City of Ramsey
Agenda
Regular Planning Commission
Thursday, August 2, 2018
7:00 pm
Council Chambers, 7550 Sunwood Drive NW

1. Call to Order

2. Citizen Input

3. Approve Agenda

4. Approve Minutes

1. Approve the July 12, 2018 Planning Commission Meeting Minutes

5. Public Hearing

1. PUBLIC HEARING: Consider a Conditional Use Permit for 9411 Alpine Dr. NW (Project #18-127); Case of Ruan Trucking Corporation.

2. PUBLIC HEARING: Consider Request for a Home Occupation Permit for Auto Detailing at 7950 149th Lane NW, Case of Linda and Troy Neiss

3. PUBLIC HEARING: Consider Variance Request to Build an Attached 2 Stall Garage within the Required Setback from the Shoreline of the Rum River at 15795 Juniper Ridge Drive NW (Project No. 18-123); Case of Rick and Diane Farrell

4. PUBLIC HEARING: Review Site Plan, Preliminary Plat and Conditional Use Permit for Motor Vehicle Sales and Repair Facility Expansion (Project #18-126); Case of Lazydays RV

6. Commission Business

1. Review Site Plan Review for Sterling Trophy, 6710 Highway 10; Project 18-125

2. Review Request from AKM Farms for Revision to the 2040 Comprehensive Plan Update

3. Consider Response to an Alternative Urban Areawide Review (AUAR) in the City of Dayton

7. Comprehensive Plan Update Items

8. Commission/Staff Input

1. Zoning Bulletins

9. Adjournment

Regular Planning Commission **4. 1.**

Meeting Date: 08/02/2018

By: JoAnn Shaw, Community Development

Information

Title:

Approve the July 12, 2018 Planning Commission Meeting Minutes

Purpose/Background:

n/a

Notification:

Observations/Alternatives:

Funding Source:

Recommendation:

Action:

Attachments

Planning Minutes 7 12 18

Form Review

Inbox	Reviewed By	Date
Tim Gladhill	JoAnn Shaw	07/27/2018 01:57 PM
Form Started By: JoAnn Shaw		Started On: 07/24/2018 12:32 PM
Final Approval Date: 07/27/2018		

PLANNING COMMISSION
CITY OF RAMSEY
ANOKA COUNTY
STATE OF MINNESOTA

The Ramsey Planning Commission conducted a regular meeting on Thursday, July 12, 2018, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present:	Chairperson Randy Bauer Commissioner Bruce Anderson Commissioner Cheri Gengler Commissioner Daniel Onyambu Commissioner Patrick Surma Commissioner Gary VanScoy Commissioner Matt Woestehoff
Members Absent:	None
Also Present:	Community Development Director Timothy Gladhill City Planner Chloe McGuire Brigl Planning Intern PeggySue Imihy

1. CALL TO ORDER

Chairperson Bauer called the regular meeting to order at 7:00 p.m.

2. CITIZEN INPUT

None.

3. APPROVAL OF AGENDA

Chairperson Bauer requested Item 6.01 be removed from the agenda per the developer's request.

Motion by Commissioner VanScoy, seconded by Commissioner Surma, to approve the agenda as amended.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners VanScoy, Surma, Anderson, Gengler, Onyambu, and Woestehoff. Voting No: None. Absent: None.

4. APPROVE PLANNING COMMISSION MINUTES

4.01: Approve the Following Planning Commission Minutes:

4.01.1: Planning Commission Meeting Minutes Dated June 7, 2018

Commissioner Surma requested a correction to the minutes on Page 5 in the fourth paragraph stating she needs to be changed to he.

Motion by Commissioner Anderson, seconded by Commissioner Woestehoff, to approve the following minutes as amended: Planning Commission Meeting Minutes dated June 7, 2018.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners Anderson, Woestehoff, Gengler, Onyambu, Surma, and VanScoy. Voting No: None. Absent: None.

5. PUBLIC HEARINGS/COMMISSION BUSINESS

5.01: Public Hearing: Consider Variance Request to Place a Detached Accessory Building within the Required Setback from the Ordinary High Water Mark of the Rum River at 15795 Juniper Ridge Drive NW (Project No. 18-123); Case of Rick and Diane Farrell

Public Hearing

Chairperson Bauer called the public hearing to order at 7:03 p.m.

Presentation

Planning Intern Imihy presented the staff report stating the City has received an application from Rick and Diane Farrell (the "Applicant") for a variance to construct a detached accessory building within the required setback from the Rum River on the property located at 15795 Juniper Ridge Drive NW (the "Subject Property"). Staff reviewed the request in further detail and recommended approval of the variance in alignment with the EPB and DNR recommendation.

Citizen Input

Commissioner Anderson requested clarification on where the property owner was proposing to place the garage.

Planning Intern Imihy described the location of the proposed detached accessory building in further detail with the Commission. She explained the property owner's primary goal was to minimize views from the street and the river. It was noted Alternate #1 was the location recommended by staff, the EPB and DNR.

City Planner McGuire Brigl commented if Alternate #1 was approved by the Planning Commission, the applicants would amend their request to increase the size of the proposed detached accessory structure to more closely match their neighbors shed size.

Commissioner Anderson asked if more trees would be lost if Alternate #2 were approved.

Planning Intern Imihy reported this was the case.

Commissioner VanScoy questioned if Alternate #1 would create a steep grade change.

Planning Intern Imihy explained this was a concern for the applicant. Even with this concern in mind, she commented staff believed it was important to support the EPB and DNR recommendation, which was Alternate #1.

City Planner McGuire Brigl reported staff and the DNR would be supportive of Alternates #1 and #2.

Rick Farrell, 15795 Juniper Ridge Drive, thanked staff for all of their assistance with his request. He indicated he was requesting the variance to allow him to store a truck in the detached accessory garage. He explained the original location was proposed as it was the least impactful, visually from the road and the river. He reviewed a number of pictures of his property and noted the location of the garage on his property. He questioned what would be gained by placing the garage closer to the street and requested the Commission allow him to place the garage per his request as this was the least visible and impactful option.

Chairperson Bauer asked what the garage size would be if the applicant were forced to place the accessory building on the Alternate #1 or #2 site.

Mr. Farrell commented his property was so pristine and heavily wooded. He indicated if the variance was not approved per his request, he would not be pursuing a garage at all. He discussed how his property would be adversely impacted if the garage had to be located in the open space.

Commissioner VanScoy stated when the Commission reviewed this type of request, the City worked to ensure the nonconformance was not made worse.

Gary Steinke, 15825 Juniper Ridge Drive, explained he lived next to the applicant. He stated he received a variance three years ago for his garage. He reported he followed all of the City's rules and requested Mr. Farrell be required to follow the same rules. In addition, he feared that the applicant's proposed location would obstruct his view of the river.

Susan Anderson, 15854 Juniper Ridge Drive, explained she lived on the opposite side of the street. She expressed concern with the letter she received from the City and stated the information provided was very confusing.

Mr. Farrell reported his proposed garage location would not block his neighbor's view of the river.

Commissioner Surma questioned what alternative location would work for both parties.

Mr. Farrell stated neither of the alternatives would work for him. He explained he was not interested in taking down trees or jeopardizing his property. He indicated he was not interested in placing the garage where a large driveway would be required and greenspace would be lost.

