pinus resinosa*	10' in height	Save
3440	6	Red Cedar	*Juniperus virginiana*		Save
3441	5	Red Pine	*Pinus resinosa*	20' in height	Save
3442	4	Red Pine	*Pinus resinosa*	20' in height	Save
3443	5	White Spruce	*Picea glauca*	20' in height	Save
3444	5	Red Pine	*Pinus resinosa*	20' in height	Save
3445	7	White Spruce	*Picea glauca*		Save
3446	10	Red Pine	*Pinus resinosa*		Save
3447	6	Red Pine	*Pinus resinosa*		Save
3448	6	Crabapple	*Malus sp.*		Save
3449	9	Red Pine	*Pinus resinosa*		Save
3450	6,6	Crabapple	*Malus sp.*		Save
3451	3	Red Pine	*Pinus resinosa*	15' in height	Save
3452	8	Colorado Blue Spruce	*Picea pungens*		Save
3453	10	Box Elder	*Acer negundo*		Save
3454	11	Silver Maple	*Acer saccharinum*		Save
3455	14,11	Silver Maple	*Acer saccharinum*		Save
3456	14	Silver Maple	*Acer saccharinum*		Save
3457	13	Silver Maple	*Acer saccharinum*		Save
3458	13	American Elm	*Ulmus americana*		Save
3459	13	American Elm	*Ulmus americana*		Save
3460	9	Norway Maple	*Acer platanoides*		Save
3461	10	Norway Maple	*Acer platanoides*		Save
3462	10	Norway Maple	*Acer platanoides*	major decay along trunk	Save
3463	7	Norway Maple	*Acer platanoides*		Save
3464	9,7,6	Crabapple	*Malus sp.*		Save
3465	10,9,9	Crabapple	*Malus sp.*		Save
3466	13	Red Pine	*Pinus resinosa*		Save
3467	10	Red Pine	*Pinus resinosa*		Save
3468	13	Red Pine	*Pinus resinosa*		Save
3469	9	Red Pine	*Pinus resinosa*		Save
3470	13,8	Red Pine	*Pinus resinosa*		Save
3471	6	Red Pine	*Pinus resinosa*		Save
3472	9	Red Pine	*Pinus resinosa*		Save
3473	14	Red Pine	*Pinus resinosa*		Save
3474	10	Red Pine	*Pinus resinosa*		Save
3475	11	Red Pine	*Pinus resinosa*		Save
3476	11	Red Pine	*Pinus resinosa*		Save
3477	13	Red Pine	*Pinus resinosa*		Remove
3478	9	Red Pine	*Pinus resinosa*		Remove
3479	16	Red Pine	*Pinus resinosa*		Remove
3480	7	Red Pine	*Pinus resinosa*		Remove
3481	7,6	Crabapple	*Malus sp.*		Remove
3482	11	Red Pine	*Pinus resinosa*		Remove
3483	11	Red Pine	*Pinus resinosa*		Remove
3484	9	Red Pine	*Pinus resinosa*		Remove
3485	6	Red Pine	*Pinus resinosa*		Remove
3486	18	American Elm	*Ulmus americana*		Remove
3487	9	Red Pine	*Pinus resinosa*		Remove
3488	6	Black Walnut	*Juglans nigra*		Remove
3489	6	Red Pine	*Pinus resinosa*		Remove
3490	11	Norway Maple	*Acer platanoides*		Remove
3491	13	Norway Maple	*Acer platanoides*		Save
3492	7	American Elm	*Ulmus americana*		Save
3493	12	Green Ash	*Fraxinus pennsylvanica*		Remove
3494	7	Green Ash	*Fraxinus pennsylvanica*		Remove
3495	60	Cottonwood	*Populus deltoides*		Remove
3496	16	White Spruce	*Picea glauca*		Remove
3497	11,8,8,6,6,6	Crabapple	*Malus sp.*		Save
3498	6	Hackberry	*Celtis occidentalis*		Remove
3499	22	Sugar Maple	*Acer saccharum*		Remove
3500	8,8,7	Crabapple	*Malus sp.*		Remove
3501	9	Crabapple	*Malus sp.*		Remove
3502	10,6	Crabapple	*Malus sp.*		Remove
3503	20	Apple	*Malus* sp.	50% top dead	Remove
3504	6	Crabapple	*Malus sp.*		Remove
3505	8	Crabapple	*Malus sp.*		Remove
3506	9	Crabapple	*Malus sp.*		Remove
3507	10	Crabapple	*Malus sp.*		Remove
3508	9,8	Crabapple	*Malus sp.*		Remove
3509	8	Crabapple	*Malus sp.*		Remove
3510	7	Box Elder	*Acer negundo*		Remove
3511	16	Black Walnut	*Juglans nigra*		Remove
3512	9,6,6	Crabapple	*Malus sp.*		Remove
3513	15	Green Ash	*Fraxinus pennsylvanica*		Remove
3514	14	Green Ash	*Fraxinus pennsylvanica*		Remove
3515	17	Green Ash	*Fraxinus pennsylvanica*	major decay along trunk	Remove
3516	12	Box Elder	*Acer negundo*		Save
3517	9	Box Elder	*Acer negundo*		Save
3518	8	Box Elder	*Acer negundo*		Save
3519	16,16,15	Butternut	*Juglans cinerea*	80% dead, full of cankers	Save
3520	10	Red Oak	*Quercus rubra*		Remove
3521	10	Red Oak	*Quercus rubra*		Remove
3522	11	Red Oak	*Quercus rubra*		Remove
3523	12	Red Oak	*Quercus rubra*		Remove
3524	8	Red Cedar	*Juniperus virginiana*		Save
3525	13	Crabapple	*Malus sp.*		Save
3526	16	Silver Maple	*Acer saccharinum*		Save
3527	19	Box Elder	*Acer negundo*		Save
3528	8	Butternut	*Juglans cinerea*	in decline, full of cankers	Save
3529	6	American Elm	*Ulmus americana*		Save
3530	8	Mulbery	*Morus* sp.	decay at base	Save
3531	15	Green Ash	*Fraxinus pennsylvanica*		Save
3532	7	American Elm	*Ulmus americana*		Save
3533	8	Green Ash	*Fraxinus pennsylvanica*		Save
3534	6	Green Ash	*Fraxinus pennsylvanica*		Save
3535	17	Green Ash	*Fraxinus pennsylvanica*		Save
3536	17	Sugar Maple	*Acer saccharum*		Remove
3537	11	Black Walnut	*Juglans nigra*		Remove
3538	11	Black Walnut	*Juglans nigra*		Save
3539	12,6	Black Walnut	*Juglans nigra*		Save
3540	10	Black Walnut	*Juglans nigra*		Save
3541	7	Black Walnut	*Juglans nigra*		Save
3542	10	Crabapple	*Malus sp.*	major decay along trunk	Remove
3543	15	Mulbery	*Morus* sp.		Save
3544	20,15	American Elm	*Ulmus americana*		Save
3545	11,7	Crabapple	*Malus sp.*		Save
3546	6	American Elm	*Ulmus americana*		Save
3547	8	American Elm	*Ulmus americana*		Save
3548	6	Green Ash	*Fraxinus pennsylvanica*		Save
3549	10	Green Ash	*Fraxinus pennsylvanica*		Save
3550	9	Green Ash	*Fraxinus pennsylvanica*		Save
3551	6	American Elm	*Ulmus americana*		Save
3552	8	Green Ash	*Fraxinus pennsylvanica*		Save
3553	7	Sugar Maple	*Acer saccharum*		Save
3554	11	Hackberry	*Celtis occidentalis*		Save
3555	8	American Elm	*Ulmus americana*		Save
3556	8	American Elm	*Ulmus americana*		Save
3557	10	American Elm	*Ulmus americana*		Save
3558	6	American Elm	*Ulmus americana*		Save
3559	8	American Elm	*Ulmus americana*		Save
3560	15,12	Silver Maple	*Acer saccharinum*		Save
3561	6	American Elm	*Ulmus americana*		Save
3562	25	Bur Oak	*Quercus macrocarpa*	decay at base	Save
3563	10	American Elm	*Ulmus americana*		Save
3564	10	Green Ash	*Fraxinus pennsylvanica*		Save
3565	10,8	Sugar Maple	*Acer saccharum*		Save
3566	6	Sugar Maple	*Acer saccharum*		Save
3567	11	Sugar Maple	*Acer saccharum*		Save
3568	7	Sugar Maple	*Acer saccharum*		Save
3569	6	Sugar Maple	*Acer saccharum*		Save
3570	13,6	American Elm	*Ulmus americana*		Save
3571	10	Hackberry	*Celtis occidentalis*		Save
3572	6	Sugar Maple	*Acer saccharum*		Save
3573	7	Sugar Maple	*Acer saccharum*		Save
3574	7	Sugar Maple	*Acer saccharum*		Save
3575	6	Sugar Maple	*Acer saccharum*		Save
3576	7	Sugar Maple	*Acer saccharum*		Save
3577	6	American Elm	*Ulmus americana*		Save
3578	7,6	American Elm	*Ulmus americana*		Save
3579	7	American Elm	*Ulmus americana*		Save
3580	7	American Elm	*Ulmus americana*		Save
3581	11	American Elm	*Ulmus americana*		Save
3582	6	Sugar Maple	*Acer saccharum*		Save
3583	8	American Elm	*Ulmus americana*		Save
3584	29	Sugar Maple	*Acer saccharum*	major decay along trunk	Save
3585	7	Hackberry	*Celtis occidentalis*		Save
3586	6	Box Elder	*Acer negundo*		Save
3587	10	Hackberry	*Celtis occidentalis*		Save
3588	6	Hackberry	*Celtis occidentalis*		Save
3589	11	American Elm	*Ulmus americana*		Save
3590	7	Sugar Maple	*Acer saccharum*		Save
3591	23,18	Cottonwood	*Populus deltoides*		Save
3592	14	Black Walnut	*Juglans nigra*		Save
3593	7	American Elm	*Ulmus americana*		Save
3594	7	Sugar Maple	*Acer saccharum*		Save
3595	15	Red Cedar	*Juniperus virginiana*		Save
3596	10	American Elm	*Ulmus americana*		Save
3597	16	Red Cedar	*Juniperus virginiana*		Save
3598	10	Basswood	*Tilia americana*		Save
3599	10	Red Cedar	*Juniperus virginiana*		Save
3600	16	Red Cedar	*Juniperus virginiana*		Save
3601	7	Bur Oak	*Quercus macrocarpa*		Save
3602	8	Bur Oak	*Quercus macrocarpa*		Save
3603	8	American Elm	*Ulmus americana*		Save
3604	14	Hackberry	*Celtis occidentalis*		Save
3605	10	Box Elder	*Acer negundo*		Save
3606	8	American Elm	*Ulmus americana*		Save
3607	10	Red Oak	*Quercus rubra*		Save
3608	8	American Elm	*Ulmus americana*		Save
3609	6	Hackberry	*Celtis occidentalis*		Save
3610	6	Basswood	*Tilia americana*		Save
3611	7	Sugar Maple	*Acer saccharum*		Save
3612	10	American Elm	*Ulmus americana*		Save
3613	9	American Elm	*Ulmus americana*		Save
3614	6	American Elm	*Ulmus americana*		Save
3615	18	Silver Maple	*Acer saccharinum*		Save
3616	18	Silver Maple	*Acer saccharinum*		Save
3617	11	Silver Maple	*Acer saccharinum*		Save

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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 Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 9-7-21

Revisions
1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed TLM
Drawn TLM

01-PLAN-120158-SHEET-TREE.DWG

TREE PRESERVATION

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

T3 OF 6

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Tag #	DBH	Common Name	Scientific Name	Notes	Status
3618	15,13,9	Silver Maple	*Acer saccharinum*		Save
3619	15,8	Silver Maple	*Acer saccharinum*		Save
3620	12,8	Silver Maple	*Acer saccharinum*		Save
3621	16	American Elm	*Ulmus americana*		Save
3622	8	Silver Maple	*Acer saccharinum*		Save
3623	14	Silver Maple	*Acer saccharinum*		Save
3624	6	Basswood	*Tilia americana*		Save
3625	12	Silver Maple	*Acer saccharinum*		Save
3626	7	Silver Maple	*Acer saccharinum*		Save
3627	11	Silver Maple	*Acer saccharinum*		Save
3628	20	Silver Maple	*Acer saccharinum*		Save
3629	11	American Elm	*Ulmus americana*		Save
3630	6	American Elm	*Ulmus americana*		Save
3631	6	Sugar Maple	*Acer saccharum*		Save
3632	7	Sugar Maple	*Acer saccharum*		Save
3633	12	Red Oak	*Quercus rubra*		Save
3634	8	Red Oak	*Quercus rubra*		Save
3635	9	Red Oak	*Quercus rubra*		Save
3636	7	Green Ash	*Fraxinus pennsylvanica*		Save
3637	9	Green Ash	*Fraxinus pennsylvanica*		Remove
3638	15	Green Ash	*Fraxinus pennsylvanica*		Save
3639	14	Green Ash	*Fraxinus pennsylvanica*		Save
3640	10	Box Elder	*Acer negundo*		Save
3641	15	Box Elder	*Acer negundo*		Save
3642	8	Red Pine	*Pinus resinosa*		Save
3643	10	Box Elder	*Acer negundo*		Save
3644	11	Box Elder	*Acer negundo*		Remove
3645	15	Quaking Aspen	*Populus tremuloides*		Save
3646	13	Quaking Aspen	*Populus tremuloides*	decay at base	Remove
3647	11	American Elm	*Ulmus americana*		Save
3648	7	Basswood	*Tilia americana*		Save
3649	13,12,11	Paper Birch	*Betula papyrifera*		Save
3650	8,6	Bur Oak	*Quercus macrocarpa*		Save
3651	16	Red Oak	*Quercus rubra*		Save
3652	9	Bur Oak	*Quercus macrocarpa*		Save
3653	65	Weeping Willow	*Salix babylonica*	25% broken top	Save
3654	12,10,6	Whitecrack Willow	*Salix x rubens*	double tagged with 3655	Save
3656	8,6	Whitecrack Willow	*Salix x rubens*		Save
3657	13,12,9	Whitecrack Willow	*Salix x rubens*		Save
3658	10,8	Whitecrack Willow	*Salix x rubens*		Save
3659	6	Whitecrack Willow	*Salix x rubens*		Save
3660	20,6	Whitecrack Willow	*Salix x rubens*		Save
3661	14	Whitecrack Willow	*Salix x rubens*		Remove
3662	6	Red Cedar	*Juniperus virginiana*		Remove
3663	4	Red Cedar	*Juniperus virginiana*	20' in height	Remove
3664	23	Bur Oak	*Quercus macrocarpa*		Save
3665	6	Red Cedar	*Juniperus virginiana*		Save
3666	12	Red Cedar	*Juniperus virginiana*		Save
3667	11	Red Cedar	*Juniperus virginiana*		Save
3668	12	Red Cedar	*Juniperus virginiana*		Save
3669	14	Red Cedar	*Juniperus virginiana*		Save
3670	18	Red Cedar	*Juniperus virginiana*		Save
3671	7	Red Cedar	*Juniperus virginiana*		Remove
3672	10,5	Red Cedar	*Juniperus virginiana*		Remove
3673	23	Bur Oak	*Quercus macrocarpa*		Save
3674	25	Bur Oak	*Quercus macrocarpa*		Save
3675	18	Quaking Aspen	*Populus tremuloides*	decay at base	Save
3676	16	American Elm	*Ulmus americana*		Save
3677	6	Red Pine	*Pinus resinosa*		Save
3678	6	Red Pine	*Pinus resinosa*		Save
3679	6	Red Pine	*Pinus resinosa*		Save
3680	3	Red Pine	*Pinus resinosa*	25' in height	Save
3681	4	Red Pine	*Pinus resinosa*	25' in height	Save
3682	12	American Elm	*Ulmus americana*		Save
3683	16	American Elm	*Ulmus americana*		Save
3684	8	Red Pine	*Pinus resinosa*		Save
3685	11	Box Elder	*Acer negundo*		Save
3686	4	Red Pine	*Pinus resinosa*	25' in height	Remove
3687	8	Red Cedar	*Juniperus virginiana*		Remove
3688	4	Red Cedar	*Juniperus virginiana*	20' in height	Remove
3689	5	Red Cedar	*Juniperus virginiana*	20' in height	Remove
3690	3	Red Cedar	*Juniperus virginiana*	20' in height	Remove
3691	3	Red Cedar	*Juniperus virginiana*	20' in height	Remove
3692	25	Bur Oak	*Quercus macrocarpa*		Remove
3693	13	Red Cedar	*Juniperus virginiana*		Remove
3694	6	Hackberry	*Celtis occidentalis*		Remove
3695	7	American Elm	*Ulmus americana*		Remove
3696	10	Red Oak	*Quercus rubra*		Remove
3697	8	Red Oak	*Quercus rubra*		Remove
3698	13	Red Oak	*Quercus rubra*		Remove
3699	6	Sugar Maple	*Acer saccharum*		Remove
3700	6	Red Oak	*Quercus rubra*		Remove
3701	23	Cottonwood	*Populus deltoides*		Remove
3702	18,17	Siberian Elm	*Ulmus pumila*		Remove
3703	9	American Elm	*Ulmus americana*		Remove
3704	7	Red Cedar	*Juniperus virginiana*		Remove
3705	6	Red Pine	*Pinus resinosa*		Remove
3706	6	Red Cedar	*Juniperus virginiana*		Remove
3707	5	Red Pine	*Pinus resinosa*	25' in height	Remove
3708	4	Red Pine	*Pinus resinosa*	20' in height	Remove
3709	6	Red Pine	*Pinus resinosa*		Remove
3710	9	Red Pine	*Pinus resinosa*		Remove
3711	6	Silver Maple	*Acer saccharinum*		Remove
3712	9	Red Pine	*Pinus resinosa*		Remove
3713	10	Box Elder	*Acer negundo*		Remove
3714	8	American Elm	*Ulmus americana*		Remove

Tag #	DBH	Common Name	Scientific Name	Notes	Status
3715	6	Bur Oak	*Quercus macrocarpa*		Remove
3716	13	American Elm	*Ulmus americana*		Save
3717	15	Quaking Aspen	*Populus tremuloides*	major decay along trunk	Remove
3718	15	Silver Maple	*Acer saccharinum*		Remove
3719	9	Silver Maple	*Acer saccharinum*		Remove
3720	13	Silver Maple	*Acer saccharinum*		Remove
3721	6	Silver Maple	*Acer saccharinum*		Remove
3722	15,15	Whitecrack Willow	*Salix x rubens*	major decay along trunk	Remove
3723	11,11,7,7	Whitecrack Willow	*Salix x rubens*		Save
3724	13,12,6	Whitecrack Willow	*Salix x rubens*		Save
3725	10,9	Whitecrack Willow	*Salix x rubens*		Save
3726	13,13,9,7	Whitecrack Willow	*Salix x rubens*	one 13" trunk is dead	Save
3727	18,16,15,15	Whitecrack Willow	*Salix x rubens*	major decay at base	Save
3728	7	American Elm	*Ulmus americana*		Save
3729	15,12	Whitecrack Willow	*Salix x rubens*		Save
3730	8	Silver Maple	*Acer saccharinum*		Remove
3731	6	Silver Maple	*Acer saccharinum*		Remove
3732	11,9	Whitecrack Willow	*Salix x rubens*		Remove
3733	6	Silver Maple	*Acer saccharinum*		Remove
3734	6	Basswood	*Tilia americana*		Remove
3735	10	Basswood	*Tilia americana*		Remove
3736	7	Basswood	*Tilia americana*		Remove
3737	7	American Elm	*Ulmus americana*	50% top dead	Remove
3738	12	Green Ash	*Fraxinus pennsylvanica*		Remove
3739	20	Siberian Elm	*Ulmus pumila*		Remove
3740	10	American Elm	*Ulmus americana*		Remove
3741	12	Box Elder	*Acer negundo*		Remove
3742	8	Red Oak	*Quercus rubra*		Remove
3743	11	Green Ash	*Fraxinus pennsylvanica*		Remove
3744	7	Green Ash	*Fraxinus pennsylvanica*		Remove
3745	12	Hackberry	*Celtis occidentalis*		Remove
3746	12,4	Red Cedar	*Juniperus virginiana*		Remove
3747	6	American Elm	*Ulmus americana*		Remove
3748	13	Red Oak	*Quercus rubra*		Remove
3749	7	Red Oak	*Quercus rubra*		Remove
3750	9	Red Cedar	*Juniperus virginiana*		Remove
3751	32	Red Oak	*Quercus rubra*		Remove
3752	6	Red Oak	*Quercus rubra*		Remove
3753	15	Red Cedar	*Juniperus virginiana*		Remove
3754	8	Butternut	*Juglans cinerea*	in decline, full of cankers	Remove
3755	6	Red Oak	*Quercus rubra*		Remove
3756	8	Sugar Maple	*Acer saccharum*		Remove
3757	12	American Elm	*Ulmus americana*		Remove
3758	26	Bur Oak	*Quercus macrocarpa*		Remove
3759	14	Hackberry	*Celtis occidentalis*		Remove
3760	6	Sugar Maple	*Acer saccharum*		Remove
3761	13	Red Oak	*Quercus rubra*		Remove
3762	6	Red Oak	*Quercus rubra*		Remove
3763	6	Hackberry	*Celtis occidentalis*		Remove
3764	7	Box Elder	*Acer negundo*		Remove
3765	8	Sugar Maple	*Acer saccharum*		Remove
3766	9	Sugar Maple	*Acer saccharum*		Remove
3767	7	Sugar Maple	*Acer saccharum*		Remove
3768	8	Sugar Maple	*Acer saccharum*		Remove
3769	12	Sugar Maple	*Acer saccharum*		Remove
3770	13	Red Oak	*Quercus rubra*		Remove
3771	12	Red Oak	*Quercus rubra*		Remove
3772	12	Red Oak	*Quercus rubra*		Remove
3773	7	Red Oak	*Quercus rubra*		Remove
3774	10	American Elm	*Ulmus americana*		Remove
3775	6	Red Oak	*Quercus rubra*		Remove
3776	6	American Elm	*Ulmus americana*		Remove
3777	6	Red Oak	*Quercus rubra*		Remove
3778	6	Red Oak	*Quercus rubra*		Remove
3779	6	Red Oak	*Quercus rubra*		Remove
3780	8	Red Oak	*Quercus rubra*		Remove
3781	7	Basswood	*Tilia americana*		Remove
3782	7	Red Oak	*Quercus rubra*		Remove
3783	8	American Elm	*Ulmus americana*		Remove
3784	6	Red Oak	*Quercus rubra*		Remove
3785	8	American Elm	*Ulmus americana*		Remove
3786	10	Box Elder	*Acer negundo*		Remove
3787	13	American Elm	*Ulmus americana*		Remove
3787	17	Box Elder	*Acer negundo*		Remove
3788	16	Red Oak	*Quercus rubra*		Remove
3790	9	Box Elder	*Acer negundo*		Remove
3791	13	Red Oak	*Quercus rubra*		Remove
3792	19	Box Elder	*Acer negundo*		Remove
3794	28	Sugar Maple	*Acer saccharum*	decay at base	Remove
3795	32	Red Oak	*Quercus rubra*		Remove
3796	11	American Elm	*Ulmus americana*		Remove
3797	10	Red Oak	*Quercus rubra*		Remove
3798	7	Sugar Maple	*Acer saccharum*		Remove
3799	7	Red Oak	*Quercus rubra*		Remove
3800	6	Sugar Maple	*Acer saccharum*		Remove
3801	6	American Elm	*Ulmus americana*		Remove
3802	7	American Elm	*Ulmus americana*		Remove
3803	14	Red Oak	*Quercus rubra*		Remove
3804	6	Red Oak	*Quercus rubra*		Remove
3805	9	Red Oak	*Quercus rubra*		Remove
3806	9	Red Oak	*Quercus rubra*		Remove
3807	10	Red Oak	*Quercus rubra*		Remove
3808	7	Red Oak	*Quercus rubra*		Remove
3809	8	American Elm	*Ulmus americana*		Remove
3810	16,10	Box Elder	*Acer negundo*		Remove
3811	16,7	Box Elder	*Acer negundo*		Remove
3812	8	Box Elder	*Acer negundo*		Remove
3813	14	American Elm	*Ulmus americana*		Remove

Tag #	DBH	Common Name	Scientific Name	Notes	Status
3814	7	American Elm	*Ulmus americana*		Remove
3815	7	Box Elder	*Acer negundo*		Remove
3816	10	Box Elder	*Acer negundo*		Remove
3817	10	American Elm	*Ulmus americana*	in decline	Remove
3818	8	Hackberry	*Celtis occidentalis*		Remove
3819	8	Sugar Maple	*Acer saccharum*		Remove
3820	7	Hackberry	*Celtis occidentalis*		Remove
3821	6	Sugar Maple	*Acer saccharum*		Remove
3822	7	Sugar Maple	*Acer saccharum*		Remove
3823	18	American Elm	*Ulmus americana*	dead	Remove
3824	8	Sugar Maple	*Acer saccharum*		Remove
3825	7	Hackberry	*Celtis occidentalis*		Remove
3826	6	Sugar Maple	*Acer saccharum*		Remove
3827	13,11,9	Box Elder	*Acer negundo*		Remove
3828	17,16,15,13	Box Elder	*Acer negundo*		Remove
3829	7,6,6	Apple	*Malus* sp.		Remove
3830	16,11	Box Elder	*Acer negundo*		Remove
3831	13,11	Box Elder	*Acer negundo*	very poor form	Remove
3832	21	Black Cherry	*Prunus serotina*		Remove
3833	9,7,6	Box Elder	*Acer negundo*		Remove
3834	11	American Elm	*Ulmus americana*		Remove
3835	20	Box Elder	*Acer negundo*		Remove
3836	8	Black Cherry	*Prunus serotina*		Remove
3837	16	Black Cherry	*Prunus serotina*		Remove
3838	7	American Elm	*Ulmus americana*		Remove
3839	11	American Elm	*Ulmus americana*		Remove
3840	13	Box Elder	*Acer negundo*		Remove
3841	15,14	Box Elder	*Acer negundo*		Remove
3842	14,8	Box Elder	*Acer negundo*	14" trunk is dead	Remove
3843	13	Box Elder	*Acer negundo*		Remove
3844	16,15	Box Elder	*Acer negundo*		Remove
3845	14	Box Elder	*Acer negundo*		Remove
3846	13	Box Elder	*Acer negundo*		Remove
3847	16	Box Elder	*Acer negundo*		Remove
3848	14,13,13,12,7	American Elm	*Ulmus americana*		Remove
3849	7	American Elm	*Ulmus americana*		Remove
3850	11,11	Box Elder	*Acer negundo*		Remove
3851	6	Box Elder	*Acer negundo*		Remove
3852	7	Box Elder	*Acer negundo*		Remove
3853	6	Box Elder	*Acer negundo*		Remove
3854	7	Box Elder	*Acer negundo*		Remove
3855	16	Box Elder	*Acer negundo*		Remove
3856	7	Black Walnut	*Juglans nigra*		Remove
3857	17	Box Elder	*Acer negundo*		Remove
3858	22	Box Elder	*Acer negundo*		Remove
3859	22	Box Elder	*Acer negundo*		Remove
3860	22,22	Box Elder	*Acer negundo*	major decay along trunk	Remove
3861	18	Box Elder	*Acer negundo*		Remove
3862	15	Box Elder	*Acer negundo*		Remove
3863	16,11	Box Elder	*Acer negundo*		Remove
3864	18,16	Box Elder	*Acer negundo*		Remove
3865	17	Box Elder	*Acer negundo*		Remove
3866	15,11,9	Box Elder	*Acer negundo*		Remove
3867	15	Box Elder	*Acer negundo*		Remove
3868	14	Box Elder	*Acer negundo*		Remove
3869	19	Box Elder	*Acer negundo*		Remove
3870	18	Box Elder	*Acer negundo*		Remove
3871	13,11	Box Elder	*Acer negundo*	decay along trunk	Remove
3872	18	Box Elder	*Acer negundo*	hollow along trunk	Remove
3873	17,14	Box Elder	*Acer negundo*		Remove
3874	18	Box Elder	*Acer negundo*	major limb torn along trunk	Remove
3875	11	Box Elder	*Acer negundo*		Remove
3876	8,7	Box Elder	*Acer negundo*		Remove
3877	8	Box Elder	*Acer negundo*		Remove
3878	10	Black Walnut	*Juglans nigra*		Remove
3879	6	Box Elder	*Acer negundo*		Remove
3880	7	Black Walnut	*Juglans nigra*		Remove
3881	19,13	American Elm	*Ulmus americana*		Remove
3882	6	Black Walnut	*Juglans nigra*		Remove
3883	9	Black Walnut	*Juglans nigra*		Remove
3884	6	Box Elder	*Acer negundo*		Remove
3885	6	Black Walnut	*Juglans nigra*		Remove
3886	12	Black Walnut	*Juglans nigra*		Remove
3887	18	Norway Maple	*Acer platanoides*	major decay at base	Remove
3888	11,9	Black Walnut	*Juglans nigra*		Remove
3890	18	Balsam Fir	*Abies balsamea*	lower 2/3 no needles	Remove
3891	8	Box Elder	*Acer negundo*		Remove
3892	8	Box Elder	*Acer negundo*		Remove
3893	8	Mulbery	*Morus* sp.		Remove
3894	9	Black Walnut	*Juglans nigra*		Remove
3895	6	Black Walnut	*Juglans nigra*		Remove
3896	8	Black Walnut	*Juglans nigra*		Remove
3897	18	Box Elder	*Acer negundo*		Remove
3898	18	Box Elder	*Acer negundo*		Remove
3899	19	Box Elder	*Acer negundo*		Remove
3900	16	Box Elder	*Acer negundo*	in poor health	Remove
3901	12	Black Walnut	*Juglans nigra*		Remove
3902	9	Black Walnut	*Juglans nigra*		Remove
3903	16	Box Elder	*Acer negundo*		Remove
3904	9	Box Elder	*Acer negundo*		Remove
3905	12	Black Walnut	*Juglans nigra*		Remove
3906	6	Black Walnut	*Juglans nigra*		Remove
3907	14	White Spruce	*Picea glauca*	lower 2/3 no needles	Remove
3908	16	White Spruce	*Picea glauca*	lower 2/3 no needles	Remove
3909	10	Black Walnut	*Juglans nigra*		Remove
3910	16	Austrian Pine	*Pinus nigra*	lower 3/4 no needles	Remove
3911	16,15	American Elm	*Ulmus americana*		Remove
3912	6	Crabapple	*Malus sp.*		Remove

Tag #	DBH	Common Name	Scientific Name	Notes	Status
3913	9	Black Walnut	*Juglans nigra*		Remove
3914	8	Box Elder	*Acer negundo*		Remove
3915	7	Black Walnut	*Juglans nigra*		Remove
3916	6	Black Walnut	*Juglans nigra*		Remove
3917	10,6	Whitecrack Willow	*Salix x rubens*		Save
3918	20	American Elm	*Ulmus americana*		Remove
3919	13	Box Elder	*Acer negundo*		Remove
3920	28	Cottonwood	*Populus deltoides*		Remove
3921	6	Box Elder	*Acer negundo*		Remove
3922	24	Cottonwood	*Populus deltoides*		Remove
3923	24	Cottonwood	*Populus deltoides*		Remove
3924	30	Cottonwood	*Populus deltoides*	1/2 top missing	Remove
3925	10	Box Elder	*Acer negundo*		Remove
3926	16	American Elm	*Ulmus americana*		Remove
3927	8	Black Walnut	*Juglans nigra*		Remove
3928	19,15	Box Elder	*Acer negundo*		Remove
3929	8	Black Walnut	*Juglans nigra*		Remove
3930	6	Green Ash	*Fraxinus pennsylvanica*		Remove
3931	6	Silver Maple	*Acer saccharinum*		Remove
3932	15	Silver Maple	*Acer saccharinum*		Remove
3933	21,21,18	Silver Maple	*Acer saccharinum*		Remove
3934	7	Green Ash	*Fraxinus pennsylvanica*		Remove
3935	9	Box Elder	*Acer negundo*		Remove
3936	9	Box Elder	*Acer negundo*		Remove
3937	14	Box Elder	*Acer negundo*		Remove
3938	9	American Elm	*Ulmus americana*		Save
3939	6	American Elm	*Ulmus americana*		Remove
3940	6	American Elm	*Ulmus americana*		Remove
3941	27	Cottonwood	*Populus deltoides*		Save
3942	6	American Elm	*Ulmus americana*		Save
3943	27	Cottonwood	*Populus deltoides*		Save
3944	6	American Elm	*Ulmus americana*		Save
3945	19	Cottonwood	*Populus deltoides*		Remove
3946	14	Cottonwood	*Populus deltoides*		Remove
3947	19	Cottonwood	*Populus deltoides*		Remove
3948	9	American Elm	*Ulmus americana*		Remove
3949	19	Cottonwood	*Populus deltoides*		Remove
3950	10	Cottonwood	*Populus deltoides*		Remove
3951	16	Cottonwood	*Populus deltoides*		Remove
3952	8	Green Ash	*Fraxinus pennsylvanica*		Remove
3953	12	Green Ash	*Fraxinus pennsylvanica*		Remove
3954	20,9,8	Cottonwood	*Populus deltoides*		Save
3955	8	American Elm	*Ulmus americana*		Save
3956	11	Cottonwood	*Populus deltoides*		Save
3957	26	Cottonwood	*Populus deltoides*		Save
3958	21	Cottonwood	*Populus deltoides*		Save
3959	17	Cottonwood	*Populus deltoides*		Save
3960	27	Bur Oak	*Quercus macrocarpa*		Remove
3961	6	American Elm	*Ulmus americana*		Remove
3962	28	Bur Oak	*Quercus macrocarpa*		Remove
3963	7	Green Ash	*Fraxinus pennsylvanica*		Remove
3964	8	Box Elder	*Acer negundo*		Remove
3965	9	Red Oak	*Quercus rubra*		Remove
3966	8	Red Oak	*Quercus rubra*		Remove
3967	11	Red Oak	*Quercus rubra*		Remove
3968	6	Red Oak	*Quercus rubra*	dead	Remove
3969	12	Box Elder	*Acer negundo*		Remove
3970	9	Hackberry	*Celtis occidentalis*		Remove
3971	7	American Elm	*Ulmus americana*		Remove
3972	15	Red Oak	*Quercus rubra*		Remove
3973	15	Red Oak	*Quercus rubra*		Remove
3974	9	Red Oak	*Quercus rubra*		Remove
3975	8	Box Elder	*Acer negundo*		Remove
3976	33	Bur Oak	*Quercus macrocarpa*		Remove
3977	10,9	Basswood	*Tilia americana*		Remove
3978	9	Box Elder	*Acer negundo*		Remove
3979	6	Sugar Maple	*Acer saccharum*		Remove
3980	12	Red Oak	*Quercus rubra*		Remove
3981	16	Red Oak	*Quercus rubra*		Remove
3982	7	Box Elder	*Acer negundo*		Remove
3983	7	Box Elder	*Acer negundo*		Remove
3984	15	Box Elder	*Acer negundo*		Remove
3985	7	American Elm	*Ulmus americana*		Remove
3986	18	Red Oak	*Quercus rubra*		Remove
3987	20	Red Oak	*Quercus rubra*		Remove
3988	9	Box Elder	*Acer negundo*		Remove
3989	20	Box Elder	*Acer negundo*		Remove
3990	14,6	Box Elder	*Acer negundo*		Remove
3991	9	Box Elder	*Acer negundo*		Remove
3992	11	Box Elder	*Acer negundo*		Remove
3993	14	Box Elder	*Acer negundo*		Remove
3994	21	Box Elder	*Acer negundo*	decay along trunk	Remove
3995	17,16	Box Elder	*Acer negundo*	both trunks growing on ground	Remove
3996	18	Box Elder	*Acer negundo*		Remove
3997	10	Box Elder	*Acer negundo*		Remove
3998	13	Box Elder	*Acer negundo*		Remove
3999	16,15,13,8	Box Elder	*Acer negundo*		Remove
4000	13	Box Elder	*Acer negundo*		Remove
4001	17	Box Elder	*Acer negundo*		Remove
4002	6	Black Walnut	*Juglans nigra*		Remove
4003	16,13	Box Elder	*Acer negundo*		Remove
4004	16	American Elm	*Ulmus americana*		Remove
4005	10	Box Elder	*Acer negundo*		Remove
4006	12	Box Elder	*Acer negundo*		Remove
4007	6	Box Elder	*Acer negundo*		Remove
4008	9	American Elm	*Ulmus americana*		Remove
4009	17,11	Box Elder	*Acer negundo*		Remove
4010	9	American Elm	*Ulmus americana*		Remove

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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 Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 9-7-21

Revisions
1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed TLM
Drawn TLM
Checked JLT

TREE PRESERVATION

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

T4 OF 6

01-PLAN-120158-SHEET-TREE.DWG

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Tag #	DBH	Common Name	Scientific Name	Notes	Status
4011	17,10	Box Elder	*Acer negundo*		Remove
4012	16	Box Elder	*Acer negundo*		Remove
4013	6	Green Ash	*Fraxinus pennsylvanica*	80% dead	Remove
4014	8	Box Elder	*Acer negundo*		Remove
4015	7	Box Elder	*Acer negundo*		Remove
4016	7	Box Elder	*Acer negundo*		Remove
4017	9	Box Elder	*Acer negundo*		Remove
4018	7	Box Elder	*Acer negundo*		Remove
4019	6	Box Elder	*Acer negundo*		Remove
4020	7	Box Elder	*Acer negundo*		Remove
4021	9	American Elm	*Ulmus americana*		Remove
4022	9	Box Elder	*Acer negundo*		Remove
4023	8	Box Elder	*Acer negundo*		Remove
4024	9	Box Elder	*Acer negundo*		Remove
4025	6	Box Elder	*Acer negundo*		Remove
4026	6	Box Elder	*Acer negundo*		Remove
4027	8,6	Box Elder	*Acer negundo*	poor form	Remove
4028	12	Green Ash	*Fraxinus pennsylvanica*		Remove
4029	7	American Elm	*Ulmus americana*		Remove
4030	12	Box Elder	*Acer negundo*		Remove
4031	8	Box Elder	*Acer negundo*		Remove
4032	6	Box Elder	*Acer negundo*		Remove
4033	11	Butternut	*Juglans cinerea*	some cankers present	Remove
4034	6	Sugar Maple	*Acer saccharum*		Remove
4035	9	American Elm	*Ulmus americana*		Remove
4036	12	Box Elder	*Acer negundo*		Remove
4037	13	Box Elder	*Acer negundo*		Remove
4038	16	Box Elder	*Acer negundo*		Remove
4039	11,7	Box Elder	*Acer negundo*		Remove
4040	6	Hackberry	*Celtis occidentalis*		Remove
4041	11	Red Oak	*Quercus rubra*		Save
4042	17,10	Box Elder	*Acer negundo*		Save
4043	5	Red Pine	*Pinus resinosa*	heavily shade suppressed	Save
4044	11	Red Pine	*Pinus resinosa*		Save
4045	6	Box Elder	*Acer negundo*		Save
4046	9	American Elm	*Ulmus americana*		Save
4047	6	Green Ash	*Fraxinus pennsylvanica*		Save
4048	6	Box Elder	*Acer negundo*		Save
4049	13,8	American Elm	*Ulmus americana*		Save
4050	6	Green Ash	*Fraxinus pennsylvanica*		Remove
4051	13	Box Elder	*Acer negundo*		Remove
4052	6	Box Elder	*Acer negundo*		Remove
4053	16,15	Box Elder	*Acer negundo*		Remove
4054	10	Box Elder	*Acer negundo*		Remove
4055	9	Box Elder	*Acer negundo*		Remove
4056	15	Box Elder	*Acer negundo*		Remove
4057	17	Box Elder	*Acer negundo*		Remove
4058	9	Box Elder	*Acer negundo*		Remove
4059	9	Box Elder	*Acer negundo*		Remove
4060	13,9	Box Elder	*Acer negundo*	13" trunk is broken 6' up	Remove
4061	10	Box Elder	*Acer negundo*		Remove
4062	10	Box Elder	*Acer negundo*		Remove
4063	10	Box Elder	*Acer negundo*		Remove
4064	9	American Elm	*Ulmus americana*		Remove
4065	8	Box Elder	*Acer negundo*		Remove
4066	9	Box Elder	*Acer negundo*		Remove
4067	8	Box Elder	*Acer negundo*		Remove
4068	12	Box Elder	*Acer negundo*		Remove
4069	15,10	Box Elder	*Acer negundo*		Remove
4070	13	Box Elder	*Acer negundo*		Remove
4071	11	Box Elder	*Acer negundo*		Remove
4072	17	Siberian Elm	*Ulmus pumila*		Remove
4073	10	Box Elder	*Acer negundo*		Remove
4074	6	Box Elder	*Acer negundo*		Remove
4075	9	American Elm	*Ulmus americana*		Remove
4076	6	Box Elder	*Acer negundo*		Remove
4077	7	Box Elder	*Acer negundo*		Remove
4078	9	Box Elder	*Acer negundo*		Remove
4079	9	Siberian Elm	*Ulmus pumila*		Remove
4080	7	Green Ash	*Fraxinus pennsylvanica*		Remove
4081	7	Box Elder	*Acer negundo*		Remove
4082	7	Green Ash	*Fraxinus pennsylvanica*		Remove
4083	7	Box Elder	*Acer negundo*		Remove
4084	7	Box Elder	*Acer negundo*		Remove
4085	17	Box Elder	*Acer negundo*		Remove
4086	7	Box Elder	*Acer negundo*		Remove
4087	9	Box Elder	*Acer negundo*		Remove
4088	8	Box Elder	*Acer negundo*		Remove
4089	9	Box Elder	*Acer negundo*		Remove
4090	6	Box Elder	*Acer negundo*		Remove
4091	8	Box Elder	*Acer negundo*		Remove
4092	12	Box Elder	*Acer negundo*	50% top missing	Save
4093	12	Box Elder	*Acer negundo*		Save
4094	6	Box Elder	*Acer negundo*		Save
4095	8	Box Elder	*Acer negundo*		Save
4096	11	Box Elder	*Acer negundo*		Save
4097	7	Box Elder	*Acer negundo*		Save
4098	7	Box Elder	*Acer negundo*		Save
4099	6	Box Elder	*Acer negundo*		Save
4100	12	Box Elder	*Acer negundo*		Save
4101	10,6	Box Elder	*Acer negundo*		Save
4102	10	Box Elder	*Acer negundo*		Save
4103	7	Box Elder	*Acer negundo*		Save
4104	7	Box Elder	*Acer negundo*		Save
4105	12	Box Elder	*Acer negundo*		Save
4106	9	Box Elder	*Acer negundo*		Save

Tag #	DBH	Common Name	Scientific Name	Notes	Status
4107	10	Box Elder	*Acer negundo*		Save
4108	10,6	Box Elder	*Acer negundo*		Remove
4109	6,6	Box Elder	*Acer negundo*		Remove
4110	6,6	Box Elder	*Acer negundo*		Remove
4111	6	Box Elder	*Acer negundo*		Remove
4112	6	Box Elder	*Acer negundo*		Remove
4113	10	Green Ash	*Fraxinus pennsylvanica*		Remove
4114	6	Green Ash	*Fraxinus pennsylvanica*		Remove
4115	8	Box Elder	*Acer negundo*		Remove
4116	6	Box Elder	*Acer negundo*		Remove
4117	11	Green Ash	*Fraxinus pennsylvanica*		Remove
4118	7	Box Elder	*Acer negundo*		Save
4119	9,8	Box Elder	*Acer negundo*		Save
4120	6	Box Elder	*Acer negundo*		Remove
4121	16	Box Elder	*Acer negundo*		Save
4122	4	Red Cedar	*Juniperus virginiana*	15' in height	Remove
4123	3	Red Cedar	*Juniperus virginiana*	10' in height	Remove
4124	6	Red Cedar	*Juniperus virginiana*		Remove
4125	3	Red Cedar	*Juniperus virginiana*	12' in height	Remove
4126	7	Apple	*Malus sp.*		Remove
4127	11	Red Cedar	*Juniperus virginiana*		Remove
4128	4	Red Cedar	*Juniperus virginiana*	20' in height	Remove
4129	9	Red Cedar	*Juniperus virginiana*		Remove
4130	4	Red Cedar	*Juniperus virginiana*	15' in height	Remove
4131	4,3	Red Cedar	*Juniperus virginiana*	15' in height	Remove
4132	7,6	Box Elder	*Acer negundo*		Remove
4133	10	Red Cedar	*Juniperus virginiana*		Remove
4134	9	Red Cedar	*Juniperus virginiana*		Remove
4135	6,6	Basswood	*Tilia americana*		Remove
4136	6	Crabapple	*Malus sp.*		Remove
4137	3	White Spruce	*Picea glauca*	10' in height	Remove
4138	8	White Spruce	*Picea glauca*		Remove
4139	4	White Spruce	*Picea glauca*	15' in height	Remove
4140	6	White Spruce	*Picea glauca*		Remove
4141	4	White Spruce	*Picea glauca*	15' in height	Remove
4142	6	White Spruce	*Picea glauca*		Remove
4143	6	White Spruce	*Picea glauca*		Save
4144	4	White Spruce	*Picea glauca*	15' in height	Remove
4145	5	White Spruce	*Picea glauca*	20' in height	Remove
4146	6	White Spruce	*Picea glauca*		Save
4147	6	Green Ash	*Fraxinus pennsylvanica*		Remove
4148	8	Box Elder	*Acer negundo*		Remove
4149	17	Box Elder	*Acer negundo*		Remove
4150	14,12	Box Elder	*Acer negundo*		Remove
4151	18,18,14,14,6	Box Elder	*Acer negundo*		Remove
4152	9	Box Elder	*Acer negundo*		Remove
4153	17,15	Box Elder	*Acer negundo*		Remove
4154	16	Box Elder	*Acer negundo*		Remove
4155	17	Box Elder	*Acer negundo*		Remove
4156	16	Sugar Maple	*Acer saccharum*		Save
4157	10	Sugar Maple	*Acer saccharum*		Save
4158	16	Box Elder	*Acer negundo*		Save
4159	22	Box Elder	*Acer negundo*		Save
4160	18	Box Elder	*Acer negundo*		Save
4161	11	Box Elder	*Acer negundo*		Save
4162	16	Box Elder	*Acer negundo*		Save
4163	11	Box Elder	*Acer negundo*		Save
4164	11	Box Elder	*Acer negundo*		Save
4165	17	Box Elder	*Acer negundo*		Save
4166	16	Box Elder	*Acer negundo*		Save
4167	16	Box Elder	*Acer negundo*		Save
4168	6	Sugar Maple	*Acer saccharum*		Save
4169	17	Box Elder	*Acer negundo*		Save
4170	12	Box Elder	*Acer negundo*		Save
4171	11	Box Elder	*Acer negundo*		Save
4172	9	Box Elder	*Acer negundo*		Save
4173	14	Box Elder	*Acer negundo*		Save
4174	11	Box Elder	*Acer negundo*		Save
4175	9	Box Elder	*Acer negundo*		Save
4176	11	Box Elder	*Acer negundo*		Save
4177	7	American Elm	*Ulmus americana*		Save
4178	14	Box Elder	*Acer negundo*		Save
4179	15	Sugar Maple	*Acer saccharum*		Save
4180	10	Sugar Maple	*Acer saccharum*		Save
4181	18	Green Ash	*Fraxinus pennsylvanica*		Save
4182	11	Sugar Maple	*Acer saccharum*		Save
4183	8	Box Elder	*Acer negundo*		Save
4184	8	American Elm	*Ulmus americana*		Save
4185	12	Box Elder	*Acer negundo*		Save
4186	18	Box Elder	*Acer negundo*		Save
4187	12	Box Elder	*Acer negundo*		Save
4188	6	Sugar Maple	*Acer saccharum*		Save
4189	6	Sugar Maple	*Acer saccharum*		Save
4190	10	Sugar Maple	*Acer saccharum*		Save
4191	8	Box Elder	*Acer negundo*		Save
4192	17	Green Ash	*Fraxinus pennsylvanica*		Save
4193	12	Sugar Maple	*Acer saccharum*		Save
4194	10	Sugar Maple	*Acer saccharum*		Save
4195	11	Sugar Maple	*Acer saccharum*		Save
4196	9	Sugar Maple	*Acer saccharum*		Save
4197	6	Sugar Maple	*Acer saccharum*		Save
4198	10	Sugar Maple	*Acer saccharum*		Save
4199	8	Sugar Maple	*Acer saccharum*		Save
4200	11	Sugar Maple	*Acer saccharum*		Save
4201	8	American Elm	*Ulmus americana*		Save
4202	6	Sugar Maple	*Acer saccharum*		Save
4203	6	Sugar Maple	*Acer saccharum*		Save
4204	11	Sugar Maple	*Acer saccharum*		Save

Tag #	DBH	Common Name	Scientific Name	Notes	Status
4205	9	Box Elder	*Acer negundo*		Save
4206	13	Box Elder	*Acer negundo*		Save
4207	10	Box Elder	*Acer negundo*		Save
4208	9	Box Elder	*Acer negundo*		Remove
4209	13,10	Box Elder	*Acer negundo*		Remove
4210	11	Sugar Maple	*Acer saccharum*		Save
4211	11	American Elm	*Ulmus americana*		Save
4212	9	American Elm	*Ulmus americana*		Save
4213	10	Sugar Maple	*Acer saccharum*		Save
4214	9	American Elm	*Ulmus americana*		Save
4215	28	Sugar Maple	*Acer saccharum*		Save
4216	12,7	Box Elder	*Acer negundo*		Save
4217	14	Box Elder	*Acer negundo*		Save
4218	13	Sugar Maple	*Acer saccharum*		Save
4219	7	Sugar Maple	*Acer saccharum*		Save
4220	6	American Elm	*Ulmus americana*		Save
4221	7	Sugar Maple	*Acer saccharum*		Save
4222	10	American Elm	*Ulmus americana*		Save
4223	11	Green Ash	*Fraxinus pennsylvanica*		Save
4224	7	Box Elder	*Acer negundo*		Save
4225	6	American Elm	*Ulmus americana*		Save
4226	7	Sugar Maple	*Acer saccharum*		Save
4227	11,10	American Elm	*Ulmus americana*		Save
4228	6	Sugar Maple	*Acer saccharum*		Save
4229	7	Sugar Maple	*Acer saccharum*		Save
4230	11	Butternut	*Juglans cinerea*	80% dead, full of cankers	Save
4231	6	Sugar Maple	*Acer saccharum*		Save
4232	6	American Elm	*Ulmus americana*		Save
4233	7	Sugar Maple	*Acer saccharum*		Save
4234	8	Red Oak	*Quercus rubra*		Save
4235	8	American Elm	*Ulmus americana*		Save
4236	10	American Elm	*Ulmus americana*		Save
4237	10	Basswood	*Tilia americana*		Save
4238	14	Red Cedar	*Juniperus virginiana*		Save
4239	25	Bur Oak	*Quercus macrocarpa*		Save
4240	20	Bur Oak	*Quercus macrocarpa*		Save
4241	21	Sugar Maple	*Acer saccharum*		Save
4242	6	Ironwood	*Ostrya virginiana*		Save
4243	8	American Elm	*Ulmus americana*		Save
4244	9	American Elm	*Ulmus americana*		Save
4245	21	Bur Oak	*Quercus macrocarpa*		Save
4246	8	Sugar Maple	*Acer saccharum*		Save
4247	7	Sugar Maple	*Acer saccharum*		Save
4248	15	Red Oak	*Quercus rubra*		Save
4249	6	Green Ash	*Fraxinus pennsylvanica*		Save
4250	6	Quaking Aspen	*Populus tremuloides*		Save
4251	12	Red Oak	*Quercus rubra*		Save
4252	8	Sugar Maple	*Acer saccharum*		Save
4253	6	Sugar Maple	*Acer saccharum*		Save
4254	27	Bur Oak	*Quercus macrocarpa*		Save
4255	6	American Elm	*Ulmus americana*		Save
4256	30	Bur Oak	*Quercus macrocarpa*		Save
4257	8	American Elm	*Ulmus americana*		Save
4258	6	Sugar Maple	*Acer saccharum*		Save
4259	23	Bur Oak	*Quercus macrocarpa*		Save
4260	28	Bur Oak	*Quercus macrocarpa*		Save
4261	19	American Elm	*Ulmus americana*		Save
4262	6	Sugar Maple	*Acer saccharum*		Save
4263	10,10	Red Oak	*Quercus rubra*		Save
4264	11	Red Oak	*Quercus rubra*		Save
4265	8	Red Oak	*Quercus rubra*		Save
4266	9	Red Oak	*Quercus rubra*		Save
4267	10	Red Oak	*Quercus rubra*		Save
4268	6	Sugar Maple	*Acer saccharum*		Save
4269	13	Red Oak	*Quercus rubra*		Save
4270	13	Red Oak	*Quercus rubra*		Save
4271	14	Red Oak	*Quercus rubra*		Save
4272	11	Red Oak	*Quercus rubra*		Save
4273	6	Sugar Maple	*Acer saccharum*		Save
4274	9	Red Oak	*Quercus rubra*		Save
4275	33	Green Ash	*Fraxinus pennsylvanica*		Save
4276	7	American Elm	*Ulmus americana*		Save
4277	6	Red Cedar	*Juniperus virginiana*		Save
4278	9	American Elm	*Ulmus americana*		Save
4279	9	American Elm	*Ulmus americana*		Save
4280	6	American Elm	*Ulmus americana*		Save
4281	6	American Elm	*Ulmus americana*		Save
4282	12	Red Oak	*Quercus rubra*		Save
4283	13	Red Oak	*Quercus rubra*		Save
4284	7	Red Oak	*Quercus rubra*		Save
4285	10	Red Oak	*Quercus rubra*		Save
4286	6	Red Oak	*Quercus rubra*		Save
4287	8	Red Oak	*Quercus rubra*		Save
4288	11	Red Oak	*Quercus rubra*		Save
4289	12	American Elm	*Ulmus americana*		Save
4290	9	American Elm	*Ulmus americana*		Save
4291	11	American Elm	*Ulmus americana*		Save
4292	10	Sugar Maple	*Acer saccharum*		Save
4293	7	Red Oak	*Quercus rubra*		Save
4294	8	Sugar Maple	*Acer saccharum*		Save
4295	7	Sugar Maple	*Acer saccharum*		Save
4296	7	American Elm	*Ulmus americana*		Save
4297	10	American Elm	*Ulmus americana*		Save
4298	10	American Elm	*Ulmus americana*		Save
4299	7	Box Elder	*Acer negundo*		Save
4300	13	American Elm	*Ulmus americana*		Save
4301	14,13,6	Box Elder	*Acer negundo*		Save
4302	23	Bur Oak	*Quercus macrocarpa*		Remove

Tag #	DBH	Common Name	Scientific Name	Notes	Status
4303	11	American Elm	*Ulmus americana*		Save
4304	6	Sugar Maple	*Acer saccharum*		Save
4305	11	Red Oak	*Quercus rubra*		Save
4306	12	Red Oak	*Quercus rubra*		Remove
4307	10	Red Oak	*Quercus rubra*		Remove
4308	7	Sugar Maple	*Acer saccharum*		Save
4309	10	American Elm	*Ulmus americana*		Save
4310	25	Bur Oak	*Quercus macrocarpa*		Save
4311	6	Sugar Maple	*Acer saccharum*		Save
4312	9	Red Oak	*Quercus rubra*		Save
4313	16	Box Elder	*Acer negundo*		Save
4314	6	American Elm	*Ulmus americana*		Save
4316	26	Sugar Maple	*Acer saccharum*		Save
4317	6	American Elm	*Ulmus americana*		Save
4318	17,16	Siberian Elm	*Ulmus pumila*		Save
4319	6	American Elm	*Ulmus americana*		Save
4320	6	American Elm	*Ulmus americana*		Remove
4321	9	Sugar Maple	*Acer saccharum*		Save
4322	9	Black Cherry	*Prunus serotina*		Save
4323	5	Red Pine	*Pinus resinosa*	80% shade suppressed	Save
4324	6	Red Pine	*Pinus resinosa*	90% shade suppressed	Save
4325	12	Box Elder	*Acer negundo*		Save
4326	16	Box Elder	*Acer negundo*		Save
4327	9	Box Elder	*Acer negundo*		Save
4328	9	American Elm	*Ulmus americana*		Remove
4329	8	Red Pine	*Pinus resinosa*		Save
4330	7	Red Pine	*Pinus resinosa*		Save
4331	8	Red Pine	*Pinus resinosa*		Save
4332	6	Red Pine	*Pinus resinosa*		Save
4333	6	Red Pine	*Pinus resinosa*		Save
4334	6	Red Pine	*Pinus resinosa*		Save
4335	9	Red Pine	*Pinus resinosa*		Save
4336	12	Box Elder	*Acer negundo*		Save
4337	8	Red Pine	*Pinus resinosa*		Save
4338	5	Red Pine	*Pinus resinosa*	30' in height	Save
4339	7	Red Pine	*Pinus resinosa*		Save
4340	9	Red Pine	*Pinus resinosa*		Save
4341	8	Red Pine	*Pinus resinosa*		Save
4342	9	Box Elder	*Acer negundo*		Save
4343	8	Red Pine	*Pinus resinosa*		Save
4344	6	Sugar Maple	*Acer saccharum*		Save
4345	6	Red Pine	*Pinus resinosa*		Save
4346	5	Red Pine	*Pinus resinosa*	30' in height	Save
4347	6	Red Pine	*Pinus resinosa*		Save
4348	10	Red Pine	*Pinus resinosa*		Save
4349	11	Red Pine	*Pinus resinosa*		Save
4350	6	Red Pine	*Pinus resinosa*		Save
4351	7	Red Pine	*Pinus resinosa*		Save
4352	9	Red Pine	*Pinus resinosa*		Save
4353	8	Red Pine	*Pinus resinosa*		Save
4354	6	Red Pine	*Pinus resinosa*		Save
4355	5	Red Pine	*Pinus resinosa*	30' in height	Save
4356	6	Red Pine	*Pinus resinosa*		Save
4357	6	Red Pine	*Pinus resinosa*		Save
4358	5	Red Pine	*Pinus resinosa*	30' in height	Save
4359	5	Red Pine	*Pinus resinosa*	30' in height	Save
4360	8	American Elm	*Ulmus americana*		Save
4361	11	American Elm	*Ulmus americana*		Save
4362	9	Box Elder	*Acer negundo*		Save
4363	5	Red Pine	*Pinus resinosa*		Save
4364	6	American Elm	*Ulmus americana*		Save
4365	12	Box Elder	*Acer negundo*		Save
4366	7	Red Pine	*Pinus resinosa*		Remove
4367	14,9	Box Elder	*Acer negundo*		Remove
4368	9	Box Elder	*Acer negundo*		Remove
4369	6	Red Pine	*Pinus resinosa*		Remove
4370	6	Red Pine	*Pinus resinosa*		Remove
4371	8	Red Pine	*Pinus resinosa*		Remove
4372	6	American Elm	*Ulmus americana*		Remove
4373	11	American Elm	*Ulmus americana*		Save
4374	10	American Elm	*Ulmus americana*		Save
4375	5	Red Pine	*Pinus resinosa*	30' in height	Remove
4376	7	Red Pine	*Pinus resinosa*		Remove
4377	5	Red Pine	*Pinus resinosa*	30' in height	Remove
4378	4	Red Pine	*Pinus resinosa*	25' in height	Remove
4379	6	Red Pine	*Pinus resinosa*		Remove
4380	6	Red Pine	*Pinus resinosa*		Remove
4381	7	Red Pine	*Pinus resinosa*		Remove
4382	4	Red Pine	*Pinus resinosa*	30' in height	Save
4383	7	Red Pine	*Pinus resinosa*		Remove
4384	5	Red Pine	*Pinus resinosa*	30' in height	Save
4385	5	Red Pine	*Pinus resinosa*	30' in height	Save
4386	4	Red Pine	*Pinus resinosa*	30' in height	Save
4387	4	Red Pine	*Pinus resinosa*	25' in height	Save
4388	4	Red Pine	*Pinus resinosa*	25' in height	Save
4389	7	Red Pine	*Pinus resinosa*		Save
4390	5	Red Pine	*Pinus resinosa*	30' in height	Save
4391	8	Red Pine	*Pinus resinosa*		Save
4392	5	Red Pine	*Pinus resinosa*	30' in height	Save
4393	8	Red Pine	*Pinus resinosa*		Save
4394	6	Red Pine	*Pinus resinosa*		Save
4395	11	Green Ash	*Fraxinus pennsylvanica*		Save
4396	6	Red Pine	*Pinus resinosa*		Save
4397	7	American Elm	*Ulmus americana*		Save
4398	9	Red Pine	*Pinus resinosa*		Save
4399	16	American Elm	*Ulmus americana*		Save
4400	6	Hackberry	*Celtis occidentalis*		Save
4401	10	Red Pine	*Pinus resinosa*		Save

PIONEER*engineering*
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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 Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date 9-7-21

Revisions
1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed TLM
Drawn TLM

TREE PRESERVATION

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

T5 OF 6

01-PLAN-120158-SHEET-TREE.DWG

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Tag #	DBH	Common Name	Scientific Name	Notes	Status
4402	9	Red Pine	*Pinus resinosa*		Save
4403	7	Red Pine	*Pinus resinosa*		Save
4404	6	Red Pine	*Pinus resinosa*		Save
4405	6	Red Pine	*Pinus resinosa*		Save
4406	5	Red Pine	*Pinus resinosa*	25' in height	Save
4407	6	Sugar Maple	*Acer saccharum*		Save
4408	6	Red Pine	*Pinus resinosa*		Save
4410	6	Red Pine	*Pinus resinosa*		Save
4411	8	Red Pine	*Pinus resinosa*		Save
4412	8	Red Pine	*Pinus resinosa*		Save
4413	6	Red Pine	*Pinus resinosa*		Save
4414	5	Red Pine	*Pinus resinosa*	30' in height	Save
4415	5	Red Pine	*Pinus resinosa*	30' in height	Save
4416	8	Red Pine	*Pinus resinosa*		Save
4417	6	Red Pine	*Pinus resinosa*		Save
4418	4	Red Pine	*Pinus resinosa*	30' in height	Save
4419	7	Red Pine	*Pinus resinosa*		Save
4420	10	American Elm	*Ulmus americana*		Save
4421	6	Red Pine	*Pinus resinosa*		Save
4422	6	Red Pine	*Pinus resinosa*		Save
4423	4	Red Pine	*Pinus resinosa*	30' in height	Save
4424	4	Red Pine	*Pinus resinosa*	30' in height	Save
4425	5	Red Pine	*Pinus resinosa*	30' in height	Save
4426	4	Red Pine	*Pinus resinosa*	30' in height	Save
4427	11	Red Pine	*Pinus resinosa*		Save
4428	11	Red Oak	*Quercus rubra*		Save
4429	11	Red Pine	*Pinus resinosa*		Save
4430	9	Red Pine	*Pinus resinosa*		Save
4431	9	Red Pine	*Pinus resinosa*		Save
4432	31	Sugar Maple	*Acer saccharum*		Save
5784	27	Bur Oak	*Quercus macrocarpa*	old tag	save
5787	7	Green Ash	*Fraxinus pennsylvanica*	old tag	Save
5788	12	Green Ash	*Fraxinus pennsylvanica*	old tag	Save
5789	8	Green Ash	*Fraxinus pennsylvanica*	old tag	Save
5790	12	Green Ash	*Fraxinus pennsylvanica*	old tag	Save
5791	11	Hackberry	*Celtis occidentalis*	old tag	Remove
5837	33	Bur Oak	*Quercus macrocarpa*	old tag	Remove
5839	29	Bur Oak	*Quercus macrocarpa*	old tag	Remove
5843	25	Bur Oak	*Quercus macrocarpa*	old tag	Remove
5845	25	Bur Oak	*Quercus macrocarpa*	old tag	Remove
5849	23	Bur Oak	*Quercus macrocarpa*	old tag	Save