Mr. Steinke commented Mr. Farrell has enough space to locate a garage on his property while still meeting the EPB and DNR recommendations.

Planning Intern Imihy reviewed the alternatives that would be supported by staff: Alternate #1, Alternate #2 and Alternate #3 (the applicant's proposed location). She explained the proposed accessory building would not block the neighbors view shed of the river in any of the three locations.

Motion by Commissioner Anderson, seconded by Commissioner Surma, to close the public hearing.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners Anderson, Surma, Gengler, Onyambu, VanScoy, and Woestehoff. Voting No: None. Absent: None.

Chairperson Bauer closed the public hearing closed at 7:49 p.m.

Commission Business

Commissioner VanScoy asked if each of the alternatives required a variance.

City Planner McGuire Brigl explained constructing a garage anywhere on this property would require a variance.

Commissioner VanScoy stated it has always been the City's intent to not increase non-conformities on properties when considering variance requests. He believed it was a reasonable request to place a garage on this property. He indicated he could not support the garage being located to the rear of the property.

Commissioner Anderson explained he could not support Alternate #3 as an option. He stated he could entertain Alternate #1 as this was supported by the EPB and DNR.

Motion by Commissioner Anderson, seconded by Commissioner Woestehoff, to recommend that City Council adopt Resolution #18-123 granting a variance to shoreline setbacks to the Rum River at 15795 Juniper Ridge Drive NW so that the front of the proposed structure is even with the front of the existing dwelling and also requiring an approved driveway to this structure.

Further discussion

Commissioner VanScoy asked what type of variance was being requested.

Community Development Director Gladhill reported the applicant required a variance to the Ordinary High Water Line to the Rum River.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners Anderson, Woestehoff, Gengler, Onyambu, Surma, and VanScoy. Voting No: None. Absent: None.

5.02: Public Hearing: Consider Request for Zoning Amendment (Text) to the E-1 Employment District and a Conditional Use Permit to Allow Motor Vehicle Sales on the Property Located at 14300 Sunfish lake Boulevard NW (Project No. 122); Case of John Buzick

Public Hearing

Chairperson Bauer called the public hearing to order at 8:01 p.m.

Presentation

Community Development Director Gladhill presented the staff report stating the City has received an application from John Buzick (the "Applicant") requesting a Zoning Amendment to the text of the E-1 Employment to identify motor vehicle sales as a Conditional Use and a Conditional Use Permit to allow motor vehicle sales on the property located at 14300 Sunfish Lake Blvd NW (the "Subject Property"). That there is an existing Conditional Use Permit (CUP) for the Subject Property, which was approved by the City in 1993, that allows for a towing operation and motor vehicle repairs. The Applicant is proposing a similar business model that he has implemented on two (2) other properties within the City. That model creates multiple tenant suites in a building that are leased out to individuals. Staff provided further comment on the request and recommended denial Zoning Amendment.

Citizen Input

Commissioner Woestehoff asked how much of the City was zoned E-1.

Community Development Director Gladhill reviewed several hundred acres in the City were zoned E-1.

Commissioner VanScoy questioned if the City had received other requests for car sales in the E-1 or E-2 zoning districts.

Community Development Director Gladhill reported this was a rare request and not of this magnitude. He stated there were other zoning districts in the City that better supported this use.

John Buzick, 14300 Sunfish Lake Boulevard, discussed the history of his business and stated he has not had any complaints. He indicated his current location worked as an incubator for small business operators. He explained the property he was looking to purchase has been used for auto repair and towing since 1993. He reported he had 11 people interested in working in Ramsey selling cars from this location. He requested the Commission allow used car sales to occur on this property, along with auto repair and towing.

Darren Guthmiller, 14400 Wolfram Street, explained he lived around the corner from the subject property. He expressed concern with having all of the E-1 properties in Ramsey available for used car sales. He noted all of the other businesses along Sunfish Lake Boulevard have curb and gutter as they have been updated. He commented the current towing company has poor signage and

recommended this be improved so as not to impact the adjacent neighborhood. He described how the businesses along Sunfish Lake Boulevard have improved over the years and stated he did not want to see a new business bring this image down.

Commissioner VanScoy asked if the towing business would remain in place.

Mr. Buzick reported this was the case.

Community Development Director Gladhill explained that Mr. Buzick would not be allowed to park vehicles on grass anywhere on the subject property. He anticipated this could be addressed with a proper paving and site plan. He reported the towing use was a lawful non-conforming use on this site.

Motion by Commissioner VanScoy, seconded by Commissioner Surma, to close the public hearing.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners VanScoy, Surma, Anderson, Gengler, Onyambu, and Woestehoff. Voting No: None. Absent: None.

Chairperson Bauer closed the public hearing closed at 8:23 p.m.

Commission Business

Commissioner VanScoy asked if the proposed Zoning Amendment would allow vehicle sales to occur in all E-1 zoning districts.

Community Development Director Gladhill reported this was the case. He then reviewed the location of all E-1 zoning districts in the City.

Commissioner Gengler stated she appreciated the applicant's efforts to incubate businesses in Ramsey, however, she noted she could not support the request. She stated she had concerns with the proposed Zoning Amendment and how this would impact the City of Ramsey.

Chairperson Bauer agreed.

Motion by Commissioner VanScoy, seconded by Commissioner Woestehoff, to recommend that City Council deny the request to allow motor vehicle sales in the City's industrial zoning districts.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners VanScoy, Woestehoff, Anderson, Gengler, Onyambu, and Surma. Voting No: None. Absent: None.

5.04: Public Hearing: Consider Ordinance #18-12; Text Amendment to City Code Section 117-351 Home Occupations Ordinance

Public Hearing

Chairperson Bauer called the public hearing to order at 8:29 p.m.

Presentation

Planning Intern Imihy presented the staff report stating under staff direction from the City Council and the Planning Commission, a text amendment has been made to City Code Section 117-351, Home Occupations. This text amendment specifically limits the number of allowed employees and prohibits outdoor storage. Based on recent Applications, Staff was directed to consider additional standards based on the following:

- More explicit prohibition on outside storage.
- Creation of categorical prohibitions (such as contracting companies that traditionally have significant outdoor storage)
- Additional limitations on number of employees to reduce number of vehicle trips to site

Citizen Input

Chairperson Bauer asked if a pickup truck could be parked outside on a property.

Planning Intern Imihy explained a pickup truck would not be considered outdoor storage.

Community Development Director Gladhill reported the proposed text amendment would not prohibit contractors from parking their work truck (Xfinity, Comcast, etc.) in their residential driveway.

Commissioner VanScoy requested further information on how the City would be addressing off site employees.

Community Development Director Gladhill described how off-site employees and a dispatch center scenario would be addressed by this Ordinance. It was noted employees would not be allowed to come to a site and be dispatched to another location per this Ordinance.

Chairperson Bauer stated he did not want to see the City become so restrictive that residents with a home occupation were not able to move into the City.

Community Development Director Gladhill reported the Planning Commission did not have to take action on this item tonight. He explained the Commission could continue to review the proposed text amendment.

Further discussion ensued regarding the number of employees that should be allowed on the site based on acreage. Staff reviewed the number allowed by neighboring communities.