Tag #	Size (DBH")	Common Name	Scientific Name	Notes	Status
5077	16	Bur Oak	*Quercus macrocarpa*		Save
5079	22	Bur Oak	*Quercus macrocarpa*		Save
5084	18	Bur Oak	*Quercus macrocarpa*		Remove
5088	23	Bur Oak	*Quercus macrocarpa*		Remove
5090	6	Sugar Maple	*Acer saccharum*		Remove
5091	6	Sugar Maple	*Acer saccharum*		Remove
5092	7	Sugar Maple	*Acer saccharum*		Remove
5093	16	Bur Oak	*Quercus macrocarpa*		Remove
5094	6	Sugar Maple	*Acer saccharum*		Remove
5095	16,11	Bur Oak	*Quercus macrocarpa*		Remove
5096	18	Bur Oak	*Quercus macrocarpa*		Remove
5097	23	Bur Oak	*Quercus macrocarpa*	dead, top missing	Remove
5098	6	Sugar Maple	*Acer saccharum*		Remove
5099	18	Bur Oak	*Quercus macrocarpa*		Remove
5100	18	Bur Oak	*Quercus macrocarpa*		Remove
5326	7	Sugar Maple	*Acer saccharum*		Save
5327	8	Sugar Maple	*Acer saccharum*		Save
5342	8	Sugar Maple	*Acer saccharum*		Save
5351	24	Sugar Maple	*Acer saccharum*		Save
5352	15	Bur Oak	*Quercus macrocarpa*		Save
5360	16	Bur Oak	*Quercus macrocarpa*		Save
5365	7	Bur Oak	*Quercus macrocarpa*		Save
5366	14	Bur Oak	*Quercus macrocarpa*		Save
5375	6	Red Oak	*Quercus rubra*		Save
5501	19	Bur Oak	*Quercus macrocarpa*		Remove
5503	9	Red Oak	*Quercus rubra*		Save
5504	10	Red Oak	*Quercus rubra*		Remove
5505	19	Bur Oak	*Quercus macrocarpa*		Off-Site
5510	14	Bur Oak	*Quercus macrocarpa*		Off-Site
5511	10	Sugar Maple	*Acer saccharum*		Off-Site
5512	6	Bur Oak	*Quercus macrocarpa*		Off-Site
5513	16	Bur Oak	*Quercus macrocarpa*		Off-Site
5514	9	Bur Oak	*Quercus macrocarpa*		Off-Site
5516	9	Sugar Maple	*Acer saccharum*		Save
5517	17	Bur Oak	*Quercus macrocarpa*		Save
5518	14	Bur Oak	*Quercus macrocarpa*		Off-site
5520	9	Bur Oak	*Quercus macrocarpa*		Save
5521	9	Bur Oak	*Quercus macrocarpa*		Off-site
5525	15	Bur Oak	*Quercus macrocarpa*		Off-site
5526	8	Bur Oak	*Quercus macrocarpa*		Save
5530	19	Bur Oak	*Quercus macrocarpa*		Save
5531	10	Bur Oak	*Quercus macrocarpa*		Remove
5532	17	Bur Oak	*Quercus macrocarpa*		Remove
5533	21	Bur Oak	*Quercus macrocarpa*		Remove
5534	18	Bur Oak	*Quercus macrocarpa*		Remove
5536	12	Bur Oak	*Quercus macrocarpa*		Remove
5537	17	Bur Oak	*Quercus macrocarpa*		Remove
5538	19	Bur Oak	*Quercus macrocarpa*		Remove
5539	17	Bur Oak	*Quercus macrocarpa*		Remove
5541	14	Bur Oak	*Quercus macrocarpa*		Remove
5542	22	Bur Oak	*Quercus macrocarpa*		Remove
5547	18	Bur Oak	*Quercus macrocarpa*		Remove

Tag #	Size (DBH")	Common Name	Scientific Name	Notes	Status
5551	25	Red Oak	*Quercus rubra*	hollow along trunk , 60% top missing	Poor
5556	16	Bur Oak	*Quercus macrocarpa*	decay along trunk	Save
5557	15	Bur Oak	*Quercus macrocarpa*		Remove
5558	19	Bur Oak	*Quercus macrocarpa*		Remove
5559	18	Bur Oak	*Quercus macrocarpa*		Save
5561	12	Bur Oak	*Quercus macrocarpa*		Save
5562	6	Sugar Maple	*Acer saccharum*		Save
5563	19	Bur Oak	*Quercus macrocarpa*		Save
5564	13	Bur Oak	*Quercus macrocarpa*		Save
5565	33	Red Oak	*Quercus rubra*	50% top missing, hollow along trunk	Save
5567	15	Bur Oak	*Quercus macrocarpa*		Save
5568	7	Sugar Maple	*Acer saccharum*		Save
5569	7	Sugar Maple	*Acer saccharum*		Save
5571	22	Red Oak	*Quercus rubra*		Save
5572	11	Bur Oak	*Quercus macrocarpa*		Save
5573	18	Bur Oak	*Quercus macrocarpa*		Save
5575	13	Red Oak	*Quercus rubra*		Save
5578	6	Red Oak	*Quercus rubra*		Save
5580	18	Bur Oak	*Quercus macrocarpa*		Save
5581	12	Bur Oak	*Quercus macrocarpa*		Save
5586	12	Bur Oak	*Quercus macrocarpa*		Save
5587	25	Red Oak	*Quercus rubra*	hollow along main trunk	Save
5588	10	Bur Oak	*Quercus macrocarpa*		Save
5589	12	Bur Oak	*Quercus macrocarpa*	dead	Save
5595	12	Red Oak	*Quercus rubra*		Save
5596	11	Red Oak	*Quercus rubra*		Save
5597	17	Bur Oak	*Quercus macrocarpa*		Save
5598	17	Bur Oak	*Quercus macrocarpa*		Save
5601	8	Sugar Maple	*Acer saccharum*		Remove
5602	26	Bur Oak	*Quercus macrocarpa*		Remove
5603	8	Sugar Maple	*Acer saccharum*		Remove
5604	8	Sugar Maple	*Acer saccharum*		Remove
5605	9	Sugar Maple	*Acer saccharum*		Remove
5606	18	Bur Oak	*Quercus macrocarpa*		Remove
5607	18	Bur Oak	*Quercus macrocarpa*		Remove
5610	18	Bur Oak	*Quercus macrocarpa*		Remove
5611	20	Bur Oak	*Quercus macrocarpa*		Remove
5614	20	Bur Oak	*Quercus macrocarpa*		Remove
5615	19	Bur Oak	*Quercus macrocarpa*		Remove
5616	20	Bur Oak	*Quercus macrocarpa*		Remove
5617	6	Sugar Maple	*Acer saccharum*		Remove
5618	9	Sugar Maple	*Acer saccharum*		Remove
5619	11	Sugar Maple	*Acer saccharum*		Remove
5620	8	Sugar Maple	*Acer saccharum*		Remove
5621	8	Sugar Maple	*Acer saccharum*		Remove
5623	24	Sugar Maple	*Acer saccharum*		Remove
5624	20	Bur Oak	*Quercus macrocarpa*		Remove
5625	17	Bur Oak	*Quercus macrocarpa*		Remove
5626	16	Bur Oak	*Quercus macrocarpa*		Remove
5628	20	Bur Oak	*Quercus macrocarpa*		Remove
5629	12	Bur Oak	*Quercus macrocarpa*		Remove
5630	17	Bur Oak	*Quercus macrocarpa*		Remove
5631	14	Bur Oak	*Quercus macrocarpa*		Remove
5632	12	Sugar Maple	*Acer saccharum*		Remove
5633	15	Bur Oak	*Quercus macrocarpa*		Remove
5634	6	Bur Oak	*Quercus macrocarpa*		Remove
5635	8	Sugar Maple	*Acer saccharum*		Remove
5636	9	Sugar Maple	*Acer saccharum*		Remove
5637	16	Bur Oak	*Quercus macrocarpa*		Remove
5640	21	Bur Oak	*Quercus macrocarpa*		Remove
5641	18	Bur Oak	*Quercus macrocarpa*		Remove
5642	6	Red Oak	*Quercus rubra*		Remove
5643	21	Bur Oak	*Quercus macrocarpa*		Save
5645	12	Bur Oak	*Quercus macrocarpa*	hollow along main trunk	Save
5646	21	Bur Oak	*Quercus macrocarpa*		Save
5648	20	Bur Oak	*Quercus macrocarpa*		Save
5649	13	Bur Oak	*Quercus macrocarpa*		Save
5650	18	Bur Oak	*Quercus macrocarpa*		Save
5653	12	Bur Oak	*Quercus macrocarpa*		Save
5654	17	Bur Oak	*Quercus macrocarpa*		Save
5655	6	Sugar Maple	*Acer saccharum*		Save
5656	6	Sugar Maple	*Acer saccharum*		Save
5658	19	Bur Oak	*Quercus macrocarpa*		Save
5666	6	Sugar Maple	*Acer saccharum*		Save
5667	6	Sugar Maple	*Acer saccharum*		Save
5670	6	Sugar Maple	*Acer saccharum*		Save
5671	9	Bur Oak	*Quercus macrocarpa*		Save
5672	9	Sugar Maple	*Acer saccharum*		Save
5673	18	Bur Oak	*Quercus macrocarpa*		Save
5674	6	Red Oak	*Quercus rubra*		Save
5675	17	Bur Oak	*Quercus macrocarpa*		Save
5677	9	Bur Oak	*Quercus macrocarpa*		Save
5678	17	Bur Oak	*Quercus macrocarpa*		Save
5679	10	Sugar Maple	*Acer saccharum*		Save
5680	9	Sugar Maple	*Acer saccharum*		Save
5681	7	Sugar Maple	*Acer saccharum*		Save
5682	7	Sugar Maple	*Acer saccharum*		Save
5684	22	Bur Oak	*Quercus macrocarpa*		Save
5685	7	Sugar Maple	*Acer saccharum*		Save
5686	21	Bur Oak	*Quercus macrocarpa*		Save
5687	6	Sugar Maple	*Acer saccharum*		Save
5688	6	Sugar Maple	*Acer saccharum*		Save
5689	16	Bur Oak	*Quercus macrocarpa*		Save
5691	19	Bur Oak	*Quercus macrocarpa*		Save
5692	12	Sugar Maple	*Acer saccharum*		Save
5693	7	Sugar Maple	*Acer saccharum*		Save
5696	18	Bur Oak	*Quercus macrocarpa*		Save
5699	11	Red Oak	*Quercus rubra*		Save

Tag #	Size (DBH")	Common Name	Scientific Name	Notes	Status
5700	16	Bur Oak	*Quercus macrocarpa*		Save
5701	17	Bur Oak	*Quercus macrocarpa*		Save
5702	18	Bur Oak	*Quercus macrocarpa*		Save
5703	19	Bur Oak	*Quercus macrocarpa*		Save
5706	18	Bur Oak	*Quercus macrocarpa*	40% dead, remaining 60% is healthy	Save
5708	23	Bur Oak	*Quercus macrocarpa*		Save
5709	21	Bur Oak	*Quercus macrocarpa*		Save
5710	8	Bur Oak	*Quercus macrocarpa*		Save
5712	8	Sugar Maple	*Acer saccharum*		Save
5713	18	Bur Oak	*Quercus macrocarpa*		Save
5714	11	Bur Oak	*Quercus macrocarpa*		Off-site
5715	17	Bur Oak	*Quercus macrocarpa*		Off-site
5716	17	Bur Oak	*Quercus macrocarpa*		Off-site
5717	8	Sugar Maple	*Acer saccharum*		Off-site
5718	8	Sugar Maple	*Acer saccharum*		Off-site
5719	16	Bur Oak	*Quercus macrocarpa*		Save
5720	21	Bur Oak	*Quercus macrocarpa*		Save
5721	10	Bur Oak	*Quercus macrocarpa*		Save
5722	18	Bur Oak	*Quercus macrocarpa*		Save
5724	7	Sugar Maple	*Acer saccharum*		Save
5725	6	Sugar Maple	*Acer saccharum*		Save
5726	6	Sugar Maple	*Acer saccharum*		Save
5729	21,19	Bur Oak	*Quercus macrocarpa*		Save
5731	10	Sugar Maple	*Acer saccharum*		Save
5733	16	Bur Oak	*Quercus macrocarpa*		Save
5734	6	Sugar Maple	*Acer saccharum*		Save
5735	8	Sugar Maple	*Acer saccharum*		Save
5736	11	Sugar Maple	*Acer saccharum*		Save
5738	15	Bur Oak	*Quercus macrocarpa*		Save
5740	18	Bur Oak	*Quercus macrocarpa*		Save
5741	23	Bur Oak	*Quercus macrocarpa*		Save
5743	25	Sugar Maple	*Acer saccharum*	hollow, 40% storm damage to crown	Save
5744	17	Bur Oak	*Quercus macrocarpa*		Save
5749	6	Sugar Maple	*Acer saccharum*		Save
5752	13	Bur Oak	*Quercus macrocarpa*		Save
5753	19	Bur Oak	*Quercus macrocarpa*		Save
5756	15	Bur Oak	*Quercus macrocarpa*		Remove
5757	19	Bur Oak	*Quercus macrocarpa*		Remove
5758	6	Sugar Maple	*Acer saccharum*		Remove
5762	7	Sugar Maple	*Acer saccharum*		Save
5763	6	Sugar Maple	*Acer saccharum*		Save
5764	6	Sugar Maple	*Acer saccharum*		Save
5765	17	Bur Oak	*Quercus macrocarpa*		Save
5766	14	Bur Oak	*Quercus macrocarpa*		Save
5767	17	Bur Oak	*Quercus macrocarpa*		Save
5768	12	Bur Oak	*Quercus macrocarpa*	double tagged with #5769	Save
5771	22	Bur Oak	*Quercus macrocarpa*		Save
5772	21	Bur Oak	*Quercus macrocarpa*		Save
5773	20	Bur Oak	*Quercus macrocarpa*		Save
5774	21	Bur Oak	*Quercus macrocarpa*		Save
5775	8	Sugar Maple	*Acer saccharum*		Save
5776	16	Bur Oak	*Quercus macrocarpa*		Save
5777	18	Bur Oak	*Quercus macrocarpa*		Save
5778	8	Bur Oak	*Quercus macrocarpa*		Save
5779	18	Bur Oak	*Quercus macrocarpa*		Remove
5780	18	Bur Oak	*Quercus macrocarpa*		Save
5781	9	Sugar Maple	*Acer saccharum*		Remove
5782	18	Bur Oak	*Quercus macrocarpa*		Remove
5783	17	Bur Oak	*Quercus macrocarpa*		Remove
5786	19	Sugar Maple	*Acer saccharum*		Save
5792	28	Bur Oak	*Quercus macrocarpa*		Remove
5793	26	Bur Oak	*Quercus macrocarpa*		Remove
5794	25	Bur Oak	*Quercus macrocarpa*		Remove
5795	28	Bur Oak	*Quercus macrocarpa*		Save
5796	11	Sugar Maple	*Acer saccharum*		Save
5798	27	Bur Oak	*Quercus macrocarpa*		Remove
5799	11	Red Oak	*Quercus rubra*		Remove
5800	22	Bur Oak	*Quercus macrocarpa*		Remove
5813	25	Sugar Maple	*Acer saccharum*		Remove
5814	29	Red Oak	*Quercus rubra*		Remove
5815	28	Red Oak	*Quercus rubra*		Remove
5816	24	Bur Oak	*Quercus macrocarpa*		Remove
5818	18	Bur Oak	*Quercus macrocarpa*		Remove
5819	25	Red Oak	*Quercus rubra*		Remove
5820	16	Bur Oak	*Quercus macrocarpa*		Remove
5821	36	Red Oak	*Quercus rubra*		Remove
5822	26	Red Oak	*Quercus rubra*	35% top missing, deacy along trunk	Remove
5823	33	Red Oak	*Quercus rubra*		Remove
5824	23	Sugar Maple	*Acer saccharum*		Remove
5825	24	Sugar Maple	*Acer saccharum*		Remove
5826	30	Sugar Maple	*Acer saccharum*		Remove
5828	21	Sugar Maple	*Acer saccharum*		Remove
5829	24	Bur Oak	*Quercus macrocarpa*		Remove
5830	23	Bur Oak	*Quercus macrocarpa*		Remove
5831	24	Bur Oak	*Quercus macrocarpa*	under stress, epicormic branching, he	Remove
5832	22	Bur Oak	*Quercus macrocarpa*		Remove
5833	24	Bur Oak	*Quercus macrocarpa*		Remove
5835	15	Sugar Maple	*Acer saccharum*		Remove
5840	25	Bur Oak	*Quercus macrocarpa*		Remove
5841	28	Red Oak	*Quercus rubra*	hollow	Remove
5842	24	Bur Oak	*Quercus macrocarpa*		Remove
5847	24	Bur Oak	*Quercus macrocarpa*		Remove
5848	28	Bur Oak	*Quercus macrocarpa*		Remove
5851	18	Bur Oak	*Quercus macrocarpa*		Remove
5852	23	Bur Oak	*Quercus macrocarpa*	25% storm damage to crown	Remove
5853	25	Bur Oak	*Quercus macrocarpa*	major decay along trunk	Remove
5854	10	Sugar Maple	*Acer saccharum*		Remove
5858	13	Bur Oak	*Quercus macrocarpa*	double tagged with #5859	Save

Tag #	Size (DBH")	Common Name	Scientific Name	Notes	Status
5862	21	Bur Oak	*Quercus macrocarpa*		Save
5864	23	Bur Oak	*Quercus macrocarpa*		Save
5865	17	Bur Oak	*Quercus macrocarpa*		Remove
5866	20	Bur Oak	*Quercus macrocarpa*		Remove
5867	24	Sugar Maple	*Acer saccharum*		Remove
5868	17	Bur Oak	*Quercus macrocarpa*		Save
5871	25	Red Oak	*Quercus rubra*		Remove
5872	16	Bur Oak	*Quercus macrocarpa*		Remove
5873	24	Red Oak	*Quercus rubra*		Remove
5874	15	Bur Oak	*Quercus macrocarpa*		Remove
5875	25	Red Oak	*Quercus rubra*	completely hollow lower 15' of trunk	Remove
5876	18	Bur Oak	*Quercus macrocarpa*		Remove
5877	9	Red Oak	*Quercus rubra*		Remove
5878	9	Red Oak	*Quercus rubra*		Remove
5879	7	Sugar Maple	*Acer saccharum*		Remove
5880	6	Sugar Maple	*Acer saccharum*		Remove
5882	17	Bur Oak	*Quercus macrocarpa*		Remove
5883	34	Red Oak	*Quercus rubra*		Remove
5884	30	Sugar Maple	*Acer saccharum*		Remove
5885	22	Red Oak	*Quercus rubra*		Remove
5886	18	Bur Oak	*Quercus macrocarpa*		Remove
5887	17	Bur Oak	*Quercus macrocarpa*		Remove
5888	20	Bur Oak	*Quercus macrocarpa*		Remove
5890	16	Bur Oak	*Quercus macrocarpa*		Remove
5891	7	Sugar Maple	*Acer saccharum*		Remove
5892	10	Sugar Maple	*Acer saccharum*		Remove
5893	6	Sugar Maple	*Acer saccharum*		Remove
5894	16	Bur Oak	*Quercus macrocarpa*		Remove
5895	18	Bur Oak	*Quercus macrocarpa*		Remove
5896	9	Sugar Maple	*Acer saccharum*		Remove
5897	20	Bur Oak	*Quercus macrocarpa*		Remove
5898	16,16	Bur Oak	*Quercus macrocarpa*		Remove
5899	15	Bur Oak	*Quercus macrocarpa*		Remove
5900	27	Bur Oak	*Quercus macrocarpa*		Remove
5901	17	Sugar Maple	*Acer saccharum*		Remove
5902	8	Sugar Maple	*Acer saccharum*		Remove
5908	20	Bur Oak	*Quercus macrocarpa*		Remove
5910	15	Sugar Maple	*Acer saccharum*		Remove
5911	9	Sugar Maple	*Acer saccharum*		Remove
5912	22	Bur Oak	*Quercus macrocarpa*		Remove
5913	10	Sugar Maple	*Acer saccharum*		Remove
5914	8	Sugar Maple	*Acer saccharum*		Remove
5915	6	Sugar Maple	*Acer saccharum*		Remove
5917	8	Sugar Maple	*Acer saccharum*		Remove
5918	7	Sugar Maple	*Acer saccharum*		Remove
5921	23	Sugar Maple	*Acer saccharum*		Remove
5922	23	Bur Oak	*Quercus macrocarpa*		Remove
5924	24	Bur Oak	*Quercus macrocarpa*		Remove
5925	7	Sugar Maple	*Acer saccharum*		Remove
5926	7	Sugar Maple	*Acer saccharum*		Remove
5933	9	Sugar Maple	*Acer saccharum*		Remove
5941	11	Red Oak	*Quercus rubra*		Save
5943	11	Sugar Maple	*Acer saccharum*		Save
5946	6	Sugar Maple	*Acer saccharum*		Save
5947	10	Sugar Maple	*Acer saccharum*		save
5949	16	Sugar Maple	*Acer saccharum*	dead	Save
5950	10,7	Sugar Maple	*Acer saccharum*		Save
5951	8	Sugar Maple	*Acer saccharum*		Save
5952	7	Sugar Maple	*Acer saccharum*		Save
5954	9	Sugar Maple	*Acer saccharum*		Save
5956	8	Sugar Maple	*Acer saccharum*		Save
5958	11	Sugar Maple	*Acer saccharum*		Save
5960	8	Sugar Maple	*Acer saccharum*		Save
5975	9	Sugar Maple	*Acer saccharum*		Remove
5976	8	Sugar Maple	*Acer saccharum*		Remove
5978	6	Sugar Maple	*Acer saccharum*		Off-site
5979	6	Sugar Maple	*Acer saccharum*		Off-site
5980	6	Red Oak	*Quercus rubra*		Off-site
5981	8	Sugar Maple	*Acer saccharum*		Off-site
5982	9	Sugar Maple	*Acer saccharum*		Off-site
5983	7	Sugar Maple	*Acer saccharum*		Save
5984	6	Red Oak	*Quercus rubra*		Remove
5985	8	Sugar Maple	*Acer saccharum*		Remove
5986	6	Sugar Maple	*Acer saccharum*		Remove
5987	6	Sugar Maple	*Acer saccharum*		Remove
5988	10	Red Oak	*Quercus rubra*		Remove
5990	30	Red Oak	*Quercus rubra*		Remove
5993	20	Bur Oak	*Quercus macrocarpa*		Remove
5996	8	Red Oak	*Quercus rubra*		Remove
5998	8	Sugar Maple	*Acer saccharum*		Remove
5999	6	Sugar Maple	*Acer saccharum*		Remove
6000	6	Sugar Maple	*Acer saccharum*		Remove

PIONEERengineering
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 Landscape Architect under the laws of the State of Minnesota
Name Jennifer L. Thompson
Reg. No. 44763 Date 9-7-21

Revisions
1. 1-11-2022 City Comments
2. 2-17-2022 City Comments

Date 9-7-21
Designed TLM
Drawn TLM

TREE PRESERVATION

JOHNSON - REILAND
616 HIGHWAY 3
DUNDAS, MINNESOTA 55019

ENSCONCED WOODS
CHASKA, MINNESOTA

T6 OF 6

01-PLAN-120158-SHEET-TREE.DWG

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Erie Plan Summary

JOHNSON-REILAND
BUILDERS & REMODELERS
jrbandr.com
lic# BC636389

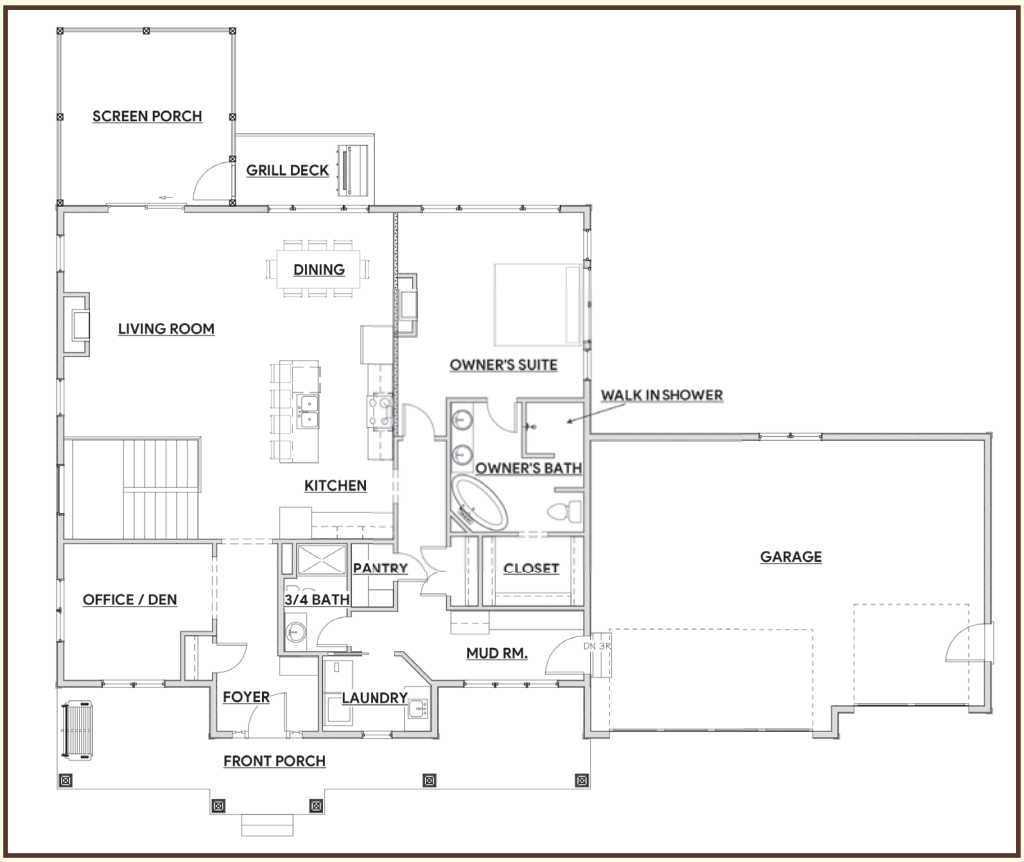
Model Home Specifics

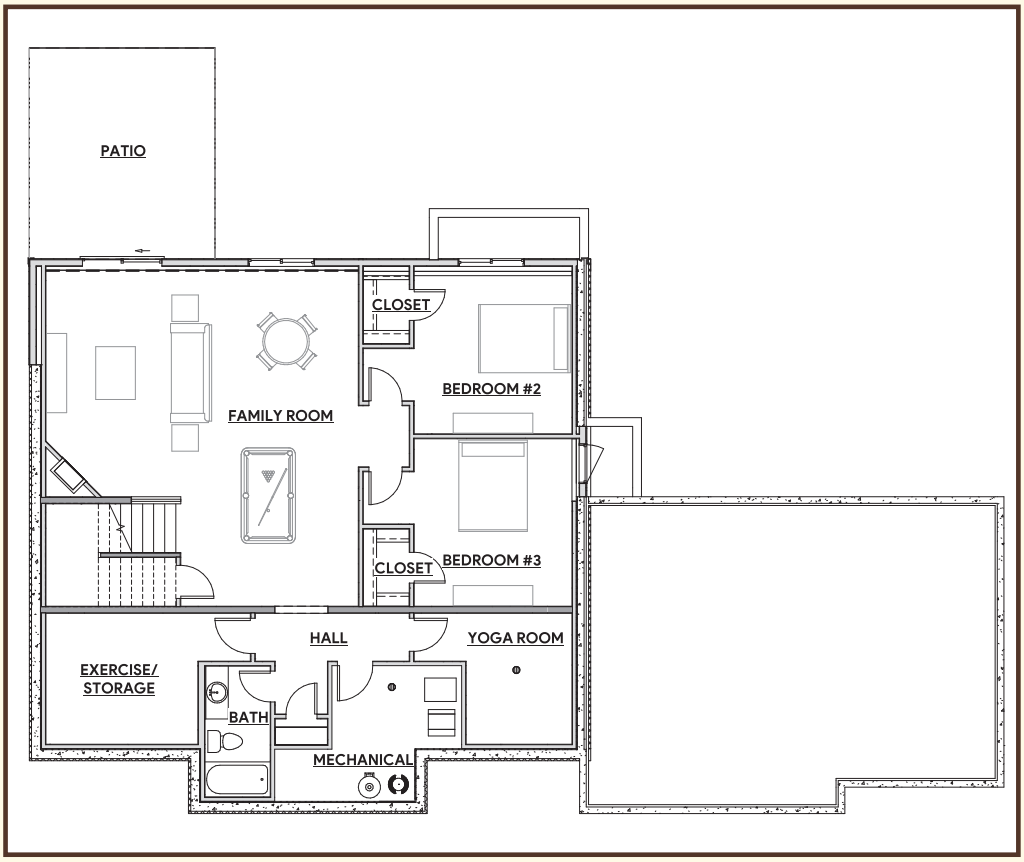
Style:	One Story
Main Floor Sq Ft:	1,668
Finished Sq Ft:	3,048
Year Built:	2020
Bedrooms:	3
Bathrooms:	2.5

PROPERTY HIGHLIGHTS

Johnson-Reiland welcomes you to this three bedroom, 3,048 sq. ft. single-level farmhouse. Designer tile craftsmanship. Solid plank 5” white oak floors throughout. Covered screen porch finished with Westbury Aluminum railings.

Johnson-Reiland Builders & Remodelers, Inc.
jrbandr.com 507.366.1288





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jrbandr.com 507.366.1288

Huron Plan Summary

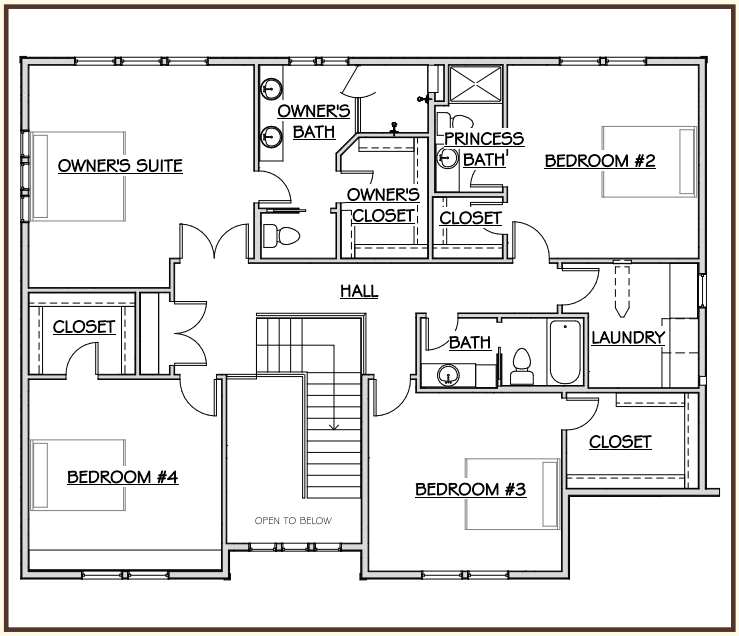
JOHNSON-REILAND
BUILDERS & REMODELERS
jrbandr.com
lic# BC636389

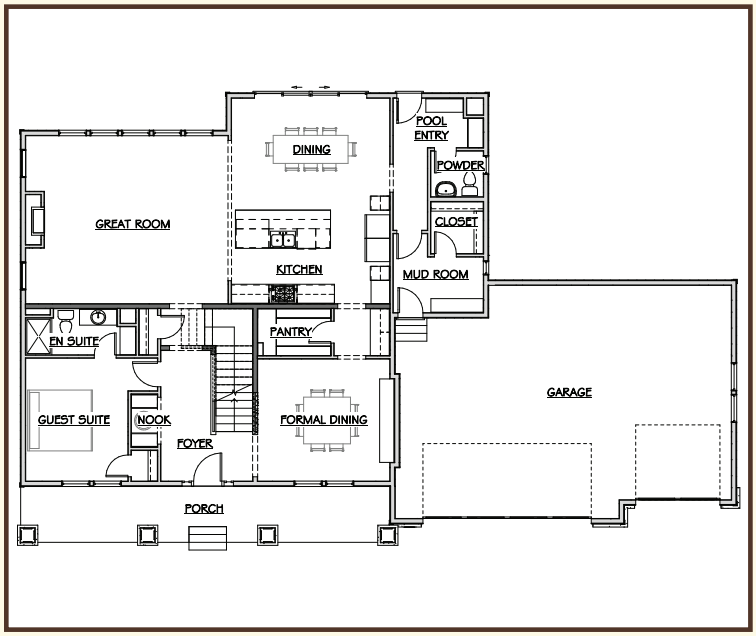
Model Home Specifics

Style:	Two Story
Finished Sq Ft:	3,658
Bedrooms:	5
Bathrooms:	5

PROPERTY HIGHLIGHTS

Johnson-Reiland welcomes you to this five bedroom, 3,658 sq. ft. 2-story custom home. French country kitchen, artful craftsman-style enameled millwork, wine nook, butler's pantry, and solid black walnut floors with black walnut stairway. The great room includes exposed interior brick, reclaimed timber mantel & rustic beam ceiling. Main level guest suite has private 3/4 bath. Master bath features a stunning luxury barrier-free walk-in shower.





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Property Profile

Juniper Plan Summary

BEAUTIFUL ACCESSIBILITY

Johnson-Reiland builds accessible custom homes that champion universal design. When you think of an accessible home you might envision winding ramps and institutional, impersonal looking designs that seem incongruous with a home someone can love and enjoy. That's where we do it differently – we create homes using Universal Design. At its core, universal design is just like any other design problem out there, but results in a more beautiful, creative and uplifting home to age in place. Schedule a tour of one of our beautifully designed homes today.

HOME DETAILS

- 5 bedrooms and 3 bathrooms on 2 levels
- 3,556 sq. ft. with 3 garage stalls
- Accessibility features, including 3' wide doorways, main floor laundry and no barrier walk-in shower, and no steps from garage into house

JR JOHNSON-REILAND BUILDERS & REMODELERS

Builders ID BC636389

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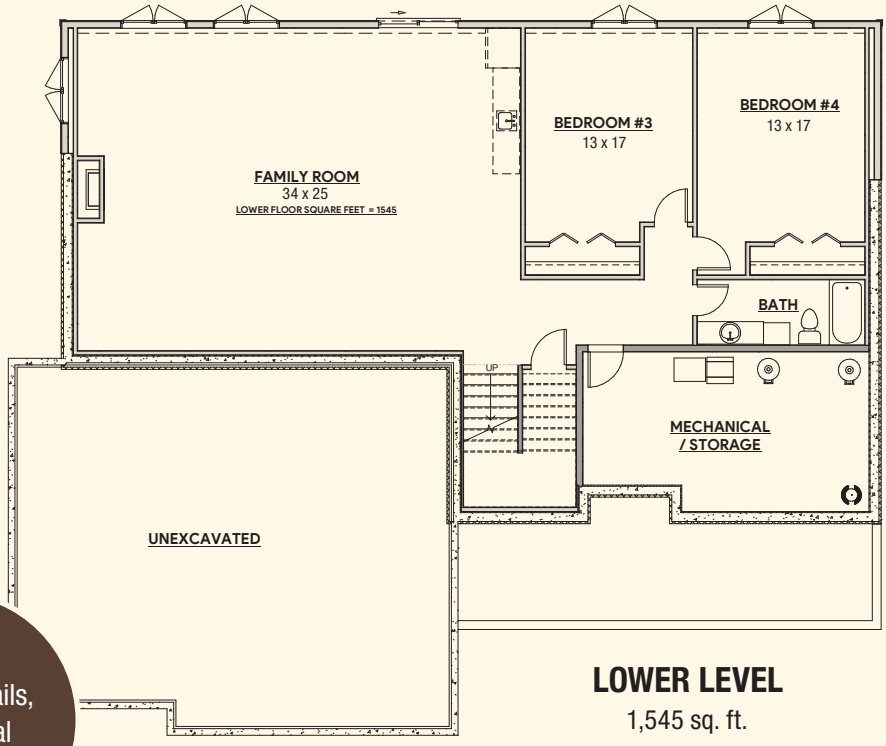
Juniper Plan Layout

Featuring windows by:

MARVIN®



LOWER LEVEL
1,545 sq. ft.

Elegant Design Details, Exceptional Craftsmanship

2019 REGGIE AWARD™ WINNER
HOUSING FIRST • MN

Johnson-Reiland is a family-owned custom build and design firm that has won multiple Reggie awards – come design your custom home with us today!

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Builders ID BC636389

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REALTOR®

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Michigan Plan Summary

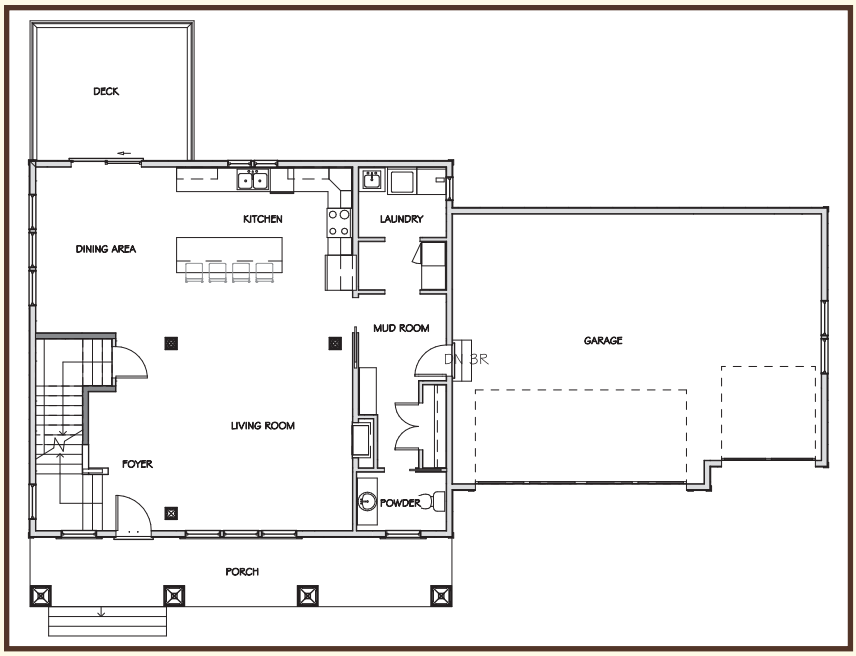
JOHNSON-REILAND
BUILDERS & REMODELERS
jrbandr.com
lic# BC636389

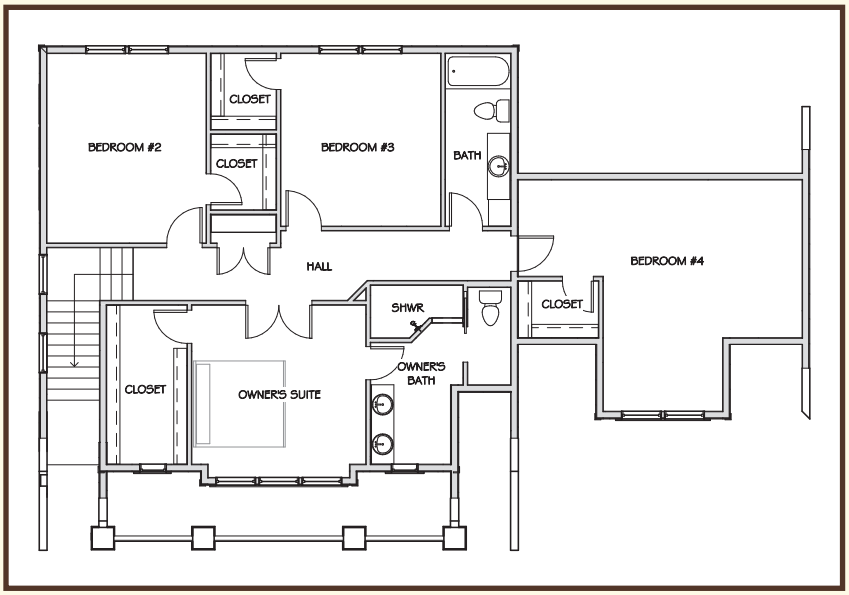
Model Home Specifics

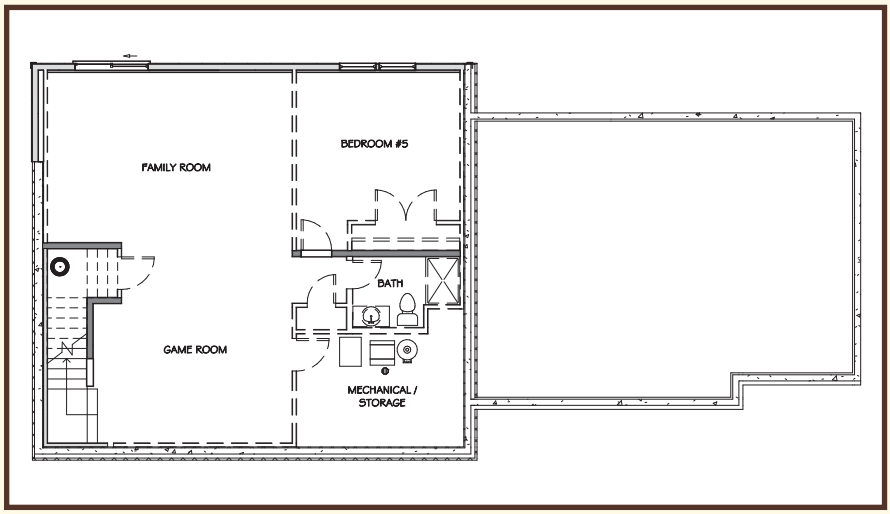
Style:	SF Two Stories
Finished Sq Ft:	2,604
Bedrooms:	4
Bathrooms:	3

PROPERTY HIGHLIGHTS

Johnson-Reiland welcomes you to this reinvented Craftsman-style home. Our goal is that living in this home, you might think you're in a century-old home while still having the advantages of a new home. The inset, quarter-sawn oak cabinets, wide mission-style trim, and solid character-grade maple wood flooring add to this feeling of history. Other quality features include custom doors, luxury ceramic walk-in shower, Marvin windows, full width front porch, cedar rear deck, walkout basement, and insulated 3-car garage with custom garage doors.







Johnson-Reiland Builders & Remodelers, Inc.

jrbandr.com 507.366.1288

Willow Plan Summary

JOHNSON-REILAND
BUILDERS & REMODELERS
jrbandr.com
lic# BC636389

Model Home Specifics

Style:	Farmhouse
Floor Plan Name:	Willow
Finished Sq Ft:	3,343
Bedrooms:	4
Bathrooms:	4

PROPERTY HIGHLIGHTS

Johnson-Reiland welcomes you to this four bedroom, 3,343 sq. ft. custom-built modern farmhouse style home. Luxury ceramic tile baths throughout. This home features an alluring farmhouse kitchen with general store styled pantry, granite tops, solid Plank floors, C/VAC, and private stamped rear concrete patio with a pergola. Offers square spiral stair case wrapping a rustic brick chimney. Also, this house features a barrier-free entrance package for easy access along with top-of-the-line building products and practices throughout!

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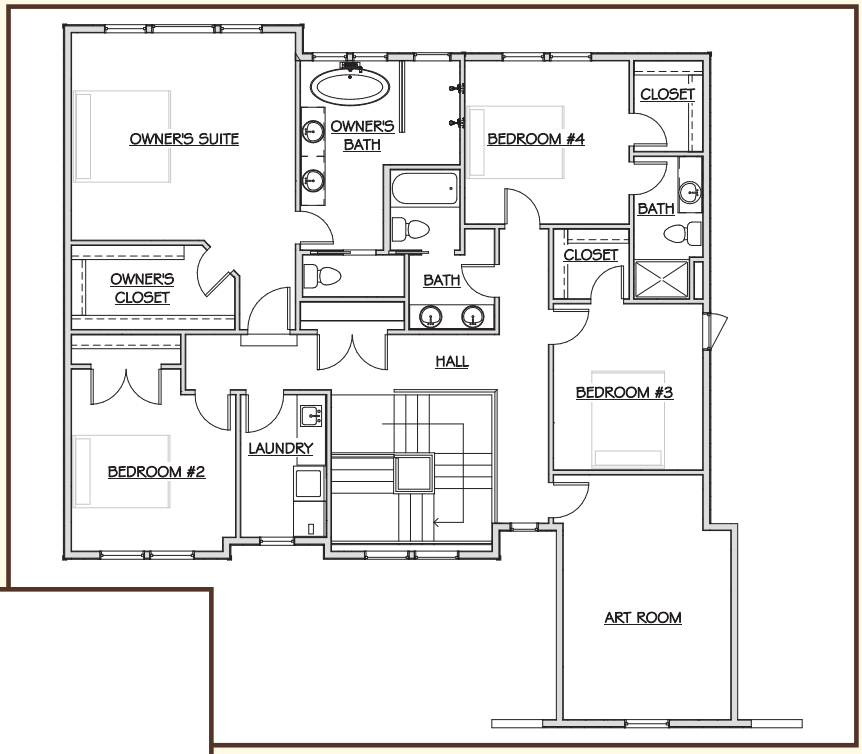
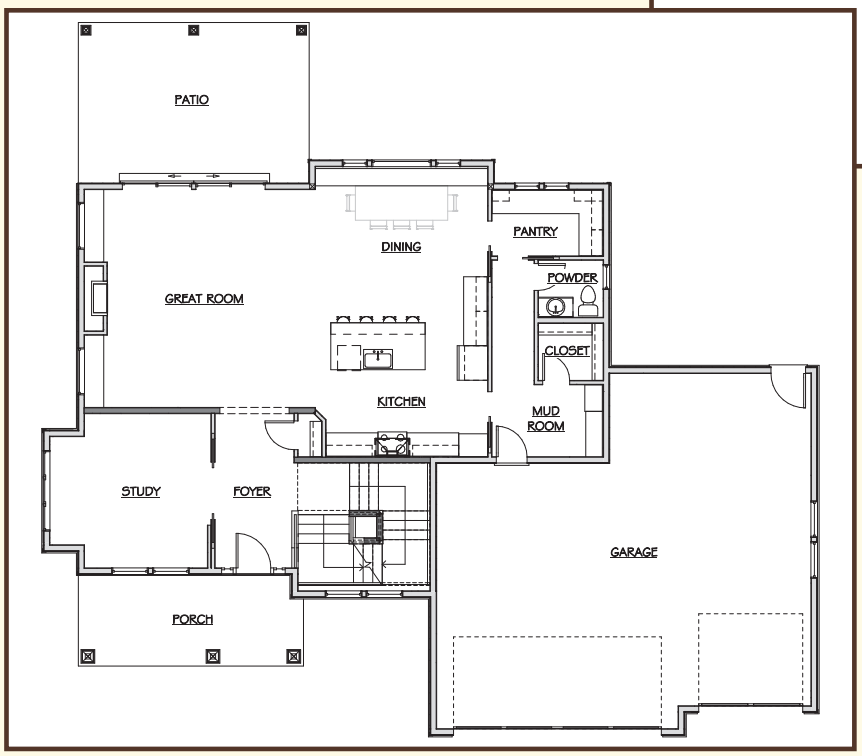




Johnson-Reiland Builders & Remodelers, Inc.

jrbandr.com 507.366.1288

Carver County
Public Works
11360 Highway 212, Suite 1
Cologne, MN 55322

May 7, 2021
*(Review comments from February 2022 preliminary plat submittal are made in blue italic font. Comments updated **March 16, 2022**)*

City of Chaska
c/o Elizabeth Hanson, AICP
City Planner
952-448-9200
EHanson@chaskamn.com

Re: Development / Access Review Comments: Ensconced Woods Concept Plan - *Preliminary Plat* - located at PID# 300085600 and 300086000 adjacent to County State Aid Highway (CSAH) 44 (Big Woods Boulevard)

Thank you for the opportunity to review the subject development in the City of Chaska. Consistent with the County Comprehensive Plan and County Codes, and other official controls of the County, the following are comments and recommended conditions of approval and as potential requirements for any necessary permits to be issued for the project.

1. Regarding access onto the County Highway –
   a. Concept plan shows potential private driveway access onto CSAH 44 for unit labeled #30 (existing dwelling at 3625 Big Woods Blvd.) as well as a potential option for the access to tie into the private drive. No permanent direct access to CSAH 44 will be permitted. Existing private driveways shall tie into new local road or private drives.
      i. *Condition applies/Comment resolved for platting purposes. Lot 1, Block 2 oriented with right of way connecting to New Street.*
   b. Additional full access to CSAH 44 will not be considered for future development between Founders Way and Cascade Dr. A connection of the new local road to serve potential future development of the parcels to the east of this proposal (PID # 300085800, 300085700, 300082600) should be preserved via right of way dedication or City-owned outlot.
      i. *Condition applies for future development of parcels to the east. Right of way is not being preserved for connection of New Street to serve the parcels to the east and no additional full access will be granted to CSAH 44 to serve development of those parcels.*
   c. One temporary construction access onto CSAH 44 will be considered at the location of the existing driveway access currently located at 3675 Big Woods Blvd. An approved temporary construction access onto CSAH 44 would be allowable only until occupancy of the first dwelling.
      i. *Condition applies.*
2. Regarding highway right of way –

CARVER COUNTY

a. CSAH 44 at this location is a 2-lane undivided urban roadway facility with a trail on the north side. The existing right of way is approximately 66 ft. total with a variable distance from centerline of approximately 33 ft. to 36 ft. adjacent to the subject properties.

   i. *Information.*

b. The planned typical section for this section of highway along this property is a 2-lane undivided urban facility. No trail is planned for the south side of the roadway along the subject properties. The County's 2040 Comprehensive Plan (Figure B.6) defines the needed right of way for this type of highway typical section as 50 ft. from centerline.

   i. *Information.*

c. The plat shall incorporate 50 ft. of dedicated right of way from the centerline of CSAH 44 to the subject properties.

   i. *Condition applies/Comment resolved.*

3. The County will need to review and approve the final grading plans for properties adjacent to CSAH 44. A grading permit will be required for grading work within the highway right of way.

   i. *Condition applies. Additional review and coordination needed for permit approval. Drainage pattern changes to CSAH 44 will need to be provided for review and approval.*

4. The technical details of the final plat, its boundaries and form(s) will need to be reviewed and approved by the County Surveyor.

   i. *Condition applies for final plat approval.*

5. Prior to any work affecting or on County highways or in County right of way, the applicant shall coordinate plans with the County Engineer and obtain a Utility or Excavating/Filling/Grading Permit(s) from Carver County Public Works: (www.co.carver.mn.us/departments/public-works/quick-links/permits). Final details of locations, grades, and profiles affecting County roads as well as any utility connections will need to be reviewed and approved prior to any permits.

   i. *Condition applies. Additional review and coordination needed for permit approval.*

6. Any damages, modifications, or changes incurred on County highways from current or approved conditions will need to remedied or updated at development expense, including costs incurred by the County.

   i. *Information.*

These are the County's comments at this time. If you have any questions or need further assistance, please contact staff noted below:

Joan Guthmiller Administrative Technician Carver County Public Works 952.466.5201 jguthmiller@co.carver.mn.us	Angie Stenson AICP Sr. Transportation Planner Carver County Public Works 952.466.5273 astenson@co.carver.mn.us	Dan McCormick, P.E. PTOE Traffic Services Supervisor Carver County Public Works 952.466.5208 dmccormick@co.carver.mn.us

REQUEST FOR ACTION
CHASKA CITY COUNCIL
03/21/2022

Subject: **Rivertown Heights (Holasek) – Preliminary Plat & Rezoning**

Applicant: D R Horton

Location: 3985 and 4245 Big Woods Blvd (Holasek); South of County Road 44 (Big Woods Blvd), west and south of Founders Ridge

Case No.: 2022-16

Synopsis: Applicant seeks to obtain approval of a 90 lot development (89 new lots, 1 lot for the existing Holasek residence at 3985 Big Woods Blvd) on approximately 40 acres of land in the SW Chaska area

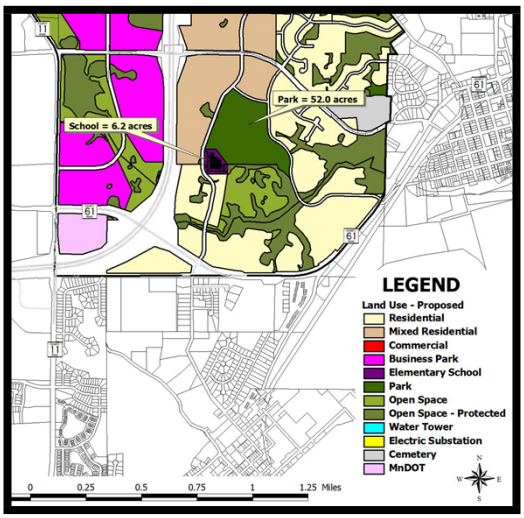
Prepared By: Elizabeth Hanson

Staff Recommendation: Motion to adopt resolution

BACKGROUND

Founders Ridge was approved in November 2013 and the 2nd addition in February 2015. The development has since been fully built. Within that development stub streets were provided to access neighboring properties for future development. One of those streets is Founders Path, which stubs up to the west edge of the development abutting Holasek's property. Another stub street, Carver Path, stubs on the south edge of the development, also abutting Scooter Enterprise's property.

In 2017, a purchase agreement was executed to purchase the future collector road right-of-way (ROW), community park and elementary school areas from the Holasek family. The City currently owns the ROW (~6 acres) and future community park acreage (~52 acres), while Eastern Carver County Schools owns the future elementary school acreage (~6). See below.



(exhbit used in 2017 Purchase Agreement)

Rivertown Heights is a residential proposal that abuts the north and east sides of the proposed community park. The Concept Plan for this residential proposal was approved in November 2021.

Changes/Updates Since Concept Plan Approval

The following are changes that have occurred on the plan since Concept Plan:

- Lot count changed from 91 lots to 90 lots; one lot was eliminated from the overall plan due to changes in layout.
- Layout Changes; the layout of the site has changed slightly to eliminate the cul de sac on the northeasterly portion of the site. The elimination of this cul de sac allows the homes to be distanced from the County Road more effectively. Ponding will provide separation between the county road and homes for a majority of the northerly lots. There will be a couple homes that abut the County Road but will have significant rear yards to provide separation. This is also common in other lots along the county road like Founders Ridge.
- Drainage; concerns were raised from the existing Founders Ridge residents that live on Carver Path and abut the proposed Rivertown Heights development. The developer has met with these neighbors to review their concerns of the current conditions. The developer believes with the grading plan of Rivertown Heights it will lessen the amount of water currently draining to the existing homes. The developer plans to meet with the homeowners again before grading starts.
- Buffer trees added; buffer trees are being added on the rear edges of the lots abutting the Carver Path residents to help with buffering. Buffer trees are also situated along the edges of the county road and city collector road lots.
- Carlson property street alignment; the stub streets on the southeasterly border of the property abutting the Carlson property have slightly changed to provide a future layout that both parties agree to. The lots on the Carlson side will come in for later approvals. Temporary cul de sacs will be provided on the Rivertown Heights side until the Carlson site develops.
- Percheron Median; in order to accommodate a median to the south of the existing Percheron median, maintenance would need to be by a homeowners' association. Since Rivertown Heights does not have any common areas, a homeowners' association is not planned to be established. The City would not maintain these pieces. It is up to the developer on if they want these pieces for their branding and maintenance.
- Lot boundaries to lineup with Carver Path lots; the developer feels that the current lot layout offsets home placement so that the backs of homes aren't looking directly into each other's living space.
- Future park signage; Horton will work with staff on a sign design for future park & lighted ball fields to be shown on the final plans. Additionally, sales, marketing materials and disclosures from DR Horton will include language about the future land use to their homebuyers.

Project Goals

The identified goals in creating this new neighborhood include the following:

- Providing a seamless transition of road and pedestrian connections
- Housing design and lot sizes that will complement the existing homes in and around Rivertown Heights

- Creating a neighborhood layout that is sensitive to the existing conditions, including availability of utilities, natural grades and drainage patterns
- Preservation of trees and buffer to existing homes
- Attractive neighborhood design with curvilinear street patterns and sidewalks to support a walkable environment

Comprehensive Plan
The Comprehensive Plan guides this area to be Low Density Residential and Mixed Residential. The proposal tonight is consistent with this guidance.

CURRENT PROPOSAL
The proposal is for preliminary plat and rezoning. The 90-lot detached single-family proposal on approximately 40-acres of property is located south of County Road 44 (Big Woods Blvd) and west & south of the Founders Ridge development on both Holasek and Scooter Enterprise's land. This new development will be an extension off Founders Path and Carver Path, but will not be part of the Founders Ridge development.

Adjacent properties
The site is bound on the north by County Road 44 (Big Woods Boulevard); to the west by the future collector road ROW (Savanna Way) and land retained by the Holasek's; the south by future community park space and the Lano property; and the east by Founders Ridge and Carlson's land.

Existing Conditions
Rivertown Heights is nearly 40-acres and located near the southeast intersection of Big Woods Boulevard and the future extension of Savanna Way, just west of the existing Founders Ridge neighborhood. The site is currently used for agricultural purposes and the existing home at 3985 Big Woods Boulevard will be retained by the land seller, and incorporated into the development.

Generally, the site has minimal tree coverage, except in the southeast portion. The wooded ravine is proposed to remain to create a natural buffer between Rivertown Heights and the existing Founders Ridge neighborhood. Tree removal will occur to extend Carver Path into the site.

A wetland investigation took place fall 2018 and Notice of Decision was received from the Board of Water and Soil Resources October 20, 2020. It was determined that there are 2 wetlands on the site. The total acreage of both is 0.24. The current plan proposes to impact both wetlands.

Land Use
The proposed 40-acre plan consists of 89 new single family lots (90 lots if including Holasek's existing residence and new lot) with a lot size of 65 feet wide and 140 feet deep (~0.21 acres). The homes in Founders Ridge that average out to be 75 feet wide and approximately 0.25 acres.

The parcels of land that this development encompasses are currently zoned Open (O), which is a 'holding zone' until they develop. The area in question will be rezoned to a more appropriate zoning district, such as Planned Residential Development (PRD).

Layout
The neighborhood will be accessed from Big Woods Boulevard via a road connection south of Percheron Boulevard, as well as extensions of Founders Path and Carver Path located in the Founders Ridge neighborhood. In the future, a connection will exist with the City's construction of a north/south collector road south of Big Woods Boulevard and Savanna Way. There are two cul de sacs proposed off the internal streets of the development. The Holasek residence at 3985 Big Woods Boulevard will be incorporated into the development between Lots 4 and 6 of Block 4. Street stubs will be provided on the west to the proposed collector road, the south to the Lano property, and on the east to the Carlson property. Sidewalks will be an extension of the existing Founders Ridge neighborhood.

The edges of the development are already generally defined due to the layout of the existing road stubs and proposed community park. In sum, the layout of the lots appear to be in a formation that meets what was anticipated for this area.

Carlson Lot
The stubs on the east side abutting Carlson's shows a ghost plat on how the stubs can connect when the Carlson site develops. It is showing a looping street, which appears to fit the topography of the Carlson site in a logical way. City staff walked the Carlson site for wooded steep slopes to define the buildable edge of this area. The looping street as it is designed in DR Horton's plans will fit the buildability of Carlson's lot. The current ghost plat is meant to be a visual understanding of how the site could develop, however, the site will have to come in for separate planning approvals when it is ready to proceed forward.

Transportation/ROW/Construction Traffic
The preliminary plan proposes to provide for a network of internal residential roadways with connectivity to arterial roadways. Specifically, Founders Path is extended to the west to provide access to the development area. Founders Path will terminate at the western edge of the development to connect into the future collector road. The extension of Percheron Boulevard will act as the main north-south thoroughfare for the development and will stub on the south side as it abuts Lano's property. The existing driveway access on Big Woods Boulevard (CR 44) for Holasek's site will be removed and access will come from the new development off of

Percheron Boulevard. Two stub streets will abut Carlson's property. These stub streets will be temporary cul de sacs on the Holasek side until the Carlson site develops.

The current plan appears to show road right-of-way widths that are consistent with the City's typical 60 foot wide ROWs as they are matching up with the stub streets of Founders Path and Carver Path.

Construction traffic is proposed to come directly from County Road 44 at the proposed Percheron Boulevard access. The developer plans to put up signs in/near Founders Ridge so that construction traffic does not go through this development. The developer will have to continue to work with the City Engineer and Carver County on the construction routes.

Utilities
Sewer and water utilities are available.

Stormwater
Stormwater ponding is proposed as a part of this proposal; 3 ponding areas have been delineated on the plan. Stormwater ponding will have to meet all Carver County WMO and City standards.

Setbacks
Minimum setbacks proposed are front setbacks of 25 feet, rear setbacks of 20 feet, side setbacks of 7.5 feet, and corner setbacks are 15 feet.

In addition to the above, the development must meet the following setbacks:

SETBACKS	
Direction	**Setback**
Wooded Steep Slopes	50 feet building setback and 30 feet no grade/no mow setback
Wetlands	30 feet
County Road 44	125 feet from centerline
Collector Road/Savanna Way	100 feet from centerline

Architecture & Anti Monotony
DR Horton will be the sole builder in this development. The proposed homes will be 1- and 2-story single family designs, which are similar to the homes DR Horton has built in Chaska in the Sagewood. They anticipate offering approximately 9 floor plans ranging in size from 1,900 to 3,400 square feet. Each floor plan will have multiple elevation options, which will create variety throughout. Pricing is anticipated to start in the lower $500,000s.

City ordinance dictates that housing may not be similar within two houses to each side, directly across the street or diagonal from the house in question. This ordinance also requires that homes provide LP Smartside on the front elevations, at least 4 inch window trim on all windows, and provide varied color packages on homes within one home on each side and directly across

the street. In addition, 360 architecture will be required on homes/elevations on corners and/or homes/elevations that abut major roadways. This ordinance has been very successful in other newer residential developments.

The following lots were subject to 360 degree architecture per the preliminary plat drawing of the full development dated February 16, 2022:

- Lots 1-11, Block 1
- Lots 1 & 8, Block 2
- Lots 1, 7, 9 & 16, Block 3
- Lots 1 & 8, Block 4
- Lots 1 & 13, Block 5
- Lot 3, Block 6
- Lot 1, Block 7
- Lots 1, 7, 15 & 16, Block 8
- Lot 1, Block 9

Trails & Sidewalks

There are no trails proposed as a part of this development application therefore trail fees will be required. The Comprehensive Plan calls out a trail along the future collector road. The trail has been installed on the east side of the collector road north of Big Woods Boulevard at 10 feet wide. The trail will travel south on the east side of the road and abut the west side of this proposed development. A public trail has also been installed on the north side of Big Woods Boulevard to the Highway 212 intersection when construction on County Road 44 was completed.

The developer will be required to provide sidewalks on both sides of the streets up to the bulbs of cul de sacs per City policy. There is one area that does not include sidewalks and that is the west side of Block 3 between Founders Path and Devonshire Lane. This sidewalk will need to be shown on the final plans.

Screening, Landscaping & Tree Preservation

Because this development abuts major roadways (Big Woods Boulevard/CR 44 and the future collector road/Savanna Way) it will be important that the homes that back up to this use have adequate screening. The berming and landscaping done on both these roads in Founders Ridge and The Harvest shall be carried through with this development. The landscape plan shows consistency on these edges for homes abutting these roads.

Trees will be required in the boulevard in order to meet the City's Boulevard Tree Policy. It should be noted that the boulevard is the area between the sidewalk and the street.

The site area shows a couple areas of existing trees. One area on the southeast side that abuts Founders Ridge, and one area on the north side that abuts the existing Holasek home at 3985 Big Woods Boulevard. The southeasterly area will have a majority of trees preserved. The ones removed are due to required stormwater ponding and the extension of Carver Path to the south. The northerly area trees will also be removed due to required stormwater ponding. The northeast corner trees will be preserved in this area however. Staff had a chance to walk this northeasterly area and did not observe any significant quality trees worth saving (they are

primarily boxelders). The developer will be providing new trees in this area to provide an adequate buffer to the nearest lot next to Big Woods Boulevard. Staff would advise providing

Ravines & Wooded Steep Slopes
The southeasterly portion of the site near the boundary of Founders Ridge and Rivertown Heights there is delineated wooded steep slopes. Some of this area has already been preserved and incorporated into the Founders Ridge development. There is a small finger area that encompasses the Rivertown Heights plan and will be preserved and setbacks applied. Staff would point out that the rear lot lines that abut this area should stay out of the 30 foot no grade/no mow setback so as to provide clear delineations of where yards can go. The developer has also indicated that buffer signage can also be installed along this edge to further protect these buffers.

Parkland
Parkland is not proposed as a part of this development. It will be required of the developer to pay park dedication fees. There is a community park (~52 acres) planned that is adjacent to this proposed development. This neighborhood would have direct access to this park.

Development Costs (Infrastructure Improvements)
The City of Chaska has a number of area-wide development cost such as, but not limited to:

- Arterial Road Network
- Collector Roads
- Storm Sewer
- Trails
- Parks

Prior to final platting, the developer will need to work with City Staff to determine which of these are applicable and what those fees will be.

Phasing
The site is planned to be graded in its entirety beginning Spring 2022. The 1st phase will be the northerly portion of the site up to Founders Path and consist of approximately 45 lots. Street and utility construction of the 1st phase will be Summer with home construction beginning Fall 2022.

Dependent on market conditions, the 2nd phase of development is planned to occur in 2023.

Preliminary Plat
The site is proposed to be platted into 90 single-family lots. There are a number of outlots as well, and their dispositions are as follows:

- Outlot A: stormwater ponding to be dedicated to the City of Chaska
- Outlot B: stormwater ponding to be dedicated to the City of Chaska
- Outlot C: open space to be dedicated to the City of Chaska
- Outlot D: stormwater ponding to be dedicated to the City of Chaska
- Outlot E: area for future development to be owned by the developer
- Outlot F: area for future development to be owned by the developer
- Outlot G: area for future development to be owned by the developer
- Outlot H: area for future development to be owned by the developer

Rezoning
The property is being rezoned from Open (O) to Planned Residential District No. 82 (PRD-82).

Deadline for Agency Actions
The City of Chaska received the complete application for this request on Wednesday, February 16, 2022. Pursuant to Minnesota State Statutes the City must act on this request by **Sunday, April 17, 2022** (60 days), unless the City provides the petitioner with written reasons for an additional 60-day review period. The additional review period would extend to *Thursday, June 16, 2022*. The City may with the petitioners consent extend the review period beyond the Thursday, June 16, 2022. Lastly, if the City denies the petitioners request "… it must state in writing the reasons for the denial at the time it denies the request."

PLANNING COMMISSION ACTION TAKEN 03/09/2022:
Motion to recommend to City Council approval of the Rivertown Heights Preliminary Plat for a 90-lot subdivision on 40 acres of land, subject to the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Preliminary Plat Narrative (pgs 1-3), prepared by DR Horton, dated February 15, 2022
    b. Cover, prepared by Westwood, dated February 16, 2022
    c. Existing Conditions, prepared by Westwood, dated February 16, 2022
    d. Preliminary Plat – Overall & Phasing Plan, prepared by Westwood, dated February 16, 2022
    e. Preliminary Plat (pgs 4-5), prepared by Westwood, dated February 16, 2022
    f. Preliminary Grading, Drainage & Erosion Control – Overall, prepared by Westwood, dated February 16, 2022
    g. Preliminary Grading, Drainage & Erosion Control (pgs 7-11), prepared by Westwood, dated February 16, 2022
    h. Preliminary Utility Plan – North, prepared by Westwood, dated February 16, 2022
    i. Preliminary Utility Plan – South, prepared by Westwood, dated February 16, 2022
    j. Street Profiles (pgs 14-15), prepared by Westwood, dated February 16, 2022
    k. Details (pgs 16-18), prepared by Westwood, dated February 16, 2022
    l. Preliminary Landscape Plan – Overall, prepared by Westwood, dated February 16, 2022
    m. Preliminary Landscape Plan (pgs 20-23), prepared by Westwood, dated February 16, 2022
    n. Preliminary Landscape Notes & Details, prepared by Westwood, dated February 16, 2022
    o. Tree Preservation Plan – Overall, prepared by Westwood, dated February 16, 2022
    p. Tree Preservation Plan (pgs 26-29), prepared by Westwood, dated February 16, 2022
    q. Tree Preservation Data, prepared by Westwood, dated February 16, 2022
2. Adherence with the City Engineer's Memo, dated March 9, 2022.
3. Adherence with the Carver County Public Works Memo, dated November 4, 2021.
4. Preservation of the wooded steep slopes, including 30-foot buffer and a 50-foot setback from that wooded steep slope.
5. Provision that all lot lines are outside 30 foot no grade/no mow setback from wooded steep slopes where possible and to be shown on the final submittal.
6. Adherence to the City's Boulevard Tree Policy and local street section design.
7. Provision that boulevard trees are placed between the sidewalk and street.
8. Provision of sidewalks on both sides of all local streets up to the bulb of cul de sacs.
9. Provision to include a sidewalk on the west side of Block 3 between Founders Path and Devonshire Lane, and to be shown on the final plans.
10. Adherence to the following building setbacks:
    a. Front (house): 25 feet
    b. Rear: 20 feet
    c. Side(house/garage): 7.5 feet
    d. Side (corner): 15 feet

11. Adherence to the 125 foot centerline building setback from County Road 44.
12. Adherence to the 100 foot centerline building setback from the future collector road (Savanna Way).
13. Prior to final plat approval, developer shall enter into an agreement with the City for the provision of necessary infrastructure and associated development costs.
14. Compliance with the City's anti-monotony and design requirements zoning ordinance (Section 9.28).
15. Provision of developer responsibility to remove any hazardous trees or limbs on site as determined by the Public Works Director, prior to issuance of a building permit.
16. Provision of a storm water management plan meeting City and Carver County WMO standards.
17. Provision that adequate maintenance accesses are provided for the stormwater ponds, to be located in separate outlots, and to be shown on the plans at preliminary submittal.
18. No direct vehicular access onto County Road 44 or the future collector road/Savanna Way.
19. Provision of temporary cul de sacs at the two stub streets abutting the Carlson property, and to be reviewed and approved by the City Engineer.
20. Provision of a buffer sign plan along the wooded steep slope no grade/no mow line, and to be addressed at final submittal.
21. Provision of a signage plan that addresses the future ballfields/lights from the community park and to be addressed at final submittal.
22. Provision that 360-degree architecture shall be provided for all corner lots and all lots whose rear or sides are visible from public right's-of-way or across from open spaces, more specifically for these lots as seen in the preliminary plat of Rivertown Heights:
    a. Lots 1-11, Block 1
    b. Lots 1 & 8, Block 2
    c. Lots 1, 7, 9 & 16, Block 3
    d. Lots 1 & 8, Block 4
    e. Lots 1 & 13, Block 5
    f. Lot 3, Block 6
    g. Lot 1, Block 7
    h. Lots 1, 7, 15 & 16, Block 8
    i. Lot 1, Block 9

Motion to recommend approval of the rezoning for Rivertown Heights from Open (O) to Planned Residential District No. 82 (PRD-82).

CITY COUNCIL ACTION REQUESTED

Motion to adopt Resolution No. 2022-25 approving the Rivertown Heights Preliminary Plat for a 90-lot subdivision on 40 acres of land (PC #2022-16).

Motion to adopt Ordinance No. 1011 approving the rezoning for Rivertown Heights from Open (O) to Planned Residential District No. 82 (PRD-82).

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE MARCH 21, 2022 RESOLUTION NO. 2022-25

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

Resolution approving the Preliminary Plat for Rivertown Heights/D R Horton/P.C. No. 2022-16

WHEREAS, the 90-lot detached single-family proposal on approximately 40-acres of property is located south of County Road 44 (Big Woods Blvd) and west & south of the Founders Ridge development on both Holasek and Scooter Enterprise's land; and

WHEREAS, the neighborhood will be accessed from Big Woods Boulevard via a road connection south of Percheron Boulevard, as well as extensions of Founders Path and Carver Path located in the Founders Ridge neighborhood; and

WHEREAS, in the future, a connection will exist with the City's construction of a north/south collector road south of Big Woods Boulevard and Savanna Way; and

WHEREAS, the Holasek residence at 3985 Big Woods Boulevard will be incorporated into the development between Lots 4 and 6 of Block 4; and

WHEREAS, the existing driveway access on Big Woods Boulevard (CR 44) for Holasek's site will be removed and access will come from the new development; and

WHEREAS, street stubs will be provided on the west to the proposed collector road, the south to the Lano property, and on the east to the Carlson property; and

WHEREAS, the stub streets to the Carlson property will be temporary cul de sacs on the Holasek side until the Carlson site develops; and

WHEREAS, the stubs on the east side abutting Carlson's shows a ghost plat on how the stubs can connect when the Carlson site develops; and

WHEREAS, it is showing a looping street, which appears to fit the topography of the Carlson site in a logical way; and

WHEREAS, city staff walked the Carlson site for wooded steep slopes to define the buildable edge of this area; and

WHEREAS, the looping street as it is designed in DR Horton's plans will fit the buildability of Carlson's lot; and

WHEREAS, the current ghost plat is meant to be a visual understanding of how the site could

develop, however, the site will have to come in for separate planning approvals when it is ready to proceed forward; and

WHEREAS, construction traffic is proposed to come directly from County Road 44 at the proposed Percheron Boulevard access; and

WHEREAS, the developer plans to put up signs in/near Founders Ridge so that construction traffic does not go through this development; and

WHEREAS, DR Horton will work with staff on a sign design for future park and lighted ball fields to be shown on the final plans; and

WHEREAS, additionally, sales and marketing materials and disclosures will include language about the future land use of the community park; and

WHEREAS, sidewalks will be an extension of the existing Founders Ridge neighborhood; and

WHEREAS, there is one area that does not include sidewalks and that is the west side of Block 3 between Founders Path and Devonshire Lane, and this sidewalk will need to be shown on the final plans; and

WHEREAS, maintenance accesses and ponds need to be in separate outlots of the proposed site, and not on parkland or private property; and

WHEREAS, there are no trails proposed as a part of this development application therefore trail fees will be required; and

WHEREAS, the Comprehensive Plan calls out a trail along the future collector road; and

WHEREAS, the trail has been installed on the east side of the collector road north of Big Woods Boulevard at 10 feet wide; and

WHEREAS, the trail will travel south on the east side of the road and abut the west side of this proposed development; and

WHEREAS, because this development abuts major roadways (Big Woods Boulevard/CR 44 and the future collector road/Savanna Way) it will be important that the homes that back up to this use have adequate screening; and

WHEREAS, the berming and landscaping done on both these roads in Founders Ridge and The Harvest shall be carried through with this development, and the landscape plan shows consistency on these edges for homes abutting these roads; and

WHEREAS, the site area shows a couple areas of existing trees; and

WHEREAS, one area on the southeast side that abuts Founders Ridge, which is proposed to remain, and one area on the north side that abuts the existing Holasek home at 3985 Big Woods Boulevard; and

WHEREAS, the southeasterly area will have a majority of trees preserved; and

WHEREAS, the ones removed are due to required stormwater ponding and the extension of Carver Path to the south; and

WHEREAS, the northerly area trees will also be removed due to required stormwater ponding; and

WHEREAS, the northeast corner trees will be preserved in this area however; and

WHEREAS, staff had a chance to walk this northeasterly area and did not observe any significant quality trees worth saving (they are primarily boxelders); and

WHEREAS, parkland is not proposed as a part of this development, and it will be required of the developer to pay park dedication fees; and

WHEREAS, the site is proposed to be platted into 90 single-family lots, and there are a number of outlots as well, and their dispositions are as follows:

- Outlot A: stormwater ponding to be dedicated to the City of Chaska
- Outlot B: stormwater ponding to be dedicated to the City of Chaska
- Outlot C: open space to be dedicated to the City of Chaska
- Outlot D: stormwater ponding to be dedicated to the City of Chaska
- Outlot E: area for future development to be owned by the developer
- Outlot F: area for future development to be owned by the developer
- Outlot G: area for future development to be owned by the developer
- Outlot H: area for future development to be owned by the developer; and

WHEREAS, on March 9, 2022 the Planning Commission recommended approval to the City Council of the Rivertown Heights Preliminary Plat for a 90-lot subdivision on 40 acres of land (PC #2022-16); and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota, hereby approves the Rivertown Heights Preliminary Plat for a 90-lot subdivision on 40 acres of land (PC #2022-16), subject to the aforementioned stipulations and the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Preliminary Plat Narrative (pgs 1-3), prepared by DR Horton, dated February 15, 2022
    b. Cover, prepared by Westwood, dated March 16, 2022
    c. Existing Conditions, prepared by Westwood, dated March 16, 2022
    d. Preliminary Plat – Overall & Phasing Plan, prepared by Westwood, dated March 16, 2022
    e. Preliminary Plat (pgs 4-5), prepared by Westwood, dated March 16, 2022
    f. Preliminary Grading, Drainage & Erosion Control – Overall, prepared by Westwood, dated March 16, 2022
    g. Preliminary Grading, Drainage & Erosion Control (pgs 7-11), prepared by Westwood, dated March 16, 2022
    h. Preliminary Utility Plan – North, prepared by Westwood, dated March 16, 2022
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l. Preliminary Landscape Plan – Overall, prepared by Westwood, dated March 16, 2022
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o. Tree Preservation Plan – Overall, prepared by Westwood, dated March 16, 2022
p. Tree Preservation Plan (pgs 26-29), prepared by Westwood, dated March 16, 2022
q. Tree Preservation Data, prepared by Westwood, dated March 16, 2022

2. Adherence with the City Engineer's Memo, dated March 9, 2022.
3. Adherence with the Carver County Public Works Memo, dated March 16, 2022.
4. Preservation of the wooded steep slopes, including 30-foot buffer and a 50-foot setback from that wooded steep slope.
5. Provision that all lot lines are outside 30 foot no grade/no mow setback from wooded steep slopes where possible and to be shown on the final submittal.
6. Adherence to the City's Boulevard Tree Policy and local street section design.
7. Provision that boulevard trees are placed between the sidewalk and street.
8. Provision of sidewalks on both sides of all local streets up to the bulb of cul de sacs.
9. Provision to include a sidewalk on the west side of Block 3 between Founders Path and Devonshire Lane, and to be shown on the final plans.
10. Adherence to the following building setbacks:
    a. Front (house): 25 feet
    b. Rear: 20 feet
    c. Side(house/garage): 7.5 feet
    d. Side (corner): 15 feet
11. Adherence to the 125 foot centerline building setback from County Road 44.
12. Adherence to the 100 foot centerline building setback from the future collector road (Savanna Way).
13. Prior to final plat approval, developer shall enter into an agreement with the City for the provision of necessary infrastructure and associated development costs.
14. Compliance with the City's anti-monotony and design requirements zoning ordinance (Section 9.28).
15. Provision of developer responsibility to remove any hazardous trees or limbs on site as determined by the Public Works Director, prior to issuance of a building permit.
16. Provision of a storm water management plan meeting City and Carver County WMO standards.
17. Provision that adequate maintenance accesses are provided for the stormwater ponds, to be located in separate outlots, and to be shown on the plans at preliminary submittal.
18. No direct vehicular access onto County Road 44 or the future collector road/Savanna Way.
19. Provision of temporary cul de sacs at the two stub streets abutting the Carlson property, and to be reviewed and approved by the City Engineer.
20. Provision of a buffer sign plan along the wooded steep slope no grade/no mow line, and to be addressed at final submittal.
21. Provision of a signage plan that addresses the future ballfields/lights from the community park and to be addressed at final submittal.
22. Provision that 360-degree architecture shall be provided for all corner lots and all lots whose rear or sides are visible from public right's-of-way or across from open spaces, more specifically for these lots as seen in the preliminary plat of Rivertown Heights:
    a. Lots 1-11, Block 1
    b. Lots 1 & 8, Block 2

c. Lots 1, 7, 9 & 16, Block 3
d. Lots 1 & 8, Block 4
e. Lots 1 & 13, Block 5
f. Lot 3, Block 6
g. Lot 1, Block 7
h. Lots 1, 7, 15 & 16, Block 8
i. Lot 1, Block 9

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 21st day of March, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Chaska Deputy Clerk

CITY OF CHASKA

ORDINANCE # 1011

MOTION BY COUNCILMEMBER _____, SECOND BY COUNCILMEMBER _____

AN ORDINANCE AMENDING ORDINANCE NO. 229 (ZONING ORDINANCE) BY REZONING CERTAIN REAL ESTATE WITHIN THE CITY OF CHASKA

THE CITY COUNCIL OF THE CITY OF CHASKA DO ORDAIN:

Section I. Rezoning. The boundaries of the Zoning Districts as established by Ordinance No. 229 and as shown on the Zoning Map of Chaska, Minnesota are hereby amended as follows:

The following described real estate is hereby removed from the Open (O) zoning district and rezoned to Planned Residential District No. 82 (PRD-82) for all of Blocks 1-9 of the recorded plat of Rivertown Heights.

The following graphic exhibits shall serve as the general guide for development of the Rivertown Heights area:

1. Cover, prepared by Westwood, dated March 16, 2022
2. Existing Conditions, prepared by Westwood, dated March 16, 2022
3. Preliminary Plat – Overall & Phasing Plan, prepared by Westwood, dated March 16, 2022
4. Preliminary Plat (pgs 4-5), prepared by Westwood, dated March 16, 2022
5. Preliminary Grading, Drainage & Erosion Control – Overall, prepared by Westwood, dated March 16, 2022
6. Preliminary Grading, Drainage & Erosion Control (pgs 7-11), prepared by Westwood, dated March 16, 2022
7. Preliminary Utility Plan – North, prepared by Westwood, dated March 16, 2022
8. Preliminary Utility Plan – South, prepared by Westwood, dated March 16, 2022
9. Street Profiles (pgs 14-15), prepared by Westwood, dated March 16, 2022
10. Details (pgs 16-18), prepared by Westwood, dated March 16, 2022
11. Preliminary Landscape Plan – Overall, prepared by Westwood, dated March 16, 2022
12. Preliminary Landscape Plan (pgs 20-23), prepared by Westwood, dated March 16, 2022
13. Preliminary Landscape Notes & Details, prepared by Westwood, dated March 16, 2022

14. Tree Preservation Plan – Overall, prepared by Westwood, dated March 16, 2022
15. Tree Preservation Plan (pgs 26-29), prepared by Westwood, dated March 16, 2022
16. Tree Preservation Data, prepared by Westwood, dated March 16, 2022

Section II. **PRD-82 District regulations.** Permitted uses and regulations applicable to the PRD-82 District shall be as follows:

A. Intent

The intent of PRD-82 is to create a Low Density Residential neighborhood with the following Key Elements, which is reflective of the SW Chaska Growth and Development Plan:

- Housing is predominately single-family detached houses.
- A mix of single-family detached lot sizes, housing sizes, prices and ownership styles provided.
- Large-lot, higher-priced housing opportunities are located proximate to downtown, at neighborhood edges and adjacent to natural areas.
- Block sizes and curvilinear grid street network that support a walkable residential neighborhood environment; smaller blocks near the neighborhood center with larger blocks allowed on neighborhood edges.
- Housing is oriented to streets to create an attractive and walkable residential neighborhood environment.
- Streets designed to balance walking, biking and driving needs.

B. Guiding Principles

The Guiding Principles for Neighborhoods in the SW Chaska Growth and Development Plan are as follows:

- Neighborhoods that have an identifiable center and edges.
- Neighborhoods where the most important and visible property is utilized by public gathering places (e.g. civic buildings, schools, parks, plazas).
- Neighborhoods whose size is limited by the distance from the edge to the center, generally a five to ten minute walk (1/4 to 1/2 mile radius).
- Neighborhoods that consist of an integrated network of walkable streets.
- Neighborhoods that have strong physical connections to the overall community, including the historic downtown, community facilities and parks, street network, open space and trails network.
- Neighborhoods that contain diversity in land uses, housing types, housing sizes, housing prices, and styles of ownership, thereby,

providing good lifecycle and affordable housing options for residents.

C. <u>SW Chaska Growth & Development Plan</u>

The document entitled "SW Chaska Growth and Development Plan" shall serve as the development guide for this development.

D. <u>Detached Single Family</u>

The following described real estate shall be limited in its use to Detached Single Family all of Blocks 1-9, all in the plat of Rivertown Heights, Carver County, Minnesota.

1. Permitted Uses shall be those as found in the R1-Low Density Residence, zoning ordinance Section 15.12.050, Special uses shall be those as found in the zoning ordinance Section 15.12.050C, and Accessory uses shall be as found in the zoning ordinance Section 15.12.050D.
2. The principal building setbacks for the development shall be:
    a. Front: 25 feet
    b. Rear: 20 feet
    c. Side: 7.5 feet
    d. Side (corner): 15 feet
    e. Centerline of County Road 44 (Big Woods Blvd): 125 feet
    f. Centerline of Savanna Way: 100 feet
3. The accessory structure setbacks for the development shall be:
    a. Front: 25 feet
    b. Rear: 10 feet
    c. Side, corner: 15 feet
    d. Side, interior: 5 feet
    e. Centerline of County Road 44 (Big Woods Blvd): 125 feet
    f. Centerline of Savanna Way: 100 feet
    g. In addition, no swimming pools or other recreational courts or appurtenant equipment shall be located in a front or side yard. Setbacks shall be measured from the impervious surfaces of such uses.
4. Preservation of wooded steep slopes, including 30-foot no grade/no mow from the wooded steep slope edge, and a 50-foot building setback from the wooded steep slope edge.
5. 360-degree architecture shall be provided for all corner lots and all lots whose rear or sides are visible from public right's-of-way or across from open spaces, and are as follows per the preliminary plat of Rivertown Heights dated February 16, 2022:
    a. Lots 1-11, Block 1
    b. Lots 1 & 8, Block 2
    c. Lots 1, 7, 9 & 16, Block 3
    d. Lots 1 & 8, Block 4
    e. Lots 1 & 13, Block 5
    f. Lot 3, Block 6

g. Lot 1, Block 7
h. Lots 1, 7, 15 & 16, Block 8
i. Lot 1, Block 9

E. <u>Outlots</u>
The following described real estate shall be limited in its use to the following:

- **Outlot A:** stormwater ponding to be dedicated to the City of Chaska
- **Outlot B:** stormwater ponding to be dedicated to the City of Chaska
- **Outlot C:** open space to be dedicated to the City of Chaska
- **Outlot D:** stormwater ponding to be dedicated to the City of Chaska
- **Outlot E:** area for future development to be owned by the developer
- **Outlot F:** area for future development to be owned by the developer
- **Outlot G:** area for future development to be owned by the developer
- **Outlot H:** area for future development to be owned by the developer

all in the plat of Rivertown Heights, Carver County, Minnesota.

<u>Section III</u>. <u>Effective Date.</u> This Ordinance shall be in full force and effect from and after its date of passage, adoption, and publication according to law.

Passed and adopted by the City Council of the City of Chaska, Minnesota this 21st day of March, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Deputy Clerk

City of Chaska
Memorandum

To: Planning Commission
From: Matt Clark, City Engineer
Date: March 9, 2022
Subject: River Town Heights Development

Rivertown Heights is nearly 40-acres and located near the southeast intersection of Big Woods Boulevard and the future extension of Savanna Way, just west of the existing Founders Ridge neighborhood. The Engineering comments/conditions regarding the proposed preliminary plat are as follows:

1) Trunk sewer extensions along Founder's Path need to be coordinated with the City's comprehensive sewer plan. Sewer extension proposed from Dakota Ridge will need to be coordinated with utility department.

2) Although it's not being constructed with this development, the design of the future collector road for Savanna way will need to be accommodated with the overall grading and drainage plan. Coordination with the developer for the properties along the collector road that allow for drainage, grading, and utility easements needed to support the planned improvements will be considered with the final plat. The proposed Brookside Drive street will require temporary turnarounds for emergency services.

3) Storm water and wetland impacts that are proposed for the development require state and county agency approvals prior to site grading. The storm water plan will need to meet City and CCWMO requirements for run-off rates, volume control and erosion.

4) Wetlands that are proposed to be impacted will require state and local agency approves with an approved mitigation plan. The wetland delineation report should be resubmitted with preliminary application.

ONE CITY HALL PLAZA/CHASKA, MN 55318-1962/PH: (952) 448-2851/ FX: (952) 448-9300

RIVERTOWN HEIGHTS

Preliminary Plat Narrative
Chaska, MN

EXISTING CONDITIONS

Rivertown Heights is nearly 40-acres and located near the southeast intersection of Big Woods Boulevard and the future extension of Savanna Way, just west of the existing Founders Ridge neighborhood. The site is currently used for agricultural purposes and the existing home will be retained by the land seller.

Generally, the site has minimal tree coverage, except in the northeast & southeast portions. The wooded ravine is planned to remain to create a natural buffer between Rivertown Heights and the existing neighborhood, as well as provide erosion control downstream. Tree removals will occur in areas of ponding and for the Carver Path connection. A tree survey has been completed and a detailed analysis can be found in the Preliminary Plat plans. Prior to grading, DR Horton will review tree removal areas with City staff.

A wetland investigation took place fall 2018 and Notice of Decision was received from the Board of Water and Soil Resources October 20, 2020. It was determined that there are 2 wetlands on the site. The total acreage of both is 0.24 and will be impacted with development.

NEIGHBORHOOD GOALS

As presented with Concept Plan, the identified goals in creating this new neighborhood include the following:

- Providing a seamless transition of road and pedestrian connections
- Housing design and lot sizes that will complement the existing homes in and around Rivertown Heights
- Creating a neighborhood layout that is sensitive to the existing conditions, including availability of utilities, natural grades and drainage patterns
- Preservation of trees and buffer to existing homes
- Attractive neighborhood design with curvilinear street patterns and sidewalks to support a walkable environment

THE NEIGHBORHOOD

General Site Information
The proposed 40-acre neighborhood consists of 90 single family lots, which includes the existing homestead that will be retained by seller. The typical lot size will be 65 feet wide by 140 feet deep. The Minimum setbacks are proposed to be the following: front setback of 25 feet, side setback of 7 ½ feet, corner lot side setback of 15 feet and rear yard setback of 20 feet.

Initially, the neighborhood will be accessed from Big Woods Boulevard via a road connection south of Percheron Boulevard, as well as extensions of Founders Path and Carver Path located in the Founders Ridge neighborhood. In the future, a connection will exist with the City's construction of a north/south collector road south of Big Woods Boulevard and Savanna Way. Sidewalks will be an extension of the existing conditions.

The proposed homes will be 1- and 2-story single family designs, which are similar to the homes Horton has built in other areas of Chaska. We will offer several floor plans ranging in size from 1,900 to 3,400 square feet. Each floor plan will have multiple elevation options, which will create variety throughout. Pricing is anticipated to start in the $500,000s. A sample of the home designs accompany this application.

CONSTRUCTION & PHASING

Construction access will be from the intersection of Big Woods Boulevard & Percheron Boulevard. A proposed construction traffic and signage plan is included with the submittal plans.

The site is planned to be graded in its entirety beginning Spring 2022. The 1st phase will be the northerly portion of the site up to Founders Path and consist of approximately 45 lots. Street and utility construction of the 1st phase will be Summer with home construction beginning Fall 2022.

Dependent on market conditions, the 2nd phase of development is planned to occur in 2023.

CONCEPT PLAN DISCUSSION

The below were items of discussion or concern at the time of Concept Plan approval.

- Drainage concerns from Carver Path owners – We have met with the neighbors to review concerns with current conditions and believe the grading of Rivertown Heights will lessen the amount of water currently draining toward the existing homes. We will meet with the homeowners again before grading starts.
- Buffer trees between Rivertown Heights & Carver Path homes – The proposed landscaping plan proposes a combination of overstory & evergreens along the shared neighborhood boundary.

- Street alignment with Carlson Property – Pursuant to discussions with the Carlson family, the street alignment has been adjusted to match the concept layout on their property.

- Percheron Median – In order to accommodate a median to the south of the existing Percheron median, maintenance would need to be by the City or a homeowners' association. Since Rivertown Heights does not have any common areas, a homeowners' association is not planned to be established. A median can be further evaluated if the City is willing to provide long term maintenance.

- Lot boundaries to lineup with Carver Path lots – We feel that the current lot layout offsets home placement so that the backs of homes aren't looking directly into each other's living space.

- Future park signage – Horton will work with staff on a sign design for future park & lighted ball fields to be shown on final plans. Additionally, sales and marketing materials and disclosures will include language about the future land use.

To summarize, the proposed Preliminary Plat is consistent with the approved Concept Plan. Changes include minor site layout revisions based on ponding requirements. DR Horton looks forward to continued discussions in this next stage of approvals.

Illustrative Site Plan

BIG WOODS BLVD.

HIGHWAY 212

FUTURE DEVELOPMENT
(BY OTHERS)

CITY PARK

Future Collector (By City)

65' SF

60' Public Street typ.

Exp. City Pond

City Infilt.

Infil. Pond

Existing Home to remain

Founders Path

Existing Founder's Ridge

Infil. Pond

Future Ghost Lots

Future Connection (timing unknown)

FUTURE DEVELOPMENT
(BY OTHERS)

Westwood

Phone (952) 937-5150
Fax (952) 937-5822
Web www.westwoodps.com

7699 Anagram Drive
Eden Prairie, MN 55344

Westwood Professional Services, Inc.

D·R·HORTON® NYSE
America's Builder

01-28-2022 0027067

Rivertown Heights

Chaska, MN

0' 200' 400' 600'

N

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PRELIMINARY PLANS

FOR

PLAT, SITE, GRADING, EROSION CONTROL, UTILITIES, LANDSCAPE, AND TREE PRESERVATION

FOR

RIVERTOWN HEIGHTS

CHASKA, MN

Vicinity Map
(NOT TO SCALE)

PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044
CONTACT: MIKE SUEL
PHONE: 952-985-7823
EMAIL: MSUEL@DRHORTON.COM

PREPARED BY:

Westwood

Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

PROJECT NUMBER: 0027067.00
CONTACT: FRANCIS D HAGEN II

SHEET INDEX

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4	Preliminary Plat
5	Preliminary Plat
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NO.	DATE	REVISION	SHEETS
1	02/16/22	CITY COMMENTS	All
2	03/16/22	2ND CITY COMMENTS	ALL
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PRELIMINARY PLANS
FOR
PLAT, SITE, GRADING, EROSION CONTROL, UTILITIES, LANDSCAPE, AND TREE PRESERVATION
FOR
RIVERTOWN HEIGHTS
CHASKA, MN

INITIAL SUBMITTAL DATE: 01/28/22 SHEET: 1 OF 30

RIVERTOWN HEIGHTS

PROJECT NUMBER: 0027067.00

8D Adopt Resolution 2022-25 and ...
Packet Page 340 of ...
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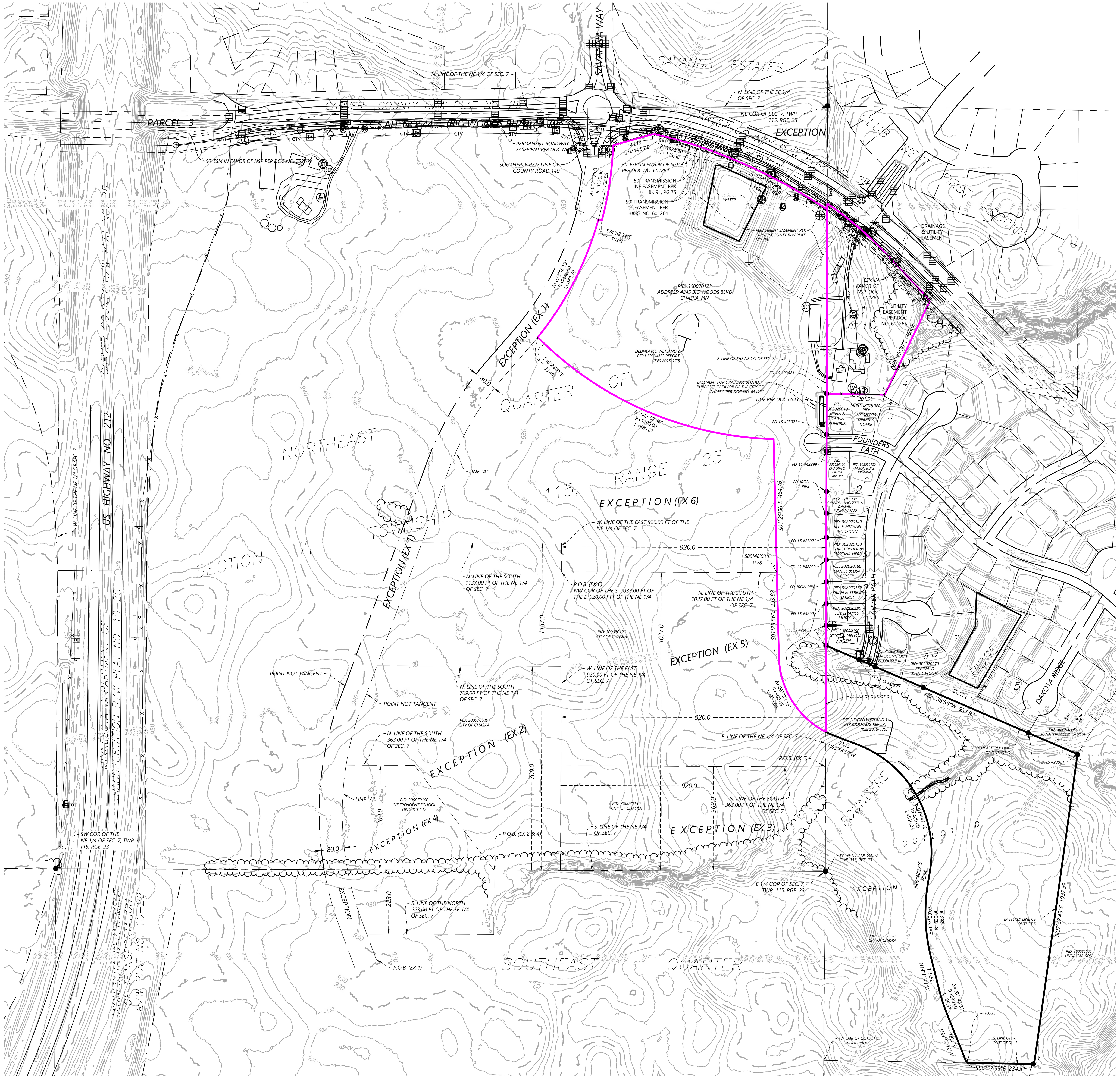

PROPERTY DESCRIPTION

That part of the Northeast Quarter of Section 7, Township 115, Range 23, Carver County, Minnesota, EXCEPT that part lying westerly of the following described line:

> Commencing at the East Quarter corner of said Section 7; thence North 89 degrees 48 minutes 03 seconds West assumed bearing along the South line of said Northeast Quarter, a distance of 1151.12 feet; thence South 00 degrees 11 minutes 57 seconds West, perpendicular to said South line of the Northeast Quarter, a distance of 223.00 feet to the South line of the North 223.00 feet of the Southeast Quarter of said Section 7; thence North 89 degrees 48 minutes 03 seconds West along said south line of the North 223.00 feet, a distance of 441.32 feet; thence South 20 degrees 29 minutes 12 seconds East, 96.03 feet to the point of beginning of the line to be described; thence North 20 degrees 29 minutes 12 seconds West, 147.34 feet; thence Northwesterly, Northerly, and Northeasterly 804.24 feet along a tangential curve concave to the East having a radius of 1060.00 feet and central angle of 43 degrees 28 minutes 17 seconds; thence North 20 degrees 06 minutes 37 seconds East not tangent to last described curve 825.06 feet; thence northeasterly 386.63 feet along a tangential curve concave to the southeast having a radius of 1060.00 feet and central angle of 20 degrees 53 minutes 53 seconds; thence North 41 degrees 00 minute 30 seconds East tangent to last described curve 135.56 feet; thence northeasterly and northerly 824.66 feet along a tangential curve concave to the northwest having a radius of 1140.00 feet and central angle of 41 degrees 26 minutes 49 seconds; thence North 00 degrees 26 minutes 19 seconds West tangent to last described curve 33.96 feet to the southerly right of way of County Road 140 and said line there terminating.

LESS and EXCEPT

That part of the Northeast Quarter (NE1/4) of Section Seven (7), Township One Hundred Fifteen (115), Range Twenty-three (23), Carver County, Minnesota; Commencing at the Northeast corner of said Section 7; thence South along Section line 4 chains and 81 links to a point; thence North 56 1/2 degrees West (variation 11 degrees east) 3 chains and 90 links to a point; thence North 66 1/2 degrees West 3 chains to a point; thence North 78 1/2 degrees West 5 chains and 30 links to a post; thence North 50 links to a point on the North line of said Section 7; thence East 10 chains and 48 links to place of beginning.

ALSO LESS and EXCEPT:
That part of the Northeast Quarter of Section 7, Township 115, Range 23, Carver County, Minnesota described as follows: Commencing at the East Quarter corner of said Section 7; thence North 89 degrees 48 minutes 03 seconds West assumed bearing along the south line of said Northeast Quarter, a distance of 1151.12 feet to the point of beginning; thence continuing North 89 degrees 48 minutes 03 seconds West along said South line of the Northeast Quarter 508.85 feet to a point of intersection with a line hereinafter referred to as Line A; thence Northwesterly, Northerly, and Northeasterly 727.51 feet along said Line A to the North line of the South 709.00 feet of said Northeast Quarter; thence South 89 degrees 48 minutes 03 seconds East along said North line of the South 709.00 feet of the Northeast Quarter, a distance of 639.91 feet to the West line of the East 920.00 feet of said Northeast Quarter; thence South 00 degrees 10 minutes 04 seconds West along said West line of the East 920.00 feet to said South line of the Northeast Quarter; thence North 89 degrees 48 minutes 03 seconds West along said South line, 231.12 feet to the point of beginning. EXCEPTING that part of the Northeast Quarter of Section 7 Township 115, Range 23, Carver County Minnesota, described as follows: Commencing at the East quarter corner of said Section 7; thence North 89 degrees 48 minutes 03 seconds West assumed bearing along the South line of said Northeast Quarter, a distance of 1151.12 feet to the point of beginning; thence continuing North 89 degrees 48 minutes 03 seconds West along said south line of the Northeast Quarter 508.85 feet to a point of intersection with Line A; thence Northwesterly, Northerly and Northeasterly 364.85 feet along said Line A to the North line of the South 363.00 feet of said Northeast Quarter; thence South 89 degrees 48 minutes 03 seconds East along said North line of the South 363.00 feet of the Northeast Quarter, 237.59 feet; thence South 37 degrees 11 minutes 49 seconds East, 456.92 feet to the point of beginning. Aforementioned Line A is described as follows: Commencing at the East Quarter corner of said Section 7; thence North 89 degrees 48 minutes 03 seconds West assumed bearing along the south line of said Northeast Quarter, a distance of 1151.12 feet; thence South 00 degrees 11 minutes 57 seconds West, perpendicular to said south line of the Northeast Quarter, a distance of 223.00 feet to the south line of the North 223.00 feet of the Southeast Quarter of said Section 7; thence North 89 degrees 48 minutes 03 seconds West along said South line of the North 223.00 feet, a distance of 441.32 feet; thence South 20 degrees 29 minutes 12 seconds East, 96.03 feet to the point of beginning; thence North 20 degrees 29 minutes 12 seconds West, 147.34 feet; thence Northwesterly, Northerly, and Northeasterly 804.24 feet along a tangential curve concave to the East having a radius of 1060.00 feet and central angle of 43 degrees 28 minutes 17 seconds; thence North 20 degrees 06 minutes 37 seconds East not tangent to last described curve 825.06 feet; thence Northeasterly 386.63 feet along a tangential curve concave to the southeast having a radius of 1060.00 feet and central angle of 20 degrees 53 minutes 53 seconds; thence North 41 degrees 00 minute 30 seconds East tangent to last described curve 135.56 feet; thence Northeasterly and Northerly 824.66 feet along a tangential curve concave to the northwest having a radius of 1140.00 feet and central angle of 41 degrees 26 minutes 49 seconds; thence North 00 degrees 26 minutes 19 seconds West tangent to last described curve 33.96 feet to the southerly right of way of County Road 140 and said line there terminating.

ALSO LESS and EXCEPT:
The South 363.00 feet of the East 920.00 feet of the Northeast Quarter of Section 7, Township 115, Range 23, Carver County, Minnesota.

ALSO LESS and EXCEPT:
That part of the Northeast Quarter of Section 7, Township 115, Range 23, Carver County, Minnesota described as follows: Commencing at the East Quarter corner of said Section 7; thence North 89 degrees 48 minutes 03 seconds West assumed bearing along the South line of said Northeast Quarter, a distance of 1151.12 feet to the point of beginning; thence continuing North 89 degrees 48 minutes 03 seconds West along said South line of the Northeast Quarter 508.85 feet to a point of intersection with a line hereinafter referred to as Line A; thence Northwesterly, Northerly, and Northeasterly 364.85 feet along said Line A to the North line of the South 363.00 feet of said Northeast Quarter; thence South 89 degrees 48 minutes 03 seconds East along said North line of the South 363.00 feet of the Northeast Quarter, 237.59 feet; thence South 37 degrees 11 minutes 49 seconds East, 456.92 feet to the point of beginning. Aforementioned Line A is described as follows: Commencing at the East Quarter corner of said Section 7; thence North 89 degrees 48 minutes 03 seconds West assumed bearing along the South line of said Northeast Quarter, a distance of 1151.12 feet; thence South 00 degrees 11 minutes 57 seconds West, perpendicular to said South line of the Northeast Quarter, a distance of 223.00 feet to the south line of the North 223.00 feet of the Southeast Quarter of said Section 7; thence North 89 degrees 48 minutes 03 seconds West along said South line of the North 223.00 feet, a distance of 441.32 feet; thence South 20 degrees 29 minutes 12 seconds East, 96.03 feet to the point of beginning; thence North 20 degrees 29 minutes 12 seconds West, 147.34 feet; thence Northwesterly, Northerly and Northeasterly 804.24 feet along a tangential curve concave to the East having a radius of 1060.00 feet and central angle of 43 degrees 28 minutes 17 seconds; thence North 20 degrees 06 minutes 37 seconds East not tangent to last described curve 825.06 feet; thence Northeasterly 386.63 feet along a tangential curve concave to the Southeast having a radius of 1060.00 feet and central angle of 20 degrees 53 minutes 53 seconds; thence North 41 degrees 00 minute 30 seconds East tangent to last described curve 135.56 feet; thence Northeasterly and Northerly 824.66 feet along a tangential curve concave to the Northwest having a radius of 1140.00 feet and central angle of 41 degrees 26 minutes 49 seconds; thence North 00 degrees 26 minutes 19 seconds West tangent to last described curve 33.96 feet to the Southerly right of way of County Road 140 and said line there terminating.

ALSO LESS and EXCEPT:
That part of the Northeast Quarter of Section 7, Township 115, Range 23, Carver County, Minnesota, described as follows: Commencing at the East Quarter corner of said Section 7; thence North 00 degrees 10 minutes 04 seconds East, assumed bearing along the East line of said Northeast Quarter, 363.00 feet to the North line of the South 363.00 feet of said Northeast Quarter and the point of beginning; thence North 89 degrees 48 minutes 03 seconds West along said North line of the South 363.00 feet, a distance of 920.00 feet to the West line of the East 920.00 feet of said Northeast Quarter; thence North 00 degrees 10 minutes 04 seconds East along said West line of the East 920.00 feet of the Northeast Quarter, 346.00 feet to the North line of the South 709.00 feet of said Northeast Quarter; thence North 89 degrees 48 minutes 03 seconds West along said North line of the South 709.00 feet of the Northeast Quarter, a distance of 639.91 feet to a line hereinafter referred to as Line A; thence Northeasterly along said Line A, a distance of 455.21 feet to the North line of the South 1137.00 feet of said Northeast Quarter; thence South 89 degrees 48 minutes 03 seconds East along said North line of the South 1137.00 feet, thereof, a distance of 481.04 feet to said West line of the East 920.00 feet of the Northeast Quarter; thence South 00 degrees 10 minutes 04 seconds West along said West line of the East 920.00 feet of the Northeast Quarter, a distance of 100.00 feet to the North line of the South 1037.00 feet of said Northeast Quarter, thereof; thence South 89 degrees 48 minutes 03 seconds East along said North line of the South 1037.00 feet, a distance of 748.54 feet; thence South 01 degrees 25 minutes 56 seconds East, 293.82 feet; thence Southeasterly 321.00 feet along a tangential curve concave to the northeast having a radius of 300.00 feet and central angle of 61 degrees 18 minutes 28 seconds to said East line of the Northeast Quarter; thence South 00 degrees 10 minutes 04 seconds West along said East line, a distance of 121.68 feet to the point of beginning. Aforementioned Line A is described as follows: Commencing at the East Quarter corner of said Section 7; thence North 89 degrees 48 minutes 03 seconds West assumed bearing along the South line of said Northeast Quarter, a distance of 1151.12 feet; thence South 00 degrees 11 minutes 57 seconds West, perpendicular to said South line of the Northeast Quarter, a distance of 223.00 feet to the south line of the North 223.00 feet of the Southeast Quarter of said Section 7; thence North 89 degrees 48 minutes 03 seconds West along said south line of the North 223.00 feet, a distance of 441.32 feet; thence South 20 degrees 29 minutes 12 seconds East, 96.03 feet to the point of beginning; thence North 20 degrees 29 minutes 12 seconds West, 147.34 feet; thence Northwesterly, Northerly, and Northeasterly 804.24 feet along a tangential curve concave to the east having a radius of 1060.00 feet and central angle of 43 degrees 28 minutes 17 seconds; thence North 20 degrees 06 minutes 37 seconds East not tangent to last described curve 825.06 feet; thence Northeasterly 386.63 feet along a tangential curve concave to the Southeast having a radius of 1060.00 feet and central angle of 20 degrees 53 minutes 53 seconds; thence North 41 degrees 00 minutes 30 seconds East tangent to last described curve 135.56 feet; thence Northeasterly and Northerly 824.66 feet along a tangential curve concave to the northwest having a radius of 1140.00 feet and central angle of 41 degrees 26 minutes 49 seconds; thence North 00 degrees 26 minutes 19 seconds West tangent to last described curve 33.96 feet to the southerly right of way of County Road 140 and said line there terminating.

ALSO LESS and EXCEPT:
That part of the Northeast Quarter of Section 7, Township 115, Range 23, Carver County, Minnesota, described as follows: Beginning at the Northwest corner of the South 1037.00 feet of the East 920.00 feet of said Northeast Quarter, thence North 00 degrees 10 minutes 04 seconds East assumed bearing along West line of said East 920.00 feet of the Northeast Quarter, 100.00 feet to the North line of the South 1137.00 feet of said Northeast Quarter; thence North 89 degrees 48 minutes 03 seconds West along said north line of the South 1137.00 feet of the Northeast Quarter, 481.04 feet to a line hereinafter referred to as Line A; thence North 20 degrees 06 minutes 37 seconds East along said Line A, 253.88 feet; thence Northeasterly 386.63 feet along said Line A and along a tangential curve concave to the Southeast having a radius of 1060.00 feet and central angle of 20 degrees 53 minutes 53 seconds; thence North 41 degrees 00 minute 30 seconds East along said Line A, tangent to last described curve 135.56 feet; thence Northeasterly 41.94 feet along said Line A and along a tangential curve concave to the Northwest having a radius of 1140.00 feet and central angle of 02 degrees 06 minutes 29 seconds; thence South 46 degrees 24 minutes 01 seconds East, not tangent to last described curve, a distance of 33.40 feet; thence Southeasterly 880.67 feet along a tangential curve concave to the Northeast having a radius of 1200.00 feet, and central angle of 42 degrees 02 minutes 56 seconds; thence South 01 degrees 25 minutes 56 seconds East not tangent to last described curve, 454.76 feet to the North line of said South 1037.00 feet of the Northeast Quarter; thence North 89 degrees 48 minutes 03 seconds West along said North line of the South 1037.00 feet of the Northeast Quarter, a distance of 748.54 feet to the point of beginning. Aforementioned Line A is described as follows: Commencing at the East Quarter corner of said Section 7; thence North 89 degrees 48 minutes 03 seconds West assumed bearing along the South line of said Northeast Quarter, a distance of 1151.12 feet; thence South 00 degrees 11 minutes 57 seconds West, perpendicular to said South line of the Northeast Quarter, a distance of 223.00 feet to the South line of the North 223.00 feet of the Southeast Quarter of said Section 7; thence North 89 degrees 48 minutes 03 seconds West along said South line of the North 223.00 feet, a distance of 441.32 feet; thence South 20 degrees 29 minutes 12 seconds East, 96.03 feet to the point of beginning; thence North 20 degrees 29 minutes 12 seconds West, 147.34 feet; thence Northwesterly, Northerly, and Northeasterly 804.24 feet along a tangential curve concave to the east having a radius of 1060.00 feet and central angle of 43 degrees 28 minutes 17 seconds; thence North 20 degrees 06 minutes 37 seconds East not tangent to last described curve 825.06 feet; thence Northeasterly 386.63 feet along a tangential curve concave to the Southeast having a radius of 1060.00 feet and central angle of 20 degrees 53 minutes 53 seconds; thence North 41 degrees 00 minutes 30 seconds East tangent to last described curve 135.56 feet; thence Northeasterly and Northerly 824.66 feet along a tangential curve concave to the Northwest having a radius of 1140.00 feet and central angle of 41 degrees 26 minutes 49 seconds; thence North 00 degrees 26 minutes 19 seconds West tangent to last described curve 33.96 feet to the Southerly right of way of County Road 140 and said line there terminating.

LESS AND EXCEPT

Parcel 4B, CARVER COUNTY RIGHT OF WAY PLAT NO. 28, according to the recorded plat thereof, Carver County, Minnesota.

TOGETHER WITH

Outlot D, Founders Ridge, according to the recorded plat thereof, Carver County, Minnesota, EXCEPT that part of Outlot D, Founders Ridge, described as follows: Beginning at the Southwest corner of said Outlot D; thence South 88 degrees 57 minutes 33 seconds East, assumed bearing along the South line of said Outlot D, a distance of 496.78 feet; thence North 21 degrees 57 minutes 12 seconds West, 182.72 feet; thence Northwesterly 85.31 feet along a tangential curve concave to the Northeast having a radius of 630.00 feet and central angle of 07 degrees 45 minutes 31 seconds; thence North 14 degrees 11 minutes 40 seconds West tangent to last described curve, 119.52 feet; thence Northwesterly and Northerly 263.90 feet along a tangential curve concave to the East having a radius of 630.00 feet, and central angle of 24 degrees 00 minutes 03 seconds; thence North 09 degrees 48 minutes 23 seconds East tangent to last described curve, 36.54 feet; thence Northerly and Northwesterly 550.03 feet along a tangential curve concave to the Southwest having a radius of 400.00 feet and central angle of 78 degrees 47 minutes 12 seconds; thence North 68 degrees 58 minutes 49 seconds West, tangent to last described curve, 87.15 feet; thence Northwesterly 32.68 feet along a tangential curve concave to the Northeast having a radius of 300.00 feet and central angle of 06 degrees 14 minutes 28 seconds to the West line of said Outlot D; thence South 00 degrees 10 minutes 04 seconds West along said West line, 484.68 feet to an angle point and said point being the West Quarter corner of Section 8, Township 115, Range 23, said Carver County, Minnesota; thence South 00 degrees 29 minutes 09 seconds West along said West line of Outlot D, 656.63 feet to the point of beginning.

TOGETHER WITH

Lot 1, Block 1, Founders Ridge, Carver County, Minnesota

Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance

LEGEND

- SANITARY MANHOLE
- SEWER CLEANOUT
- SEPTIC COVER
- STORM MANHOLE
- BEEHIVE CATCH BASIN
- CATCH BASIN
- FLARED END SECTION
- CATCH BASIN MANHOLE
- HYDRANT
- GATE VALVE
- WATER METER
- CURB STOP BOX
- WATER MANHOLE
- WELL
- ELECTRIC BOX
- ELECTRIC METER
- ELECTRIC MANHOLE
- ELECTRIC TOWER
- STREET LIGHT
- GUY WIRE
- POWER POLE
- TELEPHONE BOX
- HAND HOLE/JUNCTION BOX
- CABLE TV BOX
- FIBER OPTIC PEDESTAL
- NATURAL GAS METER
- NATURAL GAS VALVE
- STEEL/WOOD POST
- SIGN
- MAIL BOX
- FLAG POLE
- BOUNDARY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- EASEMENT LINE
- SECTION LINE
- TREE LINE
- CTV — CABLE TELEVISION LINE
- GAS — GAS LINE
- POH — POWER OVERHEAD
- PUG — POWER UNDERGROUND
- SAN — SANITARY SEWER
- STO — STORM SEWER
- TOH — TELEPHONE OVERHEAD
- TUG — TELEPHONE UNDERGROUND
- WAT — WATERMAIN
- FO — FIBER OPTIC
- X — FENCE LINE
- Δ — CONTROLLED ACCESS
- CURB & GUTTER
- CONCRETE SURFACE
- BITUMINOUS SURFACE
- GRAVEL SURFACE
- WETLAND
- FOUND MONUMENT (SEE LABEL)
- CAST IRON MONUMENT (SEE LABEL)

1" = 200'
0' 200' 400' 600'

NOT FOR CONSTRUCTION

RIVERTOWN HEIGHTS

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	200'
VERTICAL SCALE:	40' OR 20'

INITIAL ISSUE: 01/28/22
REVISIONS:

△	02/16/22	CITY COMMENTS
△	03/16/22	2ND CITY COMMENTS
△	.	.
△	.	.
△	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA

MATHEW J. WELINSKI
DATE: 03/16/22 LICENSE NO. 53596

RIVERTOWN HEIGHTS

CHASKA, MN

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

EXISTING CONDITIONS

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 2 OF 30

DATE: 03/16/22

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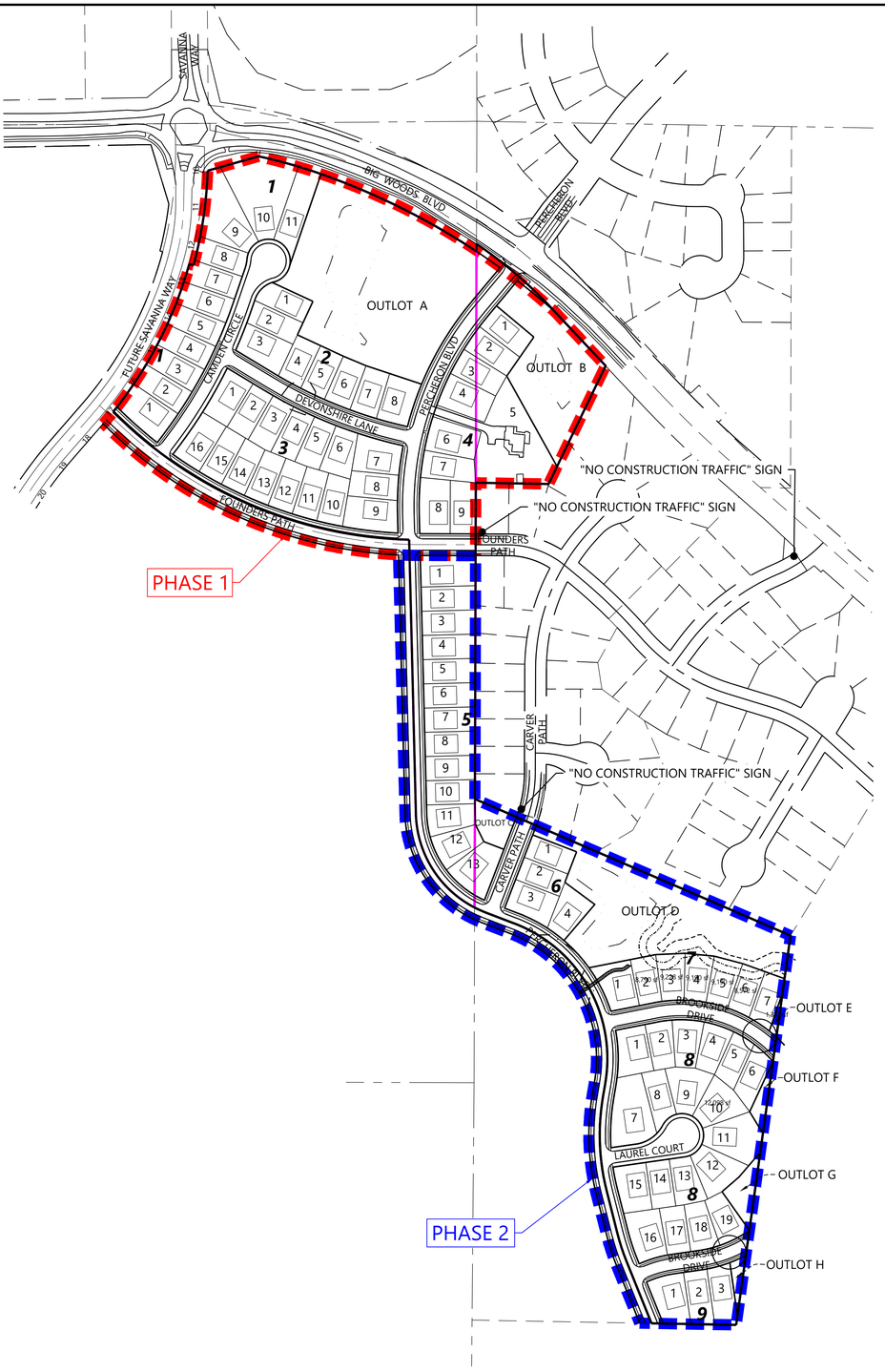


PROPERTY DESCRIPTION

SEE EXISTING CONDITIONS SHEET FOR PROPERTY DESCRIPTION.

SITE DEVELOPMENT DATA

- EXISTING ZONING: OPEN DEVELOPMENT & PRD64
- PROPOSED ZONING: PRD
- GROSS SITE AREA: 39.54 AC
  - MAJOR R.O.W. (BIG WOODS BLVD: 0.07 AC
  - NET SITE AREA: 39.47 AC
- DEVELOPMENT SUMMARY
  - 65' SINGLE FAMILY LOTS: 90 HOMES (INCLUDES EXISTING HOME)
- PROJECT DENSITY:
  - GROSS: ±2.28 UN/AC
  - NET: ±2.28 UN/AC

LOT STANDARDS

STANDARD	65' SINGLE FAMILY
MINIMUM LOT AREA	8,473 SF
AVERAGE LOT AREA	11,164 SF
MINIMUM LOT WIDTH	65' @ FRT SBK
MINIMUM LOT DEPTH	130'
SETBACKS	
FRONT	25'
SIDE INTERIOR LOT	7.5' / 7.5'; 15' TOTAL
SIDE CORNER LOT	20'
REAR	20'
FUTURE SAVANNA WAY	100' FROM CLN
BIG WOODS BLVD	125' FROM CLN

OUTLOT TABLE

OUTLOT	USE	OWNERSHIP	GROSS AREA
A	PONDING	CITY	4.67 AC
B	PONDING	CITY	1.64 AC
C	OPEN SPACE	CITY	0.23 AC
D	PONDING / RAVINE	CITY	2.70 AC
E	FUTURE DEVELOPMENT	PRIVATE	0.03 AC
F	FUTURE DEVELOPMENT	PRIVATE	0.10 AC
G	FUTURE DEVELOPMENT	PRIVATE	0.22 AC
H	FUTURE DEVELOPMENT	PRIVATE	0.08 AC

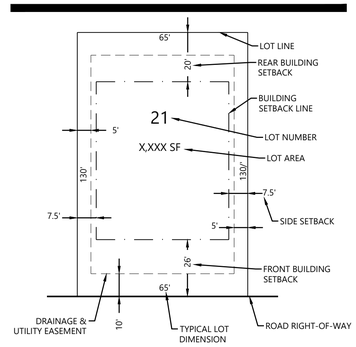
SITE LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		LOT LINE
		SETBACK LINE
		EASEMENT LINE
		CURB AND GUTTER
		TIP-OUT CURB AND GUTTER
		POND NORMAL WATER LEVEL
		RETAINING WALL

DEVELOPMENT NOTES

1. ALL LOT DIMENSIONS ARE ROUNDED TO THE NEAREST FOOT.
2. ALL AREAS ARE ROUNDED TO THE NEAREST SQUARE FOOT.
3. STREET NAMES ARE SUBJECT TO APPROVAL BY THE CITY.
4. DRAINAGE AND UTILITY EASEMENTS SHALL BE PROVIDED AS REQUIRED.
5. STREET WIDTHS ARE SHOWN FROM BACK OF CURB TO BACK OF CURB.
6. ALL CONSTRUCTION TRAFFIC SHALL ACCESS SITE FROM BIG WOODS BLVD VIA PERCHERON BLVD.

TYPICAL 65' SINGLE FAMILY



1" = 200'

0' 200' 400' 600'

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RIVERTOWN HEIGHTS

DESIGNED: FDH II
CHECKED: FDH II
DRAWN: ACB
HORIZONTAL SCALE: 200'
VERTICAL SCALE: 40' OR 20'

INITIAL ISSUE: 01/28/22
REVISIONS:
1 02/16/22 CITY COMMENTS
2 03/16/22 2ND CITY COMMENTS
3 . .
4 . .
5 . .