Community Development Director Gladhill asked how the Commission wanted to proceed at this time.

Chairperson Bauer suggested staff amend the text to address the number of employees that would be allowed if a site is over three acres, while also addressing the number of employees that could be allowed under three acres through a CUP. He questioned if the City had an accurate number of home occupations currently operating in Ramsey.

Community Development Director Gladhill stated he would have to run some analysis and could provide this information to the Commission in August.

Commissioner Woestehoff commented the existing home occupations would not be impacted, but rather the Commission should be focused on how future home occupations should operate in the City.

Motion by Commissioner VanScoy, seconded by Commissioner Anderson, to close the public hearing.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners VanScoy, Anderson, Gengler, Onyambu, Surma, and Woestehoff. Voting No: None. Absent: None.

Chairperson Bauer closed the public hearing closed at 8:50 p.m.

Commission Business

Motion by Commissioner Anderson, seconded by Commissioner Surma, to postpone action in this item to the August 2, 2018 Planning Commission meeting.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners Anderson, Surma, Gengler, Onyambu, and VanScoy. Voting No: Woestehoff. Absent: None.

5.03: Public Hearing: Consider Ordinance #18-13; Amendment to City Code Chapter 117 (Zoning and Subdivision of Land) to add a Neighborhood Business District

Public Hearing

Chairperson Bauer called the public hearing to order at 8:51 p.m.

Presentation

Planning Intern Imihy presented the staff report stating in 2016, following the Public Hearing regarding the property located at 6139 157th Lane NW, staff was instructed to create a new zoning district within the City of Ramsey for the purposes of commercial property located near or adjacent to residential properties. Primarily, this Zoning District is needed to correct a previous zoning action (improper use of a conditional use permit).

Planning Intern Imihy explained this zoning district did not move forward in 2016 and staff has been directed to bring the case back to the Planning Commission as a discussion item. This proposed zoning district is slightly more restrictive than the current B-1 district and would not

occur along Highways 47 or 10. The intent of this ordinance is truly small-scale, neighborhood-scale commercial uses. The intent is not to allow higher intensity uses most commonly found along highway corridors. This district can be a valuable tool moving forward as the City attempts to accomplish comprehensive plan goals to provide a mix of uses focused on neighborhoods. For example, another potential area for this zoning district could be used would be near the new elementary school (not proposed at this time).

Planning Intern Imihy reported staff drafted a proposed zoning district which includes four permitted uses, four conditional uses and six prohibited uses. Following the feedback from last month's Planning Commission, Staff has moved on-sale liquor to a conditional use and added the sales of tobacco, tobacco products or tobacco related devices to the prohibited uses. She provided further comment on the proposed text amendment and recommended adoption of the Ordinance.

Citizen Input

Commissioner VanScoy questioned how the City would implement this Ordinance.

Planning Intern Imihy reported the City's zoning map would need to be updated and property owners would have to be notified of the proposed change.

Community Development Director Gladhill explained the new zoning would be a tool available to the City to assist in fostering neighborhood businesses.

Motion by Commissioner Anderson, seconded by Commissioner Woestehoff, to close the public hearing.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners Anderson, Woestehoff, Gengler, Onyambu, Surma, and VanScoy. Voting No: None. Absent: None.

Chairperson Bauer closed the public hearing closed at 8:59 p.m.

Commission Business

Motion by Commissioner Gengler, seconded by Commissioner VanScoy, to recommend that City Council adopt Ordinance #18-13, which would create a new zoning district titled the Neighborhood Business District.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners Gengler, VanScoy, Anderson, Onyambu, Surma, and Woestehoff. Voting No: None. Absent: None.

5.05: Consider Zoning Amendment to Allow a Microbrewery at 17201 St. Francis Boulevard NW; Case of Tim and Corin O'Shaughnessy

No action was taken on this item.

6. COMMISSION BUSINESS

6.01: Receive Update from Continental Properties Regarding Potential Project (Springs at Ramsey)

This item was removed from the agenda per the developer's request.

7. COMPREHENSIVE PLAN UPDATE ITEMS

Community Development Director Gladhill provided the Commission with an update on the Comprehensive Plan.

8. COMMISSION / STAFF INPUT

8.01: Receive Staff Update

The Staff Update was noted.

8.02: Zoning Bulletins

Zoning Bulletins were noted.

9. ADJOURNMENT

Motion by Commissioner VanScoy, seconded by Commissioner Surma, to adjourn the meeting.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners VanScoy, Surma, Anderson, Gengler, Onyambu, and Woestehoff. Voting No: None. Absent: None.

The regular meeting of the Planning Commission adjourned at 9:09 p.m.

Respectfully submitted,

_____
Tim Gladhill
Community Development Director

ATTEST:

_____
JoAnn Shaw
Planning Division Secretary

Drafted by Heidi Guenther
TimeSaver Off Site Secretarial, Inc.

Regular Planning Commission **5. 1.**

Meeting Date: 08/02/2018

By: PeggySue Imihy, Community Development

Information

Title:

PUBLIC HEARING: Consider a Conditional Use Permit for 9411 Alpine Dr. NW (Project #18-127); Case of Ruan Trucking Corporation.

Purpose/Background:

The City of Ramsey has received an application from Ruan Trucking Corporation (the "Applicant") for a Conditional Use Permit for a commercial tractor and trailer maintenance and repair facility at 9411 Alpine Drive NW (the "Subject Property").

The Applicant is requesting a Conditional Use Permit to conduct tractor and trailer maintenance and repair.

Notification:

City Staff attempted to notify all property owners within 350 feet of the subject property of the request by U.S. Mail and published a notice of public hearing in the Anoka Union Herald, the city's official newspaper.

Observations/Alternatives:

The Applicant has applied for a Conditional Use Permit for a commercial tractor and trailer maintenance and repair facility located on the Subject Property. The proposed user would use the existing building located on the Subject Property. The Subject Property is located in the B-2 Business District, which allows for motor vehicle implement and service as a conditional use. The Subject Property is 1.71 acres. Adjacent properties are also within the B-2 District.

The Applicant has proposed to operate a business which will have seven (7) employees at time of opening. The hours of operation will be Monday to Friday from 7 a.m. to 11 p.m. and Saturdays from 7 a.m. to 3 p.m.. The Applicant expects to service approximately 10 tractors and trailers per day, with the vehicles leaving the site after repairs are completed. No vehicles will be stored for long periods of time on site and there will be no outdoor storage.

The existing building is currently equipped with grade level doors and infrastructure complete the type of work the Applicant is proposing. The Applicant is not proposing any new access points from Alpine Drive.

Ruan trucking is a logistics and shipping company. Their main headquarters and dispatch center are located in a different community. The Ramsey location would only be used for routine service of vehicles and equipment. The Ramsey site would not be used for dispatch, parking, or storage.

Alternative 1: Recommend City Council approve a Conditional Use Permit (Resolution 18-159) to allow a commercial tractor and trailer maintenance and repair facility on the Subject Property. The Subject Property abuts other uses of similar nature, there would be no outdoor storage. Staff supports this alternative.

Alternative 2: Recommend City Council deny the request for a Conditional Use Permit (Resolution 18-159) to allow a commercial tractor and trailer maintenance and repair facility on the Subject Property. This action would prohibit the applicant from opening a commercial tractor and trailer maintenance and repair facility. Staff does not support this alternative as the property abuts similar uses and will have minimal impact to neighboring properties.

Funding Source:

All costs associated with this request are the responsibility of the Applicant.

Recommendation:

Staff recommends Alternative 1 - recommending approval of a conditional use permit (CUP) for commercial tractor and trailer maintenance and repair facility on the Subject Property.

Action:

Motion to recommend City Council adopt Resolution #18-159 approving a commercial tractor and trailer maintenance and repair facility on the Subject Property.

Attachments

Site Images

Site Location Map

Ruan Trucking Background

Resolution 18-159

Form Review

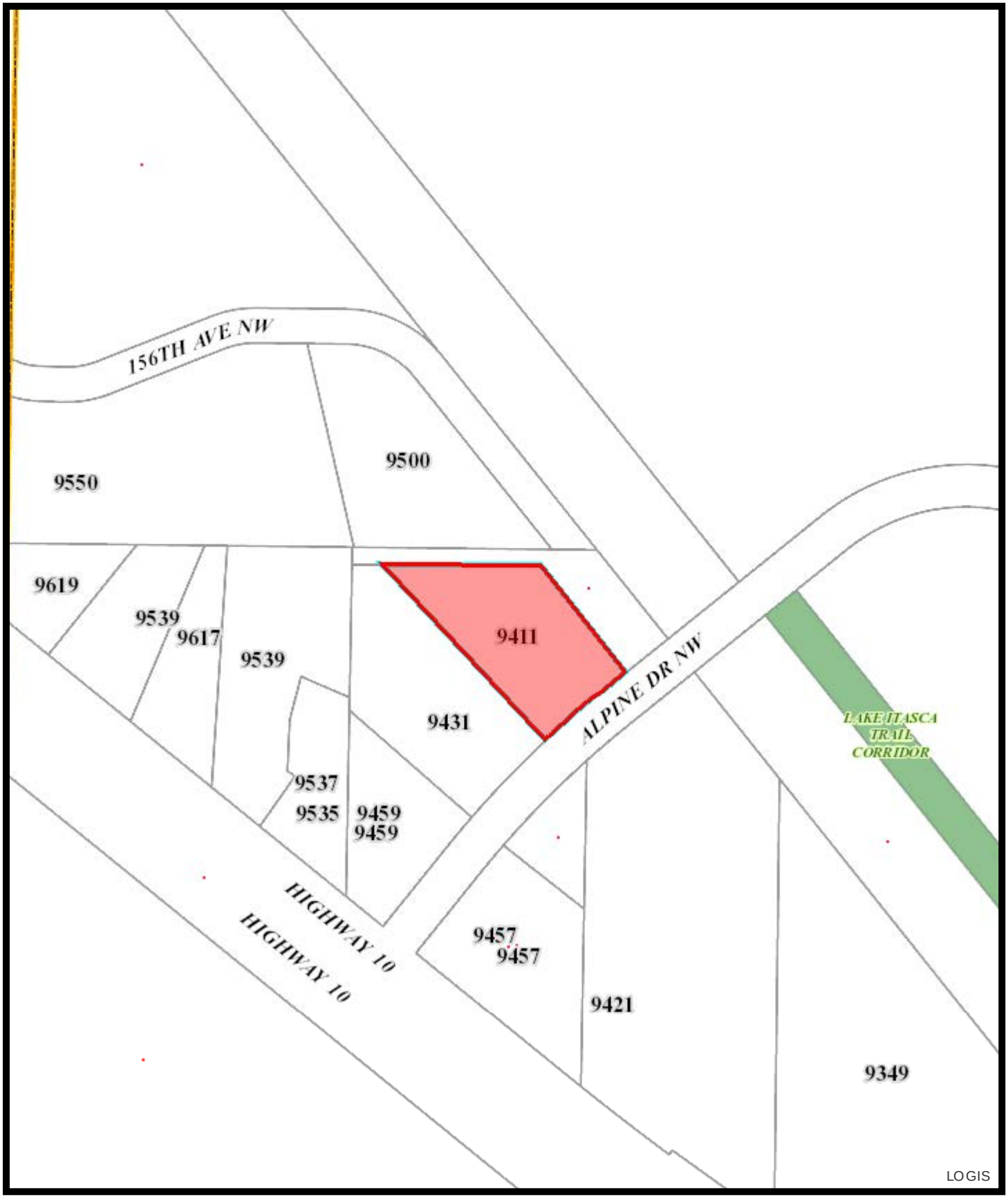
Inbox	Reviewed By	Date
Tim Gladhill	Tim Gladhill	07/27/2018 07:52 AM
Form Started By: PeggySue Imihy		Started On: 07/23/2018 08:48 AM
Final Approval Date: 07/27/2018		




9411
9431

19-32-25-23-0024
9411 ALPINE DR NW

Site Location Map



Feet
0 62.5 125 250 375 500

Print Date: July 12, 2018

RUAN

Operating Entity Name & Address	Federal ID No.	D&B No.
Ruan Logistics Corporation 3200 Ruan Center 666 Grand Ave Des Moines, IA 50309 515-245-2500	42-1244104	00-694-1371
Ruan Transport Corporation 3200 Ruan Center 666 Grand Ave Des Moines, IA 50309 515-245-2500	42-0619339	00-694-1371

A STORY OF AMERICA.
A STORY OF ACHIEVEMENT.

John Ruan began his trucking company with one truck and one load during the depths of the Great Depression. Fueled by a desire to succeed, he soon turned that one truck into a fleet operating throughout the U.S.

Today, his son, John Ruan III, leads the company he started as chairman. And Ben McLean, part of the third generation of the Ruan family, serves as CEO. We have grown to more than 270 nationwide operations; we operate 3,951 power units and 7,500 trailers; and we employ 5,200 team members.

https://www.ruan.com/filesimages/New%20PDFs/Fact%20Sheet%202015.pdf

Bank Reference:

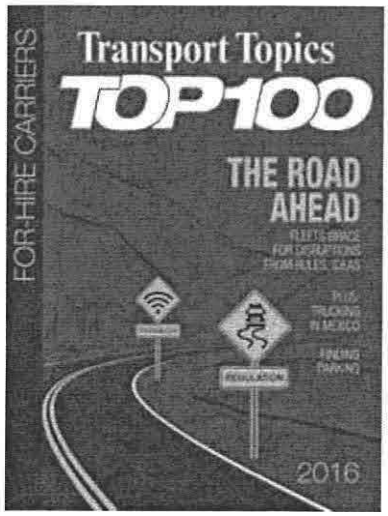
Bankers Trust Company
P.O. Box 977
Des Moines, IA 50304-0977
Account # 33227
Phone: (515) 245-5284
Fax: (515) 247-2140

Trade References:

Comdata Corporation
5301 Maryland Way
Brentwood, TN 37027
Attn: Credit Desk
Fax: (615) 370-7851

Pilot Flying J
555 Lonas Road
Knoxville, TN 37909
Attn: Vickie Rutherford
Direct Bill Account Representative
Phone: (800) 562-6210 x2908
Fax: (865) 297-1747
vickie.rutherford@pilottravelcenters.com

RUAN



RANKINGS

Rank 2016	Rank 2015	Company	Revenue (000)	Net Income (000)	Employees	Tractors	Trailers
38	41	Ruan	869,214		5,558	3,501	7,691

38. Ruan
Data thru December 31, 2015

Location: Des Moines, Iowa
Revenue (000): $869,214

Ruan Dedicated Contract Transportation (dedicated contract carriage, dry van TL, liquid and dry bulk, commercial delivery)

Ruan Supply Chain Solutions (transportation management, freight brokerage, warehousing and distribution, product assembly and packaging, freight payment and audit, yard management, order fulfillment, returned goods management, commercial and residential delivery)

Ruan Transport Corp. (liquid and dry bulk, chemical tank)

Ruan Truck and Trailer Sales (equipment sales)

http://www.ttnews.com/tt100/

FACT SHEET

WWW.RUAN.COM |

RUAN

Ruan Company Profile

Ruan's mission is to employ the best team in the industry to move our customers' business safely, efficiently and on time, every time.