PREPARED FOR:
DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA
CORY MEYER
DATE: 03/16/22 LICENSE NO. 26971

RIVERTOWN HEIGHTS
CHASKA, MN

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

PRELIMINARY PLAT - OVERALL & PHASING PLAN
PROJECT NUMBER: 0027067.00

SHEET NUMBER: 3 OF 30
DATE: 03/16/22

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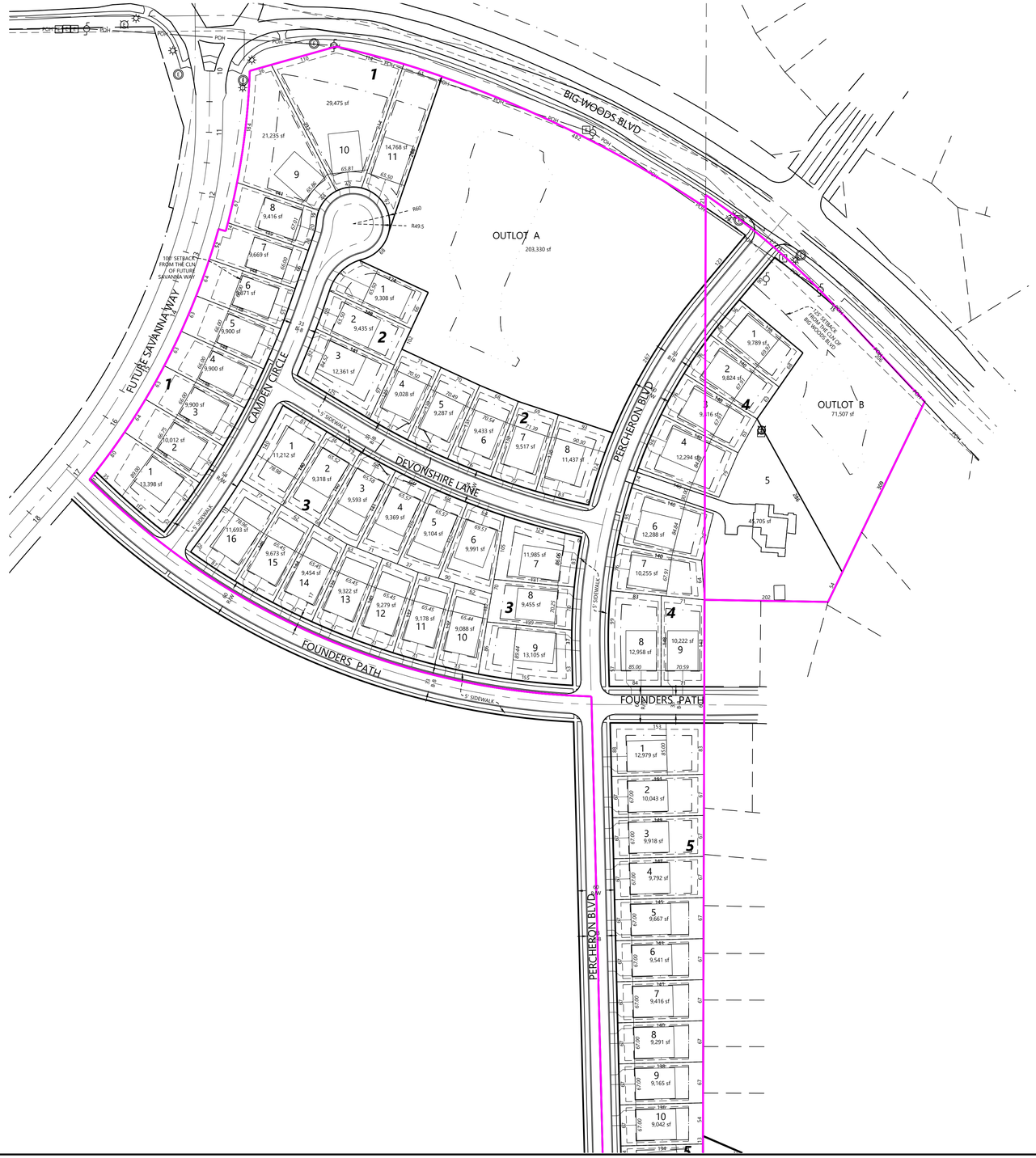

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RIVERTOWN HEIGHTS

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DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	100'
VERTICAL SCALE:	20' OR 10'

INITIAL ISSUE: 01/28/22

REVISIONS:

1	02/16/22	CITY COMMENTS
2	03/16/22	2ND CITY COMMENTS
3	.	.
4	.	.
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PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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PRELIMINARY PLAT

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 4 OF 30

DATE: 03/16/22

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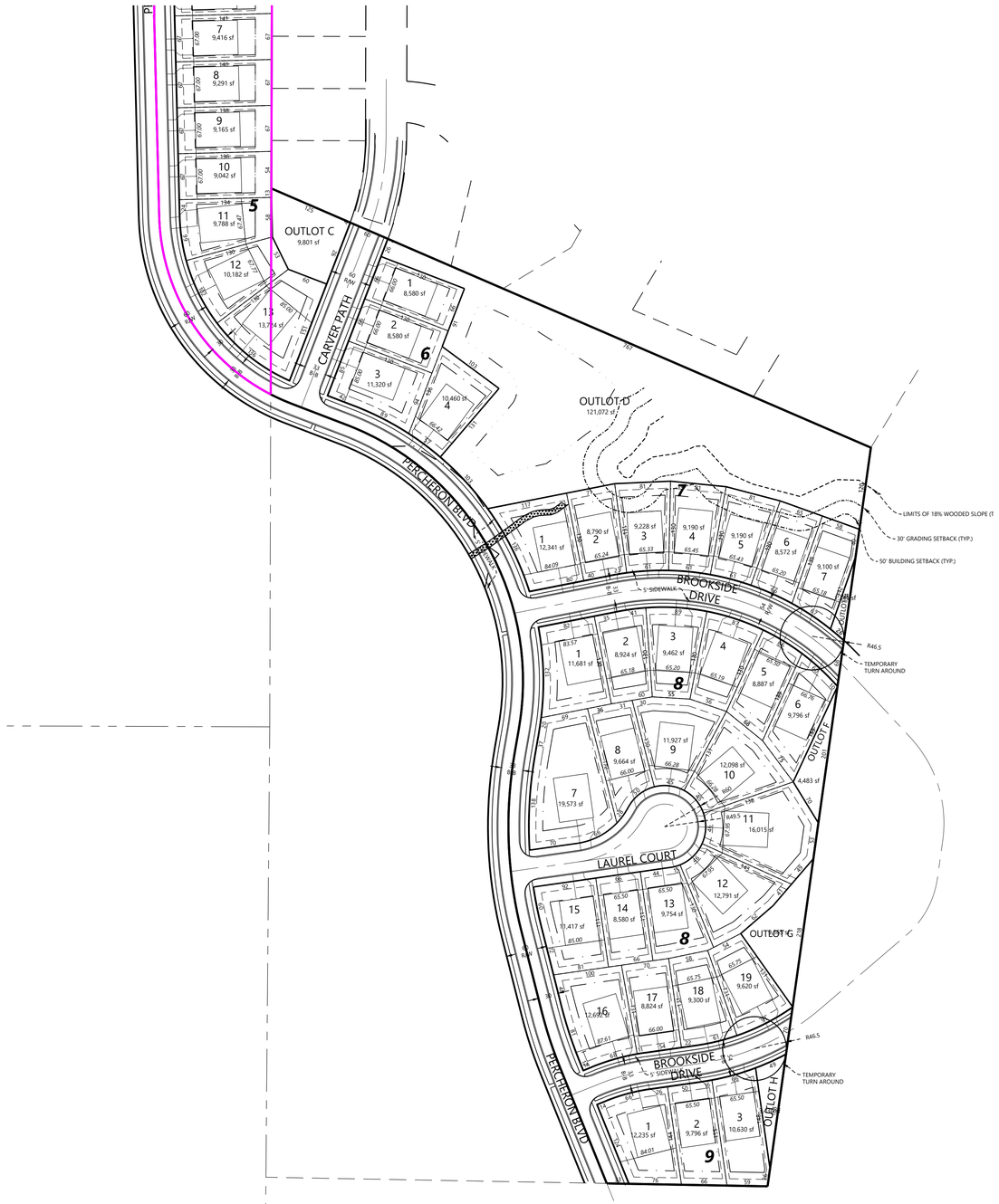

N

1" = 100'

0' 100' 200' 300'

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RIVERTOWN HEIGHTS

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DESIGNED:	FDH II
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DRAWN:	ACB
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VERTICAL SCALE:	20' OR 10'

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20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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PRELIMINARY PLAT

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 5 OF 30

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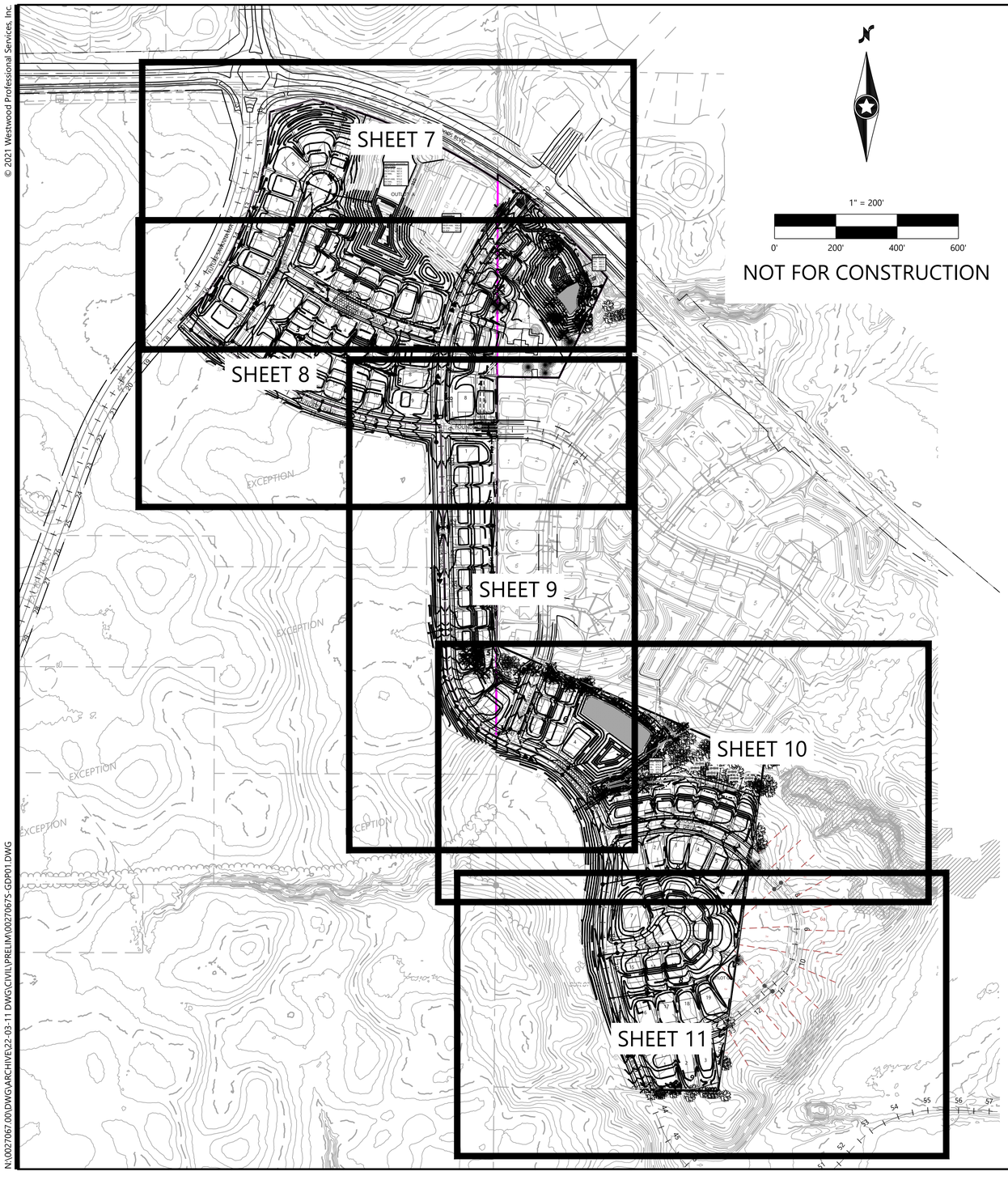

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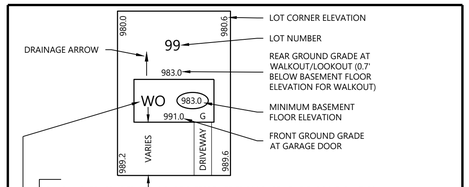

R = RAMBLER, GRADED FOR 8.2' OF DIFFERENCE FROM BASEMENT FLOOR ELEVATION TO FRONT GROUND GRADE AT GARAGE DOOR.

R(1) = RAMBLER, GRADED FOR 7.5' OF DIFFERENCE FROM BASEMENT FLOOR ELEVATION TO FRONT GROUND GRADE AT GARAGE DOOR.

LO = FULL BASEMENT LOOKOUT GRADED FOR 5.0' OF DIFFERENCE FROM THE REAR GROUND GRADE AT THE LOOKOUT TO THE FRONT GROUND GRADE AT THE GARAGE DOOR.

WO = FULL BASEMENT WALKOUT, GRADED FOR 8.2' OF DIFFERENCE FROM THE REAR GROUND GRADE AT THE WALKOUT TO FRONT GROUND AT GARAGE DOOR.

NOTE:
1. THE NUMBER IN THE PARENTHESIS INDICATES THE NUMBER OF BLOCKS THAT THE GARAGE IS DROPPED. EACH BLOCK=8".

CUSTOM — INDICATES A CUSTOM HOUSE PAD WHICH HAS NOT BEEN COMPLETELY GRADED OR PREPARED TO PROPOSED GRADE. ELEVATIONS AND HOUSE STYLES SHOWN ARE ENGINEERS SUGGESTED DESIGN FOR CUSTOM LOTS AND SHOULD BE VERIFIED WITH THE DEVELOPER.

Westwood	TYPICAL LOT	LAST REVISED: 12/20/21
		GD25A

GRADING & EROSION CONTROL LEGEND

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EXISTING	PROPOSED	
		PROPERTY LINE
SB-19	SB-19	SOIL BORING LOCATION
980	980	INDEX CONTOUR
982	982	INTERVAL CONTOUR
× 900.00	× 900.00	SPOT ELEVATION
	× HP/LP 900.00	HIGH/LOW POINT
	× CL-CL 900.00	CL-CL ELEVATION
	0.00%	FLOW DIRECTION
	TW=XXX.XX BW=XXX.XX	TOP AND BOTTOM OF RETAINING WALL
	E.O.F.	EMERGENCY OVERFLOW
	X.XX%	PROPOSED STREET PROFILE GRADE
STO		STORM SEWER
		TREE LINE
	TPF	TREE PROTECTION FENCE
		RETAINING WALL (MODULAR BLOCK)
	GL	GRADING LIMITS
	SF	SILT FENCE
	POST-SF	SILT FENCE-POST GRADING
	HDSF	HEAVY DUTY SILT FENCE
	RSC	REDUNDANT SEDIMENT CONTROL
		INLET PROTECTION
		EROSION CONTROL CHECKS/BIOROLLS
		ROCK CONSTRUCTION ENTRANCE
		EROSION CONTROL BLANKET
		TURF REINFORCEMENT MAT
		POND NORMAL WATER LEVEL
		WETLAND LINE
		WETLAND FILL
		WETLAND BUFFER
		POND ACCESS MAINTENANCE BENCH
		WETLAND BUFFER LIMITS
		WETLAND BUFFER MONUMENT
	DND	DO NOT DISTURB

EROSION CONTROL NOTES

1. ALL SILT FENCE AND OTHER EROSION CONTROL FEATURES SHALL BE IN-PLACE PRIOR TO ANY EXCAVATION/CONSTRUCTION AND SHALL BE MAINTAINED UNTIL VIABLE TURF OR GROUND COVER HAS BEEN ESTABLISHED. EXISTING SILT FENCE ON-SITE SHALL BE MAINTAINED AND OR REMOVED AND SHALL BE CONSIDERED INCIDENTAL TO THE GRADING CONTRACT. IT IS OF EXTREME IMPORTANCE TO BE AWARE OF CURRENT FIELD CONDITIONS WITH RESPECT TO EROSION CONTROL. TEMPORARY PONDING, DIKES, HAY BALES, ETC., REQUIRED BY THE CITY SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
2. ALL STREETS DISTURBED DURING WORKING HOURS MUST BE CLEANED AT THE END OF EACH WORKING DAY. A ROCK ENTRANCE TO THE SITE MUST BE PROVIDED ACCORDING TO DETAILS TO REDUCE TRACKING OF DIRT ONTO PUBLIC STREETS.
3. REDUNDANT PERIMETER SEDIMENT CONTROLS ARE NECESSARY WHEN SOIL DISTURBANCE IS WITHIN 50 FEET OF SURFACE WATERS. REDUNDANT SEDIMENT CONTROLS COULD INCLUDE:
   - 3.1. TWO ROWS OF SILT FENCE (SEPARATED BY 8 FEET); OR
   - 3.2. SILT FENCE AND A TOPSOIL BERM (STABILIZE BERM WITH MULCH); OR
   - 3.3. SILT FENCE AND FIBER LOGS; OR
   - 3.4. TOPSOIL BERM AND FIBER LOGS (STABILIZE BERM WITH MULCH).
4. REDUNDANT SEDIMENT CONTROLS MUST BE INSTALLED PRIOR TO DISTURBING WITHIN 50 FEET OF THE SURFACE WATER.

GRADING & DRAINAGE NOTES

1. ALL CONTOURS AND SPOT ELEVATIONS ARE SHOWN TO FINISHED SURFACE/GUTTER GRADES UNLESS OTHERWISE NOTED.
2. REFER TO THE SITE PLAN/RECORD PLAT FOR MOST CURRENT HORIZONTAL SITE DIMENSIONS AND LAYOUT.
3. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES WITH THE OWNERS AND FIELD-VERIFY PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM PLAN.
4. ALL CONSTRUCTION SHALL CONFORM TO LOCAL RULES.
5. THE CONTRACTOR IS TO CONTACT GOPHER STATE "ONE CALL" FOR UTILITY LOCATIONS AT 651-454-0002.
6. THE GRADING CONTRACTOR MUST BE AWARE OF ALL EXISTING AND PROPOSED UTILITIES.
7. HAULING HOURS MUST BE CONFIRMED WITH THE CITY PRIOR TO BEGINNING WORK/
8. POSITIVE DRAINAGE FROM THE SITE MUST BE PROVIDED AT ALL TIMES.
9. BASIN MAINTENANCE ACCESS PATH SHALL BE CONSTRUCTED WITH SUITABLE SOIL AND BE CAPABLE OF SUPPORTING VEHICLE TRAFFIC.

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RIVERTOWN HEIGHTS

DESIGNED: .
CHECKED: .
DRAWN: .
HORIZONTAL SCALE: 200'
VERTICAL SCALE: 40' OR 20'

INITIAL ISSUE: 01/28/22
REVISIONS:
1 02/16/22 CITY COMMENTS
2 03/16/22 2ND CITY COMMENTS
3 . .
4 . .
5 . .

PREPARED FOR:
DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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FRANCIS D HAGEN II
DATE: 03/16/22 LICENSE NO. 17716

RIVERTOWN HEIGHTS
CHASKA, MN

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

PRELIMINARY GRADING, DRAINAGE & EROSION CONTROL - OVERALL
PROJECT NUMBER: 0027067.00

SHEET NUMBER: 6 OF 30
DATE: 03/16/22

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1" = 50'
0' 50' 100' 150'

NOT FOR CONSTRUCTION

BIG WOODS BLVD

FUTURE SAVANNA WAY

CAMDEN CIRCLE

DEVONSHIRE LANE

PATCHEN RON BLVD

OUTLOT A

OUTLOT B

POST-CONST SILT FENCE (TYP)

SILT FENCE (TYP)

INLET PROTECTION (TYP)

EXPANDED SAVANNA S WET POND	
PROP BTM	900.0
PROP NWL	907.4
EX NWL	907.7
OE	907.7
PROP HWL	915.0
EX HWL	915.5
EX EOF	917.5

SAVANNA S BIORETENTION	
EX BTM	905.0
EX OE	906.2
PROP HWL	906.6
EX HWL	906.6
EX EOF	907.0

FILT. BASIN 1	
BTM	872.0
NWL	881.5
OE	883.0
HWL	888.6
EOF	889.1

3' WIDE BIORETENTION TRENCH

6" HDPE PERF DT @0.5% MIN

PROTECT EXISTING BIORETENTION THROUGHOUT CONSTRUCTION

RAISE EX RIM AND ADJUST CASTING TO PROPOSED SURFACE. REPLACE CASTING WITH SOLID COVER

ROCK CONST ENTRANCE (TYP)

PROTECT EX STORM MANHOLES

COORDINATE POWER POLE RELOCATION w/UTILTY

PROTECT EX RETAINING WALL

PROTECT EX POWER POLE

SILT FENCE (TYP)

PROTECT EX STORM MANHOLES

POND ACCESS (TYP)

REMOVE EX WALL

TRM OVERFLOW PER CITY STANDARDS

DT IE=879.2

DT IE= 879.0

RIPRAP SETTLING BASIN

REMOVE EX STRUCTURE & ASSOCIATED UTILITIES

DT IE=880.0

REMOVE EX GRAVEL DRIVE

6" HDPE PERF DT @ 0.5% MIN (TYP) PER CCWMO DETAIL

COORDINATE UNDERGROUND ELECTRIC RELOCATION w/UTILTY

TREE PROTECTION FENCE (TYP)

WETLAND 2 FILL 6,372 SF

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RIVERTOWN HEIGHTS

DESIGNED: .
CHECKED: .
DRAWN: .
HORIZONTAL SCALE: 50'
VERTICAL SCALE: 10' OR 5'

INITIAL ISSUE: 01/28/22
REVISIONS:
1 02/16/22 CITY COMMENTS
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3 . .
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5 . .

PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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DATE: 03/16/22 LICENSE NO. 17716

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PRELIMINARY GRADING, DRAINAGE & EROSION CONTROL

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 7 OF 30

DATE: 03/16/22

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RIVERTOWN HEIGHTS

DESIGNED:	-
CHECKED:	-
DRAWN:	-
HORIZONTAL SCALE:	50'
VERTICAL SCALE:	10' OR 5'

INITIAL ISSUE:	01/28/22	
REVISIONS:		
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PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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PRELIMINARY GRADING, DRAINAGE & EROSION CONTROL

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 8 OF 30

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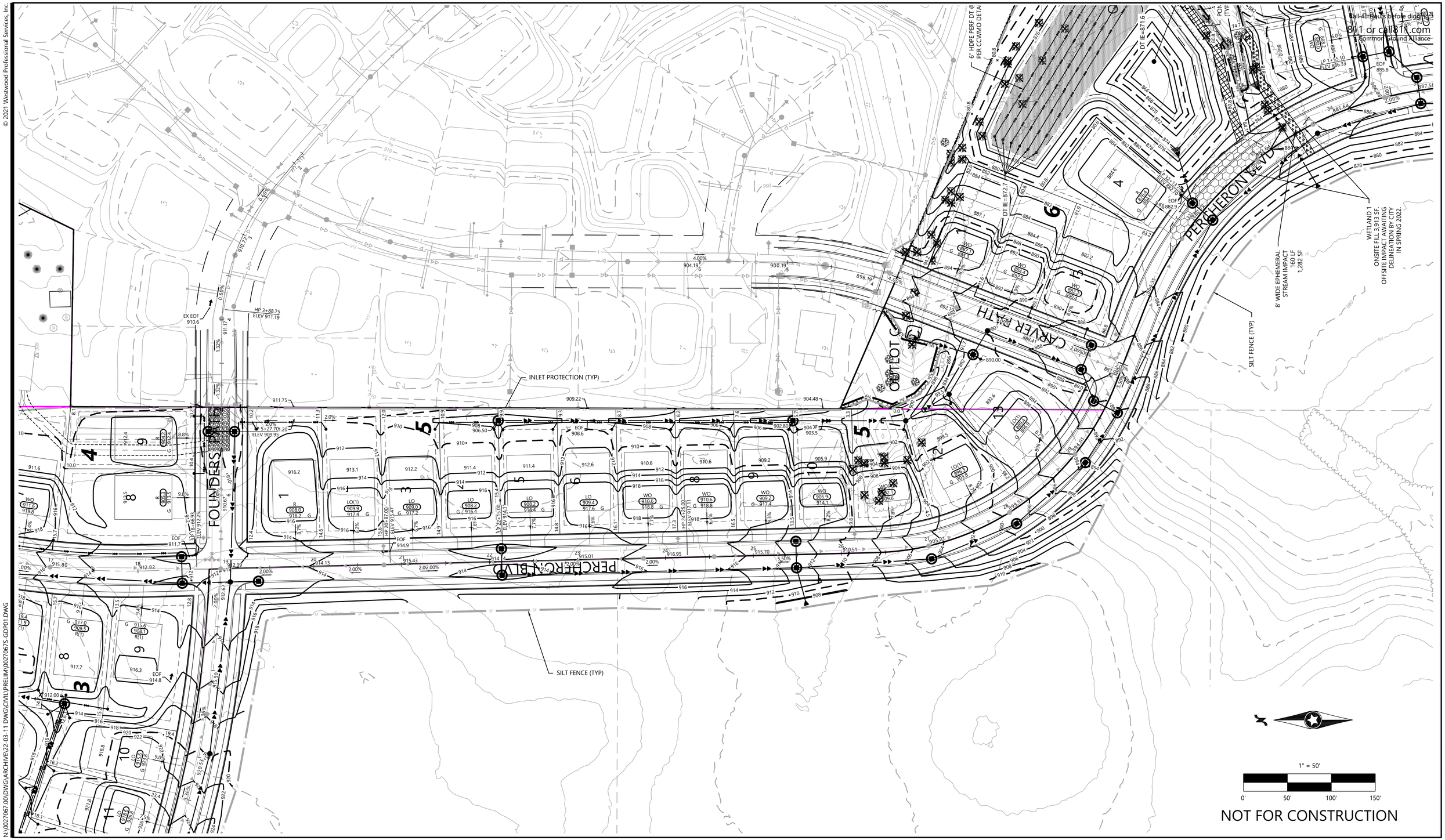

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RIVERTOWN HEIGHTS

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PROJECT NUMBER: 0027067.00

SHEET NUMBER: 9 OF 30

DATE: 03/16/22

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OUTLOT C
OUTLOT D
CARVER PATH
PERSHERON BLVD
ROOKSIDE DRIVE
OUTLOT E
OUTLOT F
OUTLOT G

6" HDPE PERF DT @ 0.5% MIN (TYP) PER CCWMO DETAIL
DT IE=872.7
DT IE=871.3
BUILD STMH OVER EX STORM COMBINE POND OUTLETS
RIPRAP SETTLING BASIN
DT IE=871.6
TRM OVERFLOW PER CITY STANDARDS
POND ACCESS (TYP)
SILT FENCE (TYP)
8' WIDE EPHEMERAL STREAM IMPACT
160 LF
1,282 SF
WETLAND 1
ONSITE FILL 3,913 SF.
OFFSITE IMPACT AWAITING DELINEATION BY CITY IN SPRING 2022.
INLET PROTECTION (TYP)
LIMITS OF STEEP WOODED SLOPE (DELINEATED BY OTHERS)
LIMITS OF 18% WOODED SLOPE (TYP.)
30' GRADING SETBACK (TYP.)
50' BUILDING SETBACK (TYP.)
FUTURE DEVELOPMENT

FILT. BASIN 2	
BTM	866.0
NWL	874.2
OE	876.0
HWL	879.8
EOF	880.3

N

1" = 50'
0' 50' 100' 150'

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PRELIMINARY GRADING, DRAINAGE & EROSION CONTROL
PROJECT NUMBER: 0027067.00

SHEET NUMBER: 10 OF 30
DATE: 03/16/22

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INLET PROTECTION (TYP)

INLET PROTECTION (TYP)

SILT FENCE (TYP)

LAURE COURT

BROOKSIDE DRIVE

PERCHERON BLVD

OUTLOT H

OUTLOT G

FUTURE DEVELOPMENT BY OTHERS

1" = 50'

0' 50' 100' 150'

NOT FOR CONSTRUCTION

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REVISIONS:

1	02/16/22	CITY COMMENTS
2	03/16/22	2ND CITY COMMENTS
3	-	-
4	-	-
5	-	-

PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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

FRANCIS D HAGEN II

DATE: 03/16/22 LICENSE NO. 17716

RIVERTOWN HEIGHTS

CHASKA, MN

Westwood

Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

PRELIMINARY GRADING, DRAINAGE & EROSION CONTROL

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 11 OF 30

DATE: 03/16/22

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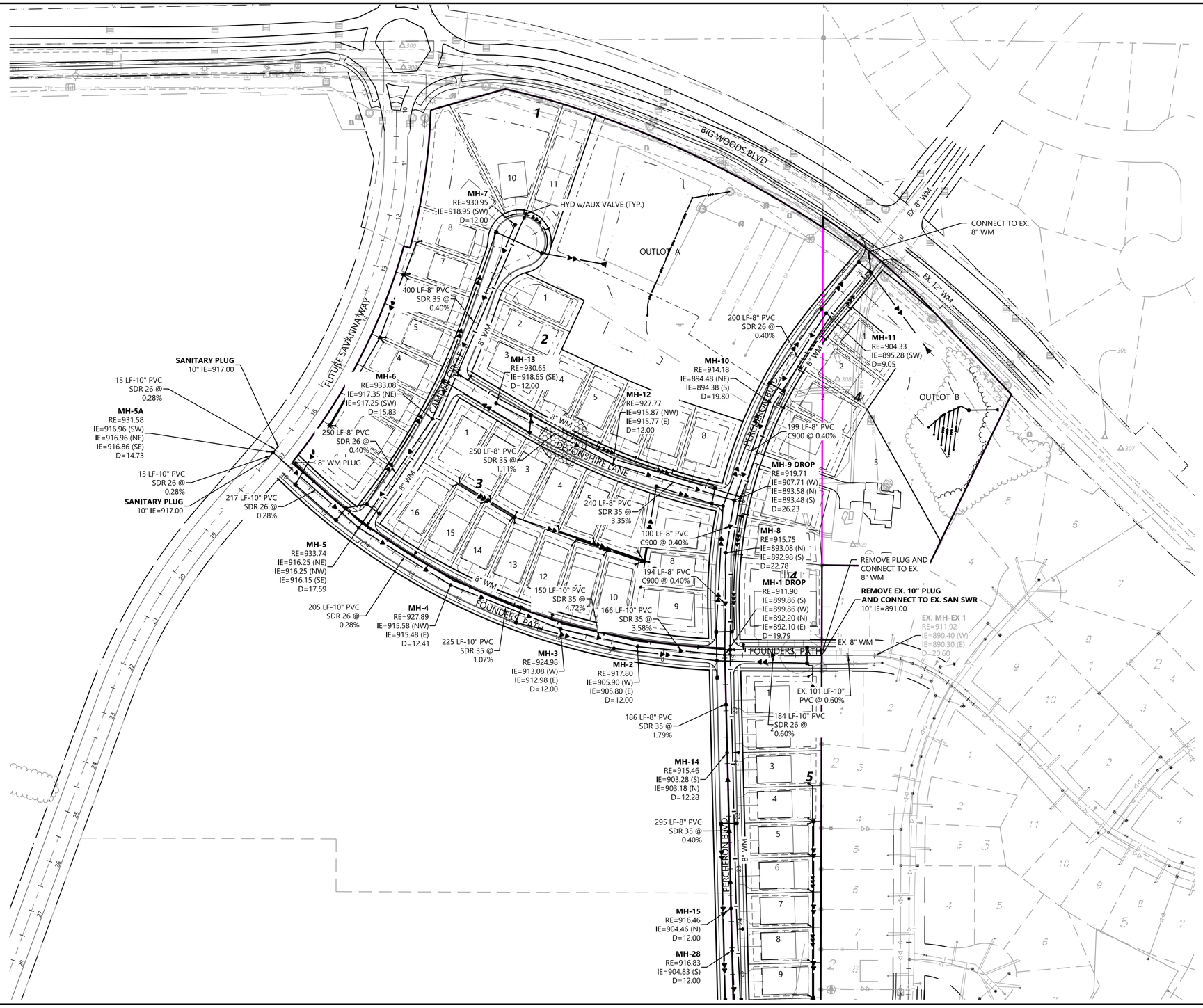

UTILITY LEGEND

EXISTING	PROPOSED	
SAN		SANITARY SEWER
STO		STORM SEWER
DT		DRAIN TILE
WAT		WATER MAIN
WAT		HYDRANT

GENERAL UTILITY NOTES

1. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OF ANY DIFFERENCES.
2. UNLESS OTHERWISE NOTED, ALL MATERIALS, CONST. TECHNIQUES AND TESTING SHALL CONFORM TO THE 2013 ED. OF THE "STANDARD UTILITIES SPECIFICATIONS FOR WATER MAIN AND SERVICE LINE INSTALLATION AND SANITARY SEWER AND STORM SEWER INSTALLATION BY THE CITY ENGINEERING ASSOCIATION OF MINN." AND TO THE "STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION" MINN. DEPT. OF TRANS., AUGUST 31, 2016 INCLUDING THE CURRENT ADDENDUM. THE CONTRACTOR SHALL BE REQUIRED TO FOLLOW ALL PROCEDURES AS OUTLINED BY THE LOCAL AGENCY.
3. THE CONTRACTOR SHALL RECEIVE THE NECESSARY PERMITS FOR ALL WORK OUTSIDE OF THE PROPERTY LIMITS.
4. VERIFY EXISTING INVERT LOCATION & ELEVATION PRIOR TO BEGINNING CONSTRUCTION.
5. THE CONTRACTOR SHALL CONTACT "GOPHER STATE ONE CALL" FOR FOR UTILITY LOCATIONS PRIOR TO UTILITY INSTALLATION.
6. WATER SERVICE SHALL BE INSTALLED WITH A MIN OF 7.5' OF COVER. THE CONTRACTOR SHALL VERIFY AS-BUILT CONSTRUCTION PLANS TO CHECK LOCATION AND MATERIAL TYPE.
7. ALL STORM SEWER PIPE SHALL BE CLASS 5 UNLESS OTHERWISE NOTED.
8. SEWER AND WATER SERVICES SHALL BE PLACED TO AVOID DRIVEWAYS.

Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance

N

1" = 100'
0' 100' 200' 300'

NOT FOR CONSTRUCTION

RIVERTOWN HEIGHTS

N:\0027067.00\DWG\ARCHIVE\22-03-11 DWG\CIVIL\PRELIM\0027067S-UTP01.DWG

DESIGNED: .
CHECKED: .
DRAWN: .
HORIZONTAL SCALE: 100'
VERTICAL SCALE: 20' OR 10'

INITIAL ISSUE: 01/28/22
REVISIONS:
02/16/22 CITY COMMENTS
03/16/22 2ND CITY COMMENTS
. .
. .

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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

FRANCIS D HAGEN II
DATE: 03/16/22 LICENSE NO. 17716

RIVERTOWN HEIGHTS
CHASKA, MN

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

PRELIMINARY UTILITY PLAN - NORTH

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 12 OF 30
DATE: 03/16/22

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UTILITY LEGEND

EXISTING	PROPOSED	
SAN		SANITARY SEWER
STO		STORM SEWER
DT		DRAIN TILE
WAT		WATER MAIN
WAT		HYDRANT

GENERAL UTILITY NOTES

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N

1" = 100'

0' 100' 200' 300'

NOT FOR CONSTRUCTION

RIVERTOWN HEIGHTS

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1 02/16/22 CITY COMMENTS
2 03/16/22 2ND CITY COMMENTS
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PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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FRANCIS D HAGEN II
DATE: 03/16/22 LICENSE NO. 17716

RIVERTOWN HEIGHTS

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Westwood Professional Services, Inc.

PRELIMINARY UTILITY PLAN - SOUTH

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 13 OF 30

DATE: 03/16/22

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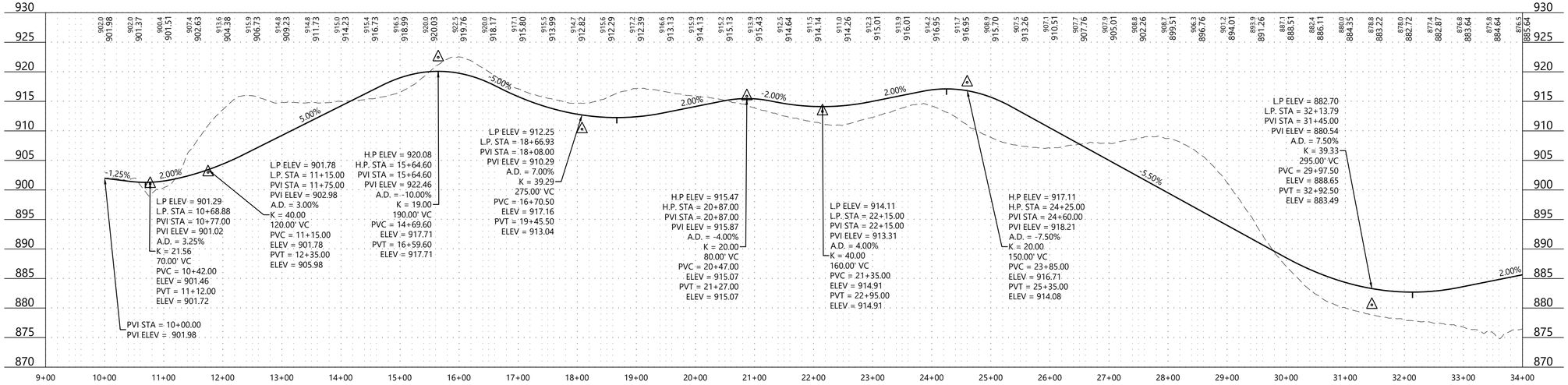
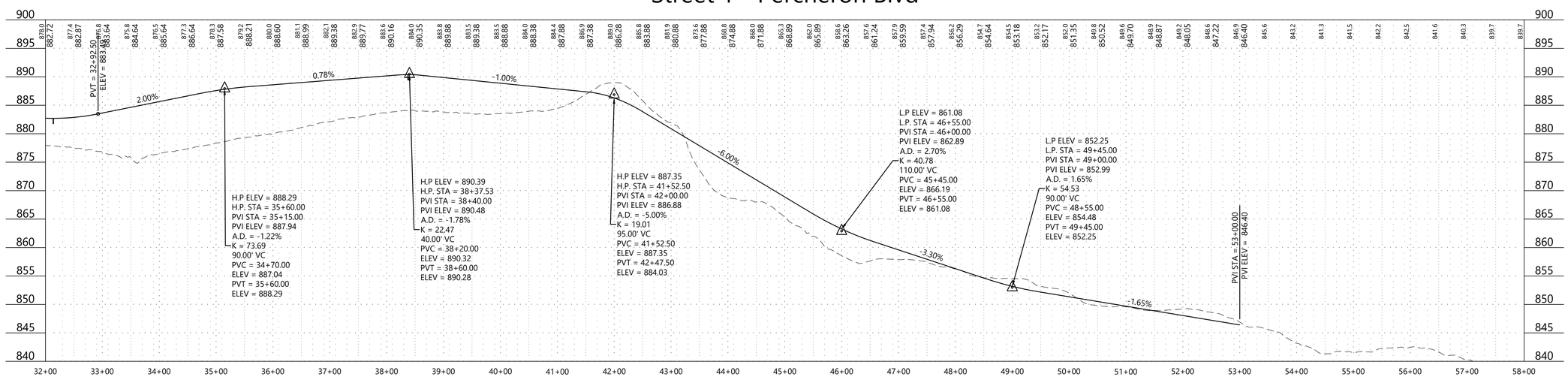
Street 1 - Percheron Blvd



Street 1 - Percheron Blvd



1" = 100'
0' 100' 200' 300'

NOT FOR CONSTRUCTION

RIVERTOWN HEIGHTS

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CHECKED:	-
DRAWN:	-
HORIZONTAL SCALE:	100'
VERTICAL SCALE:	20' OR 10'

INITIAL ISSUE: 01/28/22
REVISIONS:

1	02/16/22	CITY COMMENTS
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4	-	-
5	-	-

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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DATE: 03/16/22 LICENSE NO. 17716

RIVERTOWN HEIGHTS
CHASKA, MN

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STREET PROFILES

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 14 OF 30
DATE: 03/16/22

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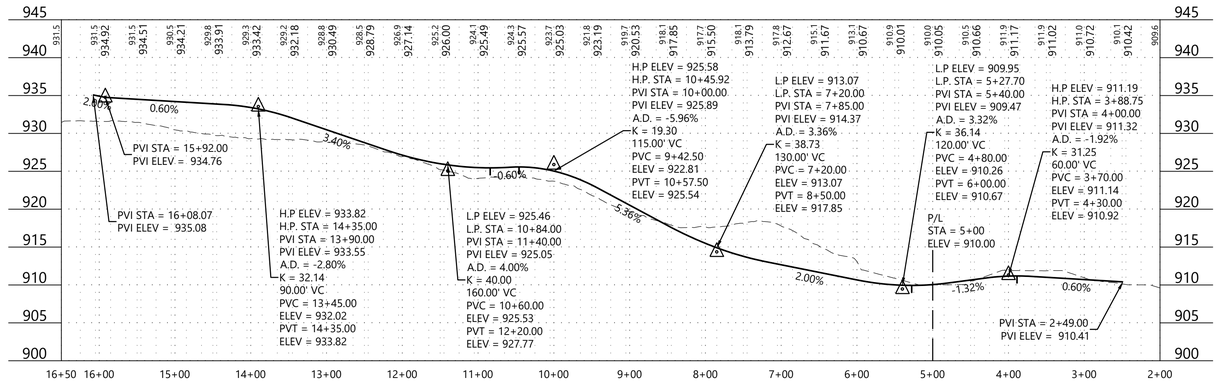
1" = 100'
0' 100' 200' 300'

NOT FOR CONSTRUCTION

Street 2 - Founders Path



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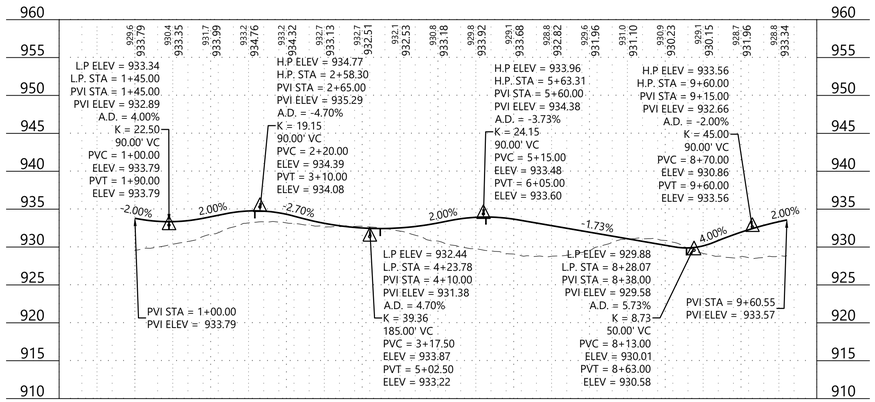

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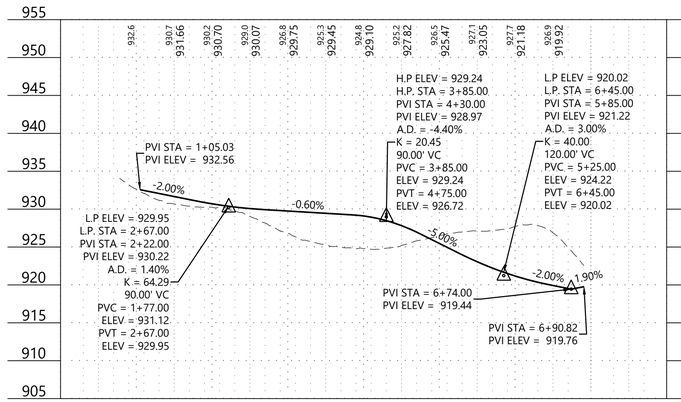

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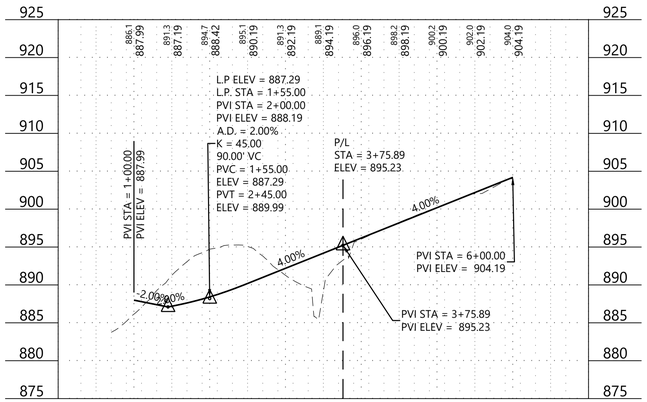

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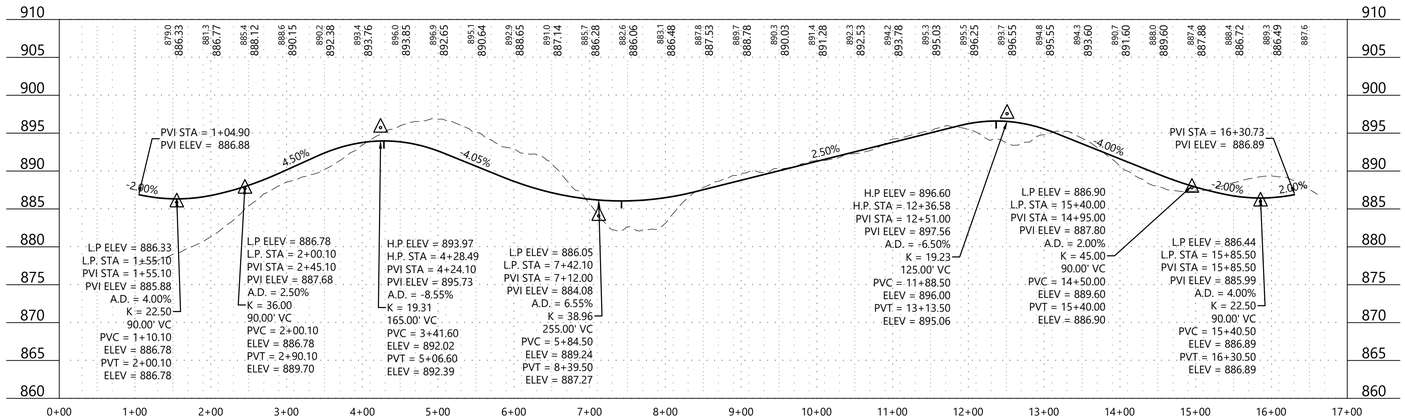
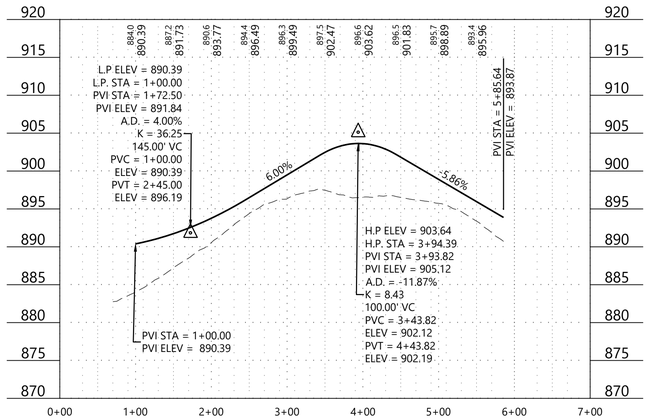


Street 8 - Laurel Court



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RIVERTOWN HEIGHTS

DESIGNED: -
CHECKED: -
DRAWN: -
HORIZONTAL SCALE: 100'
VERTICAL SCALE: 20' OR 10'

INITIAL ISSUE: 01/28/22
REVISIONS:
1 02/16/22 CITY COMMENTS
2 03/16/22 2ND CITY COMMENTS
3 . .
4 . .
5 . .

PREPARED FOR:
DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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.
FRANCIS D HAGEN II
DATE: 03/16/22 LICENSE NO. 17716

RIVERTOWN HEIGHTS
CHASKA, MN

Westwood
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Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
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STREET PROFILES

SHEET NUMBER: 15 OF 30
PROJECT NUMBER: 0027067.00
DATE: 03/16/22

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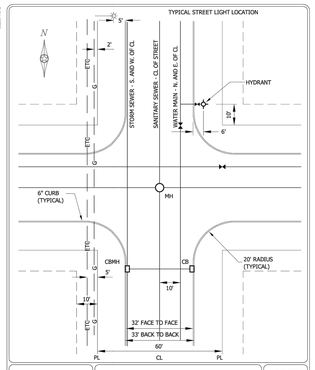
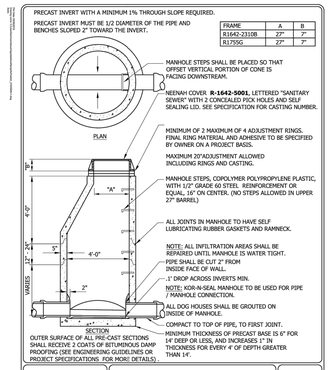


TYPICAL UTILITY LOCATIONS (PUBLIC AND PRIVATE)

CHASKA, MINNESOTA

LAST REVISION: MARCH 2016

PLATE NO. GEN-5

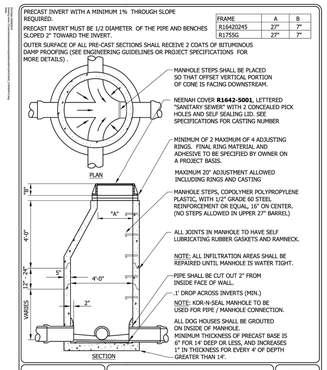


SANITARY SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. SAN-1

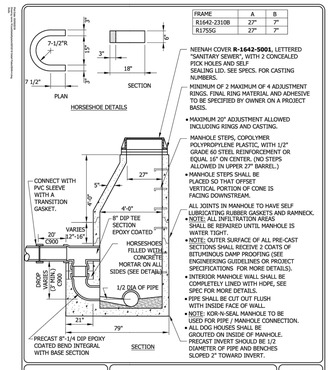


SANITARY SEWER JUNCTION MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. SAN-2

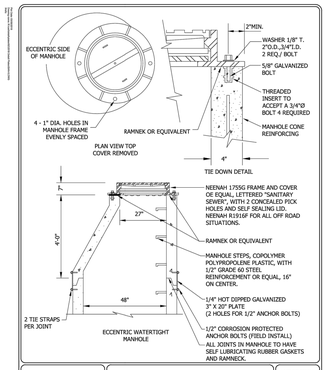


SANITARY SEWER DROP INLET MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. SAN-4

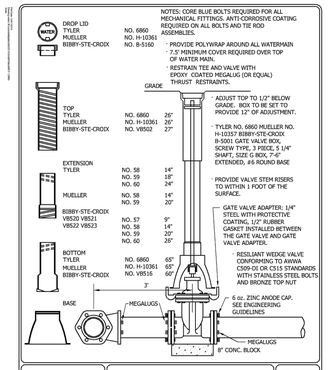


WATERTIGHT CASTING FOR SANITARY SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. SAN-5

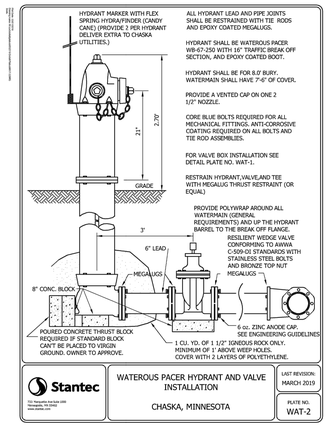


GATE VALVE AND BOX INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-1

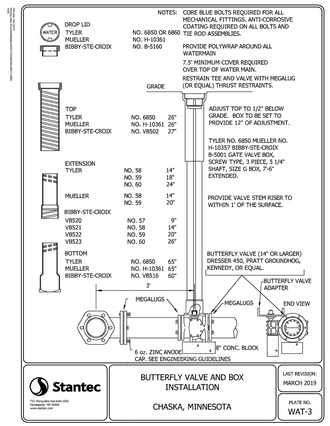


WATEROUS PACER HYDRANT AND VALVE INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-2

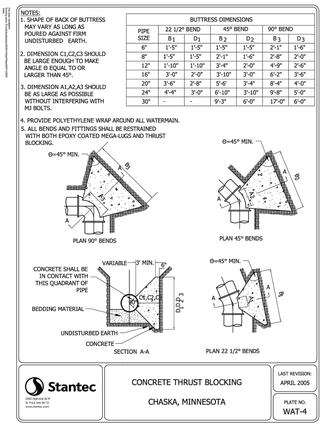


BUTTERFLY VALVE AND BOX INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-3

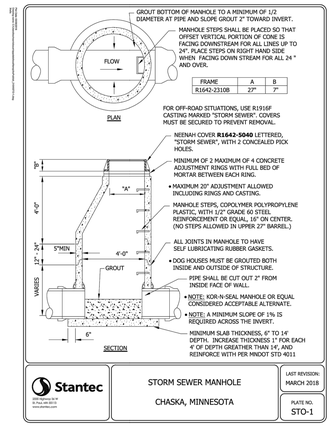


CONCRETE THRUST BLOCKING

CHASKA, MINNESOTA

LAST REVISION: APRIL 2005

PLATE NO. WAT-4

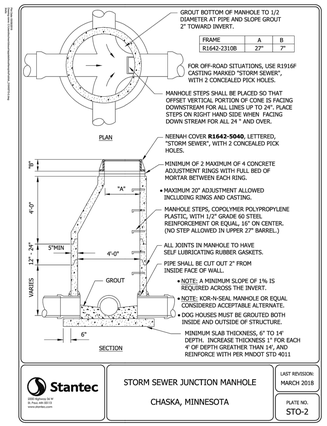


STORM SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-1

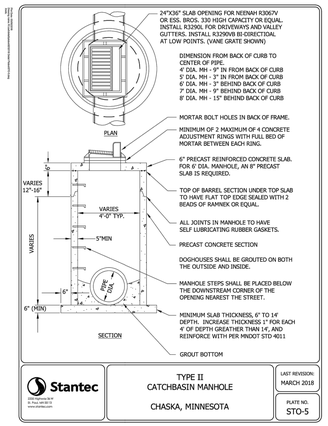


STORM SEWER JUNCTION MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-2

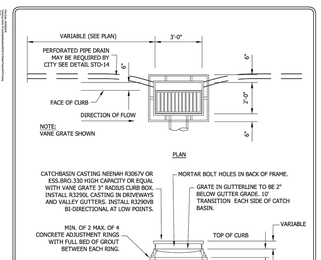


TYPE II CATCHBASIN MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-5

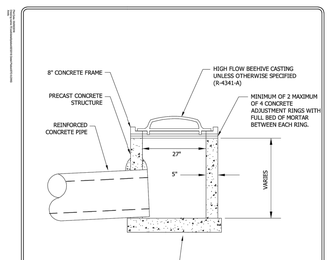


TYPE II CATCHBASIN

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-6

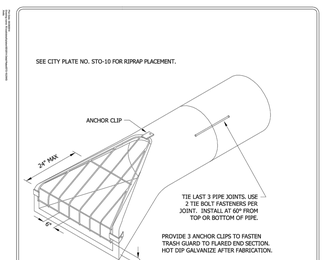


PRECAST 27" SHALLOW DEPTH BEEHIVE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-9

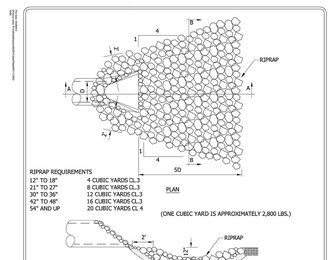


FLARED END SECTION AND TRASH GUARD

CHASKA, MINNESOTA

LAST REVISION: FEB. 1995

PLATE NO. STO-10

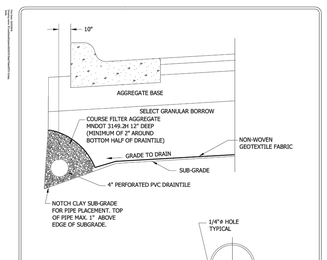


RIPRAP AT OUTLETS

CHASKA, MINNESOTA

LAST REVISION: APRIL 2004

PLATE NO. STO-11

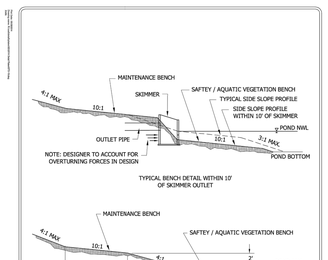


PERFORATED PVC DRAINTILE PIPE BELOW CONCRETE CURB

CHASKA, MINNESOTA

LAST REVISION: NOV. 2016

PLATE NO. STO-12



TYPICAL BENCH DETAIL

CHASKA, MINNESOTA

LAST REVISION: MARCH 2001

PLATE NO. STO-19

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RIVERTOWN HEIGHTS

DESIGNED: .
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DRAWN: .
HORIZONTAL SCALE: ###
VERTICAL SCALE: ### OR ##

INITIAL ISSUE: 01/28/22
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1 02/16/22 CITY COMMENTS
2 . .
3 . .
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5 . .

PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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

FRANCIS D HAGEN II

DATE: 02/16/22 LICENSE NO. 17716

RIVERTOWN HEIGHTS

CHASKA, MN

Westwood

Phone (952) 937-5150
Fax (952) 937-5822
Toll Free (888) 937-5150
12701 Whitewater Drive, Suite #300
Minnetonka, MN 55343
westwoodps.com

Westwood Professional Services, Inc.

DETAILS

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 16 OF 30

DATE: 02/16/22

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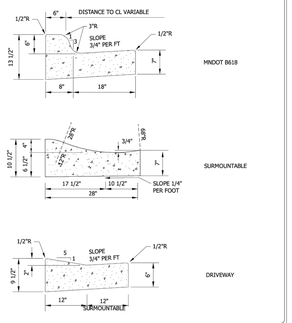
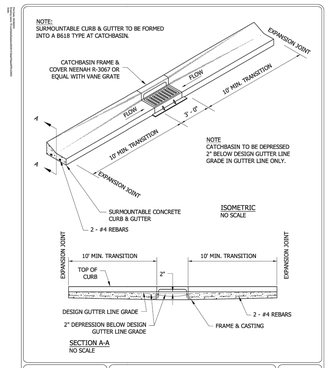
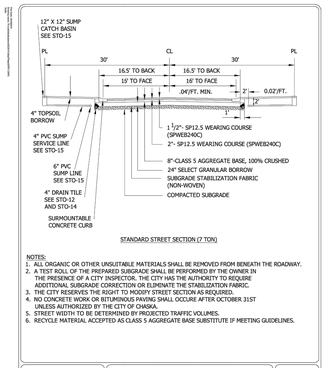


CURB AND GUTTER
CHASKA, MINNESOTA
LAST REVISION: APRIL 2016
PLATE NO. STR-1

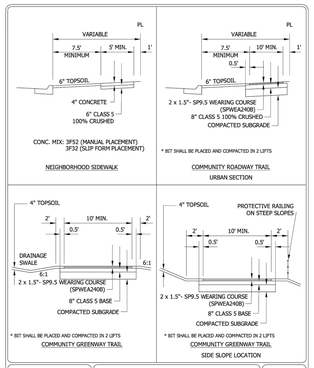


SURMOUNTABLE CURB & GUTTER CONSTRUCTION AT CATCHBASIN
CHASKA, MINNESOTA
LAST REVISION: MARCH 2008
PLATE NO. STR-5

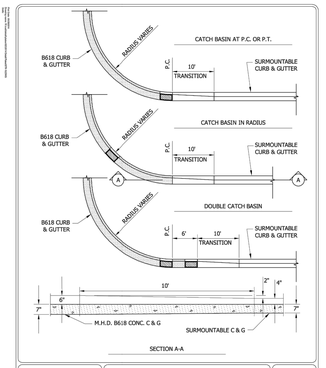


NOTES:
1. ALL ORGANIC OR OTHER UNSUITABLE MATERIALS SHALL BE REMOVED FROM BENEATH THE ROADWAY.
2. A TEST ROLL OF THE PREPARED SUBGRADE SHALL BE PERFORMED BY THE OWNER IN THE PRESENCE OF A CITY INSPECTOR. THE CITY HAS THE AUTHORITY TO REQUIRE ADDITIONAL SUBGRADE CORRECTION OR ELIMINATE THE STABILIZATION FABRIC.
3. THE CITY RESERVES THE RIGHT TO MODIFY STREET SECTION AS REQUIRED.
4. NO CONCRETE WORK OR BITUMINOUS PAVING SHALL OCCURE AFTER OCTOBER 31ST UNLESS AUTHORIZED BY THE CITY OF CHASKA.
5. STREET WIDTH TO BE DETERMINED BY PROJECTED TRAFFIC VOLUMES.
6. RECYCLE MATERIAL ACCEPTED AS CLASS 5 AGGREGATE BASE SUBSTITUTE IF MEETING GUIDELINES.

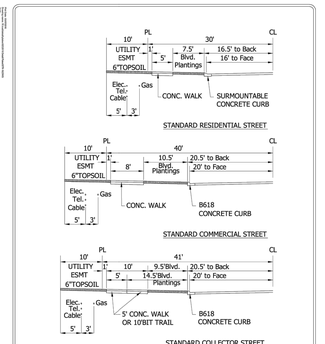
TYPICAL SECTIONS FOR RESIDENTIAL STREETS 7 TON SECTION
CHASKA, MINNESOTA
LAST REVISION: JUNE 2012
PLATE NO. STR-7



TYPICAL PLACEMENT AND SECTION FOR WALKS AND TRAILS
CHASKA, MINNESOTA
LAST REVISION: APRIL 2016
PLATE NO. STR-9



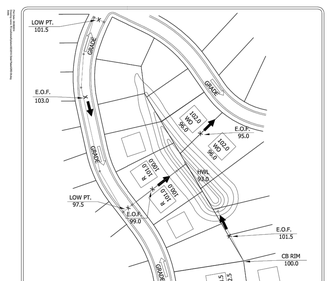
CONCRETE CURB & GUTTER TRANSITION
CHASKA, MINNESOTA
LAST REVISION: OCT. 1989
PLATE NO. STR-10



TYPICAL STREET COMPONENTS/DIMENSIONS RESIDENTIAL, COMMERCIAL & COLLECTOR
CHASKA, MINNESOTA
LAST REVISION: APRIL 2016
PLATE NO. STR-16

NOTES:
1. SPLICING WILL BE MADE AT OPPOSING SILT FENCE POSTS BY PLACING POSTS AND SILT FENCE NEXT TO EACH OTHER AND ROTATING 360°.
2. SILT FENCE IS MACHINE SLICED TYPE SILT FENCE THAT IS HAND INSTALLED IN AREAS INACCESSIBLE TO EQUIPMENT DUE TO SPACE LIMITATIONS, WET SOILS, STEEP SLOPES, ETC.

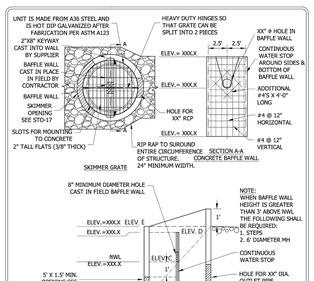
SILT FENCE STANDARD
CHASKA, MINNESOTA
LAST REVISION: APRIL 2008
PLATE NO. ERO-1C



NOTE:
SLOPE SURFACE SHALL BE FREE OF ROCKS, SOIL CLUMPS, STICKS, VEHICLE IMPRINTS, AND GRASS. BLANKETS SHALL HAVE GOOD SOIL CONTACT.

EROSION CONTROL BLANKET INSTALLATION
CHASKA, MINNESOTA
LAST REVISION: APRIL 2008
PLATE NO. ERO-2

INLET PROTECTION FOR CATCH BASIN BEFORE CURB CONSTRUCTION
CHASKA, MINNESOTA
LAST REVISION: APRIL 2008
PLATE NO. ERO-4A



* FOR THE NEW R-3290-VB STANDARD CASTING, INSTALL WIMCO ROAD DRAIN CG-3290 OR CITY APPROVED EQUAL.

INLET PROTECTION - CATCH BASIN INSERT AFTER CURB CONSTRUCTION
CHASKA, MINNESOTA
LAST REVISION: APRIL 2008
PLATE NO. ERO-4B

DEVICES TO BE INSTALLED IMMEDIATELY UPON INSTALLATION OF CONCRETE STRUCTURE CONE OR TOP SLAB.

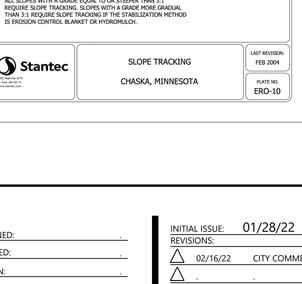
DEVICES SHOWN ARE AS MANUFACTURED BY WIMCO. MODEL NO. OF UNIT SHOWN: RD 27.

OTHER APPROVED INLET PROTECTION DEVICES FOR BEEHIVE CASTINGS ARE:
- ROYAL ENTERPRISES - MODEL NO 27 INFRASAFE SEDIMENT CONTROL BARRIER - DG.
- PRE MANUFACTURED UNIT BY CIRCLE "H" ENTERPRISES.

INLET PROTECTION BEEHIVE CASTING
CHASKA, MINNESOTA
LAST REVISION: APRIL 2008
PLATE NO. ERO-4C

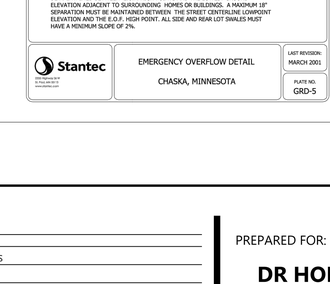
NOTES:
1. MnDOT 3733 TYPE 4 FILTER FABRIC SHALL BE PLACED UNDER ROCK OR MULCH TO STOP MUD MIGRATION THROUGH MATERIAL.
2. FUGITIVE ROCK OR MULCH WILL BE REMOVED FROM ADJACENT ROADWAYS DAILY OR MORE FREQUENTLY AS NECESSARY.
3. CONSTRUCTION ENTRANCE MUST BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF GRADING/OPERATIONS ON THE SITE.
4. THE ENTRANCE MUST BE MAINTAINED IN PROPER CONDITION TO PREVENT TRACKING OF MUD OFF THE SITE. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL ROCK, WOOD/MULCH, OR REMOVAL AND REINSTALLATION OF THE PAD.
5. THIS ENTRANCE WILL BE USED BY ALL VEHICLES ENTERING OR LEAVING THE PROJECT.
6. THE CONSTRUCTION ENTRANCE WILL BE REMOVED PRIOR TO THE PLACEMENT OF BITUMINOUS SURFACING.

ROCK CONSTRUCTION ENTRANCE
CHASKA, MINNESOTA
LAST REVISION: APRIL 2008
PLATE NO. ERO-7



NOTE:
ALL SLOPES WITH A GRADE EQUAL TO OR STEEPER THAN 3:1 REQUIRE SLOPE TRACKING. SLOPES WITH A GRADE MORE GRADUAL THAN 3:1 REQUIRE SLOPE TRACKING IF THE STABILIZATION METHOD IS EROSION CONTROL BLANKET OR HYDROMULCH.