Company Facts

+ Founded in 1932
+ Privately held, family-owned corporation
+ Headquartered in Des Moines, IA
+ Asset-based 3PL
+ Annual revenue $807 million
+ Freight under management $250 million
+ Own or operate 3,951 power units and 7,500 trailers
+ Relationships with thousands of shippers and pre-screened partner carriers
+ On-site managers to direct fleets and drivers
+ 99.8 percent on-time delivery
+ 99.7 percent customer retention
+ Ongoing commitment to quality and process improvement
+ 24/7 customer care from one full-service transportation company
+ Proprietary Megasafe Safety Program

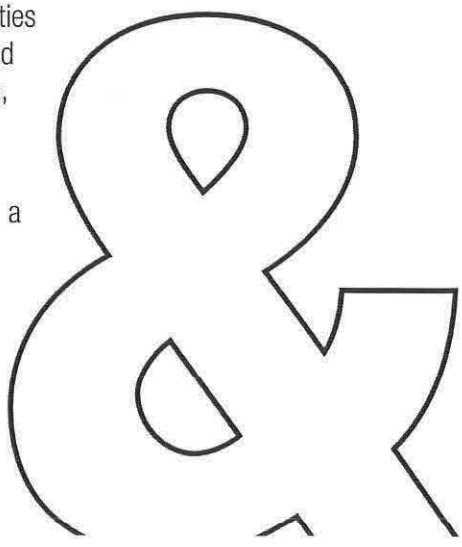


Ruan's Flexible Integrated Solutions Service

At Ruan, we design transportation around our clients. As an asset-based 3PL, we are uniquely positioned to create custom solutions that guarantee capacity and give our clients exactly what they need.

Our Integrated Solutions service combines our non-asset and asset-based capabilities with optimal technology and encompasses every part of the supply chain: Dedicated Contract Carriage (DCC) and Supply Chain Solutions, including contractual logistics, certified brokerage, optimization, mode selection, freight pay/audit, warehousing, cross docking, postponement & more.

We use a process-oriented approach, assessing our clients' goals and customizing a system that makes the most sense for their businesses. We offer industry-leading supply chain event management and workflow, rich analytics, quarterly KPI reporting and a sophisticated transportation planning engine to optimize shipments while reducing costs.



FACT SHEET

WWW.RUAN.COM |

RUAN

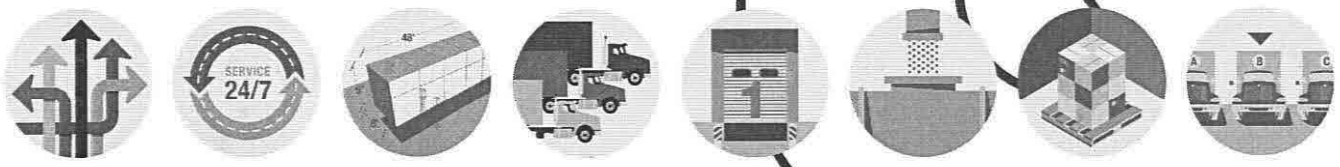
Innovation Driven by Values

Our supply chain solutions are successful because we constantly strive to improve. We take our cues from our company values and integrity.

Ruan's proprietary Megasafe Safety Program drives safety innovations, prevents injuries and reduces material damages. RTMS2.0—our transportation management system—aggregates data across a wide variety of tools and provides metrics that help refine our partners' supply chains.

The Power of And

The result is an unparalleled commitment to our customers. We provide 24/7 care so that when our clients need us—whenever they need us—we're there. By providing the most flexible fleet and non-asset supply chain options, our client retention rate is 99.7 percent. Whether our customer is large or small, whether they use one of our services or many, our promise is simple: Our customer will always get what they need. And they will always get our best.



RTMS2.0

RTMS2.0 is Ruan's customized transportation management technology solution

+ Ruan is an official SmartWay Partner
+ Ruan was included on the G75 Green Supply Chain Partners List by *Inbound Logistics* magazine as a leader in sustainability
+ Ruan strives to minimize our impact on the environment while achieving efficiency, responsiveness and cost savings for our customers

SmartWay Transport Partner
Getting There With Cleaner Air

CNG

Sample of Industries We Serve

+ Grocery
+ Food Processing
+ Manufacturing
+ Chemicals
+ Retail
+ Beverage
+ Metals
+ Agricultural
+ Industrial Gases
+ Food Grade
+ Building Materials
+ Bulk Earth Products
+ Hazmat
+ Solid Waste
+ Mining
+ Medical Supplies

_____ introduced the following resolution and moved for its adoption:

RESOLUTION #18-159

A RESOLUTION APPROVING THE ISSUANCE OF A CONDITIONAL USE PERMIT TO ALLOW COMMERCIAL TRACTOR AND TRAILER MAINTAINENCE AND REPAIR ON THE PROPERTY GENERALLY KNOWN AS 9411 ALPINE DRIVE NW AND DECLARING TERMS OF SAME

RECITALS

1. Ruan Trucking Corporation, hereinafter referred to as the "Permittee," has properly applied for a Conditional Use Permit to conduct a commercial tractor and trailer maintenance and repair generally known as 9411 Alpine Drive NW and legally described as follows:

   Lot 3, Block 1, Ramsey Commercial Park 2nd, Anoka County, Minnesota

   (the "Subject Property")

2. The City of Ramsey received an application for a Conditional Use Permit on the Subject Property on July 10th, 2018.

3. That the Subject Property is located within the B-2 Business District, as are the adjacent properties to the north, south, east and west.

4. That motor vehicle implement and service is listed as a conditional use in the B-2 Business District.

5. The Subject Property is 1.71 acres.

6. That the Permittee will have seven employees to begin and this number may increase.

7. That the hours of operation will be Monday to Friday from 7 a.m. to 11 p.m. and Saturdays from 7 a.m. to 3 p.m.

8. That the Permittee expects to service approximately 10 tractors and trailers per day.

9. That the Permittee will return the tractors and trailers to operating facilities located outside of Ramsey.

10. That there will be no outdoor storage at any time.

11. That the Permittee is not proposing any new access point(s) on to the Subject Property from Alpine Drive.

12. That the existing building is currently equipped with grade level doors and infrastructure to complete this type of work.