SLOPE TRACKING
CHASKA, MINNESOTA
LAST REVISION: FEB 2004
PLATE NO. ERO-10



NOTE:EMERGENCY OVERFLOW HIGH POINT ELEVATIONS AND DIRECTIONS OF FLOW MUST BE SHOWN FOR ALL STREET AND REAR YARD CATCH BASINS, PONDS, LAKES, WETLANDS, DITCHES AND STREAMS. A MINIMUM ONE FOOT (1') SEPARATION MUST BE MAINTAINED BETWEEN E.O.F. HIGH POINTS AND THE LOWEST GROUND ELEVATION ADJACENT TO SURROUNDING HOMES OR BUILDINGS. A MAXIMUM 18" SEPARATION MUST BE MAINTAINED BETWEEN THE STREET CENTERLINE LOWPOINT ELEVATION AND THE E.O.F. HIGH POINT. ALL SIDE AND REAR LOT SWALES MUST HAVE A MINIMUM SLOPE OF 2%.

EMERGENCY OVERFLOW DETAIL
CHASKA, MINNESOTA
LAST REVISION: MARCH 2001
PLATE NO. GRD-5

SKIMMER STRUCTURE WITH CAST IN FIELD CONCRETE BAFFLE WALL
CHASKA, MINNESOTA
LAST REVISION: MARCH 2018
PLATE NO. STO-18

STRUCTURE	POND	NWL	HWL	ELEV A (IE IN)	ELEV B (IE OUT)	ELEV C (OE)	ELEV D (TOP WALL)	ELEV E (RE LOW)	ELEV F (SUMP)	ORIFICE SIZE	OUTLET PIPE SIZE
OCS 1	FILT. BASIN 1	881.50	888.60	880.50	878.50	883.00	888.60	888.60	879.50	15"	15" RCP
OCS 2	FILT. BASIN 2	874.20	879.80	873.50	871.30	876.00	877.80	879.80	870.30	18"	33" RCP

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RIVERTOWN HEIGHTS

DESIGNED: .
CHECKED: .
DRAWN: .
HORIZONTAL SCALE: ###
VERTICAL SCALE: ### OR ##

INITIAL ISSUE: 01/28/22
REVISIONS:
1 02/16/22 CITY COMMENTS
2 . .
3 . .
4 . .
5 . .

PREPARED FOR:
DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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
FRANCIS D HAGEN II
DATE: 02/16/22 LICENSE NO. 17716

RIVERTOWN HEIGHTS
CHASKA, MN

Westwood
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Fax (952) 937-5822
Toll Free (888) 937-5150
12701 Whitewater Drive, Suite #300
Minnetonka, MN 55343
westwoodps.com
Westwood Professional Services, Inc.

DETAILS

SHEET NUMBER: 17 OF 30
PROJECT NUMBER: 0027067.00
DATE: 02/16/22

File: ..\..\..\source\City Detail Plates 2019\CCWMO Details.pdf
Missing or invalid reference

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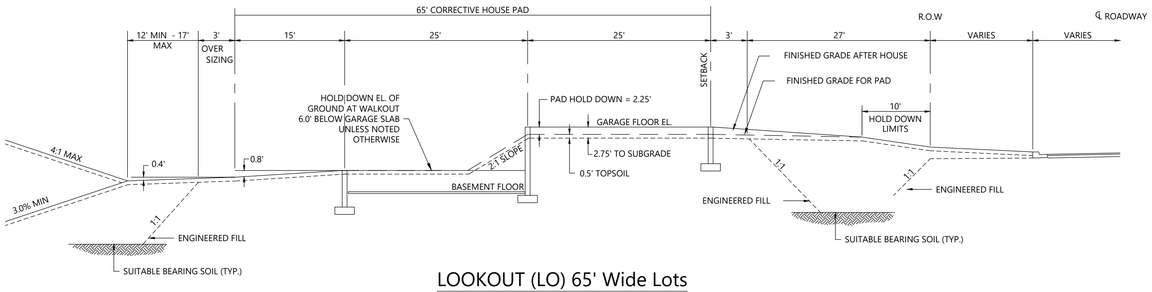
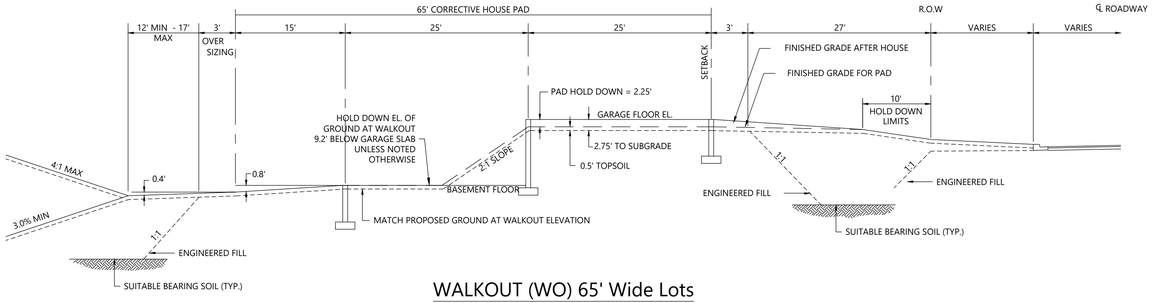


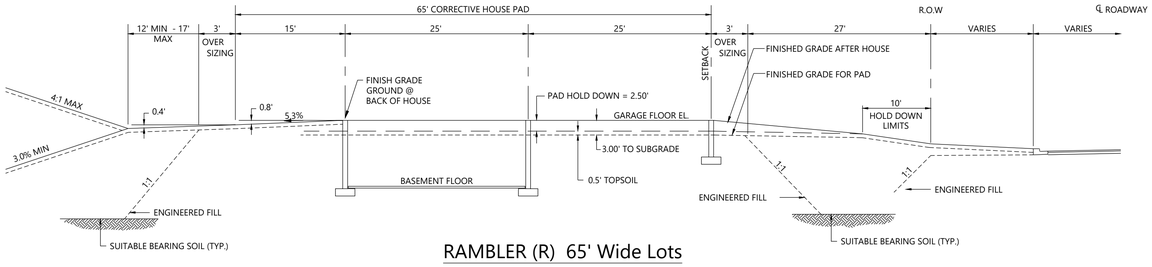
LOOKOUT (LO) 65' Wide Lots

N.T.S.



WALKOUT (WO) 65' Wide Lots

N.T.S.



RAMBLER (R) 65' Wide Lots

N.T.S.

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RIVERTOWN HEIGHTS

DESIGNED: FDH II
CHECKED: FDH II
DRAWN: ACB
HORIZONTAL SCALE: ###
VERTICAL SCALE: ### OR ##

INITIAL ISSUE: 01/28/22
REVISIONS:
1 02/16/22 CITY COMMENTS
2 . .
3 . .
4 . .
5 . .

PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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FRANCIS D HAGEN II
DATE: 02/16/22 LICENSE NO. 17716

RIVERTOWN HEIGHTS

CHASKA, MN

Westwood

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Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

DETAILS

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 18 OF 30
DATE: 02/16/22

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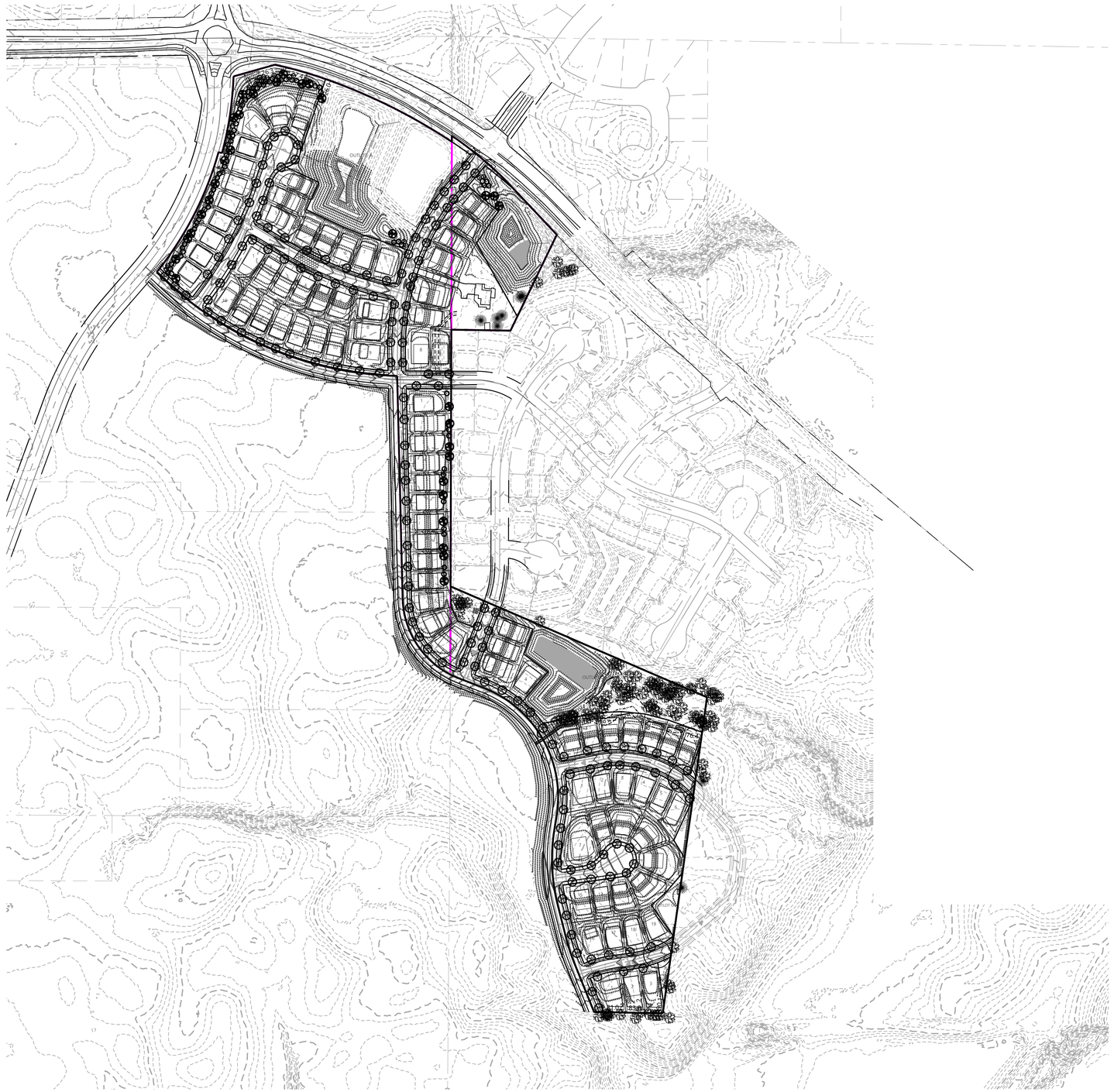

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Preliminary Plant Schedule

SYMBOL	QTY.	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	SPACING O.C.
OVERSTORY DECIDUOUS STREET TREES	150	Autumn Blaze Maple / Acer x freemanii 'Jeffersred'	2.5" BB	AS SHOWN	H 50'-60' W 40'
		Sienna Glen Maple / Acer x freemanii 'Sienna'	2.5" BB	AS SHOWN	H 40'-50' W 35'-40'
		Red Sunset Maple / Acer rubrum 'Franksred'	2.5" BB	AS SHOWN	H 45' W 35'
		Fall Fiesta Maple / Acer saccharum 'Bailsta'	2.5" BB	AS SHOWN	H 50'-75' W 50'
		Skyline Honeylocust / Gleditsia tricanthos var. inermis 'Skycole'	2.5" BB	AS SHOWN	H 50' W 35'-40'
		Red Oak / Quercus rubra	2.5" BB	AS SHOWN	H 50'-70' W 40'-50'
		Northern Pin Oak / Quercus ellipsoidalis	2.5" BB	AS SHOWN	H 50'-60' W 40'-50'
		Swamp White Oak / Quercus bicolor	2.5" BB	AS SHOWN	H 50'-60' W 40'
LARGE OVERSTORY TREES	33	Princeton Elm / Ulmus americana 'Princeton'	2.5" BB	AS SHOWN	H 60'-80' W 40'-60'
		Accolade Elm / Ulmus japonica x wilsoniana 'Morton'	2.5" BB	AS SHOWN	H 70' W 40'-50'
		Frontyard Linden / Tilia americana 'Frontyard'	2.5" BB	AS SHOWN	H 60'-70' W 30'-40'
		Redmond Linden / Tilia americana 'Redmond'	2.5" BB	AS SHOWN	H 40'-60' W 30'
		Autumn Gold Ginkgo / Ginkgo biloba 'Autumn Gold'	2.5" BB	AS SHOWN	H 50' W 30'
		Hackberry / Celtis occidentalis	2.5" BB	AS SHOWN	H 50'-75' W 50'
		River Birch / Betula nigra	10' HT. BB CLUMP	AS SHOWN	H 50'-75' W 50'
OVERSTORY BUFFER EVERGREEN TREES	63	Black Hills Spruce / Picea glauca densata	6' HT., BB	AS SHOWN	H 30'-40' W 20'-30'
		Norway Spruce / Picea abies	6' HT., BB	AS SHOWN	H 60'-80' W 25'-30'
		Colorado Spruce / Picea pungens	6' HT., BB	AS SHOWN	H 40'-60' W 15'-30'
		White Pine / Pinus strobus	6' HT., BB	AS SHOWN	H 50'-80' W 30'-40'
		Norway Pine / Pinus resinosa	6' HT., BB	AS SHOWN	H 60'-80' W 25'-30'
		Ponderosa Pine / Pinus ponderosa	6' HT., BB	AS SHOWN	H 60'-80' W 25'-30'
		Concolor Fir / Abies concolor	6' HT., BB	AS SHOWN	H 40'-50' W 15'-30'
		Techny Arborvitae / Thuja occidentalis 'Techny'	6' HT., BB	AS SHOWN	H 12'-15' W 6'-8'
SMALL OVERSTORY TREES	18	Thornless Cockspur Hawthorn / Crataegus crusgalli 'Inermis'	2" BB	AS SHOWN	H 15'-20' W 15'-20'
		Japanese Tree Lilac / Syringa reticulata	6' HT., BB CLUMP	AS SHOWN	H 25'-30' W 20'-25'
		Allegheny Serviceberry / Amelanchier laevis	6' HT., BB CLUMP	AS SHOWN	H 15'-25' W 15'-25'
		Quaking Aspen / Populus tremuloides	2" BB	AS SHOWN	H 40'-60' W 20'-30'
		Prairie Rose Crab / Malus 'Prairie Rose'	2" BB	AS SHOWN	H 20' W 20'

NOTES: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.
REFER TO FINAL LANDSCAPE PLANS FOR SPECIES LOCATIONS AND QUANTITIES.

Single Family Landscape Requirements

SINGLE FAMILY RESIDENTIAL SUBDIVISION REQUIREMENTS: 199 TREES
- ONE OVERSTORY DECIDUOUS TREE PER EVERY FIFTY (50) FEET ALONG PUBLIC STREETS, ON EACH SIDE, MINIMUM 2 ½" CALIPER. THE TREES MAY BE DISTRIBUTED THROUGHOUT THE SUBDIVISION AND NEED NOT NECESSARILY BE SPACED FIFTY (50) FEET APART. (9,908 LINEAR FEET OF FRONTAGE)

Single Family Landscape Provisions

TOTAL SINGLE FAMILY LANDSCAPING PROVIDED:	264 TREES
* STREET TREES:	150 TREES
* BUFFER DECIDUOUS TREES:	33 TREES
* BUFFER EVERGREEN TREES:	73 TREES
* BUFFER ORNAMENTAL TREES:	18 TREES

NOTES:

1. TIMING OF PLANT INSTALLATION WILL BE DEPENDENT UPON SEASON AND PLANT AVAILABILITY.
2. ACTUAL LOCATION OF PLANT MATERIAL IS SUBJECT TO FIELD AND SITE CONDITIONS.
3. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
4. ALL STREET TREES SHALL BE INSTALLED ON FRONT OF INDIVIDUAL SINGLE FAMILY LOTS 4' FROM BACK OF CURB AND IN FRONT OF SIDEWALK. IF THE BOULEVARDS SPACE IS NOT LARGE ENOUGH, STREET TREES SHALL BE PLANTED 5' FROM BACK OF SIDEWALK/TRAIL. STREET TREES SHALL BE PLANTED IN A LOCATION THAT DOES NOT INTERFERE WITH CURBSTOPS, INDIVIDUAL SEWER & WATER CONNECTIONS, OR DRIVEWAY LOCATIONS.
5. ALL STREET TREES THAT ARE PART OF ENTRY BOULEVARD SHALL BE INSTALLED 4' FROM BACK OF CURB IN A LOCATION THAT DOES NOT INTERFERE WITH CURBSTOPS, INDIVIDUAL SEWER & WATER CONNECTIONS, OR DRIVEWAY LOCATIONS.

Native Seeding Legend

WET MEADOWS S & W
SEED MIX (34-271)
TOTAL AREA (0.5 AC)

STORMWATER NATIVE
SEED MIX (33-261)
TOTAL AREA (1.3 AC)

MESIC PRAIRIE GENERAL
SEED MIX (35-241)
TOTAL AREA (2.8 AC)

LOW MAINTENANCE TURF
FESCUE (25-131)
TOTAL AREA (1.7 AC)

* ALL DISTURBED AREAS TO BE SODDED UNLESS NOTED OTHERWISE

* DISTURBANCE IN COUNTY R.O.W. SHOULD BE RESEEDED WITH LOW MAINTENANCE TURF.

1" = 200'

0' 200' 400' 600'

NOT FOR CONSTRUCTION

RIVERTOWN HEIGHTS

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DESIGNED: FDH II
CHECKED: FDH II
DRAWN: ACB
HORIZONTAL SCALE: 200'
VERTICAL SCALE: 40' OR 20'

INITIAL ISSUE: 01/28/22
REVISIONS:
1 02/16/22 CITY COMMENTS
2 03/16/22 2ND CITY COMMENTS
3 . .
4 . .
5 . .

PREPARED FOR:
DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA
CORY MEYER
DATE: 03/16/22 LICENSE NO. 26971

RIVERTOWN HEIGHTS
CHASKA, MN

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

PRELIMINARY LANDSCAPE PLAN - OVERALL

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 19 OF 30
DATE: 03/16/22

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Common Ground Alliance

1" = 50'
0' 50' 100' 150'

NOT FOR CONSTRUCTION

OUTLOT A

OUTLOT B

RIVERTOWN HEIGHTS

N:\0027067.00\DWG\ARCHIVE\22-03-11 DWG\CIVIL\PRELIM\0027067S-PLP01.DWG

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	50.000001'
VERTICAL SCALE:	10' OR 5'

INITIAL ISSUE: 01/28/22
REVISIONS:

1	02/16/22	CITY COMMENTS
2	03/16/22	2ND CITY COMMENTS
3	.	.
4	.	.
5	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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CORY MEYER
DATE: 03/16/22 LICENSE NO. 26971

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CHASKA, MN

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Westwood Professional Services, Inc.

PRELIMINARY
LANDSCAPE PLAN

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 20 OF 30

DATE: 03/16/22

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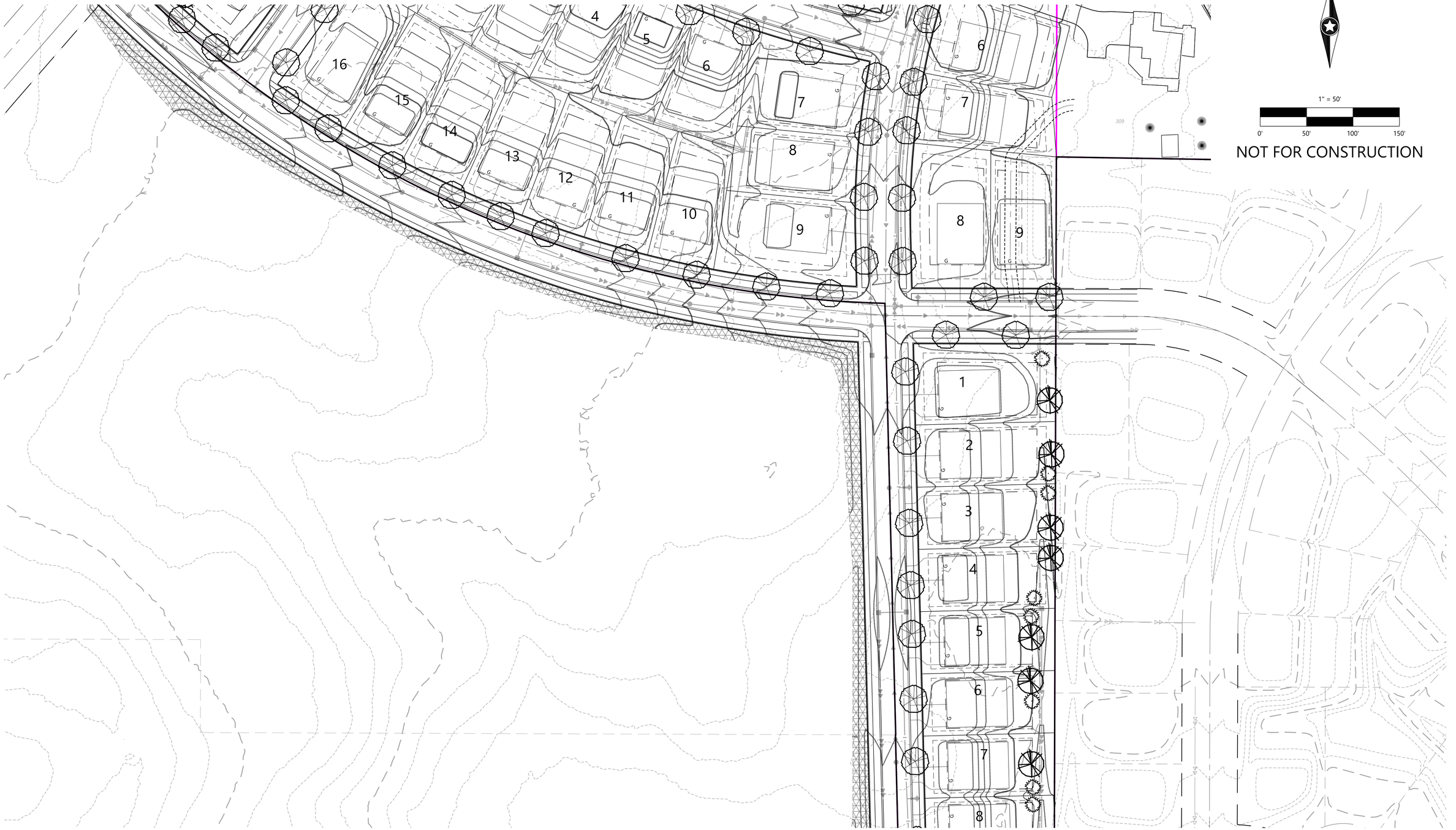

Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance

1" = 50'
0' 50' 100' 150'

NOT FOR CONSTRUCTION

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RIVERTOWN HEIGHTS

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	50.000001'
VERTICAL SCALE:	10' OR 5'

INITIAL ISSUE: 01/28/22
REVISIONS:

1	02/16/22	CITY COMMENTS
2	03/16/22	2ND CITY COMMENTS
3	.	.
4	.	.
5	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA

CORY MEYER
DATE: 03/16/22 LICENSE NO. 26971

RIVERTOWN HEIGHTS
CHASKA, MN

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

PRELIMINARY
LANDSCAPE PLAN

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 21 OF 30
DATE: 03/16/22

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1" = 50'
0' 50' 100' 150'

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RIVERTOWN HEIGHTS

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	50.000002'
VERTICAL SCALE:	10' OR 5'

INITIAL ISSUE: 01/28/22
REVISIONS:

1	02/16/22	CITY COMMENTS
2	03/16/22	2ND CITY COMMENTS
3	.	.
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PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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PRELIMINARY
LANDSCAPE PLAN

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 22 OF 30
DATE: 03/16/22

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1" = 50'
0' 50' 100' 150'

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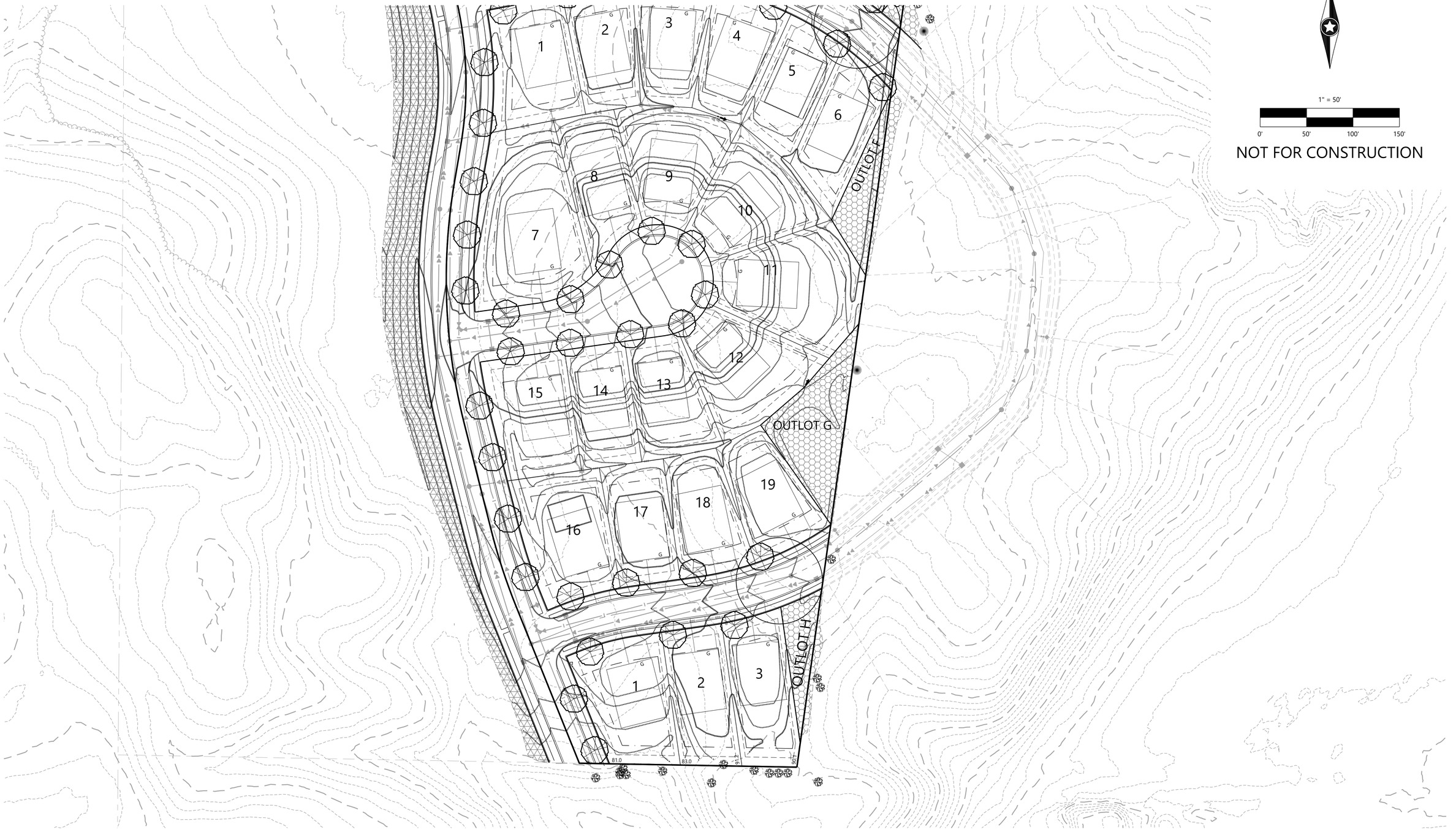

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RIVERTOWN HEIGHTS

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	50.000001'
VERTICAL SCALE:	10' OR 5'

INITIAL ISSUE: 01/28/22
REVISIONS:

1	02/16/22	CITY COMMENTS
2	03/16/22	2ND CITY COMMENTS
3	.	.
4	.	.
5	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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PRELIMINARY
LANDSCAPE PLAN

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 23 OF 30
DATE: 03/16/22

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Call 48 Hours before digging:
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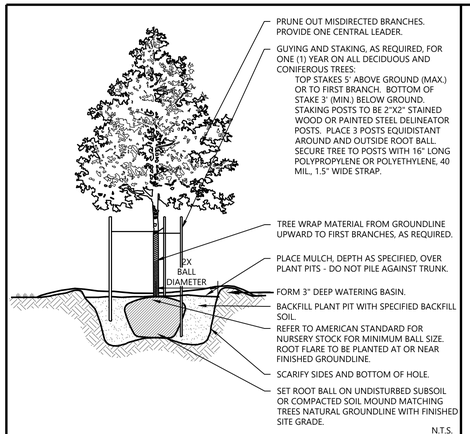
Common Ground Alliance

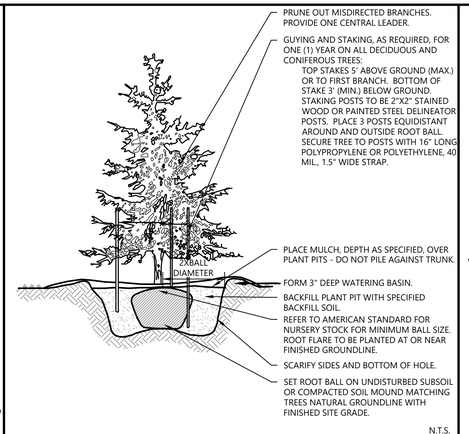
PLANTING NOTES

1. CONTRACTOR SHALL CONTACT COMMON GROUND ALLIANCE AT 811 OR CALL811.COM TO VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY PLANTS OR LANDSCAPE MATERIAL.
2. ACTUAL LOCATION OF PLANT MATERIAL IS SUBJECT TO FIELD AND SITE CONDITIONS.
3. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
4. ALL SUBSTITUTIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO SUBMISSION OF ANY BID AND/OR QUOTE BY THE LANDSCAPE CONTRACTOR.
5. CONTRACTOR SHALL PROVIDE TWO YEAR GUARANTEE OF ALL PLANT MATERIALS. THE GUARANTEE BEGINS ON THE DATE OF THE LANDSCAPE ARCHITECT'S OR OWNER'S WRITTEN ACCEPTANCE OF THE INITIAL PLANTING. REPLACEMENT PLANT MATERIAL SHALL HAVE A ONE YEAR GUARANTEE COMMENCING UPON PLANTING.
6. ALL PLANTS TO BE SPECIMEN GRADE, MINNESOTA-GROWN AND/OR HARDY. SPECIMEN GRADE SHALL ADHERE TO, BUT IS NOT LIMITED BY, THE FOLLOWING STANDARDS:
   ALL PLANTS SHALL BE FREE FROM DISEASE, PESTS, WOUNDS, SCARS, ETC.
   ALL PLANTS SHALL BE FREE FROM NOTICEABLE GAPS, HOLES, OR DEFORMITIES.
   ALL PLANTS SHALL BE FREE FROM BROKEN OR DEAD BRANCHES.
   ALL PLANTS SHALL HAVE HEAVY, HEALTHY BRANCHING AND LEAFING.
   CONIFEROUS TREES SHALL HAVE AN ESTABLISHED MAIN LEADER AND A HEIGHT TO WIDTH RATIO OF NO LESS THAN 5:3.
7. PLANTS TO MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014 OR MOST CURRENT VERSION) REQUIREMENTS FOR SIZE AND TYPE SPECIFIED.
8. PLANTS TO BE INSTALLED AS PER MNLA & ANSI STANDARD PLANTING PRACTICES.
9. PLANTS SHALL BE IMMEDIATELY PLANTED UPON ARRIVAL AT SITE. PROPERLY HEEL-IN MATERIALS IF NECESSARY; TEMPORARY ONLY.
10. PRIOR TO PLANTING, FIELD VERIFY THAT THE ROOT COLLAR/ROOT FLAIR IS LOCATED AT THE TOP OF THE BALLED & BURLAP TREE. IF THIS IS NOT THE CASE, SOIL SHALL BE REMOVED DOWN TO THE ROOT COLLAR/ROOT FLAIR. WHEN THE BALLED & BURLAP TREE IS PLANTED, THE ROOT COLLAR/ROOT FLAIR SHALL BE EVEN OR SLIGHTLY ABOVE FINISHED GRADE.
11. OPEN TOP OF BURLAP ON BB MATERIALS; REMOVE POT ON POTTED PLANTS; SPLIT AND BREAK APART PEAT POTS.
12. PRUNE PLANTS AS NECESSARY - PER STANDARD NURSERY PRACTICE AND TO CORRECT POOR BRANCHING OF EXISTING AND PROPOSED TREES.
13. WRAP ALL SMOOTH-BARKED TREES - FASTEN TOP AND BOTTOM. REMOVE BY APRIL 1ST.
14. STAKING OF TREES AS REQUIRED; REPOSITION, PLUMB AND STAKE IF NOT PLUMB AFTER ONE YEAR.
15. THE NEED FOR SOIL AMENDMENTS SHALL BE DETERMINED UPON SITE SOIL CONDITIONS PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT FOR THE NEED OF ANY SOIL AMENDMENTS.
16. BACKFILL SOIL AND TOPSOIL TO ADHERE TO MN/DOT STANDARD SPECIFICATION 3877 (SELECT TOPSOIL BORROW) AND TO BE EXISTING TOP SOIL FROM SITE FREE OF ROOTS, ROCKS LARGER THAN ONE INCH, SUBSOIL DEBRIS, AND LARGE WEEDS UNLESS SPECIFIED OTHERWISE. MINIMUM 4" DEPTH TOPSOIL FOR ALL LAWN GRASS AREAS AND 12" DEPTH TOPSOIL FOR TREE, SHRUBS, AND PERENNIALS.
17. MULCH TO BE AT ALL TREE, SHRUB, PERENNIAL, AND MAINTENANCE AREAS. TREE AND SHRUB PLANTING BEDS SHALL HAVE 4" DEPTH OF SHREDDED HARDWOOD MULCH. SHREDDED HARDWOOD MULCH TO BE USED AROUND ALL PLANTS WITHIN TURF AREAS. PERENNIAL AND ORNAMENTAL GRASS BEDS SHALL HAVE 2" DEPTH SHREDDED HARDWOOD MULCH. MULCH TO BE FREE OF DELETERIOUS MATERIAL AND COLORED RED, OR APPROVED EQUAL. ROCK MULCH TO BE BUFF LIMESTONE, 1 1/2" TO 3" DIAMETER, AT MINIMUM 3" DEPTH, OR APPROVED EQUAL. ROCK MULCH TO BE ON COMMERCIAL GRADE FILTER FABRIC, BY TYPAR, OR APPROVED EQUAL WITH NO EXPOSURE. MULCH AND FABRIC TO BE APPROVED BY OWNER PRIOR TO INSTALLATION. MULCH TO MATCH EXISTING CONDITIONS (WHERE APPLICABLE).
18. EDGING TO BE COMMERCIAL GRADE VALLEY-VIEW BLACK DIAMOND (OR EQUAL) POLY EDGING OR SPADED EDGE, AS INDICATED. POLY EDGING SHALL BE PLACED WITH SMOOTH CURVES AND STAKED WITH METAL SPIKES NO GREATER THAN 4 FOOT ON CENTER WITH BASE OF TOP BEAD AT GRADE, FOR MOWERS TO CUT ABOVE WITHOUT DAMAGE. UTILIZE CURBS AND SIDEWALKS FOR EDGING WHERE POSSIBLE. SPADED EDGE TO PROVIDE V-SHAPED DEPTH AND WIDTH TO CREATE SEPARATION BETWEEN MULCH AND GRASS. INDIVIDUAL TREE, SHRUB, OR RAIN-GARDEN BEDS TO BE SPADED EDGE, UNLESS NOTED OTHERWISE. EDGING TO MATCH EXISTING CONDITIONS (WHERE APPLICABLE).
19. ALL DISTURBED AREAS TO BE SODDED OR SEEDED, UNLESS OTHERWISE NOTED. PARKING LOT ISLANDS TO BE SODDED WITH SHREDDED HARDWOOD MULCH AROUND ALL TREES AND SHRUBS. SOD TO BE STANDARD MINNESOTA GROWN AND HARDY BLUEGRASS MIX, FREE OF LAWN WEEDS. ALL TOPSOIL AREAS TO BE RAKED TO REMOVE DEBRIS AND ENSURE DRAINAGE. SLOPES OF 3:1 OR GREATER SHALL BE STAKED. SEED AS SPECIFIED AND PER MN/DOT SPECIFICATIONS. IF NOT INDICATED ON LANDSCAPE PLAN, SEE EROSION CONTROL PLAN.
20. PROVIDE IRRIGATION TO ALL PLANTED AREAS ON SITE. IRRIGATION SYSTEM TO BE DESIGN/BUILD BY LANDSCAPE CONTRACTOR. LANDSCAPE CONTRACTOR TO PROVIDE SHOP DRAWINGS TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION OF IRRIGATION SYSTEM. CONTRACTOR TO PROVIDE OPERATION MANUALS, AS-BUILT PLANS, AND NORMAL PROGRAMMING. SYSTEM SHALL BE WINTERIZED AND HAVE SPRING STARTUP DURING FIRST YEAR OF OPERATION. SYSTEM SHALL HAVE ONE-YEAR WARRANTY ON ALL PARTS AND LABOR. ALL INFORMATION ABOUT INSTALLATION AND SCHEDULING CAN BE OBTAINED FROM THE GENERAL CONTRACTOR.
21. CONTRACTOR SHALL PROVIDE NECESSARY WATERING OF PLANT MATERIALS UNTIL THE PLANT IS FULLY ESTABLISHED OR IRRIGATION SYSTEM IS OPERATIONAL. OWNER WILL NOT PROVIDE WATER FOR CONTRACTOR.
22. REPAIR, REPLACE, OR PROVIDE SOD/SEED AS REQUIRED FOR ANY ROADWAY BOULEVARD AREAS ADJACENT TO THE SITE DISTURBED DURING CONSTRUCTION.
23. REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.
24. RAIN GARDEN NOTE: PROVIDE AND INSTALL EROSION CONTROL BLANKET AT RAIN GARDEN AREA SIDE SLOPES AFTER ALL PLANTING HAVE BEEN INSTALLED. BLANKET TO BE ONE SEASON GEOJUTE, MN/DOT CATEGORY 2 (STRAW 1S, WOOD FIBER 1S), OR APPROVED EQUAL. BLANKET TO BE OVERLAPPED BY 4" AND ANCHORED BY SOD STAPLES. PLACE BLANKET PERPENDICULAR TO THE SLOPE. TRENCH IN EDGES OF BLANKET AREA TO PREVENT UNDER MINING. PROVIDE SILT FENCE AT TOP OF SLOPE AS NEEDED. SHREDDED HARDWOOD MULCH TO MATCH OTHER PROJECT PLANTING MULCH. PLACE 4" DEPTH OF MULCH AT ALL PLANTING AND EROSION CONTROL BLANKET AREA (NO FILTER FABRIC). SEE RAIN GARDEN DETAIL FOR FURTHER INFORMATION. RAIN GARDEN TO PROVIDE PROPER INFILTRATION AND DRAINAGE REQUIREMENTS PER ENGINEERS APPROVAL.

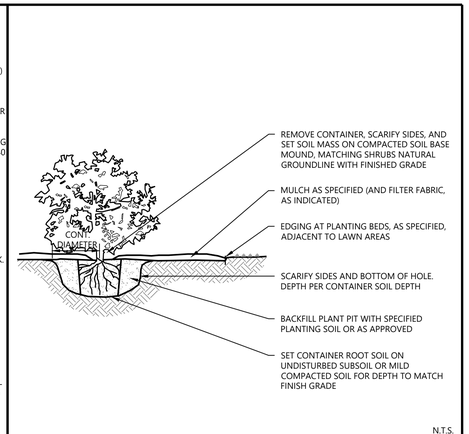
Landscape Planting Details



Westwood	DECIDUOUS TREE PLANTING	LAST REVISED: 10/19/18
		LA28



Westwood	EVERGREEN TREE PLANTING	LAST REVISED: 10/19/18
		LA29



Westwood	SHRUB & PERENNIAL CONTAINER PLANTING	LAST REVISED: 10/23/18
		LA27-C

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RIVERTOWN HEIGHTS

DESIGNED:	FDH II
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HORIZONTAL SCALE:	##########
VERTICAL SCALE:	### OR ##

INITIAL ISSUE: 01/28/22
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PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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CORY MEYER
DATE: 03/16/22 LICENSE NO. 26971

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CHASKA, MN

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Westwood Professional Services, Inc.

PRELIMINARY
LANDSCAPE NOTES & DETAILS
PROJECT NUMBER: 0027067.00

SHEET NUMBER: 24 OF 30
DATE: 03/16/22

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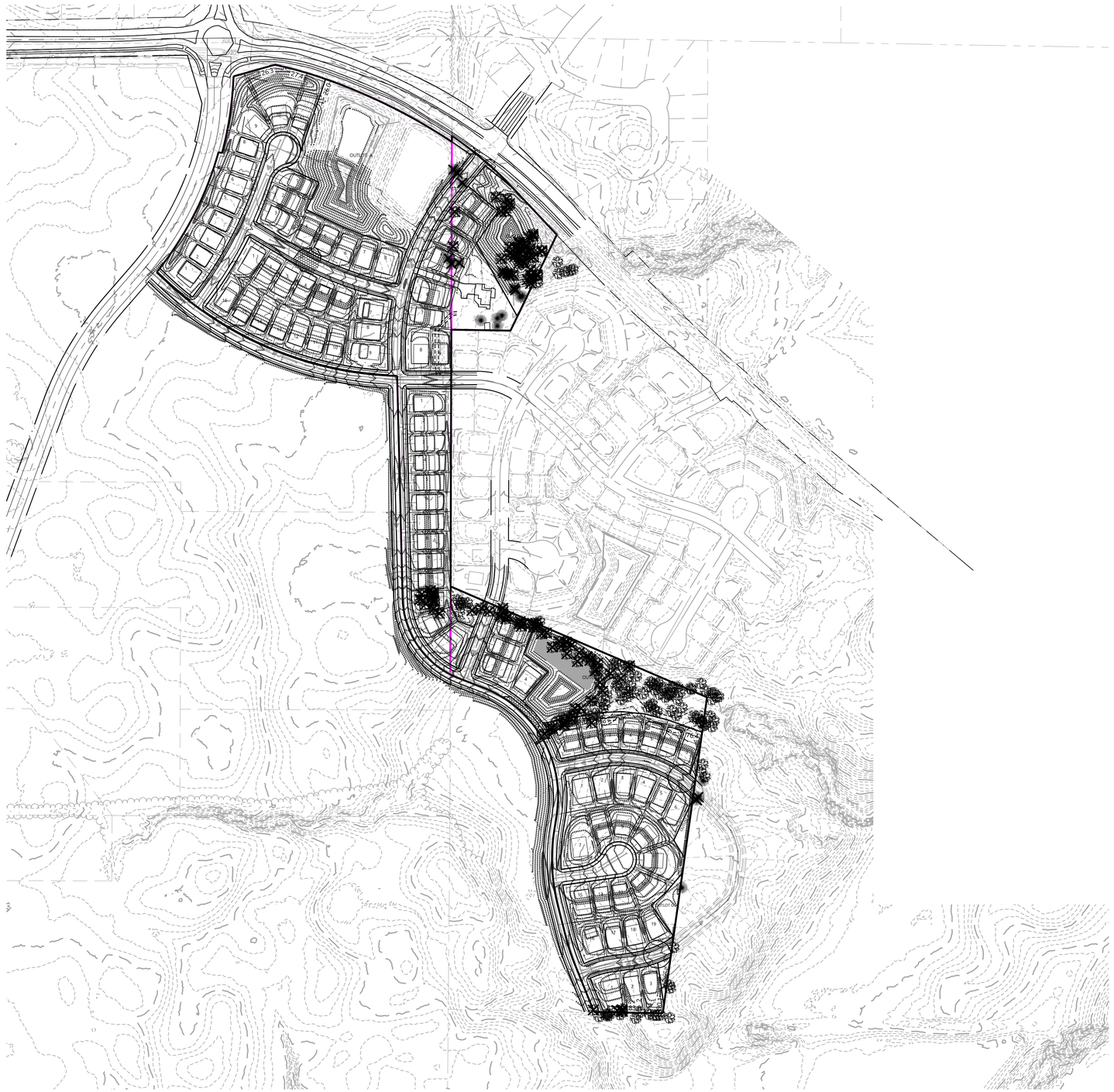
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Common Ground Alliance

1" = 50'
0' 50' 100' 150'

NOT FOR CONSTRUCTION

OUTLOT A

OUTLOT B

TREE PROTECTION FENCE (TYP.)

N:\0027067.00\DWG\ARCHIVE\22-03-11 DWG\CIVIL\PRELIM\0027067S-TPP01.DWG

RIVERTOWN HEIGHTS

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	50'
VERTICAL SCALE:	10' OR 5'

INITIAL ISSUE: 01/28/22
REVISIONS:

1	02/16/22	CITY COMMENTS
2	03/16/22	2ND CITY COMMENTS
3	.	.
4	.	.
5	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA

CORY MEYER
DATE: 03/16/22 LICENSE NO. 26971

RIVERTOWN HEIGHTS
CHASKA, MN

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

TREE PRESERVATION PLAN

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 26 OF 30
DATE: 03/16/22

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Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance

TREE PROTECTION FENCE (TYP.)

1" = 50'
0' 50' 100' 150'

NOT FOR CONSTRUCTION

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RIVERTOWN HEIGHTS

DESIGNED: FDH II
CHECKED: FDH II
DRAWN: ACB
HORIZONTAL SCALE: 50'
VERTICAL SCALE: 10' OR 5'

INITIAL ISSUE: 01/28/22
REVISIONS:
1 02/16/22 CITY COMMENTS
2 03/16/22 2ND CITY COMMENTS
3 . .
4 . .
5 . .

PREPARED FOR:
DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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CORY MEYER
DATE: 03/16/22 LICENSE NO. 26971

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Westwood Professional Services, Inc.

TREE PRESERVATION PLAN

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 27 OF 30
DATE: 03/16/22

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Call 48 Hours before digging:
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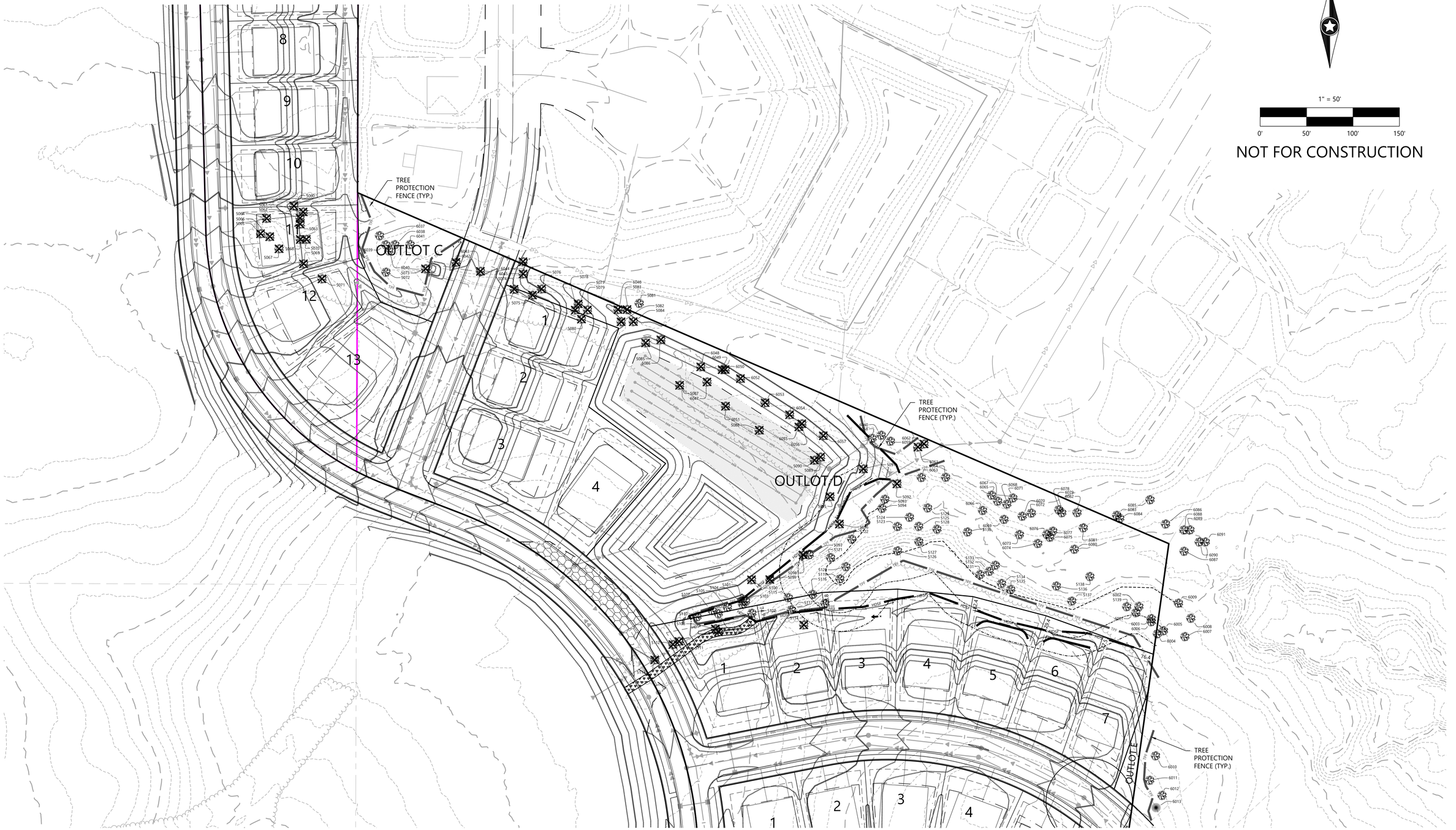
Common Ground Alliance

1" = 50'
0' 50' 100' 150'

NOT FOR CONSTRUCTION



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RIVERTOWN HEIGHTS

DESIGNED: FDH II
CHECKED: FDH II
DRAWN: ACB
HORIZONTAL SCALE: 50'
VERTICAL SCALE: 10' OR 5'

INITIAL ISSUE: 01/28/22
REVISIONS:

1	02/16/22	CITY COMMENTS
2	03/16/22	2ND CITY COMMENTS
3	.	.
4	.	.
5	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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TREE PRESERVATION PLAN

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 28 OF 30
DATE: 03/16/22

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Call 48 Hours before digging:
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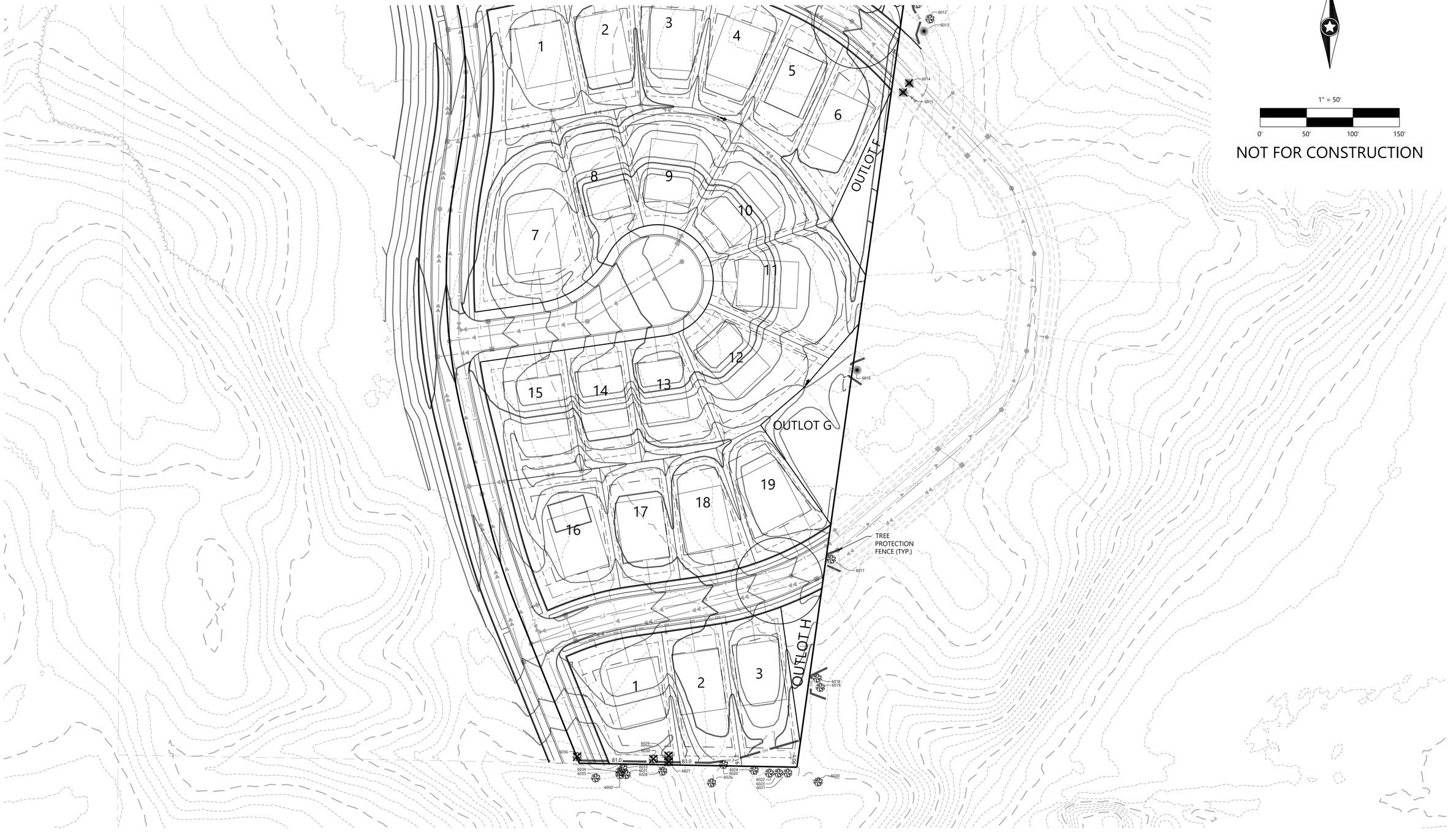
Common Ground Alliance

1" = 50'
0' 50' 100' 150'

NOT FOR CONSTRUCTION



RIVERTOWN HEIGHTS

N:\0027067.00\DWG\ARCHIVE\22-03-11 DWG\CIVIL\PRELIM\0027067S-TPP01.DWG

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	50.000001'
VERTICAL SCALE:	10' OR 5'

INITIAL ISSUE: 01/28/22
REVISIONS:

1	02/16/22	CITY COMMENTS
2	03/16/22	2ND CITY COMMENTS
3	.	.
4	.	.
5	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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TREE PRESERVATION PLAN

PROJECT NUMBER: 0027067.00

SHEET NUMBER: 29 OF 30
DATE: 03/16/22

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Common Ground Alliance

TREE TAG	SPECIES	SIZE (DBH)	MULTI	NOTES	TREE TYPE	STATUS
5001	Colorado Spruce	10			Coniferous	Removed
5002	Eastern Red Cedar	14			Coniferous	Removed
5003	Colorado Spruce	9			Coniferous	Removed
5004	Boxelder	22			Deciduous	Removed
5005	Green and White Ash	17			Deciduous	Removed-Exempt-EAB
5006	Colorado Spruce	8			Coniferous	Removed
5007	Colorado Spruce	12			Coniferous	Removed
5008	Colorado Spruce	10			Coniferous	Removed
5009	Green and White Ash	12			Deciduous	Removed-Exempt-EAB
5010	Bur Oak	15			Deciduous	Removed
5011	Sugar Maple	12			Deciduous	Removed
5012	Green and White Ash	13			Deciduous	Removed-Exempt-EAB
5013	Green and White Ash	15			Deciduous	Removed-Exempt-EAB
5014	Boxelder	16			Deciduous	Removed
5015	Hackberry	16			Deciduous	Removed
5016	Boxelder	13			Deciduous	Removed
5017	Green and White Ash	19			Deciduous	Removed-Exempt-EAB
5018	Boxelder	14			Deciduous	Removed
5019	Boxelder	15			Deciduous	Removed
5020	Black Willow	17		bd 50% dead	Deciduous	Removed-Exempt-bd
5021	Boxelder	14	x	bd	Deciduous	Removed
5022	Boxelder	16	x	pd	Deciduous	Removed
5023	Boxelder	14			Deciduous	Removed
5024	Boxelder	16			Deciduous	Removed
5025	Boxelder	13			Deciduous	Removed
5026	Boxelder	15			Deciduous	Removed
5027	Boxelder	13			Deciduous	Removed
5028	Boxelder	17	x	pd	Deciduous	Removed
5029	Boxelder	17			Deciduous	Removed
5030	Green and White Ash	16			Deciduous	Removed-Exempt-EAB
5031	Boxelder	12			Deciduous	Removed
5032	Boxelder	12			Deciduous	Removed
5033	Boxelder	16		bd 25% dead	Deciduous	Removed-Exempt-bd
5034	Boxelder	22			Deciduous	Removed
5035	Boxelder	16			Deciduous	Removed
5036	Boxelder	12			Deciduous	Removed
5037	Boxelder	23			Deciduous	Removed
5038	Boxelder	20			Deciduous	Removed
5039	Green and White Ash	19			Deciduous	Removed-Exempt-EAB
5040	Northern White Cedar	6	x		Coniferous	Saved
5041	Northern White Cedar	4	x	stem 4 in	Coniferous	Saved
5042	Colorado Spruce	10			Coniferous	Saved
5043	Colorado Spruce	10			Coniferous	Saved
5044	Colorado Spruce	8			Coniferous	Saved
5045	Colorado Spruce	16			Coniferous	Saved
5046	Boxelder	13			Deciduous	Removed
5047	Boxelder	12	x		Deciduous	Removed
5048	Boxelder	14	x		Deciduous	Removed
5049	Boxelder	16			Deciduous	Removed
5050	Boxelder	17			Deciduous	Offsite
5051	Boxelder	16			Deciduous	Removed
5052	Hackberry	15			Deciduous	Removed
5053	Boxelder	20			Deciduous	Removed
5054	Boxelder	18			Deciduous	Removed
5055	Basswood	48	x	pd	Deciduous	Offsite
5056	Basswood	16			Deciduous	Offsite
5057	Boxelder	13		bd 70% dead	Deciduous	Offsite
5058	Basswood	16			Deciduous	Offsite
5059	American Elm	16			Deciduous	Offsite
5060	Siberian Elm	12			Deciduous	Removed-Exempt-Invasive
5061	Siberian Elm	36			Deciduous	Removed-Exempt-Invasive
5062	Boxelder	20			Deciduous	Removed
5063	Unkown Deciduous Tree	14		dd	Deciduous	Removed
5064	Black Willow	23			Deciduous	Removed
5065	Black Willow	20			Deciduous	Removed
5066	Boxelder	16			Deciduous	Removed
5067	Boxelder	12			Deciduous	Removed
5068	Siberian Elm	17			Deciduous	Removed-Exempt-Invasive
5069	Boxelder	15			Deciduous	Removed
5070	Boxelder	13			Deciduous	Removed
5071	Boxelder	12	x		Deciduous	Removed
5072	Boxelder	20			Deciduous	Saved
5073	Hackberry	12			Deciduous	Removed
5074	Boxelder	12			Deciduous	Removed
5075	American Elm	12			Deciduous	Removed

TREE TAG	SPECIES	SIZE (DBH)	MULTI	NOTES	TREE TYPE	STATUS
5076	Boxelder	12			Deciduous	Removed
5077	Boxelder	12			Deciduous	Removed
5078	Boxelder	12			Deciduous	Removed
5079	Boxelder	12			Deciduous	Removed
5080	Boxelder	27	x	pd	Deciduous	Removed
5081	Boxelder	19	x	s pd	Deciduous	Offsite
5082	Boxelder	17	x		Deciduous	Removed
5083	Boxelder	24			Deciduous	Removed
5084	Boxelder	15	x	pd	Deciduous	Removed
5085	Boxelder	15			Deciduous	Removed
5086	Boxelder	15	x		Deciduous	Removed
5087	Boxelder	15		bd 40% dead	Deciduous	Removed-Exempt-bd
5088	Boxelder	14	x		Deciduous	Removed
5089	Boxelder	14	x		Deciduous	Removed
5090	Cottonwood	19			Deciduous	Removed
5091	Boxelder	14			Deciduous	Removed
5092	Boxelder	12		pd 60% dead	Deciduous	Removed-Exempt-pd
5093	Boxelder	16	x		Deciduous	Saved
5094	Black Walnut	16	x		Deciduous	Saved
5095	Siberian Elm	13			Deciduous	Removed-Exempt-Invasive
5096	Boxelder	14			Deciduous	Removed
5097	Bitternut Hickory	13			Deciduous	Saved
5098	Boxelder	14	x		Deciduous	Removed
5099	Basswood	22	x		Deciduous	Removed
5100	Boxelder	17		pd 15% dead	Deciduous	Removed-Exempt-pd
5101	Boxelder	13			Deciduous	Saved
5102	Basswood	12	x		Deciduous	Saved
5103	Basswood	15			Deciduous	Saved
5104	Boxelder	12			Deciduous	Saved
5105	Boxelder	13	x	pd	Deciduous	Saved
5106	Boxelder	14			Deciduous	Saved
5107	Boxelder	13			Deciduous	Saved
5108	Bitternut Hickory	15			Deciduous	Removed
5109	American Elm	23		dd	Deciduous	Removed
5110	Boxelder	14			Deciduous	Saved
5111	Boxelder	12	x		Deciduous	Removed
5112	Boxelder	16		bd 40% dead	Deciduous	Removed-Exempt-bd
5113	Black Willow	14	x		Deciduous	Removed
5114	Basswood	22	x		Deciduous	Removed
5115	Basswood	12	x		Deciduous	Saved
5116	Basswood	12			Deciduous	Saved
5117	Basswood	16	x		Deciduous	Saved
5118	Siberian Elm	13			Deciduous	Saved-Exempt-Invasive
5119	Basswood	20	x		Deciduous	Saved
5120	Basswood	12			Deciduous	Saved
5121	Basswood	14	x		Deciduous	Saved
5122	Basswood	17	x		Deciduous	Saved
5123	Basswood	13	x		Deciduous	Saved
5124	Basswood	12			Deciduous	Saved
5125	Sugar Maple	17	x	bd	Deciduous	Saved
5126	Boxelder	14			Deciduous	Saved
5127	Basswood	14	x		Deciduous	Saved
5128	Boxelder	14		bd 70% dead	Deciduous	Saved-Exempt-bd
5129	Boxelder	22	x		Deciduous	Saved
5130	Basswood	20	x		Deciduous	Saved
5131	Hackberry	15			Deciduous	Saved
5132	Boxelder	12	x		Deciduous	Saved
5133	Black Walnut	14			Deciduous	Saved
5134	Bur Oak	16			Deciduous	Saved
5135	Hackberry	12	x		Deciduous	Saved
5136	Basswood	28	x		Deciduous	Saved
5137	Boxelder	12	x		Deciduous	Saved
5138	Boxelder	12	x		Deciduous	Saved
5139	Boxelder	15			Deciduous	Saved
6001	Boxelder	14			Deciduous	Saved
6002	Boxelder	19			Deciduous	Saved
6003	Boxelder	13			Deciduous	Saved
6004	Boxelder	15			Deciduous	Offsite
6005	Boxelder	14			Deciduous	Offsite
6006	Boxelder	12	x		Deciduous	Saved
6007	Boxelder	12			Deciduous	Offsite
6008	Boxelder	14			Deciduous	Offsite
6009	Hackberry	14			Deciduous	Offsite
6010	Boxelder	16			Deciduous	Offsite
6011	Boxelder	15			Deciduous	Offsite

TREE TAG	SPECIES	SIZE (DBH)	MULTI	NOTES	TREE TYPE	STATUS
6012	Boxelder	14			Deciduous	Offsite
6013	Eastern Red Cedar	3			Coniferous	Offsite
6014	Eastern Red Cedar	4			Coniferous	Removed-Offsite
6015	Eastern Red Cedar	5			Coniferous	Removed-Offsite
6016	Eastern Red Cedar	7			Coniferous	Offsite
6017	Boxelder	14		pd 50% dead	Deciduous	Offsite
6018	Siberian Elm	34			Deciduous	Offsite
6019	Siberian Elm	22			Deciduous	Offsite
6020	Red Oak	21			Deciduous	Offsite
6021	Basswood	19			Deciduous	Offsite
6022	Sugar Maple	12			Deciduous	Offsite
6023	Red Oak	15			Deciduous	Offsite
6024	Siberian Elm	15	x		Deciduous	Offsite
6025	Bur Oak	18			Deciduous	Saved
6026	American Elm	14			Deciduous	Offsite
6027	American Elm	15			Deciduous	Removed
6028	Slippery Elm	12			Deciduous	Offsite
6029	American Elm	16			Deciduous	Removed
6030	American Elm	12			Deciduous	Removed
6031	Bur Oak	27			Deciduous	Offsite
6032	Boxelder	12			Deciduous	Offsite
6033	Boxelder	22			Deciduous	Offsite
6034	American Elm	16		dd	Deciduous	Offsite
6035	Sugar Maple	17			Deciduous	Offsite
6036	Basswood	32			Deciduous	Removed
6037	Boxelder	12		pd 50% dead	Deciduous	Saved-Exempt-pd
6038	Boxelder	15			Deciduous	Saved
6039	Boxelder	15	x	pd	Deciduous	Saved
6040	Unkown Deciduous Tree	18		dd	Deciduous	Saved
6041	Siberian Elm	18			Deciduous	Saved-Exempt-Invasive
6042	Boxelder	12			Deciduous	Removed
6043	American Elm	18		pd 20% dead	Deciduous	Removed-Exempt-pd
6044	American Elm	12			Deciduous	Removed
6045	Siberian Elm	22		bd 25%	Deciduous	Removed-Exempt-Invasive
6046	Boxelder	16			Deciduous	Removed
6047	Boxelder	14	x	pd	Deciduous	Removed
6048	Boxelder	14	x		Deciduous	Removed
6049	Boxelder	18		pd 20% dead	Deciduous	Removed-Exempt-pd
6050	Silver Maple	14	x		Deciduous	Removed
6051	Cottonwood	13			Deciduous	Removed
6052	Boxelder	13	x		Deciduous	Removed
6053	Boxelder	22	x		Deciduous	Removed
6054	Boxelder	12	x		Deciduous	Removed
6055	Boxelder	18			Deciduous	Removed
6056	Cottonwood	33			Deciduous	Removed
6057	Boxelder	14		bd 40% dead	Deciduous	Removed-Exempt-bd
6058	Boxelder	13			Deciduous	Saved
6059	Boxelder	13			Deciduous	Saved
6060	Boxelder	18			Deciduous	Saved
6061	Boxelder	13			Deciduous	Removed
6062	Siberian Elm	14			Deciduous	Removed-Exempt-Invasive
6063	Siberian Elm	14	x		Deciduous	Saved-Exempt-Invasive
6064	Boxelder	15			Deciduous	Saved
6065	Boxelder	15	x	pd	Deciduous	Saved
6066	Boxelder	14	x		Deciduous	Saved
6067	Siberian Elm	16			Deciduous	Saved-Exempt-Invasive
6068	Boxelder	13	x		Deciduous	Saved
6069	Boxelder	13			Deciduous	Saved
6070	Boxelder	12			Deciduous	Saved
6071	Boxelder	12			Deciduous	Saved
6072	Boxelder	13			Deciduous	Saved
6073	Boxelder	13			Deciduous	Saved
6074	American Elm	13			Deciduous	Saved
6075	American Elm	14			Deciduous	Saved
6076	Boxelder	15			Deciduous	Saved
6077	Boxelder	16			Deciduous	Saved
6078	Boxelder	14			Deciduous	Saved
6079	Boxelder	12			Deciduous	Saved
6080	American Elm	19			Deciduous	Saved
6081	Boxelder	12			Deciduous	Saved
6082	Boxelder	12			Deciduous	Saved
6083	Boxelder	15			Deciduous	Offsite
6084	Boxelder	12			Deciduous	Offsite
6085	Boxelder	23			Deciduous	Offsite
6086	Boxelder	16		bd 80% dead	Deciduous	Offsite

TREE TAG	SPECIES	SIZE (DBH)	MULTI	NOTES	TREE TYPE	STATUS
6087	Boxelder	14		pd 70% dead	Deciduous	Offsite
6088	Boxelder	16			Deciduous	Offsite
6089	Boxelder	20		pd 75% dead	Deciduous	Offsite
6090	Boxelder	17			Deciduous	Offsite
6091	Boxelder	22			Deciduous	Offsite
10000	Arborvitae	2	x	arbo-16 Stems	Coniferous	Removed
10001	Arborvitae	2	x	arbo-12 Stems	Coniferous	Removed
10002	Arborvitae	4	x	arbo	Coniferous	Removed
10003	Arborvitae	3	x	arbo	Coniferous	Removed
10004	Arborvitae	6	x	arbo	Coniferous	Removed
10005	Arborvitae	3	x	arbo	Coniferous	Removed
10006	Arborvitae	3	x	arbo-4 Stem 2indbd	Coniferous	Removed

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NOT FOR CONSTRUCTION

RIVERTOWN HEIGHTS

DESIGNED: FDH II
CHECKED: FDH II
DRAWN: ACB
HORIZONTAL SCALE: ##########
VERTICAL SCALE: ### OR ##

INITIAL ISSUE: 01/28/22
REVISIONS:
1 02/16/22 CITY COMMENTS
2 03/16/22 2ND CITY COMMENTS
3 . .
4 . .
5 . .

PREPARED FOR:
DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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CORY MEYER
DATE: 03/16/22 LICENSE NO. 26971

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CHASKA, MN

Westwood
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Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

TREE PRESERVATION DATA
PROJECT NUMBER: 0027067.00

SHEET NUMBER: 30 OF 30
DATE: 03/16/22

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AMERICAN CLASSIC A

PRAIRIE D

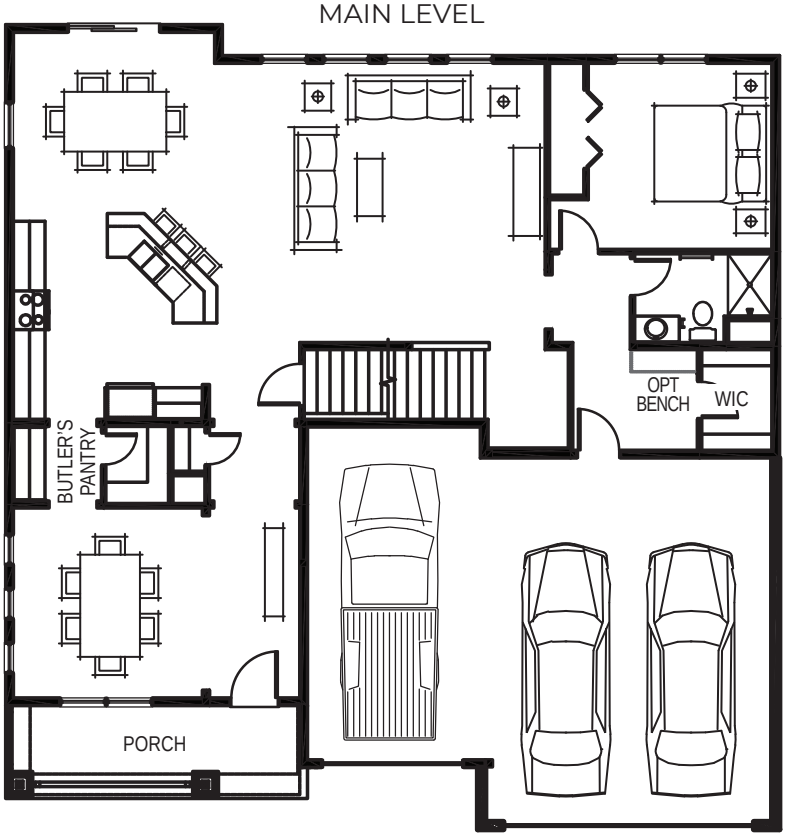
NORTHERN CRAFTSMAN B

D·R·HORTON
America's Builder

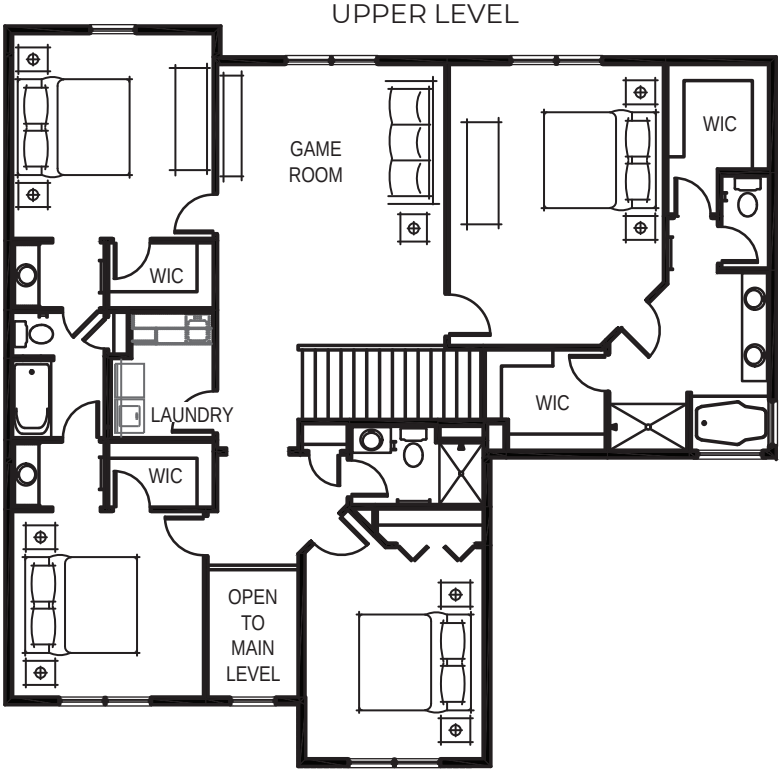
THE WHITNEY

3,400 SQUARE FEET

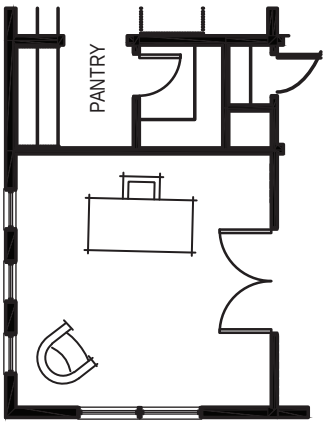
MAIN LEVEL



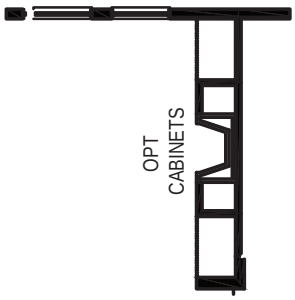
UPPER LEVEL



OPT STUDY



OPT GAS FIREPLACE



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THE HARRISON

AMERICAN CLASSIC A

HEARTLAND COTTAGE C

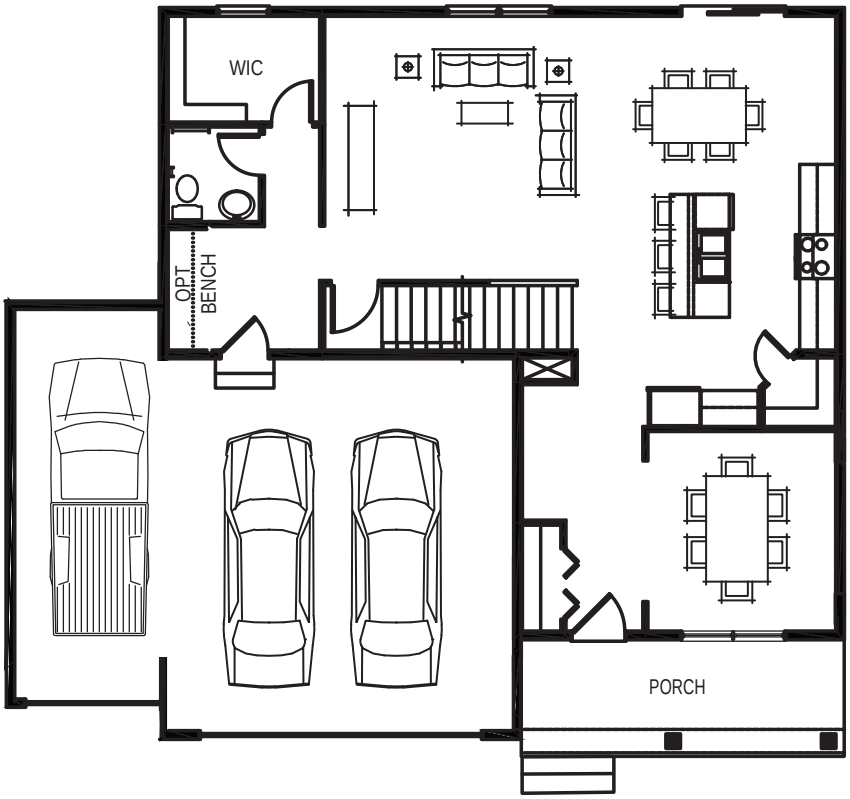
NORTHERN CRAFTSMAN B

D·R·HORTON
America's Builder

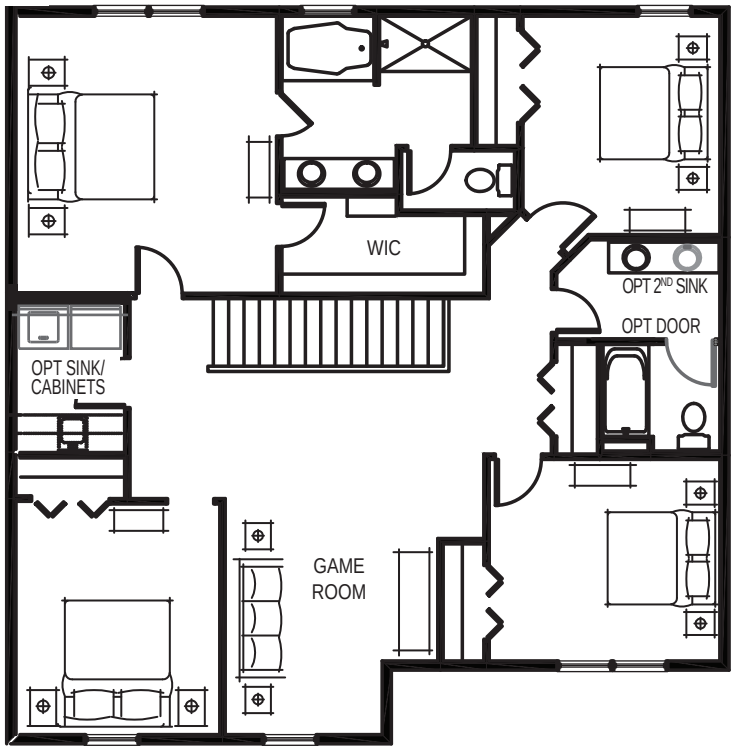
THE HARRISON

2,522 SQUARE FEET

MAIN LEVEL

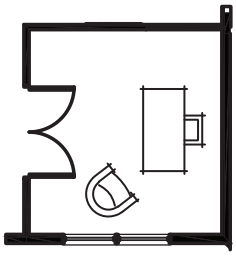


UPPER LEVEL



OPT BEDROOM PLAN W/ FULL BATH

OPT STUDY



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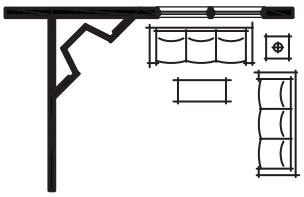

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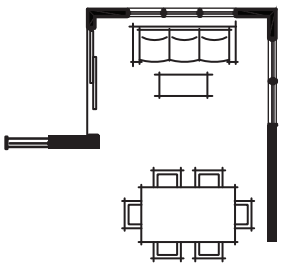

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HEARTLAND COTTAGE C

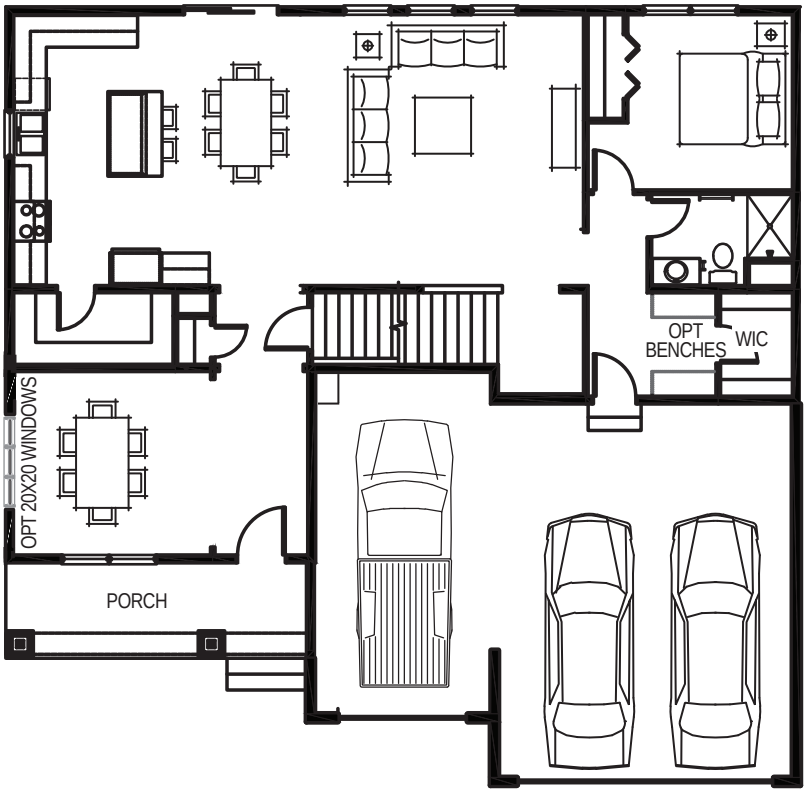
NORTHERN CRAFTSMAN B

PRAIRIE D

D·R·HORTON
America's Builder

THE JORDAN
3,003 SQUARE FEET

MAIN LEVEL



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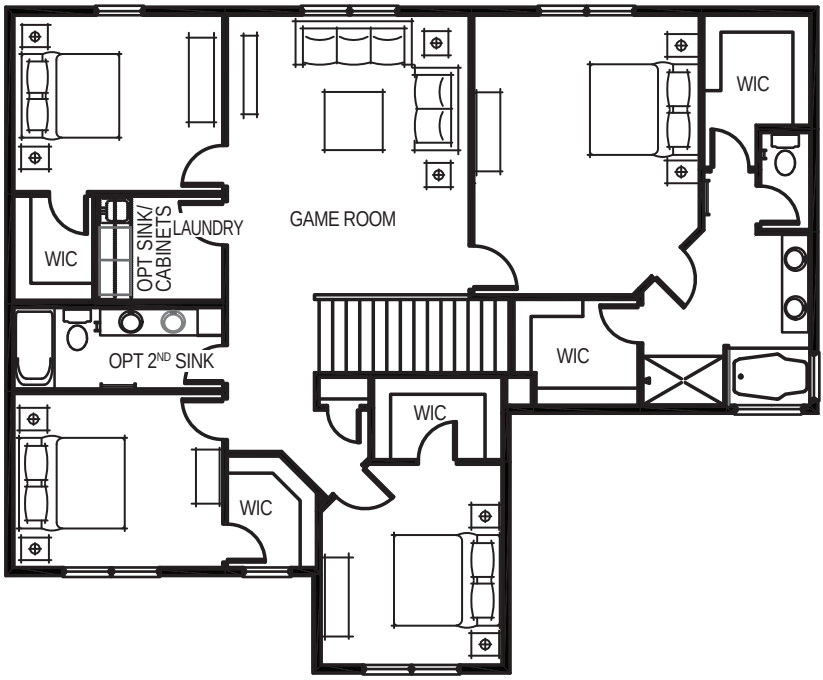

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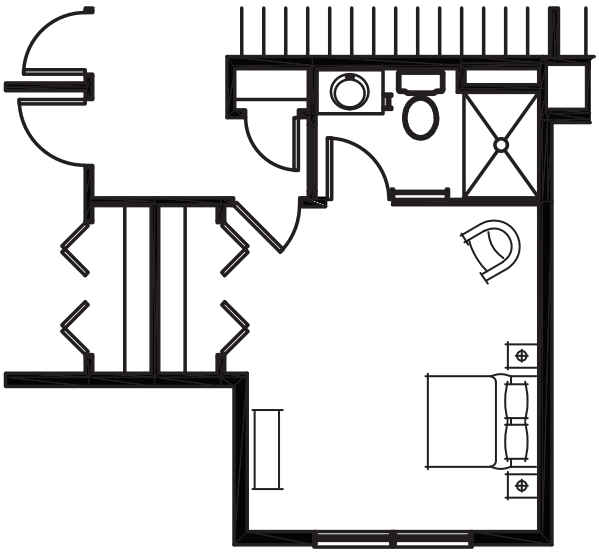

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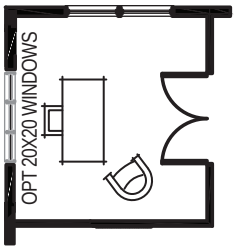

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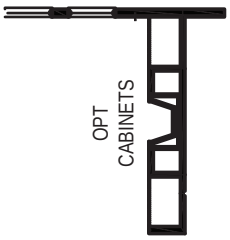
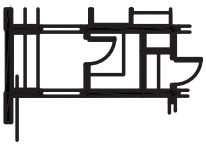


OPT BUTLER'S PANTRY



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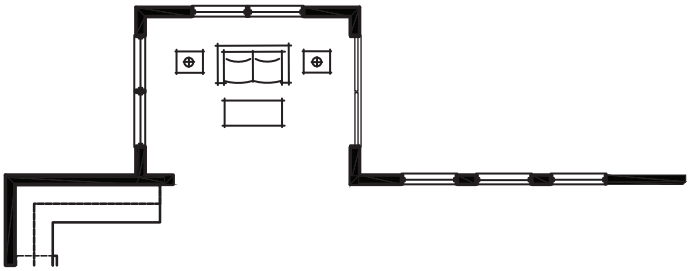

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THE REDWOOD

AMERICAN CLASSIC A

HEARTLAND COTTAGE C

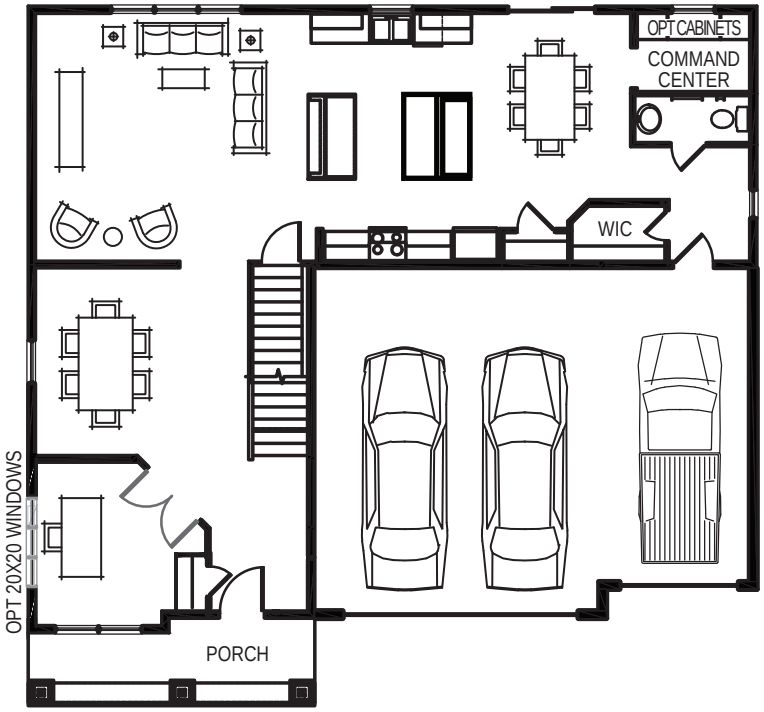
NORTHERN CRAFTSMAN B

D·R·HORTON
America's Builder

THE REDWOOD

3,084 SQUARE FEET

MAIN LEVEL



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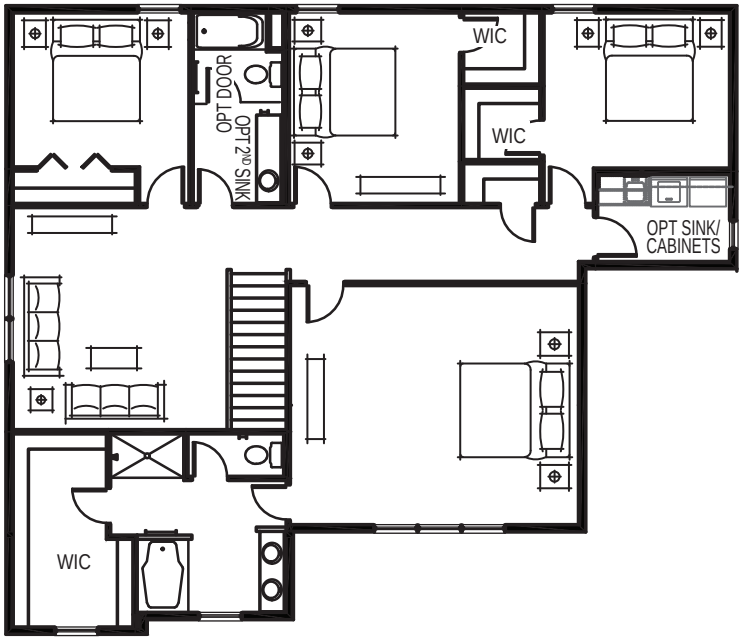

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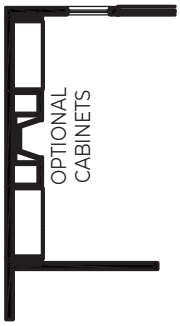

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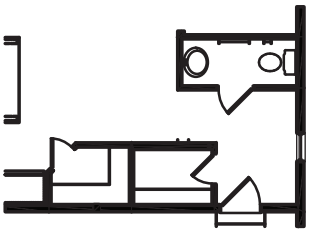
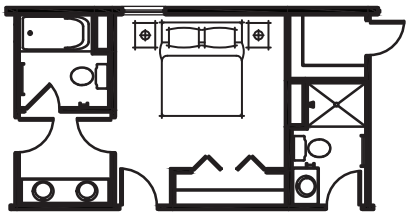


OPT JACK & JILL PLUS HALL BATH



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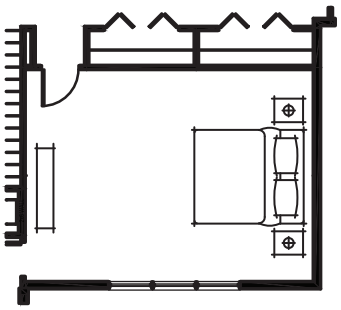

OPT SEE-THROUGH GAS FIREPLACE

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THE ADAMS

AMERICAN CLASSIC A

HEARTLAND COTTAGE C

NORTHERN CRAFTSMAN B

PRAIRIE D

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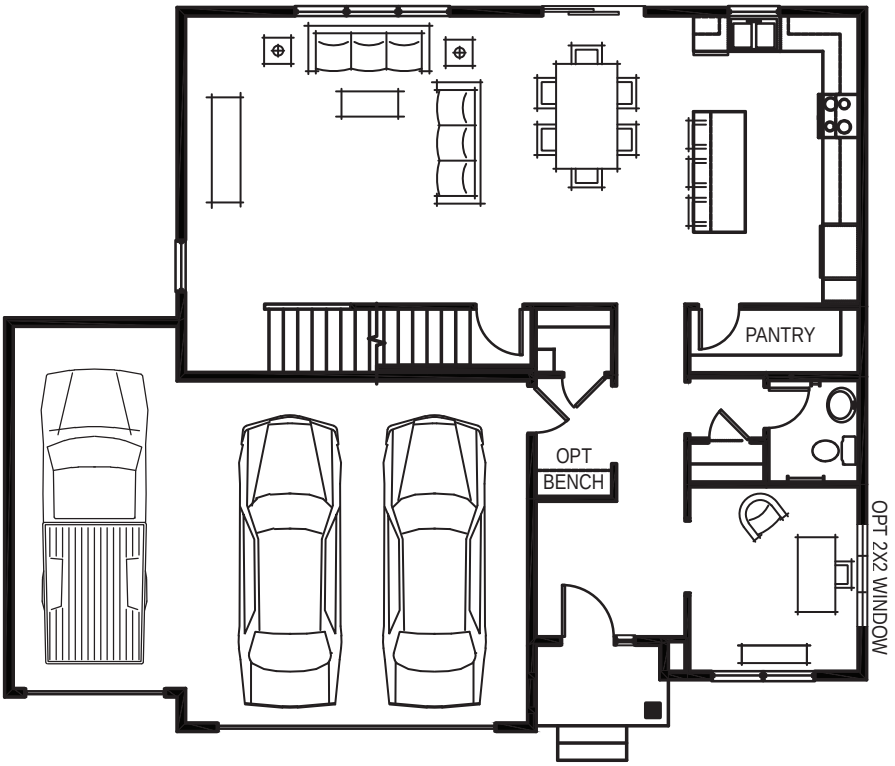
America's Builder

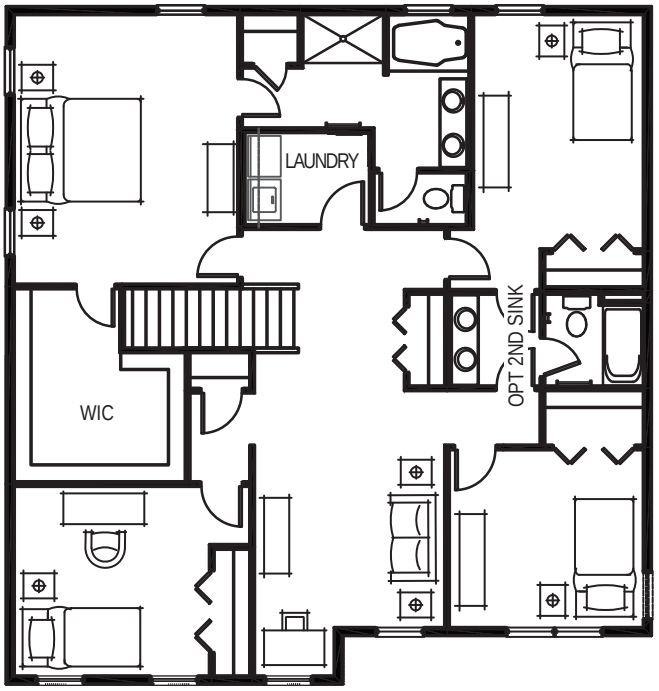
THE ADAMS

2,776 SQUARE FEET

MAIN LEVEL



UPPER LEVEL



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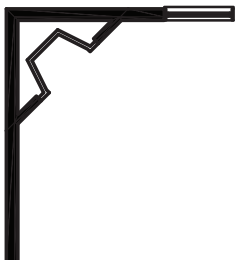

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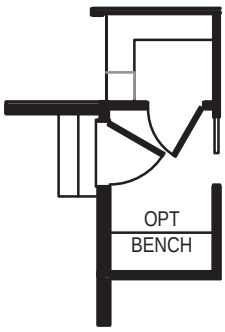
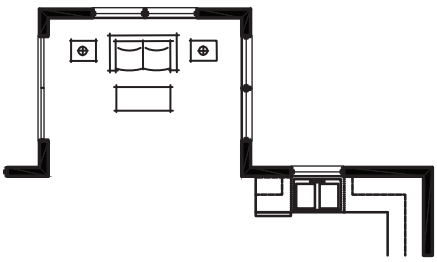
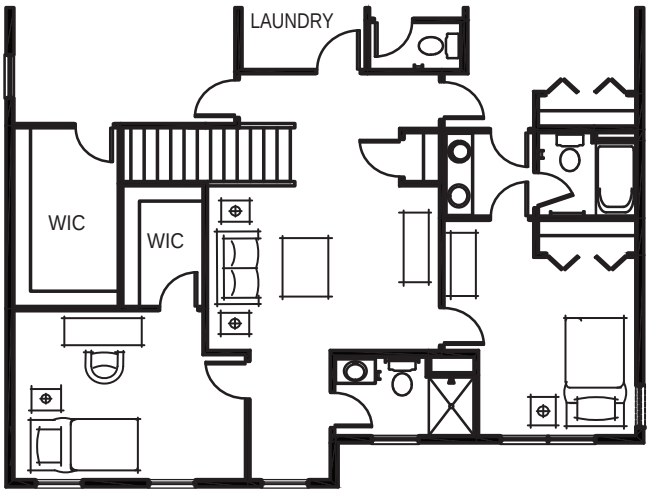


OPT SUNROOM



OPT JACK & JILL 3RD BATH



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THE GRANT

AMERICAN CLASSIC A

HEARTLAND COTTAGE C

NORTHERN CRAFTSMAN B

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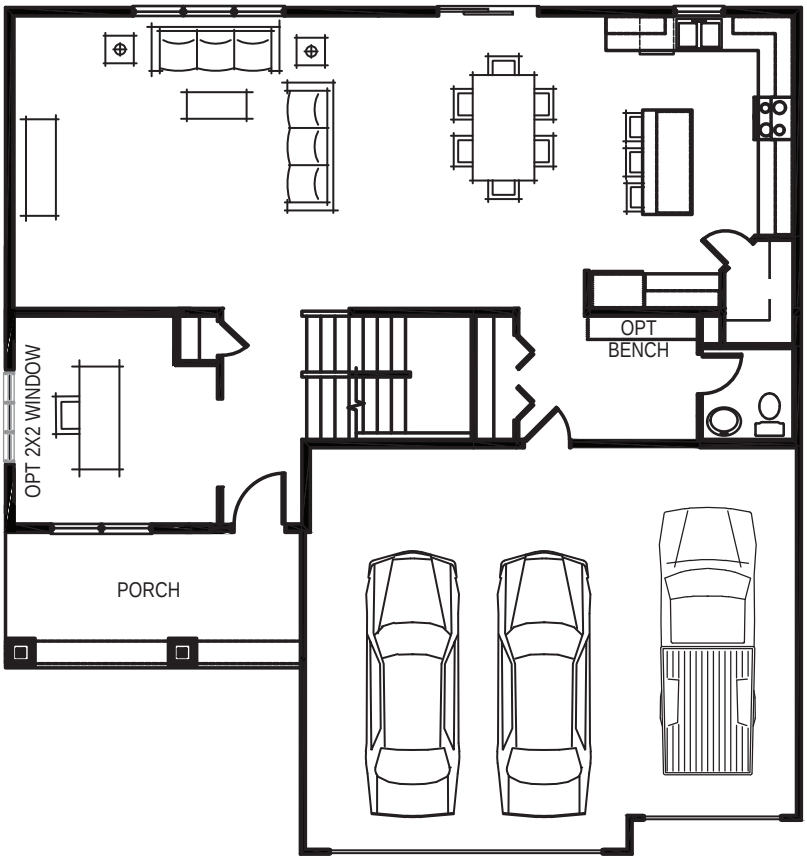
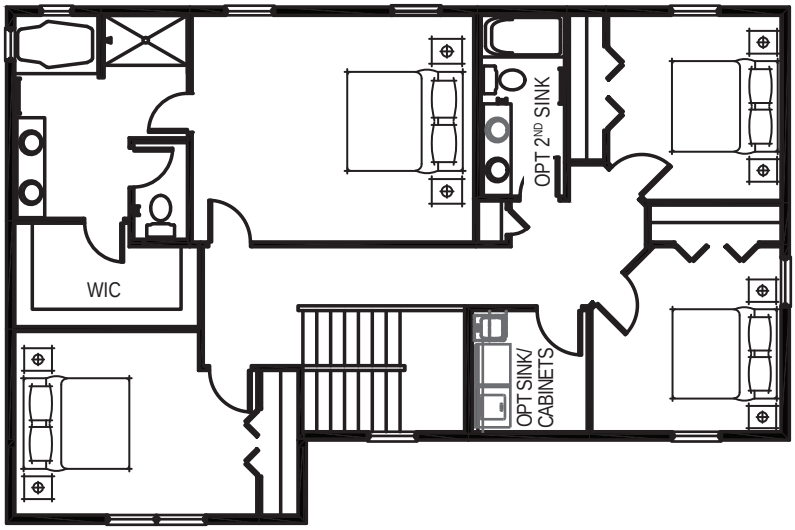
D·R·HORTON
America's Builder

THE GRANT
2,553 SQUARE FEET

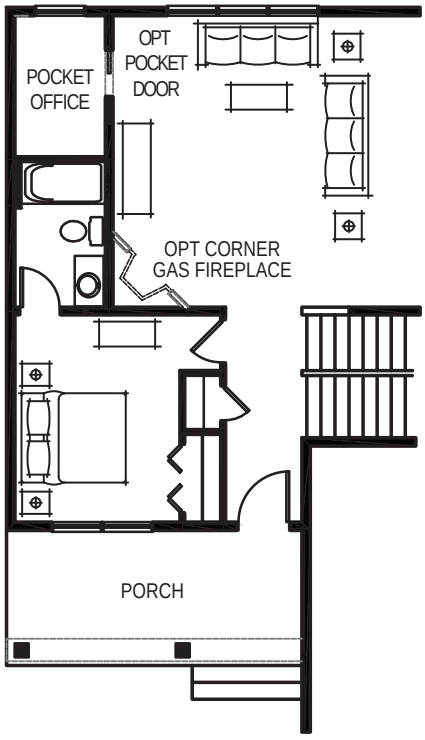
MAIN LEVEL



UPPER LEVEL

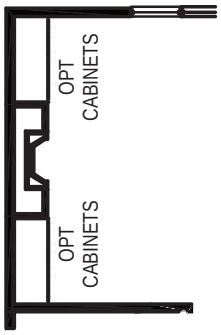


OPT MAIN LEVEL
BED, BATH, AND POCKET OFFICE



OPT LOFT IN LIEU OF BEDROOM

OPT GAS FIREPLACE



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THE BRIDGEWATER II

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PRAIRIE D

NORTHERN CRAFTSMAN B

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THE BRIDGEWATER II

2,599 SQUARE FEET

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Carver County
Public Works
11360 Highway 212, Suite 1
Cologne, MN 55322

November 4, 2021

*(Review comments from February 2022 preliminary plat submittal are made in blue italic font. Comments updated **March 16, 2022**)*

City of Chaska
c/o Elizabeth Hanson, AICP
City Planner
952-448-9200
EHanson@chaskamn.com

Re: Development / Access Review Comments: Rivertown Heights Concept Plan – *Preliminary Plat* - located on nine parcels including PIDs #300070120 and 302020010 adjacent to County State Aid Highway (CSAH) 44 (Big Woods Blvd.)

Thank you for the opportunity to review the subject development in the City of Chaska. Consistent with the County Comprehensive Plan and County Codes, and other official controls of the County, the following are comments and recommended conditions of approval and as potential requirements for any necessary permits to be issued for the project.

1. Regarding access onto the County Highway –
    a. This development meets the threshold for the requirement of a Traffic Impact Analysis (TIA) based on the number of proposed units. The purpose of the TIA is to analyze traffic impacts, safety, and operations at the intersections of CSAH 44/Savanna Way and CSAH 44/Percheron Blvd. The County and City conducted significant engineering analysis of these intersections as part of a recent reconstruction project and as part of the Highway 212/CSAH 44 interchange project.
        i. County staff reviewed the development assumptions used in the engineering analysis for the CSAH 44 reconstruction project and concludes that the subject development concept proposal is consistent with previous engineering analysis and study. The TIA requirement is waived due to the engineering analysis recently completed as part of the CSAH 44 reconstruction project and the finding of consistency of the proposed development concept with the assumptions from the existing study.
            1. *Information*
        ii. The intersections adjacent to this development (CSAH 44/Savanna and CSAH 44/Percheron Blvd.) were reconstructed to operate sufficiently with the trip generation from the proposed development. The CSAH 44/Percheron Blvd. intersection was reconstructed to accommodate future striping of an eastbound right turn lane, which will be required to be implemented with this development.
            1. *Condition applies/Comment Resolved. A left turn lane and right turn lane were built in 2020 for the Street 1 connection to CSAH 44.*

CARVER COUNTY

b. The County's Access Spacing Map in the 2040 Comprehensive Plan (Figure 4.14) identifies this segment of CSAH 44 as Category 5B, which guides full access intersection spacing at ¼ mile intervals and secondary (limited) intersection spacing at 1/8 mile intervals. The concept proposes to connect to existing intersections on CSAH 44 with approximate spacing distance of 0.2 miles. The spacing between the Savanna Way and Percheron Blvd. intersection is approximately 0.2 miles and the spacing between Percheron Blvd. and Founders Way/Cascade Dr. intersection is approximately 0.22 miles.

i. The proposed access spacing between intersections matches the existing intersections and is within the general guidance of the access spacing policy.

1. Information.

2. Regarding highway right of way –

a. CSAH 44 at the location east of the Savanna Way intersection is a 2-lane divided urban roadway facility with a trail on the north side and sidewalk on the south side. The existing right of way varies and is approximately 75 ft. from the centerline of the roadway adjacent to the subject property.

1. Information.

b. The existing right of way is consistent with the County's 2040 Comprehensive Plan for this type of highway typical section (Figure B.6). Right of way dedication consistency along the subject development will need to be worked out through the platting process and verified by County Surveyor.

1. Condition applies/New conditions.

a. The existing right of way and drainage and utility easements for Parcel 7 or other easements (PE 7, PE 4B) on Right of Way plat no. 28 (within Lot 1, Block 1, Founders Ridge) do not appear to be consistent with the CSAH 44 right of way plat, and the differences need to be reconciled. If this acquisition did not occur or did not get recorded, this needs to be corrected on this plat to be re-platted and dedicated as highway right of way. This includes right of way at intersection approaches and the drainage and utility easements.

b. The new street connection at CSAH 44/Percheron Bvld. (southwestern leg) needs to be adjusted to align the proposed lane configuration with Percheron Blvd. on the opposite side of CSAH 44 such that the existing median on the northeastern leg of the intersection is aligned. There is too much of an offset with the current proposed alignment. Additional right of way width on the proposed southwestern leg may be needed to accommodate this change.

c. Stormwater and drainage for the ponds within the subject development adjacent to CSAH 44 shall adhere to the Joint Powers Agreement between the County and City (Contract 19-068, dated March 8, 2019).

1. Condition applies/New request. Provide drainage calculations for the storm water that is going to the ponds on the south side of CSAH 44, as these ponds were oversized for this development by the City.

d. Noise mitigation along CSAH 44 is recommended via increased setback, berm, and/or other screening of planned dwellings adjacent to CSAH 44.

1. *Information. Defer to City requirements.*

3. Regarding final approvals and required permits -

a. The County will need to review and approve the final grading plans for properties adjacent to CSAH 44. A grading permit will be required for grading work within the highway right of way.

1. *Condition applies. Additional review and coordination needed for permit approval.*

b. Access permits will be required for new public street connections to CSAH 44.

1. *Condition applies. Additional review and coordination needed for permit approval.*

c. The technical details of the final plat, its boundaries and form(s) will need to be reviewed and approved by the County Surveyor.

1. *Condition applies for final plat approval.*

d. Prior to any work affecting or on County highways or in County right of way, the applicant shall coordinate plans with the County Engineer and obtain a Utility, Access, or Excavating/Filling/Grading Permit(s) from Carver County Public Works: (www.co.carver.mn.us/departments/public-works/quick-links/permits). Final details of locations, grades, and profiles affecting County roads as well as any utility connections will need to be reviewed and approved prior to any permits.

1. *Condition applies. Additional review and coordination needed for permit approval.*

e. Any damages, modifications, or changes incurred on County highways from current or approved conditions will need to remedied or updated at development expense, including costs incurred by the County.

1. *Information.*

These are the County's comments at this time. If you have any questions or need further assistance, please contact staff noted below:

Joan Guthmiller Administrative Technician Carver County Public Works 952.466.5201 jguthmiller@co.carver.mn.us	Angie Stenson AICP Sr. Transportation Planner Carver County Public Works 952.466.5273 astenson@co.carver.mn.us	Dan McCormick, P.E. PTOE Traffic Services Supervisor Carver County Public Works 952.466.5208 dmccormick@co.carver.mn.us

REQUEST FOR ACTION
CHASKA CITY COUNCIL
March 21, 2022

Subject: **Resolution Approving the Concept Plan for Hazeltine Plaza Apartments/Trident Development/PC #2022-18**

Applicant: Trident Development, LLC, Roger Fink

Locations: Southwest corner of Hazeltine Blvd. and Hundertmark Rd. in Hazeltine Plaza

Case No.: PC No. 2022-18

Synopsis: The applicant is requesting approval of a concept plan that would allow them to locate an apartment complex on the vacant parcel (PID: 302190030) at the southwest corner of Hazeltine Blvd. and Hundertmark Rd. in Hazeltine Plaza.

Prepared By: Nate Kabat

Staff Recommendation: Approval of Concept Plan, with listed conditions

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BACKGROUND

In September 2005, the City approved (Resolution # 05-92) the concept plan and rezoning for Hazeltine Plaza (PC 05-24), which included two retail buildings along the "main street" area at the northwest corner of the site (Lot 1, Block 1).

In June 2007, the City approved (Resolution # 07-52) the preliminary plat, and the preliminary site and building plans for Hazeltine Plaza (PC 07-12), which included the two retail buildings along the "main street" area at the northwest corner of the site (Lot 1, Block 1).

In July 2007, the City approved (Resolution # 07-59) the final plat, and the final site and building plan for Kohl's located on Lot 4, Block 1 of the Hazeltine Plaza development (PC 07-12).

In March 2012, the City approved (Resolution # 12-08) the preliminary and final site and building plan for McDonald's located on Lot 2, Block 1 of Hazeltine Plaza (PC 12-04).

In July 2012, the City approved (Resolution # 12-34) the preliminary and final site and building plan for Park Dental located on Lot 5, Block 1 of Hazeltine Plaza (PC 12-07).

In January 2018, the City approved (Resolution # 18-09) the concept plan to develop Lot 1, Block 1 of Hazeltine Plaza (PC 2018-01).

In March 2018, the City approved (Resolution # 18-27) the Preliminary Site Plan, Preliminary Plat and Zoning Ordinance Amendment to develop Lot 1, Block 1 of Hazeltine Plaza (PC 2018-03).

In May 2018, the City approved (Resolution # 18-63) the Final Site & Building Plan and Final Plat for ALDI, Chipotle and Starbucks in Hazeltine Plaza (PC 2018-16).

Goals
The Developer has described goals for this development as follows:

The proposed housing community will transform an underutilized retail lot into a high-quality housing option for citizens of Chaska. Residents will enjoy a sense of community among their neighbors, together with a close connection to one of Chaska's most significant amenities – Hazeltine Golf Course. The location of the proposed development will take advantage of the existing pedestrian connections to retail, employment and recreation destinations, creating a sense of neighborhood connection and walkability.

The proposed development will utilize existing public utilities, while increasing tax base. Contributions from this development, in the form of impact fees, will also serve to improve public parks and infrastructure.

The architectural design is intended to create a timeless façade and incorporating high quality exterior materials, including elements of "Chaska Brick" that will enhance the immediate neighborhood and reinforce community values.

The Developer has set the following principles to guide their development of the site:

- *Provide a quality rental housing option at a reasonable price.*
- *Assure the safety and security of residents and staff using the latest technology.*
- *Engage professional property management services to maintain quality appearance and quality resident base.*
- *Develop mechanisms to allow reciprocal cooperation with retail neighbors.*
- *Design resident amenities that take advantage of nearby golf courses.*
- *Direct the site plan design to meet or exceed the minimum open space and useable green space as specified in the PCD-15 district.*
- *Pursue a landscape plan that visually delineates the housing use, creating a sense of place.*

Existing Conditions
The site is 4.74 acres at the southwest corner Hazeltine Blvd. and Hundertmark Rd. and comprises approximately the eastern third of the Hazeltine Plaza commercial development site. The subject property is zoned as Planned Commercial District (PCD-15) and is owned by Chaska Investment Limited Partnership. The intent of this district is to "create high-quality, pedestrian-friendly, lifestyle retail center that serves the day-to-day needs of Chaska residents for retail goods and services."

Presently, the site consists of paved parking at the northern half, a green space area intended for a commercial development pad, and includes two access points connecting Hazeltine Plaza

to Hundertmark Rd. The site is surrounded by a mix of uses including residential, recreational, and office/commercial. Hazeltine Plaza currently includes Kohl's as the primary anchor, Mc Donalds, Starbucks, Chipotle, Aldi's, and Park Dental as occupants of the commercial development. Hazeltine National Golf Course neighbors the site to the east, Hazeltine Shores townhomes is a residential rental development to the northeast, the City's newly renovated Loop executive golf course is to the north, and the Goodman Group office building is northwest of the site. The two neighboring golf courses to provide an opportunity for the proposed apartments to create attractive views for units on the north and west sides. City trails currently exist along Hazeltine Blvd and Hundertmark Rd. adjacent to the site.

CURRENT REQUEST

Trident (or a party related) proposes to develop, construct and operate a market-rate, rental housing community containing 116 to 128 dwelling units, contained within one (1) four-story apartment building. The conceptual site plan contemplates maintaining the existing entrance drives from Hundertmark Road, by creating a drive-under/breezeway for vehicular and pedestrian traffic to travel from Hundertmark to the retail stores located west. The project will strive to create useable open space and pedestrian connections, as well as contemporary amenities for the residents. No retail uses are contemplated within the proposed apartment building.

Adjacent properties

Hazeltine Plaza currently includes Kohl's as the primary anchor, Mc Donalds, Starbucks, Chipotle, Aldi's, and Park Dental as occupants of the commercial development. Hazeltine National Golf Course neighbors the site to the east, Hazeltine Shores townhomes is a residential rental development to the northeast, the City's newly renovated Loop executive golf course is to the north, and the Goodman Group office building is northwest of the site. Chaska Commons is located to the south of the site, and is separated by a stormwater complex.

Use

The 2040 Comprehensive Plan guides this site for mixed residential, which is defined as follows:

Areas guided for the integration of more than one land use either vertically (e.g. multi-story buildings with residential and/or office uses above and commercial uses at street level) or horizontally as a planned development (e.g. planned mixed developments designed to integrate complementary land uses). Land uses allowed are residential, commercial, office, park, civic, and open space. Low, Medium, and High Density Residential uses are allowed. Density range allowed is three (3) to 40 dwelling units per net residential acre including local access streets. Residential uses should generally represent a minimum of 75 percent of the overall mixed use area rather than each property or development site. A lower residential percentage, in terms of acres, may be allowed where medium and high density residential is part of the development. The important natural resource systems and open spaces within the area must be identified, prioritized, and protected, using the Environmental Features Map (FIGURE 3.7) as the basis for open space preservation. Protected wildlife corridors should have a general width of 150 feet. Public access to these natural resource systems and open spaces is required.

The current zoning for the site is PCD-15. Residential is not a permitted use under the current zoning.

While the proposed use is consistent with the Comprehensive Plan's land use guidance, The request for a residential use is not consistent with the approved zoning and thus would require rezoning to make it viable. If the proposal proceeds to preliminary, zoning will need to be addressed.

Hazeltine Plaza Housing Development Location/Design

The proposal is for one four-story, market-rate, rental housing apartment building containing 116 to 128 dwelling units. The conceptual site plan proposes to maintain the existing entrance drives from Hundertmark Road, by creating a drive-under/breezeway above and across the northly access for vehicular and pedestrian traffic to travel from Hundertmark to the retail stores located west. No retail uses are proposed within the apartment building.

Pertaining to the proposed building height, the developer acknowledges that the current surrounding uses are of a variety of building heights and mass. The adjacent retail buildings are all 1-story; however a number of nearby surrounding buildings including Highland Shores apartments and condos (3-4 stories), Chaska Heights Senior Living (3 stories), and the Hazeltine Center/Goodman Group building (4-5 stories) provide a number of examples of similarly scaled buildings near this site. The developer proposes to incorporate a variation in roof line and exterior façade to soften the visual impact. The developer has indicated that the architectural design will incorporate high quality exterior materials, including elements of "Chaska Brick" that will enhance the immediate neighborhood and reinforce community values.

The developer proposes to create useable open space and pedestrian connections, as well as contemporary amenities for the residents. Amenities being explored include opportunities for a roof-top patio amenity affording wide vistas of nearby golf courses. The developer is also considering the feasibility of including an indoor golf simulator room along with an outdoor putting green.

Analysis
The location of the proposed buildings is appropriate in utilizing the connection to the surrounding golf courses and in relationship to the existing residential located to the northeast. This location will provide an amenity to the residents and optimize the views and connections to the golf courses, in addition to walkable access to the businesses at Hazeltine Plaza and Chaska Commons. Notably, there is a Reciprocal Easement Agreement (REA) in place for Hazeltine Plaza which requires the approval of Kohl's for any proposed development within Hazeltine Plaza and also provides Kohl's with approval authority for proposed changes to the access points to Hazeltine Plaza. As a result, the development will need to gain approval of Kohl's in order to proceed. In addition, the developer will need to coordinate with Kohl's on the impacts to the access, including the proposed drive-under/breezeway in the case approval of the use is achieved. Staff is aware that the developer is actively working through these discussion with Kohl's, although a decision has not yet been made.

The preliminary submittal will need to provide a contextual assessment to ensure the building scale, massing, and design are compatible with the existing surrounding development pattern. Because this building is a part of a larger development area, it would be appropriate and highly advised to show consistency in design, scale, and massing between the other buildings (i.e.

Chipotle, Starbucks, Kohls, etc). Given the proposed building's high visibility at the corner of Hazeltine Blvd. and Hundertmark Rd. staff would require the building to use 360-degree architecture for all sides of the building. Or, in other words, have a consistent design and material composition throughout. Given the building's proximity to both the Loop golf course and Hazeltine National Golf Club, opportunities exist for the architecture to align with these two prominent community amenities. Staff supports the use of Chaska Brick on the building and advises that only full modular face brick is classified as a Class I material. Brick veneer is not a Class I material. The applicant should choose consistent materials for their building to show general cohesiveness with the existing buildings in Hazeltine Plaza.

The City of Chaska has certain building design and material requirements for multi-family buildings. A portion of it is stated as follows:

"Multi-family buildings shall use at least three (3) Class I materials and shall be composed of at least eighty (80) percent Class I materials, and no more than five (5) percent Class III materials."

The applicant must show in the preliminary submittal how they meet the City's Building Design/Materials ordinance by calling out each material on the elevations and their percentage make-up.

Parking/Access/Circulation
The site is currently paved for a parking lot. The parking lot that exists on this site was intended to serve additional commercial space originally planned to be built adjacent to Kohl's.

Hazeltine Plaza was originally planned with the intention that all parking would be shared among the commercial developments on the site. With this objective in mind, the expectation has been that each development contributes its share of parking to ensure that the development can park itself as a whole. City requirements for retail parking are one parking space per 200 square feet. The Kohl's development was originally approved with 5.6 parking spaces per 1,000 square feet of retail, which exceeds the 1 space per 200 square feet requirement. Kohl's currently contains 444 spaces on its property; a 1 space per 200 square foot ratio would require 450 spaces. However, shared parking easements with the balance of the development results in ample parking.

The Aldi's/Starbuck's/Chipotle development was approved with 135 total spaces, which is five spaces lower than the 1 space per 200 square feet requirement but was found sufficient based on the cross-parking access with the surrounding development and based on staff observations of similar developments.

Uses	Approx. Size	Code Req.	Est. Parking Req.
Multi-Family	128 Units	2ps/dwelling unit	256 parking spaces
		PROVIDED	**268 parking spaces** (180 surface, 88 Garage)

According to this table the applicant is providing more parking spaces than required for multi-family residential.

Analysis
Attention will need to be given to the above ground parking lot to ensure clear separation from Kohl's to discourage conflicts that could arise from cross-access parking. With the proposed change in use, staff is concerned that cross-access parking is more likely to cause conflict between residents expecting to have dedicated space to park and shopping center patrons who expect convenient and available spaces. Whereas the site was originally planned to anticipate desirous cross-access parking for Kohl's and the eventual neighboring commercial users, the site will now need to be designed to mitigate conflicts between the two different uses. Notably, the design of the residential parking should place a focus on encouraging traffic to utilize access points on Hazeltine Road and discourage cut through traffic across the commercial parking lots to the Hazeltine Boulevard access to the north.

Pertaining to access, staff recognizes that Kohl's will need to approve of the proposed use and how impacts to the access that the concept proposes to the accesses onto Hundertmark. While the two accesses shown in the concept are the same locations as currently exist, this proposed project does present some impacts. The southern Hundertmark access is currently primarily used as a truck access to accommodate deliveries today. The proposal shows multiple connections to this access for its residential parking. Attention will need to be given to ensure adequate separation to reduce points of conflict between residential traffic and delivery traffic. The residential parking should also be designed to discourage use by shopping center patrons.

The northern Hundertmark access is currently primarily used by shopping center patrons as the primary access from Hundertmark, and a secondary access to the shopping center by volume as compared to the access onto Hazeltine Blvd. The project proposes to create a drive-under/breezeway across this access point. Staff recognizes that Kohl's will need to review and approve of this design per the Reciprocal Easement Agreement (REA) in place for Hazeltine Plaza for this building element to proceed. Attention to design and use within the building will need to be given to the drive-under/breezeway. From a traffic perspective, the developer will need to perform a traffic study based on the layout that evaluates the traffic impacts to Hundertmark and to Hazeltine Boulevard. The study will need to evaluate the operations at the proposed access points to ensure operations are acceptable and if improvements are needed on Hundertmark to support the use. In addition, the applicant will need to will need to complete a sight-line analysis to ensure adequate sight-lines are provided for drivers and pedestrians at the primary access points. The developer will also need to ensure that built space above the drive-under/breezeway is designed to ensure noise does not become an issue for residents.

Attention also needs to be given to the parking proposed to the west of this access point served directly from the main drive aisle. Staff would not support parking of this configuration as it creates a conflict with traffic flow in that area. In addition, pedestrian crossing from the residential parking proposed at the south side of the main drive aisle will need to be evaluated and provided to facilitate access to the main building entrance proposed to the north of the main drive aisle.

Signage
The existing pylon sign located at the northern access onto Hundertmark Road identifies the existing commercial establishments on the site. The proposed building would require this sign to be moved. The developer will need to define how this relocation would occur in context with the proposed apartment complex. The developer will also need to define how the proposed apartment would be signed in the preliminary application.

Staff Recommendation/Analysis
Signs will have to meet the required sign regulations for this development and be reviewed and approved through a separate permit process with the City. It should also be noted that the City's sign ordinance will dictate the amount and scale of signs on for the apartment building.

It should be noted that Hazeltine Plaza has their own sign criteria to meet in terms of the design of the signs. Tenant signs must be composed of individual channel-type letters. The applicant will have to show how all signs meet the sign criteria for Hazeltine Plaza on their final elevations.

Setbacks
The required setbacks for the site are as follows:

BUILDING SETBACKS	
Direction	**Setback**
Hundertmark Road	100 feet from centerline
From southernmost property line	30 feet
From northernmost property line	25 feet

PARKING SETBACKS	
Direction	**Setback**
Hundertmark Road	10 feet from right-of-way
Hazeltine Boulevard	10 feet from right-of-way
Interior Property Lines	5 feet

Landscaping
Landscaping will have to meet the City's ordinance in terms of quantity and size. The applicant will be required to submit a landscape plan with the preliminary submittal to show how they meet this ordinance. The landscape plan will also have to show how the site will meet the planting island requirement in the parking lot.

Lighting
The parking lot lighting proposed for this plan should be fully screened and face downward. Lighting will be designed to be consistent with the existing Hazeltine Plaza lighting.

Utilities
Water and sewer are available to serve this site. Details on the connections to the public utilities will need to be coordinated with the City Engineer.

Stormwater
Currently, the site drains to an existing pond located to the south of the site. The proposed development will need to keep the existing drainage patterns relatively the same as they are today, and will implement modifications to the existing pond, rain water gardens, bio-swales and other acceptable Best Management Practices for the site to comply with the current Stormwater Management Regulations per the City, Watershed District, and the State. Details on this will need to be coordinated with the City Engineer.

Platting
The development is currently platted, so a replatting is not being considered for this proposal.

Rezoning
The zoning for this site, PCD-15, does not list residential as a permitted use. As such, the site will need to be rezoned as part of the preliminary process to accommodate any residential uses.

Staging
Construction is anticipated to start as soon as all approvals are obtained. Construction phasing and access will need to be coordinated with the City Engineer and existing businesses to ensure adequate access throughout construction for commercial patrons and deliveries.

CONCLUSION
The proposed apartment complex is in line with the Comprehensive Plan's land use guidance. While the proposed use is not permitted in the current zoning, the intent of the district is to, "create high-quality, pedestrian-friendly, lifestyle retail center that serves the day-to-day needs of Chaska residents for retail goods and services." Understanding the time and effort that has gone into pursuing the currently approved use over the past two decades, staff believes adding multi-family residential to the district would be a positive addition to this area that can align with the district's intent given that the aforementioned items are met adequately.

PLANNING COMMISSION ACTION TAKEN 03/09/2022
Motion to recommend approval of the Hazeltine Plaza Housing Development - Concept Plan (PC#2022-18), subject to the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Concept Application Narrative Letter Signed (pgs 1-4), submitted by Trident Development, LLC, dated 01/31/2022
    b. Project Summary (pgs 1-6), submitted by Trident Development, LLC, drafted by Kaas Wilson Architects, dated 02/01/2022
2. Approval of an amendment to the zoning (PCD-15), to include multi-family as a permitted use on Block 1, Lot 3 of Hazeltine Plaza.
3. Compliance with the zoning PCD-15 (ord. nos. 802 and 946).
4. Compliance with section 9.11 Building Design/Materials for Multi-Family Residential.

5. Compliance with applicable zoning requirements, in particular Chapter 9 (General Requirements).
6. Provision of 360 degree architecture be used on all facades.
7. Provision of material boards showing the proposed material selections for Hazeltine Plaza Housing Development.
8. Provision that if masonry is used that they are natural stone and/or full face modular brick in order to be considered Class I materials.
9. Provision of adequate sound proofing of the drive-under/breezeway to ensure noise does not conflict with residents.
10. Coordinate with the City Engineer to ensure that adequate site-lines are preserved at all access points to Hundertmark Road.
11. Provision of a landscape plan meeting all applicable requirements of Chapter 9.6 of the Zoning Code.
12. Provision of adequate screening and landscaping along all edges to be addressed at Preliminary submittal.
13. Adherence to the following building setbacks:
    a. Hundertmark Road: 100 feet from centerline
    b. From southernmost property line: 30 feet
    c. From northernmost property line: 25 feet
14. Adherence to the following parking setbacks:
    a. Hundertmark Road: 10 feet from right-of-way
    b. Hazeltine Boulevard: 10 feet from right-of-way
    c. Interior Property Lines: 5 feet
15. Provision of planting islands to be at least 10 feet in width.
16. Provision of lighting specs to be submitted with preliminary site plan submittal.
17. Coordination with the City Engineer for the provision of public utilities to the site.
18. Provision of a storm water management plan meeting City and Carver County WMO standards.
19. Provision of a traffic circulation plan that encourages residents to use the Hundermark access points as the primary access, limits conflict points with main internal circulation drive aisles for commercial patrons and delivery vehicles, and provides safe pedestrian crossings from residential parking to all apartment building entrances.
20. Provision of parking plan that limits and discourages cross-access parking to ensure residential access.
21. Provision of a construction traffic plan to be coordinated and approved by the City Engineer at preliminary submittal.
22. Provision of review and approval of Kohl's per the existing Reciprocal Easement Agreement.
23. Provision of plan to relocate the existing pylon sign located at the north access to Hundertmark Road in a way that is acceptable to all existing businesses of Hazeltine Plaza and meets City sign ordinance.
24. Provision of a traffic impact study as directed in the body of this report, and to be submitted at preliminary submittal.