FINDINGS OF FACT

1. That the commercial tractor and trailer maintenance and repair use will not be unduly dangerous or detrimental to persons residing or working in the vicinity of the use, or to the public welfare.

2. That the commercial tractor and trailer maintenance and repair use will not substantially adversely impair the use, enjoyment or market value of any of the surrounding properties.

3. That the commercial tractor and trailer maintenance and repair use will be maintained so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and will not change the essential character of the area.

4. That the commercial tractor and trailer maintenance and repair use will not be hazardous to existing or future neighboring uses.

5. That the commercial tractor and trailer maintenance and repair use will not impact essential public facilities and services, such as highways, streets, police and fire protection.

6. That the commercial tractor and trailer maintenance and repair use will not create excessive additional requirements at public cost for public facilities and services and will not be detrimental to the economic welfare of the community.

7. That the commercial tractor and trailer maintenance and repair use will not involve uses, activities and equipment that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors.

NOW THEREFORE, BE IT RESOLVED BY THIS CITY COUNCIL OF THE CITY OF RAMSEY, ANOKA COUNTY, STATE OF MINNESOTA, as follows:

That the Ramsey City Council hereby grants approval of a Conditional Use Permit (the "Permit") for a commercial tractor and trailer maintenance and repair use on the Subject Property contingent upon the following conditions:

CONDITIONS

1. That this **Permit** allows for a commercial tractor and trailer maintenance and repair use on the **Subject Property**.

2. That the **Permittee** shall obtain all necessary permits, including building permits and/or zoning permits, prior to any modifications to the building on the **Subject Property**.

3. That the **Permittee** shall comply with all applicable local, state, and federal regulations.

4. That this **Permit** shall be perpetual in duration as long as the terms are herein complied with.

5. That the **Permittee** shall be responsible for all City costs incurred in administering and enforcing this **Permit**.

6. That the City Administrator, or his/her designee, shall have the right to inspect the premises for compliance and safety purposes annually or at any time, upon reasonable request.

7. That this **Permit** shall automatically expire if the use is not initiated by August XX, 2019.

The motion for the adoption of the foregoing resolution was duly seconded by Councilmember _____, and upon vote being taken thereon, the following voted in favor thereof:

and the following voted against the same:

and the following abstained:

and the following were absent:

whereupon said resolution was declared duly passed and adopted by the City of Ramsey City Council this the XX of August, 2018

PERMITTEE

Ruan Trucking Corporation hereby acknowledges receipt of this Permit and that they have reviewed the conditions of this Permit and has agreed that she will comply with the terms of this Permit.

By:_____

STATE OF MINNESOTA)
) SS.
COUNTY OF _____)

On this _____ day of _____, ____, before me, a Notary Public, personally appeared _____, of Ruan Trucking Corporation, to me known to be the person described in and who executed the foregoing instrument and acknowledges that she executed the same as her free act and deed.

_____

Notary Public

CITY OF RAMSEY:

By:_____ By:_____
Acting Mayor City Clerk

STATE OF MINNESOTA)
) ss.
COUNTY OF ANOKA)

On this _____ day of _____, ____, before me a Notary Public personally appeared John LeTourneau and Jo Ann M. Thieling, to me personally known, who, being each by me duly sworn, did say that they are respectively the Acting Mayor and City Clerk of the City of Ramsey, the Municipal Corporation named in the foregoing instrument, and seal affixed to said instrument is the corporate seal of said Municipal corporation, and the said instrument was signed and sealed on behalf of said Municipal Corporation by authority of its City Council, and said John LeTourneau and Jo Ann M. Thieling acknowledge said instrument to be the free act and deed of said Municipal Corporation.

_____
Notary Public

This document drafted by:
City of Ramsey
7550 Sunwood Dr NW
Ramsey, MN 55303

This document reviewed by:
Ratwik, Roszak & Maloney
730 Second Ave. S., Suite 300
Minneapolis, MN 55402

Regular Planning Commission **5. 2.**

Meeting Date: 08/02/2018

By: Chloe McGuire Brigl, Community Development

Information

Title:

PUBLIC HEARING: Consider Request for a Home Occupation Permit for Auto Detailing at 7950 149th Lane NW, Case of Linda and Troy Neiss

Purpose/Background:

Through the code enforcement program, the City learned of a home-based business being operated on the property located at 7950 149th Lane NW (the "Subject Property"). City Staff has been working with Linda and Troy Neiss (the "Applicant") since January 2018 to complete the Home Occupation Supplemental Questionnaire and subsequently to submit an application for a Home Occupation Permit for automobile detailing.

This business previously operated beyond the parameters of an administrative home occupation requirement, due to off-street parking violations, outdoor storage, the number of vehicles onsite, and the driving to the property over the City-owned property. City staff believes the Applicant has refrained from driving across City-owned property to access the building, and will continue to monitor the situation. Staff has also included it as a condition of approval (condition 6).

The Applicant has provided a copy of supporting documentation showing no objection from surrounding neighbors.

Notification:

The City attempted to notify all property owners within a 350 foot radius of the property and dutifully noticed the public hearing in the City's official newspaper, the Anoka County Herald.

Observations/Alternatives:

Business Details

The Applicant owns a small automobile detailing business. The business currently operates from the Subject Property. The business previously operated from the detached garage, but is currently operating out of the attached garage until the home occupation permit and driveway permit are approved to continue work in the detached garage. The detached garage is currrently only accessible via grass. Use in either structure would require the issuance of a Home Occupation Permit.

Subject Property

The Subject Property is 1.01 acres in size and is in the R-1 Residential (Rural Developing) zoning district. The property is on the corner of 149th Lane and Armstrong Boulevard and abuts City-owned property to the south. The City-owned property is not expected to be developed in coming years. There is no proposed outdoor storage.

City Code Requirements

The Applicant is proposing to operate the detailing business out of the 900 square foot detached accessory garage that would store all associated business equipment and would provide adequate space and maneuvering to accommodate all loading and unloading of miscellaneous equipment. City Code Section 117-351 (Home Occupations) states that home occupations are permitted in detached accessory buildings as long as there is at least 400 square feet of accessory building space reserved/maintained for the primary residential garage. There is an attached garage on the Subject Property that satisfies this requirement at 480 square feet.

City Code Section 117-351 (Home Occupations) states that there shall not be any exterior evidence of said home

occupation such as displays, exterior storage of home occupation equipment and vehicles, materials, supplies, inventory or merchandise except for one motor vehicle affiliated with the home occupation shall be stored or parked outside on the site of the home occupation. In addition, one piece of commercial equipment affiliated with the home occupation shall be allowed to be stored or parked on the site of the home occupation in accordance with Section 117-355. The Applicant has not proposed any outdoor storage and will keep all equipment within the detached garage.

The Applicant has been using a piece of City-Owned Land adjacent to the Subject Property. The Applicant will not be able to use this City Property to access their property. Since a commercial use is being introduced in a residential district, installation of a paved driveway to access the detached garage is appropriate.

Alternatives:

Alternative #1: Adoption of Resolution #18-160. This alternative would approve the Home Occupation Permit. This would permit the existing business, eliminate a code enforcement case, create conformity for an existing building that currently does not comply with City code, and place conditions on the operations of the business. City Staff would support this alternative.