Deadline for Agency Actions

The City of Chaska received the complete application for this request on Wednesday, February 16, 2022. Pursuant to Minnesota State Statutes the City must act on this request by **Sunday, April 17, 2022** (60 days), unless the City provides the petitioner with written reasons for an

additional 60-day review period. The additional review period would extend to *Thursday, June 16, 2022*. The City may with the petitioners consent extend the review period beyond the Thursday, June 16, 2022. Lastly, if the City denies the petitioners request "… it must state in writing the reasons for the denial at the time it denies the request."

CITY COUNIL ACTION REQUESTED:
Motion to adopt Resolution No. 2022-29 approving the Concept Plan for the Hazeltine Plaza Apartments development proposal by Trident Development (PC #2022-18).

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 03/21/2022 RESOLUTION NO. 2022-29

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

A RESOLUTION APPROVING THE CONCEPT PLAN FOR HAZELTINE PLAZA APARTMENTS/TRIDENT DEVELOPMENT/PC #2022-18

WHEREAS, in September 2005, the City approved (Resolution # 05-92) the concept plan and rezoning for Hazeltine Plaza (PC 05-24), which included two retail buildings along the "main street" area at the northwest corner of the site (Lot 1, Block 1) ; and

WHEREAS, in June 2007, the City approved (Resolution # 07-52) the preliminary plat, and the preliminary site and building plans for Hazeltine Plaza (PC 07-12), which included the two retail buildings along the "main street" area at the northwest corner of the site (Lot 1, Block 1) ; and

WHEREAS, in July 2007, the City approved (Resolution # 07-59) the final plat, and the final site and building plan for Kohl's located on Lot 4, Block 1 of the Hazeltine Plaza development (PC 07-12) ; and

WHEREAS, in March 2012, the City approved (Resolution # 12-08) the preliminary and final site and building plan for McDonald's located on Lot 2, Block 1 of Hazeltine Plaza (PC 12-04) ; and

WHEREAS, in July 2012, the City approved (Resolution # 12-34) the preliminary and final site and building plan for Park Dental located on Lot 5, Block 1 of Hazeltine Plaza (PC 12-07) ; and

WHEREAS, in January 2018, the City approved (Resolution # 18-09) the concept plan to develop Lot 1, Block 1 of Hazeltine Plaza (PC 2018-01) ; and

WHEREAS, in March 2018, the City approved (Resolution # 18-27) the Preliminary Site Plan, Preliminary Plat and Zoning Ordinance Amendment to develop Lot 1, Block 1 of Hazeltine Plaza (PC 2018-03) ; and

WHEREAS, in May 2018, the City approved (Resolution # 18-63) the Final Site & Building Plan and Final Plat for ALDI, Chipotle and Starbucks in Hazeltine Plaza (PC 2018-16) ; and

WHEREAS, the proposal is for one four-story, market-rate, rental housing apartment building containing 116 to 128 dwelling units located at the southwest corner of Hundertmark Road and Hazeltine Boulevard; and

WHEREAS, the 4.74 acre parcel (PID 302190030) is owned by Chaska Investment, LP and the development proposal is by Trident Development, LLC; and

WHEREAS, the 2040 Comprehensive Plan guides the site for mixed residential, which includes high density residential as a potential use; and

WHEREAS, the current zoning for the site is PCD-15 which does not include residential as a permitted use; and

WHEREAS, the site will need to be rezoned, or amended, as part of the preliminary process to accommodate any residential uses; and

WHEREAS, a Reciprocal Easement Agreement (REA) in place for Hazeltine Plaza requires the approval of Kohl's for any proposed development within Hazeltine Plaza and also provides Kohl's with approval authority for proposed changes to the access points to Hazeltine Plaza; and

WHEREAS, the developer will need to secure Kohl's approval per said REA for this proposal to proceed; and

WHEREAS, the existing pylon sign located at the northern access onto Hundertmark Road identifies the existing commercial establishments on the site and will need to be satisfactorily integrated into the development; and

WHEREAS, a traffic study will be necessary to ensure the accesses for the proposed development directly onto Hundertmark Road in two locations, and secondarily onto Hazeltine Boulevard are designed to provide sufficient safety and efficiency in light of current and anticipated traffic demands; and

WHEREAS, an internal traffic circulation and parking management plan is necessary to limit conflicts between the proposed residential use and the existing commercial uses; and

WHEREAS, the project proposes to provide 268 total parking spaces, with 180 spaces at surface and 88 below grade which exceeds the two parking spaces per unit required in City code; and

WHEREAS, cohesive pedestrian circulation within the exiting Hazeltine Plaza development and to neighboring destinations must be provided for residents; and

WHEREAS, the developer will need to work with staff to identify appropriate trail connection to existing trail facilities on Hundertmark Drive and Hazeltine Boulevard; and

WHEREAS, the applicant must show in the preliminary submittal how they meet the City's Building Design/Materials ordinance by calling out each material on the elevations and their percentage make-up; and

WHEREAS, Hazeltine Plaza Apartments will be a market-rate residential complex offering its residents a wide array of amenities within the units themselves as well as within the overall complex; and

WHEREAS, it will be required that this building incorporate 15% of its gross site area for usable open space; and

WHEREAS, the parking lot lighting proposed for this plan should be fully screened and face downward; and

WHEREAS; the developer will need to work with City Staff to determine applicable development fees including area fees, connection charges, etc.; and

WHEREAS, on March 9, 2022 the Planning Commission recommended approval to the City Council of the Concept Plan for Hazeltine Plaza Apartments (PC#2022-18).

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota, hereby approves the Concept Plan for Hazeltine Plaza Apartments (PC#2022-18), subject to the aforementioned stipulations and the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Concept Application Narrative Letter Signed (pgs 1-4), submitted by Trident Development, LLC, dated 01/31/2022
    b. Project Summary (pgs 1-6), submitted by Trident Development, LLC, drafted by Kaas Wilson Architects, dated 02/01/2022
2. Approval of an amendment to the zoning (PCD-15), to include multi-family as a permitted use on Block 1, Lot 3 of Hazeltine Plaza.
3. Compliance with the zoning PCD-15 (ord. nos. 802 and 946).
4. Compliance with section 9.11 Building Design/Materials for Multi-Family Residential.
5. Compliance with applicable zoning requirements, in particular Chapter 9 (General Requirements).
6. Provision of 360 degree architecture be used on all facades.
7. Provision of material boards showing the proposed material selections for Hazeltine Plaza Housing Development.
8. Provision that if masonry is used that they are natural stone and/or full face modular brick in order to be considered Class I materials.
9. Provision of adequate sound proofing of the drive-under/breezeway to ensure noise does not conflict with residents.
10. Coordinate with the City Engineer to ensure that adequate site-lines are preserved at all access points to Hundertmark Road.
11. Provision of a landscape plan meeting all applicable requirements of Chapter 9.6 of the Zoning Code.
12. Provision of adequate screening and landscaping along all edges to be addressed at Preliminary submittal.
13. Adherence to the following building setbacks:
    a. Hundertmark Road: 100 feet from centerline
    b. From southernmost property line: 30 feet
    c. From northernmost property line: 25 feet
14. Adherence to the following parking setbacks:
    a. Hundertmark Road: 10 feet from right-of-way
    b. Hazeltine Boulevard: 10 feet from right-of-way
    c. Interior Property Lines: 5 feet

15. Provision of planting islands to be at least 10 feet in width.
16. Provision of lighting specs to be submitted with preliminary site plan submittal.
17. Coordination with the City Engineer for the provision of public utilities to the site.
18. Provision of a storm water management plan meeting City and Carver County WMO standards.
19. Provision of a traffic circulation plan that encourages residents to use the Hundermark access points as the primary access, limits conflict points with main internal circulation drive aisles for commercial patrons and delivery vehicles, and provides safe pedestrian crossings from residential parking to all apartment building entrances.
20. Provision of parking plan that limits and discourages cross-access parking to ensure residential access.
21. Provision of a construction traffic plan to be coordinated and approved by the City Engineer at preliminary submittal.
22. Provision of review and approval of Kohl's per the existing Reciprocal Easement Agreement.
23. Provision of plan to relocate the existing pylon sign located at the north access to Hundertmark Road in a way that is acceptable to all existing businesses of Hazeltine Plaza and meets City sign ordinance.
24. Provision of a traffic impact study as directed in the body of this report, and to be submitted at preliminary submittal.

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 21st day of March, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Chaska Deputy Clerk

TRIDENT
Development, LLC.
3601 18th Street South • Suite #103 • St. Cloud, MN 56301
Phone 320.258.4438 • Fax: 320.252.3603

January 31, 2022

Ms. Elizabeth Hansen, AICP
City Planner
City of Chaska
One City Hall Plaza
Chaska, MN 55318-1962

HAND-DELIVERED & E-MAILED

RE: REQUEST FOR CONCEPT REVIEW
HAZELTINE PLAZA HOUSING DEVELOPMENT

Dear Ms. Hansen,

Trident Development, LLC is please to submit this request for concept review for the proposed Hazeltine Plaza Housing Community. The following narrative is intended to provide information for our preliminary site plan request.

Project Site - The project site contains approximately 4.74 +/- acres and is the remaining vacant lot of Hazeltine Plaza, legally described as Lot 3, Block 1, Hazeltine Plaza, Carver County, MN. Currently, the subject property is governed by a Planned Commercial District (PCD-15) and is owned by Chaska Investment Limited Partnership. Trident Development, LLC has a signed Letter of Intent with the owner and is currently negotiating a binding purchase agreement. The subject site is currently improved with asphalt surface parking and was designated as a future phase of retail expansion. The other lots in the Hazeltine Plaza Addition are occupied by retail tenants, most significantly, Kohl's Department Store. The feasibility of this proposed development will be dependent on obtaining the approval and cooperation of Kohl's.

Project Description – Trident (or a party related) proposes to develop, construct and operate a market-rate, rental housing community containing 116 to 128 dwelling units, contained within one (1) four-story apartment building. The conceptual site plan contemplates maintaining the existing entrance drives from Hundertmark Road, by creating a drive-under/breezeway for vehicular and pedestrian traffic to travel from Hundertmark to the retail stores located west. The project will strive to create useable open space and pedestrian connections, as well as contemporary amenities for the residents. No retail uses are contemplated within the proposed apartment building.

Traffic/Parking – Off-street parking is provided by a combination of underground and off-street/surface parking spaces. The current concept proposes approximately 180 surface parking spaces for the use of the residents, together with an additional 88 (est) parking spaces underground. Combined total off-street parking is proposed to be 268, a parking ratio of at least 2 spaces per unit. Creating the drive-under/breezeway and preserving the customer access to the Kohl's retail store, will be a critical element of the parking and traffic circulation. In an effort to mitigate traffic noise through the drive-under/breezeway, the building design will focus on

placing public/common area uses near the drive lane, insulating traffic noise to resident living spaces.

Utilities - Public and private utilities necessary to serve this development appear to be available and accessible in the street right-of-way or at the property line. No additional extension of public utility services is anticipated for this development.

Community Contribution – The proposed housing community will transform an underutilized retail lot into a high-quality housing option for the citizens of Chaska. Residents will enjoy a sense of community among their neighbors, together with a close connection to one of Chaska's most significant amenities – Hazeltine Golf Course. The location of the proposed development will take advantage of the existing pedestrian connections to retail, employment and recreation destinations, creating a sense of neighborhood connection and walk-ability.

The proposed development will utilize existing public utilities, while increasing tax base. Contributions from this development, in the form of impact fees, will also serve to improve public parks and infrastructure.

The architectural design is intended to create a timeless façade and incorporating high quality exterior materials, including elements of "Chaska Brick" that will enhance the immediate neighborhood and reinforce community values.

GUIDING PRINCIPALS – The proposed housing development will be guided by the following principals:

- Provide a quality rental housing option at a reasonable price.
- Assure the safety and security of residents and staff using the latest technology.
- Engage professional property management services to maintain quality appearance and quality resident base.
- Develop mechanisms to allow reciprocal cooperation with retail neighbors.
- Design resident amenities that take advantage of nearby golf courses.
- Direct the site plan design to meet or exceed the minimum open space and useable green space as specified in the PCD-15 district.
- Pursue a landscape plan that visually delineates the housing use, creating a sense of place.

PROGRAMMING – The proposed development involves certain unique challenges to be address by the applicant. The specific challenges include the following:

- Integrating high-density housing use within a commercial/retail district.
    - The current concept orients the building structure at the eastern boundary allowing the retail and residential parking surfaces to be contiguous. This also screens the parking lot from the views from Hundertmark Rd and Hazeltine Blvd. Drive lanes for ingress and egress are maintained.
- The visual impact of a four-story apartment structure at the proposed location.
    - The current surrounding uses are of a variety of building heights and mass. The adjacent retail buildings are all 1-story; however the surrounding buildings including Highland Shores apartments and condos (3-4 stories), Chaska Heights Senior Living (3 stories), and the Hazeltine Center (4-5 stories) support the idea of a 4-story building on this site. By incorporating a variation in roof line and exterior façade, the visual impact can be softened.

    - Positioning a four-story apartment building within a commercial district, retail and office nearby, becomes a more acceptable land use than in other areas of low-density residential.
- Connection to community for pedestrians, bicycles and vehicles.
    - The proposed site is currently served by improved public streets and sidewalks that will be preserved and utilized by this new development, providing convenient access to employment, retail/services and recreation. Hazeltine Blvd. offers direct connection to Hwy 41 and further connection to Hwy 212 provided easy access to other areas of Chaska and the Greater Twin Cities.
- Introduce contemporary amenities that enhance the unique site location.
    - Explore opportunities to include a roof-top patio amenity affording wide vistas of nearby golf courses.
    - Investigate the feasibility of including an indoor golf simulator room along with an outdoor putting green.
- Utilize existing stormwater management system to the greatest extent possible.
    - The site is currently served by a stormwater drainage pond from when the retail center was originally planned.
    - Drainage from the proposed development was intended to flow into the existing drainage pond. Capacity, treatment and rate control still need to be evaluated under current rules.
    - Engage professional civil engineering services to evaluate and design a stormwater management plan that minimizes environmental impact of the proposed development and connects into the existing stormwater system.
- Collaborate with the development team to decide naming/branding and signage.
    - Consider well-known names and places to include in project name.
    - Develop branding with focus on leisure, lifestyle and community connection.
    - Explore additional directional signage for retail (Kohl's) customers.

NEIGHBORHOOD MEETING – The applicant intends to hold an informational neighborhood meeting prior to the Planning Commission meeting, to identify and address potential conflicts or concerns regarding the proposed development.

DEVELOPMENT TEAM – Trident Development, LLC is based in St. Cloud, MN and has considerable experience in development and construction of multi-story apartment housing. Trident Development was instrumental in the development of Chaska Heights Senior Living as well as Lake Jonathan Flats, both located on Hwy 41. Trident's team of real estate professionals have over 50 years of real estate experience. Trident will work closely its design professionals, Kaas-Wilson Architects and Carlson McCain, Inc. to assure quality, functionality and integration within the immediate neighborhood.

Enclosed herewith please find the following:

- A check to the City of Chaska in the amount of $1,462.76 as an application fee (based on 116 units) + $741.00 processing fee for a total check of $2,203.76.
- Three (3) 24"/x36" prints of the existing plat, aerial image, concept site plan and conceptual elevations.
- Twenty (20) 11"x 14" reduced prints of the materials described above.
- One (1) signed Land Use/Development Application Form
- One (1) flash drive containing electronic files of each of the submittal materials detailed above.

We thank you in advance for considering this application. Let us know if you require any additional information. Please feel free to contact me at (320) 258-4438 or (612) 242-6097 if there are any questions.

Regards,
Trident Development, LLC

Roger D. Fink
Sr. Vice President
Enclosures

C: Scott O'Brien, Trident Development, LLC
Nate Kabat, AICP, Community Development Director

1 Site Location Aerial
1" = 300'-0"

EXISTING SITE PLAN KEY

1. KOHL'S - 1 STORY
2. HIGHLAND SHORES APTS - 3 STORIES
3. HIGHLAND SHORES CONDOS - 4 STORIES
4. CHASKA HEIGHTS SENIOR LIVING - 3 STORIES
5. HAZELTINE CENTER - 4-5 STORIES

SITE METRICS

PARCEL ID	302190030
ADDRESS	1130 HAZELTINE BLVD, CHASKA, MN 55318
PARCEL AREA	4.74 ACRES
ZONING	PCD - PLANNED COMMERCIAL DEVELOPMENT

EXISTING VIEW - HAZELTINE BLVD AND HUNDERTMARK RD

EXISTING VIEW - HUNDERTMARK RD EAST ENTRANCE

EXISTING VIEW - HUNDERTMARK RD SOUTH

EXISTING VIEW - HAZELTINE BLVD NORTH ENTRANCE

1 SD Site Plan
1" = 100'-0"

SITE PLAN KEY

1. BUILDING ENTRANCE
2. GARAGE ENTRANCE
3. COMMUNITY PATIO

APARTMENT BUILDING
4 STORIES
116-128 UNITS
34,000 SF FOOTPRINT

SITE AREA
TOTAL AREA: 206,570 SF (4.74 ACRES)
BUILDING FOOTPRINT: ~34,000 SF (16%)
LANDSCAPED AREA: ~60,500 SF (29%)

PARKING
GARAGE: 88
SURFACE: 180
TOTAL: 268

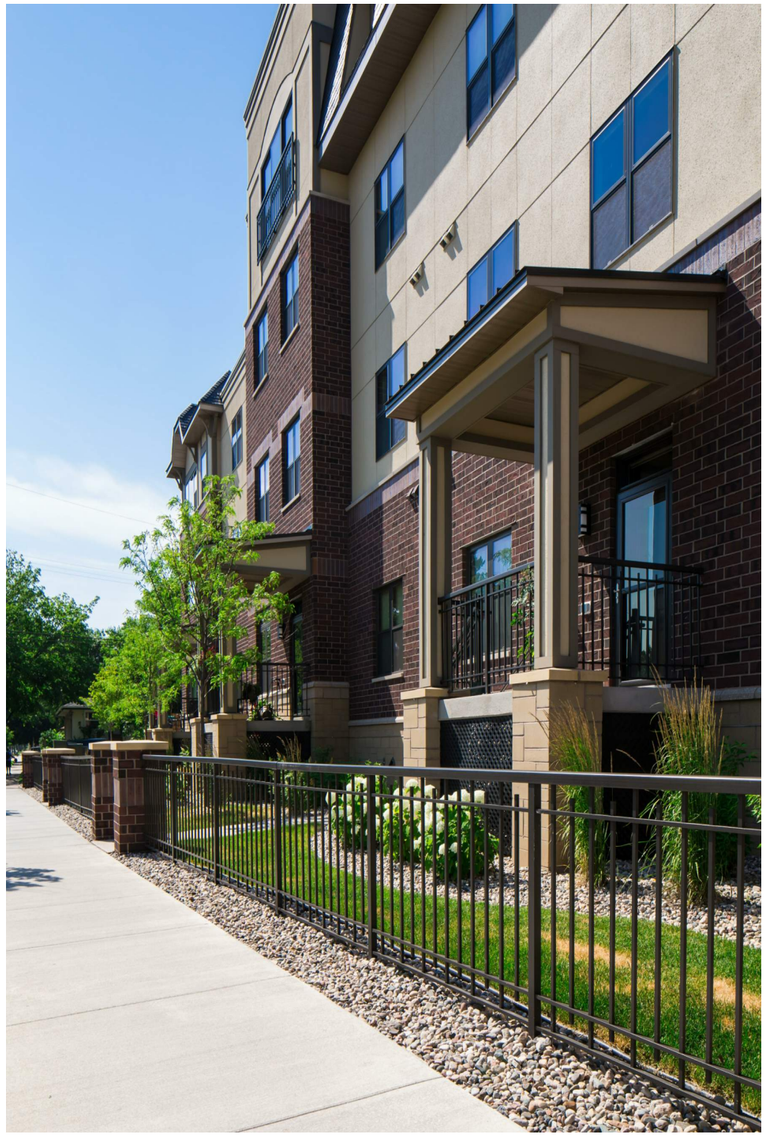
0 100' 200'

CONCEPTUAL MASSING - NORTHWEST AERIAL

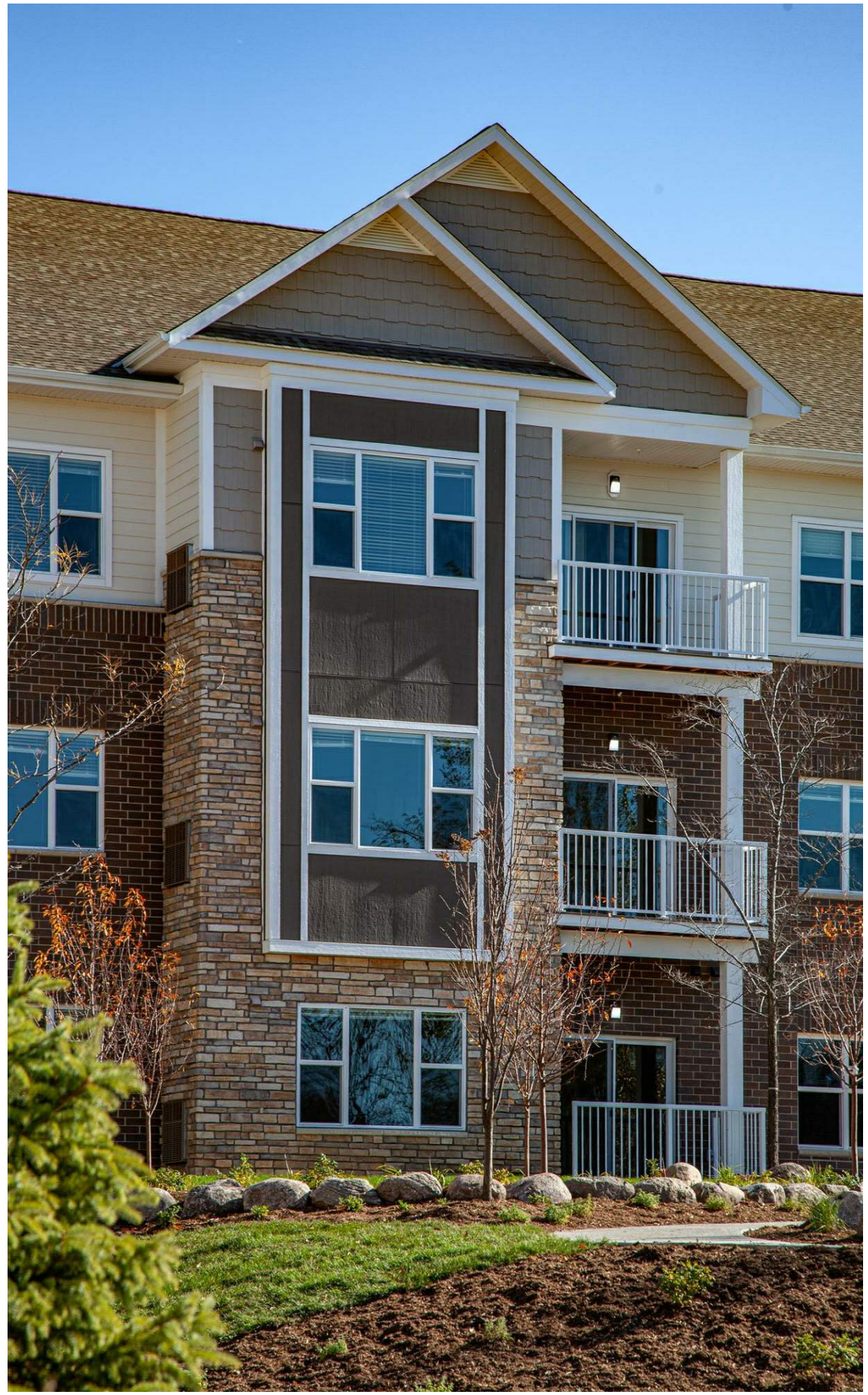
CONCEPTUAL MASSING - NORTHEAST AERIAL

CONCEPTUAL MASSING - SOUTHWEST AERIAL

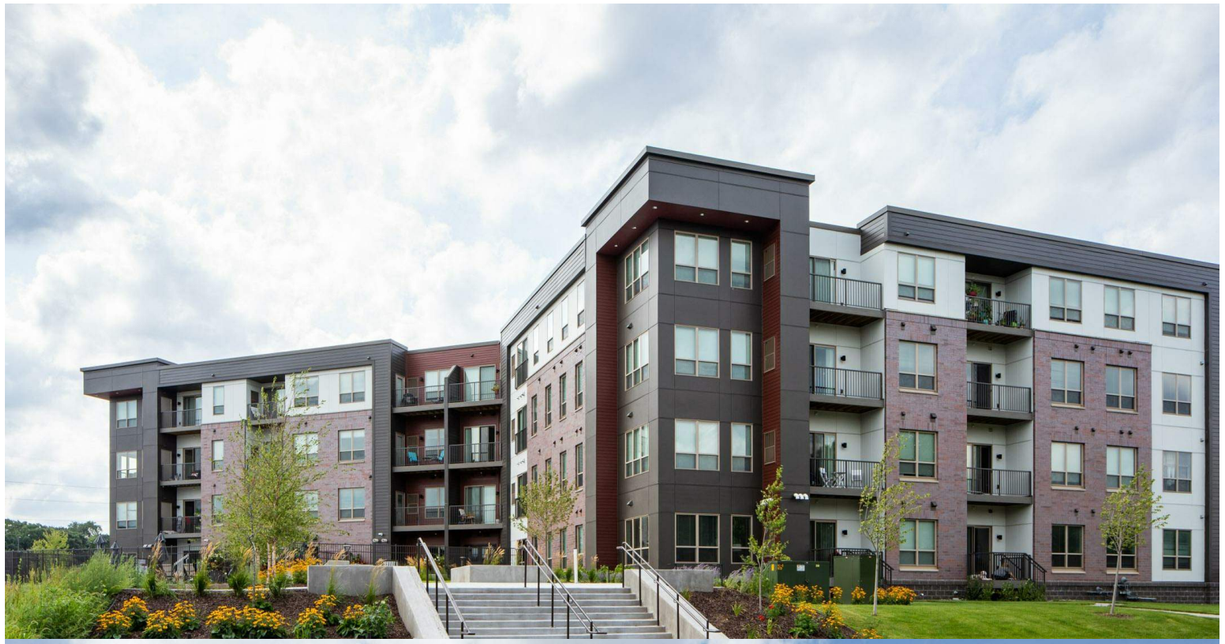
CONCEPTUAL MASSING - SOUTHEAST AERIAL

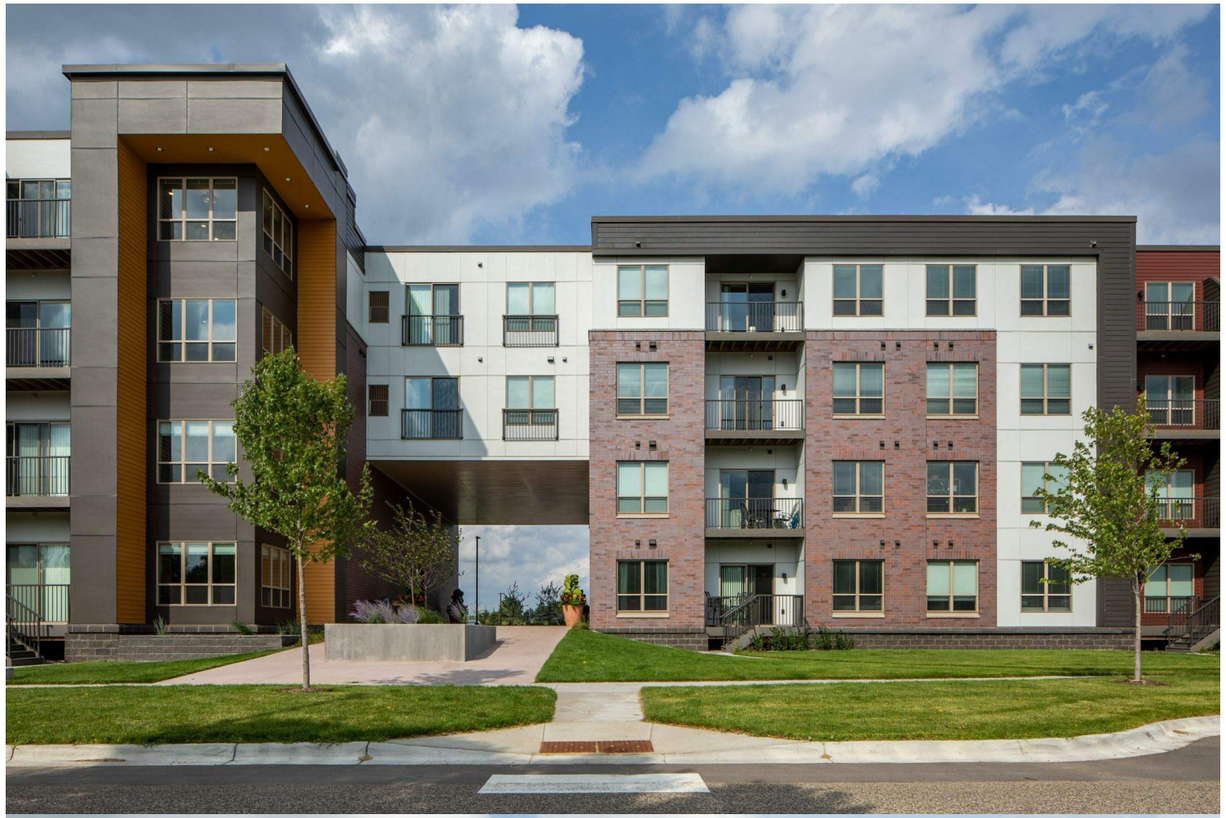


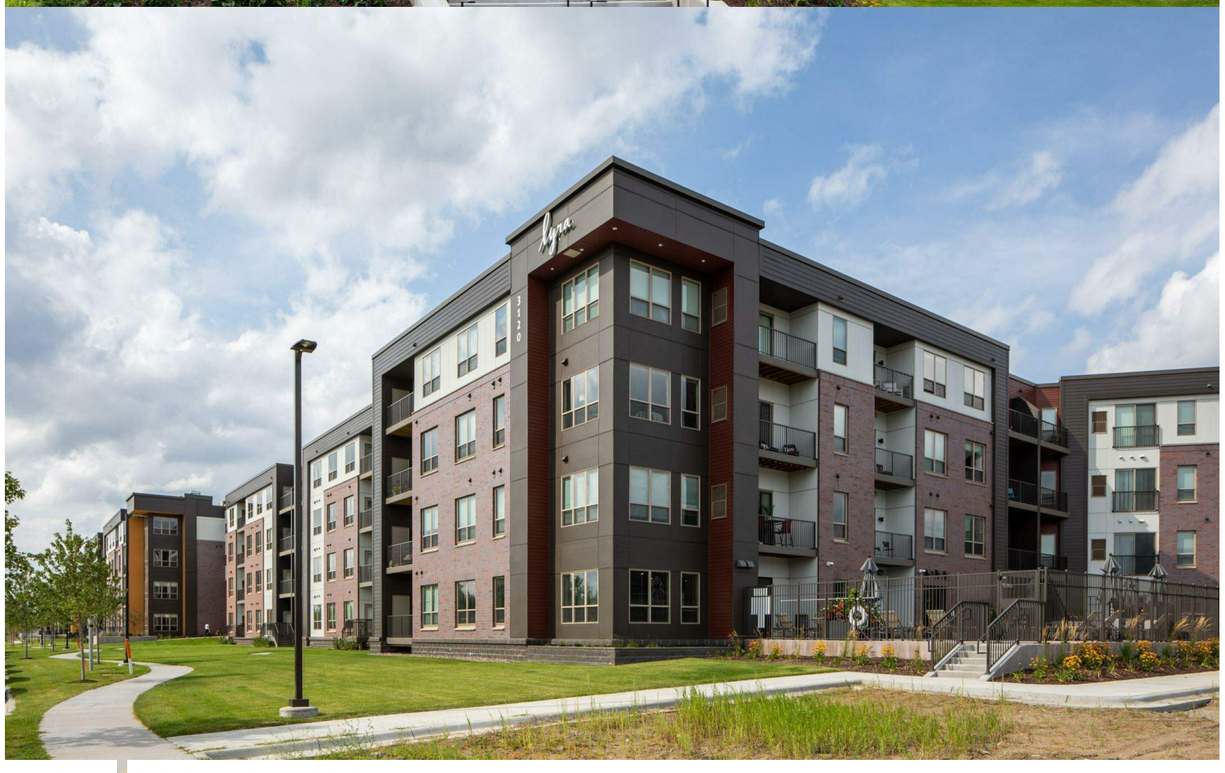
OAKS STATION PLACE - MINNEAPOLIS, MN



PRAIRIE BLUFFS SENIOR LIVING - EDEN PRAIRIE, MN







LYRA - COON RAPIDS, MN

REQUEST FOR ACTION
CHASKA CITY COUNCIL
3/21/2022

Subject: **Public Improvement Hearing for the 2022 Street & Utility Reconstruction Project**

Prepared By: **Matt Clark, City Engineer**

The feasibility report for this year's downtown street and utility improvement project was recently presented to Council on February 28th, 2022. Streets that have been selected include the blocks of Sixth Street from Beech to Auburn Manor/Oak Street, Oak Street between Sixth Street and Fifth Street, Maple Street between Sixth Street and Fifth Street, Beech Street between Sixth Street and Stoughton Ave, and Fifth Street between Maple Street and Stoughton Ave. All of these blocks are shown in red on the attached map for reference.

Also attached are the layouts of planned improvements that include removal and replacement of sanitary sewer, water main, utility services, storm sewer, concrete curb, street, sidewalk and boulevard restoration. The project if approved allows for work to begin in early spring/summer and be completed by late fall. The nature and scope of this work always proves disruptive and a challenge to staff in terms of managing that disruption at an acceptable level.

Consistent with previous projects, a neighborhood meeting was held in mid-March to discuss the overall project with those properties being affected with this year's project. At the meeting the information that was shared with Council was presented along with the draft assessments. This year's project, as with previous included a special benefit to establish the proposed assessment amounts. Although Council is not taking action at this time, the draft assessments were presented at the neighborhood information meeting. The final assessment role will be presented later in mid-April for consideration at a future hearing.

The action item this evening is for Council to consider ordering the overall improvements and to schedule an assessment hearing for those benefitting properties identified on the attached overall assessment exhibit.

CITY COUNCIL ACTION REQUESTED

Motion to Approve Resolution No. 2022-30, Ordering the 2022 Street & Utility Reconstruction Project; directing the City Engineer to prepare the project plans and specification documents, and further, scheduling a Public Assessment Hearing for April 18, 2022.

CITY OF CHASKA

CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 3/21/2022 RESOLUTION NO. 2022-30

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

A Resolution Ordering the 2022 Street & Utility Reconstruction Project, Authorizing Preparation of Construction Documents and Establishing a Date for the Public Assessment Hearing

---

WHEREAS, the 2021 Street & Utility Reconstruction Project Feasibility Study was accepted by City Council on February 28, 2022, and a Public Improvement Hearing was scheduled for March 21, 2022;

WHEREAS, ten days mailed notice and two weeks published notice of the hearing was given, and the hearing was held on the 21st day of March, at which all persons desiring to be heard were given an opportunity to be heard thereon;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Chaska, Minnesota, that said improvements are found to be necessary, cost-effective, and feasible and hereby orders said street improvements, and authorizes the City Engineer to prepare the project plans and specification documents.

FURTHER BE IT RESOLVED that a Public Assessment Hearing is scheduled for April 18, 2022, and the City Clerk is directed to mail and publish notices in accordance with provisions of Minnesota statutes.

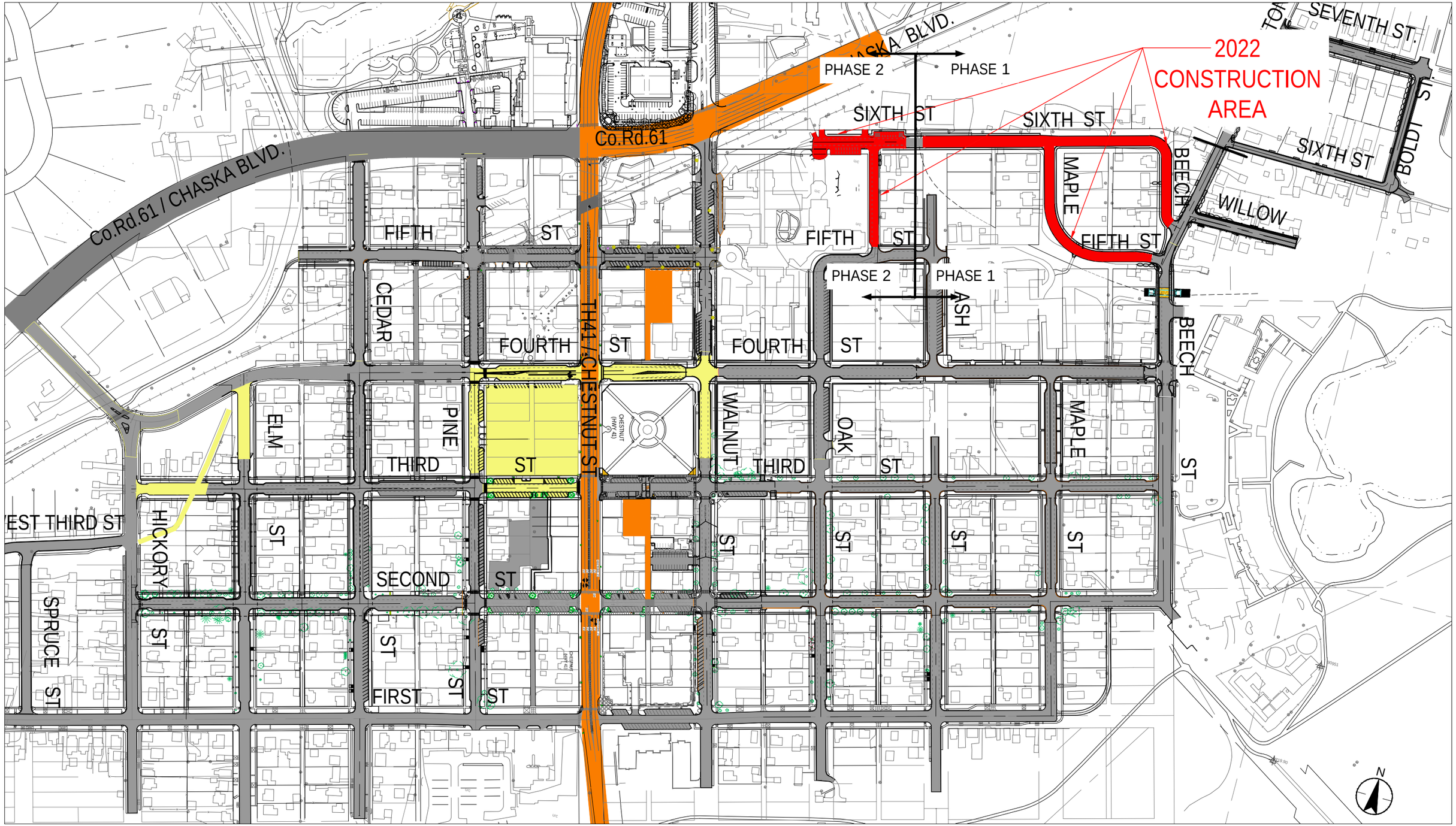
Passed and adopted by the City Council of the City of Chaska, Minnesota, this 21st day of March 2022.

_____

Mark Windschitl, Mayor

Attest _____

Deputy Clerk



DOWNTOWN CHASKA MASTER STREET LAYOUT

CHASKA, MINNESOTA

2022 DOWNTOWN RECONSTRUCTION

Date: 01/14/2022 PROJ. NO.: 193800229

RECONSTRUCTED STREETS

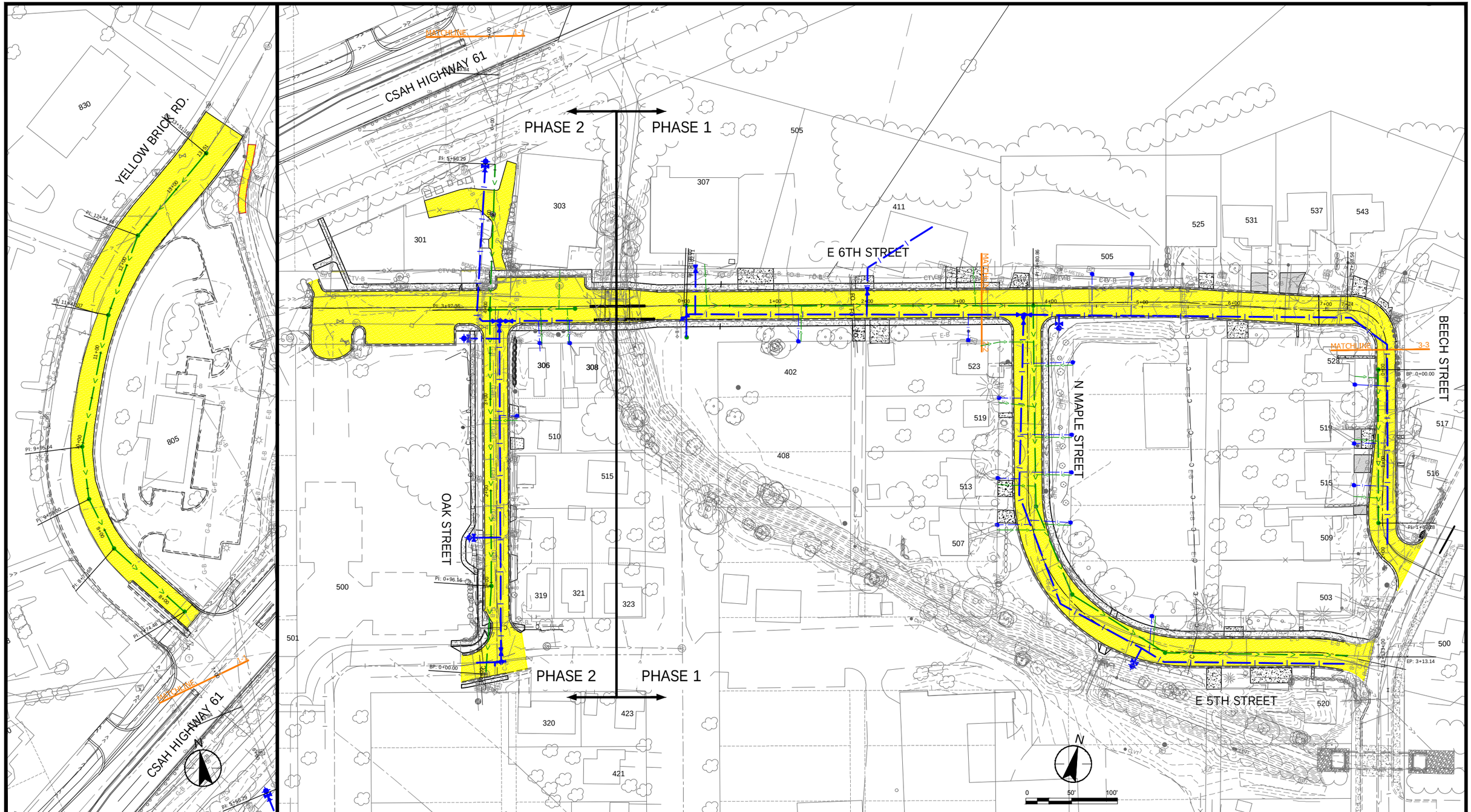
FUTURE STREET RECONSTRUCTION

2022 DOWNTOWN RECONSTRUCTION

2022-2023 - TH 41 / CHESTNUT ST. & CSAH 61 / CHASKA BLVD. RECONSTRUCTION.

FIGURE A-2

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com



2022 DOWNTOWN RECONSTRUCT - SANITARY SEWER & WATER MAIN IMPROVEMENTS - OVERVIEW

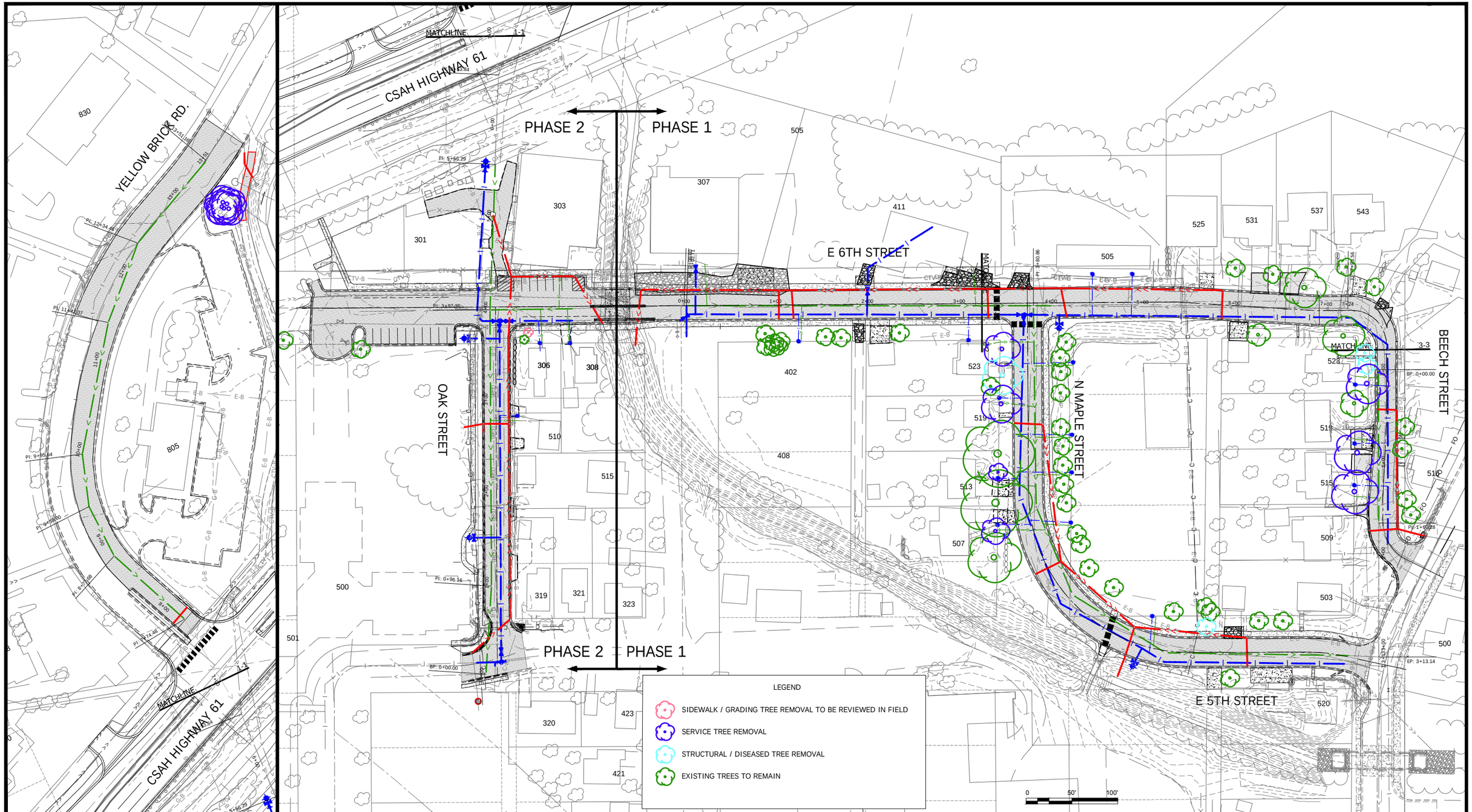
CITY OF CHASKA

2022 DOWNTOWN RECONSTRUCT

FIGURE F-1

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

DATE 01/25/2022 PROJ. NO. 193805454



2022 DOWNTOWN RECONSTRUCT - TREE REMOVAL - OVERVIEW

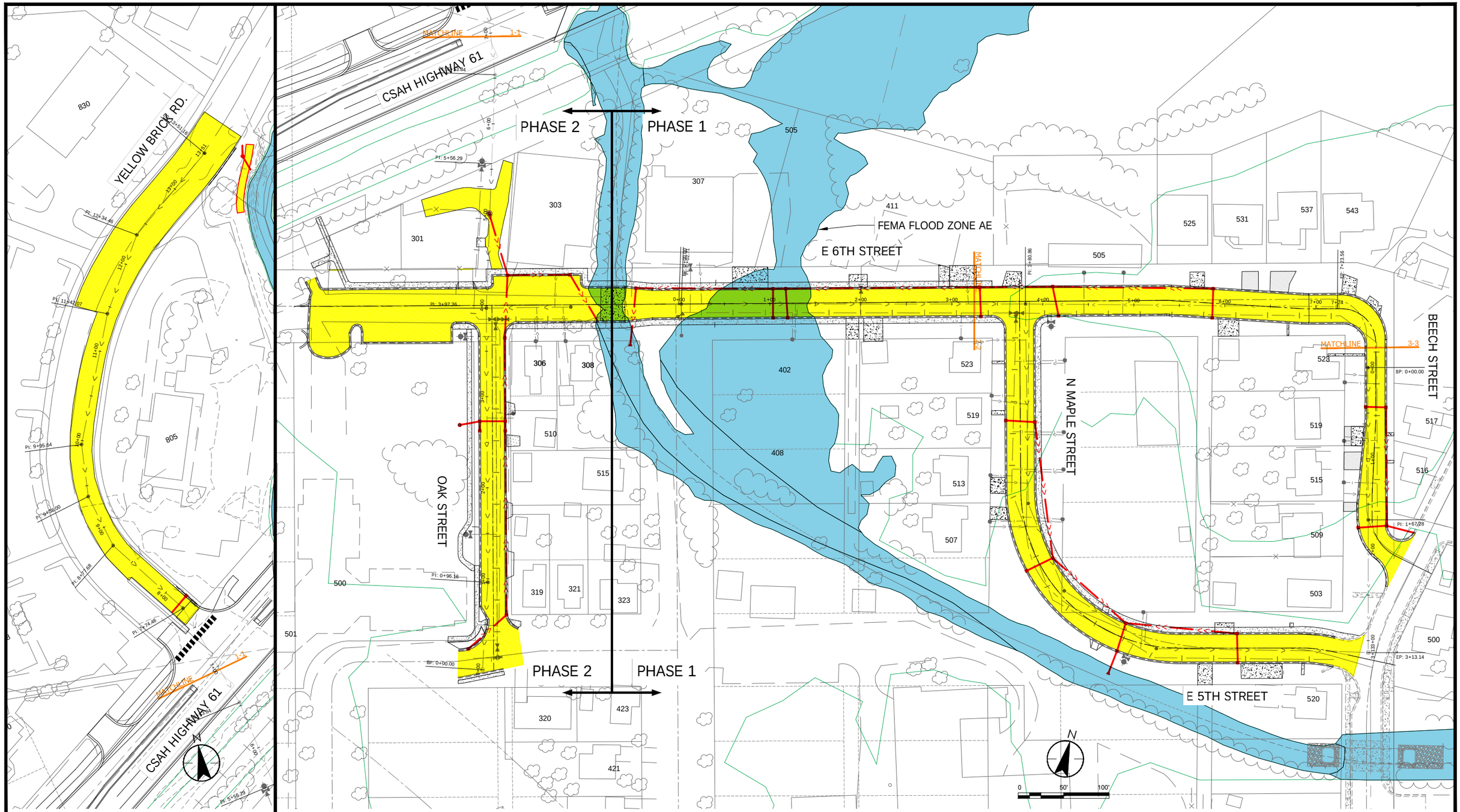
CITY OF CHASKA

2022 DOWNTOWN RECONSTRUCT

FIGURE C-1

DATE 01/25/2022 PROJ. NO. 193805454

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com



2022 DOWNTOWN RECONSTRUCT - STORM SEWER IMPROVEMENTS - OVERVIEW

CITY OF CHASKA

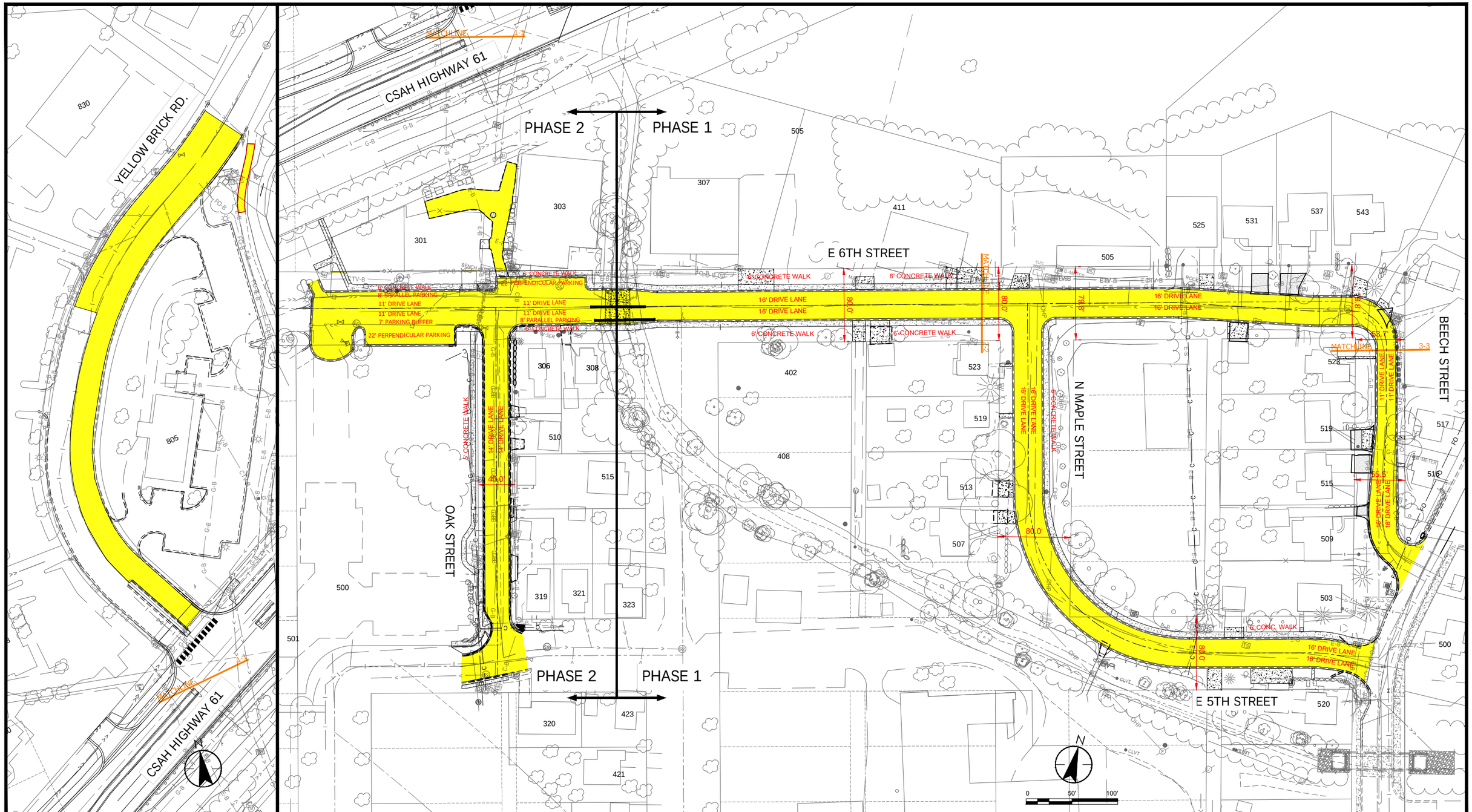
2022 DOWNTOWN RECONSTRUCT

FIGURE E-1

Stantec

733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

DATE 01/25/2022 PROJ. NO. 193805454



2022 DOWNTOWN RECONSTRUCT - STREET IMPROVEMENTS - OVERVIEW

CITY OF CHASKA

2022 DOWNTOWN RECONSTRUCT

FIGURE D-1

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

DATE 01/14/2022 PROJ. NO. 193805454

Date: 01/14/2022 - 10:10am
Login name: C:\pw_stn_bh_info01\dms92611\D-193805454 - Street Figure.dwg
Xref: 193805454-XSTI-Feasibility, 193804838- address numbers, 193805454-Markhurst, BWI_Proposed_Design_4_14_2021, 193805454-XSNO

Project Schedule

The following project schedule is recommended. The 2022 Street Reconstruction Project is proposed to be constructed in 2022, with the exception of the final wear course paving and boulevard tree planting. The wear course paving and tree planting would be completed in 2023 along with any minor restoration work remaining. It is recommended to begin constructing the project as soon as possible.

Upon acceptance of the Feasibility Study for the 2022 Street Reconstruction Project, a public hearing will be scheduled to consider approval of the improvement project. A proposed schedule is as follows:

Council Accepts Feasibility Study / Order Public Hearing	February 28, 2022
Staff and Engineer Hold Neighborhood Meetings	March 7- March 17
Public Improvement Hearing / Council Authorize Preparation of Construction Documents / Order Assessment Hearing	March 21, 2022
Council Approves Construction Documents / Authorizes Bidding	April 4, 2022
Public Assessment Hearing	April 18, 2022
Receive Bids	April 28, 2022
Award Bid	May 16, 2022
Start Construction	May 23, 2022
Construction Completion	November 18, 2022
Final Wear Course Paving	July 2023

Project Costs

The following is a breakdown of estimated costs for various sections of the project proposed for Council consideration:

2022 Street Reconstruction Project Costs

PHASE 1 – EAST 6TH ST., MAPLE ST. 5TH ST., AND BEECH ST.

Street Improvements.....$2,307,000

Storm Sewer Improvements.....$351,000

Water Main Improvements.....$321,000

Water Service Improvements.....$191,000

Sanitary Sewer Improvements.....$465,000

Sanitary Sewer Services.....$112,000

TOTAL ESTIMATED PHASE 1 – EAST 6TH ST., MAPLE ST., 5TH ST. AND BEECH ST.

PROJECT COSTS..... **$3,747,000**

PHASE 2 – WEST 6TH ST. AND OAK ST.

Street Improvements.....$1,243,000

Storm Sewer Improvements.....$221,000

Water Main Improvements.....$337,000

Water Service Improvements.....$58,000

Sanitary Sewer Improvements.....$281,000

Sanitary Sewer Services.....$31,000

TOTAL ESTIMATED PHASE 2 – WEST 6TH ST. AND OAK ST. PROJECT COSTS..... **$2,171,000**

PHASE 3 – YELLOW BRICK RD. LIFT STATION DECOMMISSIONING AND TRUNK SANITARY IMPROVEMENTS

Street Improvements.....$488,000

Storm Sewer Improvements.....$30,000

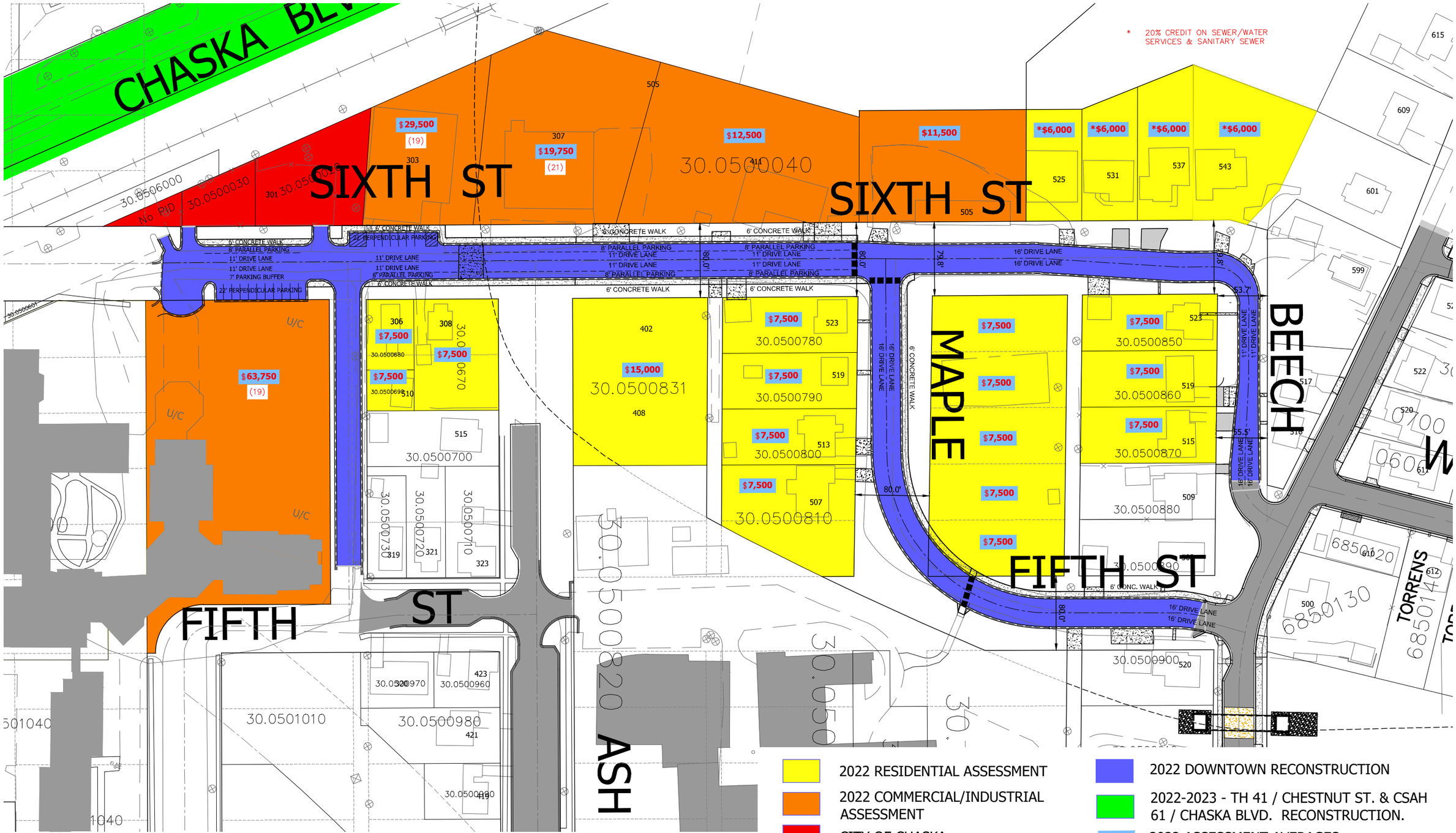
Sanitary Lift Station Decommissioning and Sewer Improvements.....$385,000

Sanitary Services Improvements.....$20,000

TOTAL ESTIMATED YELLOW BRICK TRUNK UTILITY IMPR. PROJECT COSTS **$923,000**

TOTAL 2022 STREET RECONSTRUCTION PROJECT COSTS..... $6,841,000

The total project cost is estimated at $6,841,000. The estimated costs of the work presented in this report have been itemized in Appendix A. The cost estimates include construction, contingencies, design, inspection, and administration. No costs have been added for any acquisitions of right-of-way. The cost estimate is based on a bid date in spring of 2022 and the majority of construction occurring in 2022. Chaska proposes to finance a portion of the project cost consistent with the City's policy for direct assessment benefiting property owners for a local street. Utility trunk funds will be utilized to cover any utility oversizing costs. A separate assessment report, prepared by City Staff, will be added as a supplement to this report.