Alternative #2: Deny Resolution #18-060. This would deny the Home Occupation Permit. This matter was originally brought to the City's attention through the code enforcement program. While concerns have been raised related to vehicular traffic and outdoor storage, City staff feels confident the conditions of the home occupation permit would address these issues. City Staff would not support this alternative.

Funding Source:

All costs associated with the requested permit are the responsibility of the Applicant.

Recommendation:

City Staff recommends adoption of Resolution #18-160.

Action:

Motion to recommend that the City Council adopt Resolution #18-160 issuing a Home Occupation Permit to detail autmobiles on the property located at 7950 149th Ln NW based on those findings of fact and listed conditions for approval.

Attachments

Application
Support Documentation
Draft Resolution 18-160

Form Review

Inbox	Reviewed By	Date
Chris Anderson	Chris Anderson	07/26/2018 04:16 PM
Tim Gladhill	Tim Gladhill	07/27/2018 07:57 AM
Form Started By: Chloe McGuire Brigl		Started On: 07/13/2018 10:54 AM
Final Approval Date: 07/27/2018		

City of RAMSEY

Land Use Application

☐ Plat – Sketch Plan	☐ Plat – Preliminary Plat	☐ Plat – Final Plat
☐ Administrative Plat	☐ Site Plan Review	☐ Easement/ROW Vacation
☒ Conditional Use Permit	☐ Interim Use Permit	☐ Comprehensive Plan Amendment
☐ Zoning Amendment	☐ Home Occupation Permit	☐ Variance
☐ Dwelling Moving Permit	☐ Environmental Permit	☐ Registered Land Survey
☐ Non-Traditional Animal License	☐ Beekeeping License	☐ Private Kennel License

Applicant Contact Information

Please note: All official communication will be routed through this contact.

Name:	Troy Neiss		
Street Address:	7950 149th Lane N.W.		
City, State, ZIP:	Ramsey, Mn 55303		
Home Phone: (Cell)	612-807-8588	Work Phone:	
Email:	None	Fax Number:	
Name of Business (if applicable):			
Business Address (if applicable)	7950 149th Lane N.W.		
Business City, State, ZIP	Ramsey, MN 55303		
Business Phone:	612-807-8588	Business Fax:	None

Subject Property Information

(Location of Application)

Address	7950 149th Lane N.W., Ramsey, MN 55303
PIN	21-32-25-33-0007

Legal Description	Lot 1, Block 1, Greenland Hills
Zoning District	R-1 Rural Residential

Contact the Planning Division at 763-433-9824 or planning@cityoframsey.com to request a Zoning Verification

Property Owner Information

(If different than Applicant)

Name:	Linda Neiss		
Street Address:	7950 149th Lane N.W.		
City, State, ZIP:	Ramsey, MN 55303		
Home Phone: Cell	612-408-2861	Work Phone:	
Email:		Fax Number:	

Please provide a detailed description of your request and attached a copy of a scaled site plan

See attached Conditional Use Permit Narrative

A "Land Use Sign" will be placed on the Subject Property to allow Ramsey Residents the opportunity to obtain information about your request.

Applicant Signature		Co-Applicant Signature	
Printed Name	Troy Neiss	Printed Name	
Title	Son of property owner, residing on subject property	Title	
Date	7-13-18	Date	

I understand that the application fee is non-refundable. All costs associated with the processing of this application are the responsibility of the applicant whether this application is approved or denied. Any excess of escrow account deposits over expenditures will be refunded at the time of account closure. I also understand that as the applicant, it is my responsibility to obtain all other permits or licenses required by any applicable regulatory agencies for this Land Use Application.

Property Owner Signature	Linda Neiss	Property Owner Signature	
Printed Name	Linda Neiss	Printed Name	
Title		Title	
Date	7-13-18	Date	

I hereby certify that I am the fee title owner/contract for deed vendee of record for the above-mentioned property. Failure to prove ownership may void any agreements entered into the City and I will be held liable for any and all costs incurred by the City.

TROY NEISS CONDITIONAL USE PERMIT APPLICATION: DESCRIPTION OF PROPOSED AUTO DETAIL FACILITY IN ACCESSORY GARAGE

The property is located at 7950 149th Lane N.W.; is occupied by Troy Neiss (applicant) and owned and occupied by applicant's mother, Linda Neiss (owner).

The subject property is 37,275 square feet (.9 of an acre) in size. Buildings on the property include an 840 square foot home with a 480 square foot attached garage, and a 900 square foot accessory garage. Total square footage of garage on the subject property is 1,380 square feet. There was a 224 square shed that was removed in 2004.

The applicant has been detailing auto's for used car sales lots and private parties without the proper land use permits from the City. The applicant's process in this business is as follows: Picks up used car at sales lot; takes car to a commercial self service car wash to clean exterior and engine compartment (process does not include washing or power spraying engine); drives car to accessory structure on the subject property and proceeds with auto detailing including waxing exterior, cleaning windows, upholstery, carpet. Returns car to sales lot and drives own car home again.

The accessory structure in which the vehicles are cleaned only has room to effectively work on one car at a time. Applicant cleans one vehicle at a time and does not bring another vehicle onto the property until he completes and returns the vehicle he is currently working on. There is no stacking of vehicles awaiting servicing. The frequency of the auto detail business is difficult to predict. In a 30 day period, the average number of vehicles serviced is approximately 20. Hours of operation are proposed at 9:00 a.m. to 10:00 p.m. when there is a vehicle in the shop.

No hazardous fluids are used in the detailing process; laundry soap is used on the upholstery and carpeting. Mechanical equipment used includes air compressor, wet/dry vacuum, and buffer. The building is not air conditioned and has no windows. Therefore, any noise from operations are contained inside the building and should not be audible to neighbors.

The garage doors on the subject building face Armstrong Blvd. and the applicant has been entering the accessory building from Armstrong Blvd. and has received notices from the City to cease as this practice trespasses on City property adjacent to the subject property. The Applicant ceased entering from Armstrong Blvd. since receiving said notices. If the CUP is approved, the Applicant proposes to install a Class 5 driveway, extending off the driveway from 149th Lane and along the east property line to the accessory garage.

I have no objection to Troy Neiss's application for a conditional use permit to operate an auto detail business in the accessory structure on the property owned by his mother (Linda Neiss), and occupied by Troy and Linda, at 7950 149th Lane N.W. I would request that the following issues be addressed in the conditional use permit if approved:

1) That the proposed business be owned and operated solely by Troy Neiss.
2) That there be no stacking of vehicles waiting to be serviced (servicing one vehicle at a time).
3) That no hazardous materials be utilized on the site and that wastewater derived from carpet shampoo be properly disposed of.
4) That vehicle exteriors and engine compartments be washed off site.
5) That the access to the accessory structure be from 149th Lane N.W. and maintained with Class 5, crushed rock, or recycled aggregate.
6) Hours of operation.

NAME	ADDRESS
Dave Simons	15000 Chameleon St NW Ramsey MN 55303
Mike Neerbergen	14940 Chameleon St. NW Ramsey, MN 55303
John Lindberg	7930 149th lane NW Ramsey MN 55303
Scott Martinson	7850 - 149th LN NW Ramsey, MN 55303
[illegible]	14921 CHAMELEON ST RAMSEY, MN

To whom this May Concern:

I am Troy & Linda's Neighbor and have lived next to them over 20 years and I am always outside and have observed that the back garage has been vacant for months and Troy is no longer working out of it.