OVERALL ASSESSMENTS

CITY OF CHASKA

2022 ASSESSMENT

FIGURE 1

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

DATE 02/14/2022 PROJ. NO. 193800229

CLAIMS ROSTER REPORT

FOR COUNCIL MEETING: **March 21, 2022**

Paid and Unpaid Invoices:
Check #'s 341602-341766 **$1,075,060.07**

Paid Electronic Invoices:
Wire #'s 3163-3173 **$301,814.79**

Amount for Approval-Council Meeting:
March 21, 2022 **$1,376,874.86**

Checks

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
103825 ACUSHNET COMPANY									
912500543 CHECK DATE: 03/22/2022		01/25/2022	032222	341623	-4,437.70	03/31/2022	CRM	PD	BALL REBATE PROGRAM
912640985 CHECK DATE: 03/22/2022		02/23/2022	032222	341623	718.00	06/23/2022	INV	PD	RESALE
912658827 CHECK DATE: 03/22/2022		02/27/2022	032222	341623	102.77	03/29/2022	INV	PD	RESALE
912673847 CHECK DATE: 03/22/2022		03/01/2022	032222	341623	169.54	03/31/2022	INV	PD	RESALE
912698302 CHECK DATE: 03/22/2022		03/04/2022	032222	341623	7,952.13	07/02/2022	INV	PD	RESALE
912710547 CHECK DATE: 03/22/2022		03/07/2022	032222	341623	607.08	11/02/2022	INV	PD	DEMO/RENTAL
912732272 CHECK DATE: 03/22/2022		03/09/2022	032222	341623	232.80	04/08/2022	INV	PD	RESALE
912732916 CHECK DATE: 03/22/2022		03/09/2022	032222	341623	40.00	11/04/2022	INV	PD	RESALE
912743508 CHECK DATE: 03/22/2022		03/10/2022	032222	341623	1,214.28	05/09/2022	INV	PD	RESALE
912744081 CHECK DATE: 03/22/2022		03/10/2022	032222	341623	139.50	11/05/2022	INV	PD	RESALE
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108949 ADVANTAGE COLLECTION PROFESSIONALS LLC									
8188867 CHECK DATE: 03/22/2022		03/01/2022	032222	341624	821.36	03/31/2022	INV	PD	Feb Collection Commission
100073 AMARIL UNIFORM CO									
IV225410 CHECK DATE: 03/22/2022		02/25/2022	032222	341625	2,291.83	03/25/2022	INV	PD	D. RASER CITY ISSUED FR C
IV225411 CHECK DATE: 03/22/2022		02/25/2022	032222	341625	1,409.71	03/25/2022	INV	PD	G. WICKENHAUSER CITY ISSU
IV225438 CHECK DATE: 03/22/2022		02/25/2022	032222	341625	1,445.46	03/25/2022	INV	PD	C. SCHMIEG CITY ISSUED FR

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
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CHECK DATE: 03/22/2022									
IV225875		03/08/2022	032222	341625	307.90	04/08/2022	INV	PD	J. WORM CITY ISSUED FR CL
CHECK DATE: 03/22/2022									
					6,672.60				
100119 SHAKOPEE VALLEY FORD									
315791FOW		03/08/2022	032222	341626	477.83	04/08/2022	INV	PD	#108 SNOW - DOOR ASSEMBLY
CHECK DATE: 03/22/2022									
CM315109FOW		02/04/2022	032222	341626	-300.00	03/07/2022	CRM	PD	CREDIT-SQUAD #1161 DASH C
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FOCS710983		02/01/2022	032222	341626	172.50	03/07/2022	INV	PD	SQUAD #1161 DASH CORE
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100122 ARAMARK REFRESHMENT SERVICES									
1098652		02/24/2022	032222	341627	39.50	03/24/2022	INV	PD	HOT CHOCOLATE FOR FD
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CHECK DATE: 03/22/2022									
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110405 ARTIS, STEVEN P									
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CHECK DATE: 03/22/2022									
100156 AUDUBON INTERNATIONAL									
16343-2022		02/15/2022	032222	341629	400.00	04/01/2022	INV	PD	2022 MEMBERSHIP DUES
CHECK DATE: 03/22/2022									
101930 AXON ENTERPRISE INC									
INUS057773		03/01/2022	032222	341630	1,538.00	03/31/2022	INV	PD	Annual License
CHECK DATE: 03/22/2022									
110410 BAXTER, DEBRA									
36091		03/08/2022	032222	341631	125.18	04/08/2022	INV	PD	CREDIT BALANCE REFUND-341

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
CHECK DATE: 03/22/2022									
100190 BERMUDA SANDS APPAREL LLC									
104109		03/07/2022	032222	341632	3,077.63	04/06/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
100188 BERRY COFFEE COMPANY									
889769		03/09/2022	032222	341633	42.24	04/09/2022	INV	PD	CCC coffee
CHECK DATE: 03/22/2022									
104834 BLACK CLOVER ENTERPRISES LLC									
BCE115785		02/24/2022	032222	341634	941.44	03/24/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
110420 BLANKE, CARRIE									
36521		03/14/2022	032222	341635	27.17	04/14/2022	INV	PD	METER DEPOSIT REFUND-3443
CHECK DATE: 03/22/2022									
100214 BORDER STATES INDUSTRIES INC									
923778168	220034	03/01/2022	032222	341636	434.37	04/25/2022	INV	PD	ARRESTER/STANDOFF UD 10KV
CHECK DATE: 03/22/2022									
923796421	220035	03/03/2022	032222	341636	1,672.44	04/25/2022	INV	PD	CNNT PED 4,6 ELBW LD BRK1
CHECK DATE: 03/22/2022									
923807548	220033	03/07/2022	032222	341636	69.90	04/25/2022	INV	PD	(110) PHOTO EYE 1000W 105
CHECK DATE: 03/22/2022									
923807549	220033	03/07/2022	032222	341636	698.96	04/25/2022	INV	PD	(110) PHOTO EYE 1000W 105
CHECK DATE: 03/22/2022									
					2,875.67				
100220 BOYER FORD TRUCKS INC									
008P7793		02/28/2022	032222	341637	136.46	03/28/2022	INV	PD	UNIT #G2 CITY HALL GENERA
CHECK DATE: 03/22/2022									
110401 BRATSCH, STACY									
10014383		03/07/2022	032222	341638	310.75	04/07/2022	INV	PD	CREDIT BALANCE REFUND-120
CHECK DATE: 03/22/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
100226 BRAUN INTERTEC CORPORATION									
B286142		03/07/2022	032222	341639	5,010.00	04/07/2022	INV	PD	2022 DT RECON-GEOTECH EVA
CHECK DATE: 03/22/2022									
100247 BROADWAY AWARDS INC									
50437		02/23/2022	032222	341640	291.02	03/23/2022	INV	PD	Commission Name Plates -
CHECK DATE: 03/22/2022									
105843 RICHIE HOLDING INC									
67212487		03/03/2022	032222	341641	999.66	04/03/2022	INV	PD	OAK 19 KITCHEN HOOD CLEAN
CHECK DATE: 03/22/2022									
110403 BROWN, THOMAS									
10002392		03/08/2022	032222	341642	907.31	04/08/2022	INV	PD	CREDIT BALANCE REFUND-310
CHECK DATE: 03/22/2022									
100254 BRYAN ROCK PRODUCTS INC									
52039		02/28/2022	032222	341643	1,734.79	03/28/2022	INV	PD	W/S STOCKPILE
CHECK DATE: 03/22/2022									
100275 CALLAWAY GOLF									
932922829		04/03/2021	032222	341644	352.41	04/11/2022	INV	PD	DEMO/RENTALS
CHECK DATE: 03/22/2022									
934008414		11/17/2021	032222	341644	-5,924.99	12/19/2021	CRM	PD	CREDIT-DEMO RETURNS
CHECK DATE: 03/22/2022									
934039876		12/03/2021	032222	341644	-2,049.30	03/31/2022	CRM	PD	CREDIT-YE INVENTORY RETUR
CHECK DATE: 03/22/2022									
934345099		02/22/2022	032222	341644	-39.00	03/31/2022	CRM	PD	RESALE CREDIT
CHECK DATE: 03/22/2022									
934361931		02/25/2022	032222	341644	972.33	12/01/2022	INV	PD	RENTALS
CHECK DATE: 03/22/2022									
934368852		02/26/2022	032222	341644	469.92	06/26/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
934368853		02/26/2022	032222	341644	234.00	06/26/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
934388819		03/01/2022	032222	341644	872.10	06/29/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
934399255		03/02/2022	032222	341644	405.90	06/30/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
934404683		03/03/2022	032222	341644	1,890.24	07/01/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
934404687		03/03/2022	032222	341644	466.20	07/01/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
934422898		03/07/2022	032222	341644	2,670.30	07/05/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
934436638		03/09/2022	032222	341644	237.60	07/07/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
934454342		03/11/2022	032222	341644	234.00	07/09/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
934463027		03/14/2022	032222	341644	234.96	07/12/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
					1,026.67				
106463 CAMPION, PERRI A									
10009929-1		03/08/2022	032222	341645	51.78	04/08/2022	INV	PD	CREDIT BALANCE REFUND-125
CHECK DATE: 03/22/2022									
110421 CARVER COUNTY FACILITIES SERVICES									
98850		03/14/2022	032222	341646	40,975.50	04/14/2022	INV	PD	GUN RANGE SOIL CLEAN UP P
CHECK DATE: 03/22/2022									
100323 CDW GOVERNMENT INC									
S397678		02/18/2022	032222	341647	446.09	03/20/2022	INV	PD	MERAKI EQUIPMENT LICENSE
CHECK DATE: 03/22/2022									
S530543		02/22/2022	032222	341647	16.95	03/24/2022	INV	PD	MONITOR CABLE-CCC
CHECK DATE: 03/22/2022									
S791537		02/28/2022	032222	341647	2,539.09	03/30/2022	INV	PD	SURFACE, MONITORS FOR HR
CHECK DATE: 03/22/2022									
T009487		03/03/2022	032222	341647	415.85	04/02/2022	INV	PD	ACROBATE PRO LICENSE-HR
CHECK DATE: 03/22/2022									
T107724		03/07/2022	032222	341647	50.86	04/06/2022	INV	PD	BLANK PATCH PANELS
CHECK DATE: 03/22/2022									
T260054		03/09/2022	032222	341647	1,910.16	04/08/2022	INV	PD	SURFACE PRO & EQUIP ELEC
CHECK DATE: 03/22/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
					5,379.00				
100332 CENTERPOINT ENERGY RESOURCES CORP									
105010300/FEB22 CHECK DATE: 03/17/2022		03/04/2022	031722	341619	6,429.55	04/01/2022	INV	PD	FEB 3210 CHASKA BLVD GAS
100337 QWEST CORPORATION									
313692512/MAR22 CHECK DATE: 03/15/2022		03/01/2022	031522	341605	255.59	03/28/2022	INV	PD	MAR TC CLUBHS LOC PHN SVC
313773369/MAR22 CHECK DATE: 03/15/2022		03/01/2022	031522	341605	97.83	03/28/2022	INV	PD	MAR CCC BURGLAR ALARM
					353.42				
100374 CHANHASSEN, CITY OF									
February 2022 CHECK DATE: 03/22/2022		03/08/2022	032222	341648	34.10	03/30/2022	INV	PD	FEB HWY 41/82ND ST SIGNAL
110240 CINTAS CORPORATION NO 2									
4111885047 CHECK DATE: 03/22/2022		02/28/2022	032222	341649	90.71	03/28/2022	INV	PD	CCC Rug Service
4112571657 CHECK DATE: 03/22/2022		03/07/2022	032222	341649	90.71	04/07/2022	INV	PD	CCC Rug Service
4113258051 CHECK DATE: 03/22/2022		03/14/2022	032222	341649	90.71	04/14/2022	INV	PD	CCC Rug Service
					272.13				
109942 MANSFIELD TOP SERVICES INC									
32009007536 CHECK DATE: 03/22/2022		03/01/2022	032222	341650	3,325.00	03/31/2022	INV	PD	Mar Curl/Event Cleaning
42009003156 CHECK DATE: 03/22/2022		02/25/2022	032222	341650	260.42	03/27/2022	INV	PD	Feb Event Labor
					3,585.42				
100418 CLEARSOFT INC									
149-322 CHECK DATE: 03/22/2022		03/01/2022	032222	341651	75.00	03/27/2022	INV	PD	MAR FD WATER SOFTENER REN
100419 CLOVER CONDOMINIUM ASSOCIATION									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
498838-4	220002	03/15/2022	031522	341606	419.95	04/01/2022	INV	PD	APR COMMUNITY ROOM DUES
CHECK DATE: 03/15/2022									
109691 PRO-SHOPKEEPER COMPUTER SOFTWARE COMPANY									
365462		03/03/2022	032222	341652	625.00	03/31/2022	INV	PD	MAR TC SOFTWARE
CHECK DATE: 03/22/2022									
100428 COBRA GOLF INC									
DC182163		01/11/2022	032222	341653	-718.20	03/31/2022	CRM	PD	RESALE CREDIT-RETURNED SH
CHECK DATE: 03/22/2022									
G2819029		03/11/2022	032222	341653	1,502.94	04/10/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
					784.74				
100436 COMCAST CORPORATION									
0036243/MAR22-TC		03/07/2022	031722	341620	228.03	04/01/2022	INV	PD	CLUBHOUSE CABLE
CHECK DATE: 03/17/2022									
109579 COMPASS MINERALS AMERICA INC									
968458		03/04/2022	032222	341654	11,320.53	04/04/2022	INV	PD	ROAD SALT
CHECK DATE: 03/22/2022									
105466 COMPUTER INTEGRATION TECHNOLOGIES INC									
324111		03/15/2022	032222	341655	3,537.00	04/14/2022	INV	PD	MAR OFFICE 365 AGREEMENT
CHECK DATE: 03/22/2022									
107686 CONCENTRA HEALTH SERVICES INC									
15493716		02/17/2022	032222	341656	648.00	04/04/2022	INV	PD	DRUG TESTING
CHECK DATE: 03/22/2022									
100479 CULLIGAN-METRO BROOKLYN PARK									
114-01594506-5 FEB22		02/28/2022	031522	341607	15.27	03/20/2022	INV	PD	COOLER RENT-TC MAINT
CHECK DATE: 03/15/2022									
110412 IMPERIAL BAG AND PAPER CO LLC									
3902227		02/28/2022	032222	341657	251.94	03/30/2022	INV	PD	Kaivac cleaning solution
CHECK DATE: 03/22/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
110409 DUBBELDEE, CARLA									
33194		03/08/2022	032222	341658	55.05	04/08/2022	INV	PD	CREDIT BALANCE REFUND-110
CHECK DATE: 03/22/2022									
109650 DUDE SOLUTIONS INC									
INV-106352		02/28/2022	032222	341659	1,140.00	03/30/2022	INV	PD	SMARTGOV-MERCHANT CONNECT
CHECK DATE: 03/22/2022									
110104 RALNY FALLS VENTURES LLC									
150		01/31/2022	032222	341660	370.00	04/14/2022	INV	PD	FF GEAR DECON + INTEREST
CHECK DATE: 03/22/2022									
177		02/28/2022	032222	341660	1,265.30	03/28/2022	INV	PD	FF GEAR-DECON, INSPECTION
CHECK DATE: 03/22/2022									
					1,635.30				
107451 ENERGAGE LLC									
INVZ00014974		03/07/2022	032222	341661	4,754.53	04/06/2022	INV	PD	EMPLOYEE TOP WORKPLACES S
CHECK DATE: 03/22/2022									
110436 ERICSON, RON									
98881		02/10/2022	032222	341662	35.10	04/15/2022	INV	PD	MILEAGE-2022 ICC TRAINING
CHECK DATE: 03/22/2022									
105728 FIDELITY SECURITY LIFE INSURANCE COMPANY									
165178672		02/22/2022	030822-2	341602	708.78	04/01/2022	INV	PD	MAR EMP INS PREM-VISION
CHECK DATE: 03/08/2022									
100653 FERGUSON ENTERPRISES INC									
9085909		02/25/2022	032222	341663	191.21	03/25/2022	INV	PD	REPLACEMENT AERATORS FOR
CHECK DATE: 03/22/2022									
9141367		03/04/2022	032222	341663	109.15	04/04/2022	INV	PD	PUMP FOR HISTORY CENTER
CHECK DATE: 03/22/2022									
					300.36				
100658 FERGUSON WATERWORKS									
0489601	220031	02/17/2022	032222	341664	626.34	03/17/2022	INV	PD	INVENTORY - HYDRANT VALVE

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
CHECK DATE: 03/22/2022									
110400 FITCH AND ASSOCIATES LLC									
22-4012-01		02/28/2022	032222	341665	28,875.00	03/28/2022	INV	PD	DISPATCH STUDY
CHECK DATE: 03/22/2022									
100672 BDG INC									
27171		03/01/2022	032222	341666	395.90	03/31/2022	INV	PD	#921 HOSE REEL
CHECK DATE: 03/22/2022									
100680 FORCE AMERICA INC									
001-1616111		02/24/2022	032222	341667	721.42	03/24/2022	INV	PD	HYDRAULIC CONCRETE COUPLE
CHECK DATE: 03/22/2022									
100707 GEAR FOR SPORTS									
41900225		03/14/2022	032222	341668	449.04	04/14/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
108000 GEORGE PHILLIPS CURLING STONE									
577815		01/08/2022	032222	341669	160.00	04/11/2022	INV	PD	Pebbleheads
CHECK DATE: 03/22/2022									
100729 GILBERT MECHANICAL CONTRACTORS INC									
215228		03/16/2022	032222	341670	736.00	04/16/2022	INV	PD	QTRLY HVAC SVC
CHECK DATE: 03/22/2022									
104855 SCHERYL A GOETZE									
98637		02/24/2022	032222	341671	80.16	03/24/2022	INV	PD	OLSON FUNERAL BASKET
CHECK DATE: 03/22/2022									
106901 INFLECTION.COM INC									
CIT02939044		02/28/2022	032222	341672	368.00	03/30/2022	INV	PD	FEB BACKGROUND CHECKS
CHECK DATE: 03/22/2022									
101463 GOPHER STATE ONE CALL									
2020280		02/28/2022	032222	341673	179.55	03/28/2022	INV	PD	FEBRUARY LOCATES
CHECK DATE: 03/22/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
110407 HARTWIG, STEVEN C									
10009856 CHECK DATE: 03/22/2022		03/08/2022	032222	341674	343.86	04/08/2022	INV	PD	CREDIT BALANCE REFUND-471
109731 HAUS OF GREY LLC									
425074 CHECK DATE: 03/22/2022		02/28/2022	032222	341675	120.73	03/30/2022	INV	PD	RESALE
100810 HAWKINS INC									
6131151 CHECK DATE: 03/22/2022		02/21/2022	032222	341676	4,550.07	04/07/2022	INV	PD	WTP CHEMICALS
110417 HERNANDEZ, JAIME									
34646 CHECK DATE: 03/22/2022		03/14/2022	032222	341677	59.49	04/14/2022	INV	PD	METER DEPOSIT REFUND-404
100848 HIGH TECH CLEANING INC									
17495 CHECK DATE: 03/22/2022		03/01/2022	032222	341678	610.30	04/01/2022	INV	PD	FIRE STATION CLEANING SUP
17509 CHECK DATE: 03/22/2022		03/01/2022	032222	341678	3,092.25	04/01/2022	INV	PD	CITY HALL
17510 CHECK DATE: 03/22/2022		03/01/2022	032222	341678	485.16	04/01/2022	INV	PD	COMMUNITY ROOM - CLOVER R
17511 CHECK DATE: 03/22/2022		03/01/2022	032222	341678	1,495.91	04/01/2022	INV	PD	FIRE STATION
17512 CHECK DATE: 03/22/2022		03/01/2022	032222	341678	1,140.83	04/01/2022	INV	PD	HISTORY CENTER
17513 CHECK DATE: 03/22/2022		03/01/2022	032222	341678	202.15	04/01/2022	INV	PD	IT DEPARTMENT
17514 CHECK DATE: 03/22/2022		03/01/2022	032222	341678	1,971.55	04/01/2022	INV	PD	MSB
17515 CHECK DATE: 03/22/2022		03/01/2022	032222	341678	161.72	04/01/2022	INV	PD	STANTEC BUILDING
17516 CHECK DATE: 03/22/2022		03/01/2022	032222	341678	625.00	04/01/2022	INV	PD	WTP

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
					9,784.87				
110416 HLAVKA, TERI									
34520		03/14/2022	032222	341679	35.92	04/14/2022	INV	PD	METER DEPOSIT REFUND-119
CHECK DATE: 03/22/2022									
110414 RILEIGHS OUTDOOR LLC									
INV1475		11/23/2021	032222	341680	5,401.92	03/09/2022	INV	PD	FIREMAN'S PARK XMAS TREE
CHECK DATE: 03/22/2022									
106982 HUE LIFE LLC									
2398		03/15/2022	032222	341681	7,092.80	03/30/2022	INV	PD	FIRE DEPT CONSULTING-PROF
CHECK DATE: 03/22/2022									
100879 PRAIRIE TECHNOLOGIES INC OF MN									
220213		02/28/2022	032222	341682	742.50	03/28/2022	INV	PD	TROUBLE SHOOT LOSS OF ALA
CHECK DATE: 03/22/2022									
220237		02/28/2022	032222	341682	494.20	03/28/2022	INV	PD	REPAIR AUTOMATION CONTROL
CHECK DATE: 03/22/2022									
					1,236.70				
100889 INTERNATIONAL CITY MGMT ASSN RETIREMENT CORP									
2022/0311-ICMA		03/11/2022	031522	341608	5,819.01	03/11/2022	INV	PD	031122 Payroll 457 & Roth
CHECK DATE: 03/15/2022									
104751 IMPACT MAILING OF MINNESOTA INC									
157416		03/02/2022	032222	341683	8,770.75	03/31/2022	INV	PD	Feb Bills
CHECK DATE: 03/22/2022									
102031 TYCO FIRE & SECURITY (US) MANAGEMENT INC									
22800079		03/01/2022	032222	341684	946.11	04/01/2022	INV	PD	WTP FIRE PROTECTION MONIT
CHECK DATE: 03/22/2022									
109727 JOSEPH ELLIOTT USA LLC									
12859		03/15/2022	032222	341685	478.23	04/14/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
12929		03/15/2022	032222	341685	402.50	04/14/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
					880.73				
100991 KEY ENTERPRISES LLC									
2022-119659		03/01/2022	032222	341686	1,895.00	04/01/2022	INV	PD	FEB ADVERTISING MN GOLFER
CHECK DATE: 03/22/2022									
110411 KHAN, OWAIS									
36452		03/08/2022	032222	341687	140.75	04/08/2022	INV	PD	CREDIT BALANCE REFUND-311
CHECK DATE: 03/22/2022									
110349 KILLMER ELECTRIC CO INC									
W17526		03/02/2022	032222	341688	477.00	04/02/2022	INV	PD	OVERHEAD HOIST REPAIR OAK
CHECK DATE: 03/22/2022									
101026 KWIK TRIP INC									
143600101-2022-1		03/04/2022	032222	341689	950.00	04/08/2022	INV	PD	FEB REBATE-BUSINESS LIGHT
CHECK DATE: 03/22/2022									
101043 LANO EQUIPMENT INC									
01-895359		02/24/2022	032222	341690	-604.13	03/24/2022	CRM	PD	CREDIT-BOBCAT SIDE BROOM
CHECK DATE: 03/22/2022									
01-895572		02/25/2022	032222	341690	339.18	03/25/2022	INV	PD	BOBCAT BROOMS
CHECK DATE: 03/22/2022									
01-895914		02/28/2022	032222	341690	1,100.00	03/28/2022	INV	PD	#129 EXTENDED WARRANTY FO
CHECK DATE: 03/22/2022									
01-896110		03/01/2022	032222	341690	61.98	04/01/2022	INV	PD	WEED WHIP PARTS
CHECK DATE: 03/22/2022									
01-897236		03/08/2022	032222	341690	32.12	04/08/2022	INV	PD	PARTS FOR SNOW - KIT/O-RI
CHECK DATE: 03/22/2022									
					929.15				
101050 LAW ENFORCEMENT LABOR SERVICES INC									
Mar-22		03/11/2022	031522	341609	1,560.00	03/11/2022	INV	PD	Mar-22 Police Union Dues
CHECK DATE: 03/15/2022									
101057 LEAGUE OF MINNESOTA CITIES									
10002436/MAR22		03/04/2022	032222	341691	138,973.00	04/01/2022	INV	PD	WORKERS COMPENSATION INSU

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
CHECK DATE: 03/22/2022									
101071 LENZEN CHEVROLET BUICK INC									
84305		12/30/2021	032222	341692	-50.00	02/01/2022	CRM	PD	#104 STREET CORE RETURN C
CHECK DATE: 03/22/2022									
84476		02/01/2022	032222	341692	15.58	03/04/2022	INV	PD	#208 PARK - HANDLE
CHECK DATE: 03/22/2022									
84509		02/04/2022	032222	341692	29.65	03/04/2022	INV	PD	#305 FIRE - LINK
CHECK DATE: 03/22/2022									
84626		02/23/2022	032222	341692	11.88	03/23/2022	INV	PD	#208 PARK - HANDLE
CHECK DATE: 03/22/2022									
					7.11				
108385 LEVELWEAR INC									
371996-S1		03/03/2022	032222	341693	6,608.27	06/01/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
110408 LIEBE, MATTHEW									
31037		03/08/2022	032222	341694	308.13	04/08/2022	INV	PD	CREDIT BALANCE REFUND-112
CHECK DATE: 03/22/2022									
101097 LOCATORS & SUPPLIES INC									
0297856-IN		02/23/2022	032222	341695	287.32	03/23/2022	INV	PD	SHOP STOCK (GLOVES)
CHECK DATE: 03/22/2022									
110118 LOCKRIDGE GRINDAL NAUEN PLLP									
113514		03/01/2022	032222	341696	3,333.33	04/01/2022	INV	PD	Mar Lobbyist for City Squ
CHECK DATE: 03/22/2022									
103842 LOCAL GOVERNMENT INFORMATION SYSTEMS									
51837		03/01/2022	032222	341697	804.00	03/31/2022	INV	PD	MAR SA SUPPORT
CHECK DATE: 03/22/2022									
105710 MACQUEEN EMERGENCY GROUP									
P01900		03/09/2022	032222	341698	491.86	04/09/2022	INV	PD	FF BOOTS FOR FIRES
CHECK DATE: 03/22/2022									
P01925		03/11/2022	032222	341698	246.66	04/11/2022	INV	PD	FF GLOVES

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
CHECK DATE: 03/22/2022									
P01952		03/15/2022	032222	341698	349.74	04/15/2022	INV	PD	CARABINERS FOR FF BELTS
CHECK DATE: 03/22/2022									
					1,088.26				
101168 MELCHERT HUBERT SJODIN PLLP									
160394		02/15/2022	032222	341699	5,721.30	03/15/2022	INV	PD	GENERAL FUND
CHECK DATE: 03/22/2022									
107435 MINNESOTA EMPLOYEE RESOURCE SERVICE COMPANY									
2021256		01/31/2022	032222	341700	175.00	04/09/2022	INV	PD	2022 MEMBERSHIP RENEWAL
CHECK DATE: 03/22/2022									
101180 LEAGUE OF MINNESOTA CITIES									
913		12/29/2021	032222	341701	8,597.00	03/08/2022	INV	PD	2022 Metro Cities Members
CHECK DATE: 03/22/2022									
101182 METROPOLITAN COUNCIL									
0001136549		03/02/2022	032222	341702	236,023.00	04/01/2022	INV	PD	APR SEWER SERVICES FOR ME
CHECK DATE: 03/22/2022									
101187 METRO SALES INC									
INV2001275		03/07/2022	032222	341703	197.00	04/06/2022	INV	PD	Color Copier Lease
CHECK DATE: 03/22/2022									
INV2001442		03/07/2022	032222	341703	338.89	04/06/2022	INV	PD	Color Copier Usage
CHECK DATE: 03/22/2022									
INV2002821		03/08/2022	032222	341703	1,890.60	04/07/2022	INV	PD	QTRLY RICOH USAGE
CHECK DATE: 03/22/2022									
INV2002837		03/08/2022	032222	341703	108.75	04/07/2022	INV	PD	Ricoh MP Color
CHECK DATE: 03/22/2022									
					2,535.24				
101194 MIDWEST AQUA CARE INC									
1352		03/07/2022	032222	341704	3,140.00	04/07/2022	INV	PD	TREATMENT OF WEEDS AT FIR
CHECK DATE: 03/22/2022									
101217 MINNESOTA CHILD SUPPORT PMT CTR									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
PR031122001510208001		03/11/2022	031522	341610	184.58	03/11/2022	INV	PD	031122 Payroll Child Supp
CHECK DATE: 03/15/2022									
101303 MN TEAMSTER PUBLIC AND LAW ENFORCEMENT									
Mar-22		03/11/2022	031522	341611	4,504.00	03/11/2022	INV	PD	Mar-22 Local #320 Union D
CHECK DATE: 03/15/2022									
101276 MINNESOTA VALLEY ELECTRIC COOPERATIVE									
107050711/FEB22		02/27/2022	031522	341612	808.72	03/22/2022	INV	PD	FEB ST LITES-TOWN COURSE
CHECK DATE: 03/15/2022									
121770311/FEB22		02/27/2022	031522	341612	24.14	03/22/2022	INV	PD	FEB 4255 CREEK RD
CHECK DATE: 03/15/2022									
778377500/FEB22		03/08/2022	032222	341705	49.78	04/02/2022	INV	PD	FEB 12500 COUNTY RD 11 SI
CHECK DATE: 03/22/2022									
778377800/FEB22		03/08/2022	032222	341705	34.22	04/02/2022	INV	PD	FEB 4250 ENGLER BLVD SIGN
CHECK DATE: 03/22/2022									
778377900/FEB22		03/08/2022	032222	341705	11.97	04/02/2022	INV	PD	FEB 4100 ENGLER BLVD SIGN
CHECK DATE: 03/22/2022									
781385500/FEB22		03/08/2022	032222	341705	10.47	04/02/2022	INV	PD	FEB 4463 COUNTY RD 44
CHECK DATE: 03/22/2022									
					939.30				
101277 MINNESOTA VALLEY ELECTRIC COOPERATIVE									
1073781		03/07/2022	032222	341706	1,442.91	04/06/2022	INV	PD	FIBER POLE ATTACHMENTS
CHECK DATE: 03/22/2022									
110402 MINT TALENT GROUP LLC									
MTG09583		03/04/2022	031522	341613	2,500.00	03/18/2022	INV	PD	Band Deposit-F&I-Rev.Peyt
CHECK DATE: 03/15/2022									
101281 KRISTIE MITCHELL									
98157		02/24/2022	032222	341707	6,214.90	03/24/2022	INV	PD	Winter Skate Lessons
CHECK DATE: 03/22/2022									
98879		03/14/2022	032222	341707	2,214.00	04/14/2022	INV	PD	Ice Show Payment
CHECK DATE: 03/22/2022									
					8,428.90				
101134 MALLOY MONTAGUE KARNOWSKI RADOSEVICH & CO PA									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
51519		12/15/2021	031722	341621	1,030.00	01/15/2022	INV	PD	CFDRA FORM 990 FILING
CHECK DATE: 03/17/2022									
51803		03/12/2022	032222	341708	6,300.00	04/12/2022	INV	PD	2021 AUDIT THRU FEB
CHECK DATE: 03/22/2022									
					7,330.00				
101248 MINNESOTA MUNICIPAL POWER AGENCY									
2022-13		03/09/2022	032222	341709	114,510.00	04/01/2022	INV	PD	SEMI-ANNUAL PMT-NET D/S S
CHECK DATE: 03/22/2022									
101192 STATE OF MINNESOTA									
1000047428		03/01/2022	032222	341710	9,233.78	04/01/2022	INV	PD	4TH QTR FISCAL 2022 INDIR
CHECK DATE: 03/22/2022									
105995 MONEY MOVERS INC									
144899 + Late Fee		12/31/2021	032222	341711	54.25	04/10/2022	INV	PD	Dec Heath Ins Reimburse +
CHECK DATE: 03/22/2022									
145657		02/04/2022	032222	341711	11.75	04/10/2022	INV	PD	Jan Health Ins Reimburse
CHECK DATE: 03/22/2022									
146393		03/05/2022	032222	341711	59.50	04/05/2022	INV	PD	Feb Heath Ins Reimburse
CHECK DATE: 03/22/2022									
					125.50				
101354 MTI DISTRIBUTING INC #700767									
1334239-00		03/07/2022	032222	341712	224.08	04/07/2022	INV	PD	BLADES FOR SIDEWINDER MOW
CHECK DATE: 03/22/2022									
1335730-00		02/22/2022	032222	341712	584.54	03/22/2022	INV	PD	CARBURETOR ASM
CHECK DATE: 03/22/2022									
1336099-00		02/28/2022	032222	341712	347.49	03/28/2022	INV	PD	WALK MOWER PARTS
CHECK DATE: 03/22/2022									
1336652-00		03/08/2022	032222	341712	68.71	04/08/2022	INV	PD	WALK MOWER PARTS
CHECK DATE: 03/22/2022									
					1,224.82				
101357 MUELLER SYSTEMS LLC									
65433400	220037	03/08/2022	031722	341622	4,947.04	03/23/2022	INV	PD	50 SMARTMETERS CL200 2S
CHECK DATE: 03/17/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
104262 MUNICIPAL CODE CORPORATION									
00370980 CHECK DATE: 03/22/2022		03/15/2022	032222	341713	2,700.00	04/15/2022	INV	PD	Annual Software Lic. 3/1/
101365 STAR GROUP LLC									
4472/FEB2022 CHECK DATE: 03/08/2022		02/28/2022	030822-2	341603	2,195.72	03/10/2022	INV	PD	FEB PARTS & SUPPLIES
101367 NARDINI FIRE EQUIPMENT CO INC									
IV00200470 CHECK DATE: 03/22/2022		03/16/2022	032222	341714	394.50	03/31/2022	INV	PD	FIRE INSPECTION SERVICE
105875 NETWORKFLEET INC									
OSV000002709167 CHECK DATE: 03/22/2022		03/01/2022	032222	341715	259.04	04/01/2022	INV	PD	Data Processing - GPS
102654 NORTH AMERICAN SAFETY INC									
INV63392 CHECK DATE: 03/22/2022		03/11/2022	032222	341716	83.88	04/11/2022	INV	PD	INSULATED RUBBER GLOVES F
101470 O'REILLY AUTOMOTIVE STORES INC									
556275/FEB2022 CHECK DATE: 03/15/2022		02/28/2022	031522	341614	229.97	03/20/2022	INV	PD	FEB PARTS & SUPPLIES
101445 OFFICE DEPOT									
227421364001 CHECK DATE: 03/22/2022		03/01/2022	032222	341717	64.00	04/02/2022	INV	PD	Recycling Bins
227756877001 CHECK DATE: 03/22/2022		03/01/2022	032222	341717	11.20	04/02/2022	INV	PD	Waste Basket for Elise
228408725001 CHECK DATE: 03/22/2022		02/24/2022	032222	341717	73.98	03/26/2022	INV	PD	Copy Paper for the Work R
229033521001 CHECK DATE: 03/22/2022		02/18/2022	032222	341717	52.79	03/26/2022	INV	PD	Folgers coffee for the br
230478226001-1 CHECK DATE: 03/22/2022		02/28/2022	032222	341717	49.56	04/02/2022	INV	PD	Copy Paper for Utility Bi
230478226001-2		02/28/2022	032222	341717	38.44	04/02/2022	INV	PD	Sticky Notes and Pens for

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
CHECK DATE: 03/22/2022									
					289.97				
110415 PACHKOFSKY, CHERIE									
32853		03/14/2022	032222	341718	107.65	04/14/2022	INV	PD	METER DEPOSIT REFUND-110
CHECK DATE: 03/22/2022									
110404 PEPER, WILLIAM									
10005967		03/08/2022	032222	341719	170.28	04/08/2022	INV	PD	CREDIT BALANCE REFUND-875
CHECK DATE: 03/22/2022									
108564 PERSONNEL EVALUATION INC									
43289		02/28/2022	032222	341720	20.00	03/28/2022	INV	PD	PEP - Tyler Nadeau
CHECK DATE: 03/22/2022									
101530 PING INC									
16128718		01/31/2022	032222	341721	-75.32	03/31/2022	CRM	PD	RESALE CREDIT
CHECK DATE: 03/22/2022									
16175922		03/01/2022	032222	341721	1,362.43	04/30/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
16175927		03/01/2022	032222	341721	1,798.80	04/30/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
16185049		03/07/2022	032222	341721	162.26	09/03/2022	INV	PD	DEMO/RENTAL
CHECK DATE: 03/22/2022									
16187385		03/08/2022	032222	341721	292.76	05/07/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
16193717		03/11/2022	032222	341721	161.15	05/10/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
					3,702.08				
101543 PLUNKETTS PEST CONTROL INC									
7438225		02/28/2022	032222	341722	65.06	03/28/2022	INV	PD	FD PEST CONTROL
CHECK DATE: 03/22/2022									
101557 POWER SYSTEM ENGINEERING INC									
9040653		03/03/2022	032222	341723	138.75	04/03/2022	INV	PD	CONSULTING SERVICES FOR F
CHECK DATE: 03/22/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
9040925		03/09/2022	032222	341723	5,092.00	04/09/2022	INV	PD	MISC PLANNING AND ENGINEE
CHECK DATE: 03/22/2022									
					5,230.75				
101571 PREMIUM WATERS INC									
417080-02-22		02/28/2022	032222	341724	12.83	03/31/2022	INV	PD	WATER-TC CLUBHOUSE
CHECK DATE: 03/22/2022									
103055 QUALITY PROPANE INC									
229859		02/28/2022	032222	341725	115.02	03/30/2022	INV	PD	Zamboni LP Gas
CHECK DATE: 03/22/2022									
107855 STAPLES INC									
23171952		02/17/2022	032222	341727	167.09	03/19/2022	INV	PD	OFFICE SUPPLIES
CHECK DATE: 03/22/2022									
23372508		02/25/2022	032222	341727	16.29	03/27/2022	INV	PD	PENS (ELECTRIC DEPT)
CHECK DATE: 03/22/2022									
23420594		03/01/2022	032222	341726	59.96	03/31/2022	INV	PD	Deposit Tickets for Utili
CHECK DATE: 03/22/2022									
23440062		03/01/2022	032222	341727	29.99	03/31/2022	INV	PD	RECEIVED STAMP
CHECK DATE: 03/22/2022									
23479763		03/02/2022	032222	341727	34.15	04/01/2022	INV	PD	OFFICE SUPPLIES
CHECK DATE: 03/22/2022									
23552138		03/04/2022	032222	341726	59.97	04/03/2022	INV	PD	Label maker tape for staf
CHECK DATE: 03/22/2022									
23623033		03/08/2022	032222	341726	14.29	04/07/2022	INV	PD	3 Ring Binder for Matt Cl
CHECK DATE: 03/22/2022									
23656162		03/09/2022	032222	341726	27.99	04/08/2022	INV	PD	Expandable file folder fo
CHECK DATE: 03/22/2022									
23726554		03/11/2022	032222	341726	46.14	04/10/2022	INV	PD	Certificate Covers for Ad
CHECK DATE: 03/22/2022									
					455.87				
101684 R & R SPECIALTIES OF WISCONSIN INC									
0075311-IN		03/03/2022	032222	341728	65.00	04/03/2022	INV	PD	Zamboni Blade Sharpening
CHECK DATE: 03/22/2022									
101616 RDO EQUIPMENT COMPANY									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
P0917601		03/04/2022	032222	341729	477.04	04/04/2022	INV	PD	#144 STORM PART-FAN
CHECK DATE: 03/22/2022									
P8482470		02/03/2022	032222	341729	114.50	03/04/2022	INV	PD	#710 VACTOR PARTS
CHECK DATE: 03/22/2022									
P8558270		03/04/2022	032222	341729	585.48	04/04/2022	INV	PD	PRESSURE WASHER TIPS FOR
CHECK DATE: 03/22/2022									
					1,177.02				
101620 RECREATION SUPPLY CO INC									
453308		03/09/2022	032222	341730	185.42	04/09/2022	INV	PD	SAFETY ROPE FOR POOL
CHECK DATE: 03/22/2022									
110413 RICE, MELISSA									
152399041-2022-1		03/02/2022	032222	341731	960.00	04/09/2022	INV	PD	FEB REBATE-SOLAR PANEL
CHECK DATE: 03/22/2022									
101703 SALVATION ARMY									
FEB/22 HS		03/15/2022	032222	341732	149.00	04/15/2022	INV	PD	FEB HEAT SHARE CONTRIBUTI
CHECK DATE: 03/22/2022									
110419 SAMUELSON, ALEXANDRIA									
35704		03/14/2022	032222	341733	102.07	04/14/2022	INV	PD	METER DEPOSIT REFUND-863
CHECK DATE: 03/22/2022									
110438 SCHMIDT, JOHN									
98883		03/14/2022	032222	341734	60.68	04/15/2022	INV	PD	DONUTS/OJ-CARVER CTY BLDG
CHECK DATE: 03/22/2022									
101808 SNAP-ON TOOLS									
020122101368		02/01/2022	032222	341735	1,015.21	03/01/2022	INV	PD	UPDATE SCANNER - SHOP TOO
CHECK DATE: 03/22/2022									
101828 SOUTHWEST NEWS MEDIA									
2153616		02/03/2022	032222	341736	161.70	03/25/2022	INV	PD	REZONE-HICKORY ADDN-WEST
CHECK DATE: 03/22/2022									
2154571		02/24/2022	032222	341736	36.75	03/25/2022	INV	PD	PLAT,PLOT,REZONE-OPPIDAN
CHECK DATE: 03/22/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
2154572		02/24/2022	032222	341736	40.43	03/25/2022	INV	PD	PLAT,PLOT,REZONE-AV DEV A
CHECK DATE: 03/22/2022									
2154573		02/24/2022	032222	341736	36.75	03/25/2022	INV	PD	PLAT, REZONE-DR HORTON HO
CHECK DATE: 03/22/2022									
2154574		02/24/2022	032222	341736	40.43	03/25/2022	INV	PD	PLAT, REZONE-JOHNSON REIL
CHECK DATE: 03/22/2022									
					316.06				
101847 SRF CONSULTING GROUP INC									
12504.00-33		02/28/2022	032222	341737	826.62	04/08/2022	INV	PD	TH 212 INTERCHANGE & CSAH
CHECK DATE: 03/22/2022									
101850 STANTEC CONSULTING SERVICES INC									
1891757		02/24/2022	032222	341738	181.00	03/24/2022	INV	PD	JAN-MSA
CHECK DATE: 03/22/2022									
1891758		02/24/2022	032222	341738	1,671.00	03/24/2022	INV	PD	JAN-RECORD PLAN/BASE MAP
CHECK DATE: 03/22/2022									
1891759		02/24/2022	032222	341738	10,925.00	03/24/2022	INV	PD	JAN-SW COMMUNITY PARK
CHECK DATE: 03/22/2022									
1891761		02/24/2022	032222	341738	312.50	03/24/2022	INV	PD	JAN-BAVARIA RD TURN LNS @
CHECK DATE: 03/22/2022									
1891762		02/24/2022	032222	341738	525.00	03/24/2022	INV	PD	JAN-LAKE GRACE TRAIL PHAS
CHECK DATE: 03/22/2022									
1891763		02/24/2022	032222	341738	1,964.71	03/24/2022	INV	PD	JAN-CREEK RD L2723 REPLAC
CHECK DATE: 03/22/2022									
1891764		02/24/2022	032222	341738	1,547.60	03/24/2022	INV	PD	JAN-E 6TH ST L4965 REPLAC
CHECK DATE: 03/22/2022									
1891765		02/24/2022	032222	341738	243.00	03/24/2022	INV	PD	JAN-2020 DT RECONSTRUCTIO
CHECK DATE: 03/22/2022									
1891766		02/24/2022	032222	341738	192.00	03/24/2022	INV	PD	JAN-STORMWATER REVIEW-CHA
CHECK DATE: 03/22/2022									
1891767		02/24/2022	032222	341738	288.00	03/24/2022	INV	PD	JAN-STORMWATER REVIEW-WES
CHECK DATE: 03/22/2022									
1891768		02/24/2022	032222	341738	3,600.00	03/24/2022	INV	PD	JAN-STORMWATER REVIEW-RES
CHECK DATE: 03/22/2022									
1891769		02/24/2022	032222	341738	192.00	03/24/2022	INV	PD	JAN-STORMWATER REVIEW-ENS
CHECK DATE: 03/22/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
1891770		02/24/2022	032222	341738	576.00	03/24/2022	INV	PD	JAN-STORMWATER REVIEW-OAK
CHECK DATE: 03/22/2022									
1891771		02/24/2022	032222	341738	384.00	03/24/2022	INV	PD	JAN-STORMWATER REVIEW-CLO
CHECK DATE: 03/22/2022									
1891772		02/24/2022	032222	341738	10,131.00	03/24/2022	INV	PD	JAN-2021 DT RECONSTRUCTIO
CHECK DATE: 03/22/2022									
1891773		02/24/2022	032222	341738	280.50	03/24/2022	INV	PD	JAN-OAK ST PUMPING STATIO
CHECK DATE: 03/22/2022									
1891774		02/24/2022	032222	341738	8,094.75	03/24/2022	INV	PD	JAN-CREEK RD IND ST & TUR
CHECK DATE: 03/22/2022									
1891775		02/24/2022	032222	341738	14,294.11	03/24/2022	INV	PD	JAN-CLOVER RIDGE DR/FREY
CHECK DATE: 03/22/2022									
1891776		02/24/2022	032222	341738	10,967.00	03/24/2022	INV	PD	JAN-SEMINARY FEN C2 RAVIN
CHECK DATE: 03/22/2022									
1891777		02/24/2022	032222	341738	5,137.50	03/24/2022	INV	PD	JAN-WELL 7 WTP
CHECK DATE: 03/22/2022									
1891778		02/24/2022	032222	341738	42,094.43	03/24/2022	INV	PD	JAN-2022 DT RECONSTRUCTIO
CHECK DATE: 03/22/2022									
1892237		02/24/2022	032222	341738	4,037.25	03/24/2022	INV	PD	JAN GENERAL ENGINEERING
CHECK DATE: 03/22/2022									
1892444		02/24/2022	032222	341738	14,345.00	03/24/2022	INV	PD	JAN-CREEK RD TRUNK SWR PH
CHECK DATE: 03/22/2022									
1892445		02/24/2022	032222	341738	51,101.50	03/24/2022	INV	PD	JAN-PAR 30 GOLF COURSE
CHECK DATE: 03/22/2022									
					183,084.85				
101888 STREICHERS									
CM290954		12/01/2021	032222	341739	-300.00	03/10/2022	CRM	PD	Kane-Zafke Uniform - Cred
CHECK DATE: 03/22/2022									
I1551005		02/10/2022	032222	341739	1,423.99	03/10/2022	INV	PD	Schmidt-Vest, name tag-De
CHECK DATE: 03/22/2022									
					1,123.99				
102247 SUMMIT FIRE PROTECTION CO									
130034041		12/16/2021	032222	341740	492.50	04/01/2022	INV	PD	FIRE EXTINGUISHER SVC-FD
CHECK DATE: 03/22/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
101925 TALLMAN EQUIPMENT CO INC									
3311809 CHECK DATE: 03/22/2022		02/22/2022	032222	341741	4,259.75	03/24/2022	INV	PD	GROUND TESTER
101932 TAYLOR MADE GOLF CO INC									
35637381 CHECK DATE: 03/22/2022		03/04/2022	032222	341742	146.42	04/03/2022	INV	PD	RESALE
35644692 CHECK DATE: 03/22/2022		03/08/2022	032222	341742	873.07	05/07/2022	INV	PD	RESALE
					1,019.49				
100757 THE GRAPHIC EDGE LLC									
1578535 CHECK DATE: 03/22/2022		03/03/2022	032222	341743	195.02	04/02/2022	INV	PD	Volleyball Championship S
104908 TIMESAVER OFF SITE SECRETARIAL INC									
M27122 CHECK DATE: 03/22/2022		02/28/2022	032222	341744	536.13	03/04/2022	INV	PD	Planning 2/9 & Council 2/
101973 CARVER COUNTY TITLE MANAGEMENT INC									
PARCEL 14 HWY 41-FEE CHECK DATE: 03/16/2022		03/08/2022	031622	341618	80.00	04/09/2022	INV	PD	RECORDING & SERVICE FEES-
101966 TK ELEVATOR CORPORATION									
1000413885 CHECK DATE: 03/22/2022		02/23/2022	032222	341745	36,196.53	03/23/2022	INV	PD	CITY HALL ELEVATOR MODERN
5001752419 CHECK DATE: 03/22/2022		02/15/2022	032222	341745	222.63	04/07/2022	INV	PD	CITY HALL ELEVATOR EMERGE
6000562152 CHECK DATE: 03/22/2022		02/17/2022	032222	341745	11,029.85	03/17/2022	INV	PD	WTP ELEVATOR CODE COMPLIA
6000562190 CHECK DATE: 03/22/2022		02/17/2022	032222	341745	11,029.85	03/17/2022	INV	PD	LIBRARY ELEVATOR CODE COM
					58,478.86				
101994 TRAVISMATHEW LLC									
90650643 CHECK DATE: 03/22/2022		03/07/2022	032222	341746	1,730.40	04/06/2022	INV	PD	RESALE

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
90652738		03/08/2022	032222	341746	739.55	04/07/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
90653658		03/09/2022	032222	341746	82.40	04/07/2022	INV	PD	RESALE
CHECK DATE: 03/22/2022									
					2,552.35				
102015 TRI-STATE BOBCAT INC									
P71176		03/07/2022	032222	341747	297.20	04/07/2022	INV	PD	CHIPPER PARTS
CHECK DATE: 03/22/2022									
102027 TWIN CITIES & WESTERN RAILROAD CO									
M900220-IN		03/03/2022	032222	341748	577.47	04/03/2022	INV	PD	WATERMAIN CROSSING - EAST
CHECK DATE: 03/22/2022									
102028 TWIN CITY WATER CLINIC INC									
17207		03/03/2022	032222	341749	510.00	04/02/2022	INV	PD	WTP FEBRUARY WATER SAMPLE
CHECK DATE: 03/22/2022									
110053 TX CHILD SUPPORT SDU									
PR0311220012725283		03/11/2022	031522	341615	147.69	03/11/2022	INV	PD	031122 Payroll Child Supp
CHECK DATE: 03/15/2022									
102129 UNITED FARMERS COOPERATIVE									
876996		03/03/2022	032222	341750	199.75	04/25/2022	INV	PD	SALT FOR CITY BUILDINGS
CHECK DATE: 03/22/2022									
107687 UNIVERSAL PROTECTION SERVICE LP									
12414669		02/24/2022	032222	341751	165.56	03/17/2022	INV	PD	Event security
CHECK DATE: 03/22/2022									
103039 MARK BEAUCHAMP									
10882UFS		03/02/2022	032222	341752	4,010.00	04/01/2022	INV	PD	LARGE CUSTOMER RATE ANALY
CHECK DATE: 03/22/2022									
107815 UTILITY LOGIC LLC									
13243		03/07/2022	032222	341753	210.00	04/06/2022	INV	PD	GAS FOR SAFETY MONITORS
CHECK DATE: 03/22/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
102104 VESSCO INC									
086833		02/25/2022	032222	341754	150.55	03/25/2022	INV	PD	CHLORINE PUMP PART
CHECK DATE: 03/22/2022									
086993		03/10/2022	032222	341754	247.86	04/10/2022	INV	PD	WTP MAINTENANCE - FITTING
CHECK DATE: 03/22/2022									
					398.41				
102227 ONVOY LLC									
0009426220201		02/01/2022	031522	341617	-428.36	02/25/2022	CRM	PD	FEB EDU CTR INTERNET/ETHE
CHECK DATE: 03/15/2022									
0009426220301		03/01/2022	031522	341617	609.05	03/25/2022	INV	PD	MAR EDU CTR INTERNET/ETHE
CHECK DATE: 03/15/2022									
0009486220301		03/01/2022	031522	341617	406.03	03/25/2022	INV	PD	MAR CITY HALL ETHERNET
CHECK DATE: 03/15/2022									
					586.72				
110406 WARNER, BRADLEY									
10009476		03/08/2022	032222	341755	272.43	04/08/2022	INV	PD	CREDIT BALANCE REFUND-717
CHECK DATE: 03/22/2022									
102141 WASTE MANAGEMENT OF MINNESOTA INC									
7620667-1593-4		03/03/2022	032222	341756	182.48	04/02/2022	INV	PD	TOWN COURSE MAINTENANCE
CHECK DATE: 03/22/2022									
102146 WATER SPECIALTY OF MINNESOTA INC									
12614		03/07/2022	032222	341757	1,434.53	04/07/2022	INV	PD	POOL CHEMICALS
CHECK DATE: 03/22/2022									
102166 WESCO DISTRIBUTION INC									
990192	220032	02/25/2022	032222	341758	1,200.00	03/25/2022	INV	PD	ELBOW 500 MCM
CHECK DATE: 03/22/2022									
995028	220036	03/04/2022	032222	341758	1,243.18	04/04/2022	INV	PD	ELBOW 500 MCM
CHECK DATE: 03/22/2022									
					2,443.18				
102174 WHEELER HARDWARE COMPANY									
SPI127111		02/10/2022	032222	341759	270.00	04/08/2022	INV	PD	KEYS FOR POLICE AND PARK

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
CHECK DATE: 03/22/2022									
110418 WIEBERDINK, AMBER									
35092		03/14/2022	032222	341760	81.15	04/14/2022	INV	PD	METER DEPOSIT REFUND-1112
CHECK DATE: 03/22/2022									
110399 WILLIAMS, JOHNNY									
35301		02/14/2022	032222	341761	57.79	04/03/2022	INV	PD	CREDIT BALANCE REFUND-423
CHECK DATE: 03/22/2022									
109424 WINTERS, AMY									
2011835.002		03/03/2022	032222	341762	49.64	04/03/2022	INV	PD	MEMBERSHIP REFUND
CHECK DATE: 03/22/2022						PAYEE: WINTERS, AMY			
102204 P AND W GOLF SUPPLY LLC									
INV90045		03/04/2022	032222	341763	95.12	04/03/2022	INV	PD	KIRBY MARKERS FREIGHT
CHECK DATE: 03/22/2022									
102220 XIGENT SOLUTIONS LLC									
82883		03/06/2022	032222	341764	6,715.00	04/10/2022	INV	PD	MAR RECOVERY SVC
CHECK DATE: 03/22/2022									
82885		03/06/2022	032222	341764	13,914.69	04/10/2022	INV	PD	MAR SUPPORT SVC
CHECK DATE: 03/22/2022									
82886		03/06/2022	032222	341764	1,778.44	04/10/2022	INV	PD	MAR VULNERABILITY SVC
CHECK DATE: 03/22/2022									
					22,408.13				
105150 ZAYO GROUP HOLDINGS INC									
2022030011266		03/01/2022	030822-2	341604	1,619.35	03/31/2022	INV	PD	MAR FIBER MAINT
CHECK DATE: 03/08/2022									
102228 ZEE MEDICAL SERVICE INC									
54129862		02/25/2022	032222	341765	499.20	03/25/2022	INV	PD	MEDICAL SUPPLIES-MSB
CHECK DATE: 03/22/2022									
54129909		03/08/2022	032222	341765	228.50	04/08/2022	INV	PD	FIRST AID SUPPLIES-CITY H
CHECK DATE: 03/22/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
					727.70				
102231 ZIEGLER INC									
IN000444534		03/02/2022	032222	341766	655.36	04/02/2022	INV	PD	G1 STORM BATTERY
CHECK DATE: 03/22/2022									
					655.36				
304 INVOICES					1,075,060.07				

** END OF REPORT - Generated by Michelle Robbin **

Electronic Payments

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
107490 GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY									
98749 CHECK DATE: 03/14/2022		03/11/2022	031422	3170	1,829.06	03/14/2022	DIR	PD	031122 Payroll - HCSP Con
107744 GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY									
98750 CHECK DATE: 03/14/2022		03/11/2022	031422	3171	450.00	03/14/2022	DIR	PD	031122 Payroll - MNDCP Co
101756 MII LIFE INCORPORATED									
40149454 CHECK DATE: 03/10/2022		03/08/2022	031022	3164	1,407.74	03/10/2022	DIR	PD	3/10/22 FSA REIMB-HEALTHC
100927 INTERNAL REVENUE SERVICE									
98743 CHECK DATE: 03/11/2022		03/11/2022	031122	3166	133,804.92	03/11/2022	DIR	PD	031122 Payroll - SS, Medi
101343 MINNESOTA DEPT OF REVENUE-PAYROLL WIRES									
98744 CHECK DATE: 03/15/2022		03/11/2022	031522	3172	26,115.29	03/15/2022	DIR	PD	031122 Payroll - MN State
101376 NATIONWIDE RETIREMENT SOLUTIONS(USCM)									
98745 CHECK DATE: 03/11/2022		03/11/2022	031122	3167	14,146.39	03/11/2022	DIR	PD	031122 Payroll - 457 Cont
106955 NATIONWIDE RETIREMENT SOLUTIONS(USCM)									
98748 CHECK DATE: 03/11/2022		03/11/2022	031122	3169	5,214.58	03/11/2022	DIR	PD	031122 Payroll - Roth Con
104668 OPTUM BANK INC									
98747 CHECK DATE: 03/10/2022		03/10/2022	031022	3165	16,259.22	03/10/2022	DIR	PD	031122 Payroll - HSA Cont
109689 PLANSOURCE BENEFITS ADMINISTRATION INC									
MAR2022 CHECK DATE: 03/10/2022		02/28/2022	031022	3163	4,448.75	03/10/2022	DIR	PD	MAR INS PREM-LTD/CI/ACC

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
101506 PUBLIC EMPLOYEES RETIREMENT ASSOCIATION									
98746		03/11/2022	031122	3168	97,358.84	03/11/2022	DIR	PD	031122 Payroll - PERA Con
CHECK DATE: 03/11/2022									
101973 CARVER COUNTY TITLE MANAGEMENT INC									
PARCEL 19 HWY 41		03/16/2022	031622	3173	780.00	03/16/2022	DIR	PD	ASKE PROPERTIES-EASEMENT
CHECK DATE: 03/16/2022									
					780.00				
11 INVOICES					301,814.79				

** END OF REPORT - Generated by Michelle Robbin **

Biweekly Report
March 21, 2022
By
Matt Podhradsky

UPCOMING COUNCIL MEETING SCHEDULE

Below is a list of the upcoming Council meetings and Work Sessions we have planned over the next several weeks:

March 21st: While we were planning on having a Work Session this upcoming Monday to have Leo A Daly share with Council the initial concepts for addressing space needs within our facilities, we will not be ready to share that until a Work Session being planned before the April 4th meeting (See below). Because of this, we will not have a work session on Monday, but will have our regular Council meeting at 7 pm. Being that this is our meeting after the Planning Commission meeting, we will have several planning items as part of the meeting on Monday, as well as adopting our Redistricting Plan and having our Improvement Hearing for the 2022 Downtown Street Reconstruction Project.

April 4th: Prior to the Council meeting that night, we will be having a Work Session from 5:30-7 pm. The purpose of this Work Session will be to have our architects at Leo A Daly share with the Council the work they have done thus far in looking at Concepts for how to address the space needs within our General Fund facilities (Police/Fire, MSB, City Hall). Not only will they be able to share the space needs analysis that night, but also begin to show concepts they have been working on for how best to meet these identified space needs. We will also be able to share some initial costing that they have put towards these concept plans. The hope would be to start being able to hold open houses for the public at our different facilities in April to show them how our current operations work but also share with them some of the initial concepts we have been exploring to address the needs that we currently have and will have in the future. There will be a regular Council meeting to follow.

April 18th: We will have a regular Council meeting on this evening. It is looking like we will have a Work Session on that evening to go over updates on the Highway 41 project from our project team. As this gets firmed up, we will let you know.

CITY'S BOND RATING OUTLOOK IMPROVED

As part of a regular review process, the City recently met with representatives from S &P Global's Rating Committee to review any changes to our current rating. As you may remember, two budget cycles ago the Council did take specific action to levy dollars dedicated towards increasing our Fund Balance Reserves as our reserve levels had fallen below desired levels because of a few years of revenue losses due to loss of LGA, decrease in building activity, etc… While our formal rating had not changed (AA for Tax levy supported issuances/ AA- for non-General Obligation Debt), our outlook had changed from "Stable" to "Negative". This change prompted us to set aside dollars in the budget to help build back our Fund Balance Reserve.

I am happy to say after a couple of years of this work we have been able to demonstrate to S&P that this work has paid off, and because of this they raised our outlook from "Negative" to "Stable". As we have discussed in the past, this is a big deal as this helps us send a message to potential purchasers of our bonds that we are a good investment and consequently turns into lower interest rates which help decrease the overall cost of the projects we need to bond for.

If there are any questions on this, please let me know.

BUILDING OPEN HOUSES

As part of our overall process of developing plans for our General Fund Facilities to address space needs and conditions we are planning on having 2 open houses in April to invite our residents in to see our facilities, and to share concept plans with them on what we are looking at in each facility to address these issues.

Currently, we are planning on having an open house both on the evening of Thursday April 21st and the morning of Saturday April 23rd to give residents different options to attend these sessions. The plan would be to open our MSB, City Hall and Police Station to guided tours and to answer questions about what we are looking at for the future and why. We will be getting out advertising soon to let residents know about this opportunity, with them having the ability to sign up for specific sessions so we make sure to have enough "tour guides" and so that we provide some predictability to those participating so as not to waste any of their time.

If you have any questions on this, please let me know.

EMPOWER PROGRAM

I wanted to let the Council know about a program that Julie Janke from our Police Department is organizing for our entire City organization named "Empower". Empower is a program that helps connect students with disabilities between the ages of 18-21 with employment opportunities in the community. For those who are unfamiliar, students who have significant cognitive disabilities can stay in school after their 18th birthday for a period of 3 years to help teach them life skills they can take beyond High School into the rest of their lives. Part of these skills are getting and holding a job to provide them with opportunities to be contributing members of the community. The Empower Program hooks them up with employers during their summer month break to work with mentors to teach them skills and be in a workplace. As an organization, the City of Chaska is going to be signing up for an 8-week stint to host 1-2 District 112 Students to work within each of our departments throughout the summer months. Through a grant, these students are paid to be employed while here and have a Personal Assistant to help them in their work each day. We are currently in the process of identifying the work and shadowing opportunities we will have in each of our departments to make sure that they each receive a meaningful work experience while here. Our hope is that this can be a Pilot program this year and that we can continue to do this each summer.

A big "Thank you" to Julie for bringing this program to the City and to Chief Siebert for expanding this program beyond just the Police Department but also into the rest of the City. We are very excited about it! If you have any questions about this, please feel free to contact me.

EMPLOYEE YEARS OF SERVICE RECOGNITION

As I shared with you in the last Bi-Weekly, on Wednesday we were able to hold our first in-person Employee Recognition Breakfast for the past two years. It was great to get everybody back together and to recognize the employees who have contributed a lot over the years to our organization. I thought it would be good to share with you the employees who received recognition at the event, so you are aware how many employees we have with a significant number of years working for the City:

5 years:	Denise Beebe (Administration) Nate Kabat (Community Development)
10 years:	Mary Monteith (Parks and Recreation) Erin Link (Parks and Recreation) Theresa Hill (Public Works) Michelle Robbin (Finance) Tim Hammers (Public Works)
15 years:	David Peterson (Parks and Recreation) Dickie Schalow (Public Works)
20 years:	Ryan Kerber (Public Works) Joan Seedorf (Parks and Recreation) Tim Gramith (Chaska Town Course)
25 years:	Ben Anderson (Police) Joe Carlson (Police) Leo Rohlik (Electric) Scott Selken (Public Works) Lisa Nelson (Finance)
30 years:	Kevin Abraham (Public Works)

A big thank you to all of these employees for all of their hard work over the years! It has made a difference!

OUT OF OFFICE

I wanted to let you know that I will be out of the office the week of March 28th as that is my children's Spring Break. While I am out, please feel free to contact Assistant City Administrator Elise Durbin with any questions at 952-227-7539 or at edurbin@chaskamn.com

In March we celebrated Women's History Month, Deaf History Month and World Down Syndrome Day

Arts

5 Student artists received Metro West Art Awards for their artwork:

- Catherine Kim - Award of Excellence
- Kylie Silus - Award of Merit
- Natalie Harmon - Award of Achievement
- Adeline Lontine - Award of Achievement
- Lauren Stratton - Award of Achievement

Athletics

- Senior Girls Basketball player, Mallory Heyer received the following honors:
    - Chaska High School's Athena Award Winner which honors outstanding athletic achievements of female high school athletes
    - Named Star Tribune Metro Player of the Year
    - Named to Star Tribune All-Metro First Team
- Junior Girls Basketball player, Kennedy Sanders named to Star Tribune All-Metro Second Team

Activities

- 43 students competed at the State DECA competition: There were:
    - 18 Top 12 Finalists
        - 16 of the finalists finished in the top 8
        - 2 students finished in the top 8 in 2 events
    - 3 students qualified for International Competition in Atlanta
- 26 CHS Speech students have advanced to Sections on April 9