Any Question or Concerns feel free to call 763-576-063

John Blonde Lindbey
7930 149th Ln. NW
Ramsey, MN 55303

Councilmember _____ introduced the following resolution and moved for its adoption:

RESOLUTION #18-160

A RESOLUTION APPROVING THE ISSUANCE OF A HOME OCCUPATION PERMIT TO OPERATE AN AUTOMOBILE DETAILING BUSINESS ON THE PROPERTY LOCATED AT 7950 149TH LANE NW AND DECLARING TERMS OF PERMIT

WHEREAS, the City of Ramsey received an application from Troy and Linda Neiss requesting a home occupation permit to operate an automobile detailing business on the property generally known as 7950 149th Lane NW and legally described as follows:

Lot 1, Block 1, Greenland Hill Anoka County, Minnesota

(the "**Subject Property**")

NOW THEREFORE, BE IT RESOLVED BY THIS CITY COUNCIL OF THE CITY OF RAMSEY, ANOKA COUNTY, STATE OF MINNESOTA that the findings of fact relating to the request are determined to be as follows:

1. That on July 13, 2018 Troy and Linda Neiss, herein referred to as the **"Applicant",** submitted an application for a Home Occupation Permit to detail automobiles in a detached accessory structure (the **"Home Occupation"**) on the **Subject Property.**

2. That the **Applicant** appeared before the Ramsey Planning Commission for a public hearing pursuant to Section 117-51 of the City Code on August 2, 2018, and that said public hearing was properly advertised.

3. That the **Subject Property** is zoned R-1 Residential (Rural Developing), and the surrounding parcels are zoned R-1 Residential (Rural Developing) on the north and east, and zoned COR on the south. Property to the west across Armstrong Boulevard is zoned R-3 High Density Residential.

4. That the **Subject Property** is approximately 1.01 acres and is surrounded by lots of similar sizes to the north and west, and abuts City-owned vacant land for stormwater management to the south.

5. That the **Subject Property** is guided for low density residential on the City's Future Land Use Map.

6. That the **Applicant** owns and occupies the dwelling unit on the site of the **Home Occupation**.

7. That the **Subject Property** includes an 840 square foot home, a 480 square foot attached garage, and a 900 square foot accessory (detached) garage.

8. That there is currently exterior evidence of the existence of the **Home Occupation** on the **Subject Property** including the parking of vehicles as well as a path off Armstrong Boulevard to the detached accessory building (detached garage) across the City-owned property which was used primarily for the maneuvering vehicles.

9. That the **Home Occupation** is proposed to be entirely contained within a proposed detached accessory building located on the **Subject Property**.

DRAFT

10. That there will be approximately 480 square feet of garage space reserved for indoor residential parking and storage related to the residential us on the **Subject Property**.

11. That there is no interior or exterior business signs or display related to the **Home Occupation** on the **Subject Property**.

12. That there shall be no more than two (2) vehicle trips per hour per standard eight (8) hour business day or sixteen (16) vehicular trips within a twenty-four (24) hour period, as established in City Code Sec. 117-351 (Home Occupations).

13. That the **City** finds the **Home Occupation** does not constitute a fire hazard to neighboring residences.

14. That the **Home Occupation** includes operations related to motor vehicle detailing, including laundry soap, an air compressor, wet/dry vacuum and buffer.

15. That the **Home Occupation** does not include operations related to internal combustion engines, body shops, ammunition manufacturing, nor motor vehicle repair or sales.

16. That the **Home Occupation** employs one (1) person that lives in the dwelling unit on the **Subject Property**. The **Home Occupation** does not employee any other persons.

17. That there will be no activities related to loading and unloading of equipment at the **Subject Property**.

18. That the **Home Occupation** does not involve operating methods that include transactions with the public (customers, clients, consultants, subcontractors, etc.) on the **Subject Property**.

19. That the **Home Occupation** does not conduct retail sales on the **Subject Property**.

20. That the **Home Occupation** business hours are proposed to be 9:00 a.m. to 10:00 p.m.

21. That all structures shall comply with all applicable codes, including, but not limited to, building, fire and zoning.

22. That the **City** finds the **Home Occupation** operates beyond the parameters of a general and administrative home occupation permit requirements (117-351) and therefore requires Planning Commission and City Council review and approval.

23. That the **City** finds that the **Home Occupation** operates/does not operate beyond the intent and parameters of 117-351 (Home Occupations) and finds that the **Home Occupation** is/is not low-level and is not a use typically found in a residential area.

24. That the proposed use will/will not adversely impact traffic in the area.

25. That the proposed use will/will not be compatible with the residential neighborhood due to density and lot size of the surrounding lots.

26. That the proposed use will/will not be unduly dangerous or otherwise detrimental to persons residing or working in the vicinity of the use or to the public welfare.

27. That the proposed use will/will not substantially adversely impair the use, enjoyment, or market value of neighboring properties.

28. That the proposed use will/will not be hazardous or disturbing to existing or future neighboring uses.

29. That the proposed use will/will not be served adequately by public facilities and services such as highways and streets.

30. That the proposed use will/will not create excessive additional requirements at public cost for public facilities and services, and it will/will not be detrimental to the economic welfare of the community.

31. That the proposed use will/will not involve activities and uses that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare, or odors.

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF RAMSEY, ANOKA COUNTY, STATE OF MINNESOTA, as follows:

This **Permit** is issued pursuant to Sections 117-51 and 117-351 of the Ramsey City Code. The conditions of this **Permit** are as follows:

1. That this resolution shall allow for Troy Neiss' automobile detailing (the "Home Occupation") to operate on the **Subject Property**. The **PERMITTEE** shall be required to reserve at least 480 square feet of garage space for the purposes of the primary residential use.

2. That the **PERMITTEE** shall detail automobiles from the 900 square foot detached accessory building (garage) in the rear yard of the property. That all vehicles and equipment associated with the **Home Occupation** shall be stored within that detached accessory building.

3. That the **PERMITTEE** shall extend the existing Class IV gravel driveway to the detached accessory structure. The driveway must be at least five (5) feet from the side property line.

4. That the **PERMITTEE** shall limit hours of operation on the **Subject Property** to be Monday through Saturday from 9:00am to 10:00pm.

5. That the **PERMITTEE** shall limit work to one automobile at any given time, and will not stack vehicles on the property.

6. That the **PERMITTEE** and all those residing or visiting the **Subject Property** will not access the City-owned property by any other means than the proposed driveway extension. The **PERMITTEE** shall not drive on City-owned land, nor access the property off Armstrong Boulevard.

7. That the **PERMITTEE** shall reside in the dwelling unit of the **Subject Property**. The **PERMITTEE** may not employ any persons on the property.

8. That the **PERMITTEE** may not lease portions of the accessory structure located on the **Subject Property** to any person(s).

9. That the **PERMITTEE** agrees to comply with Chapter 117, Article II, Division 6, Subdivision 1 of City Code, titled "Signs".

10. That the **PERMITTEE** agrees to comply with section 117-355 of City Code relating to outside storage and maneuvering of vehicles and equipment on the **Subject Property**; all parking and maneuvering areas on the **Subject Property** must be surfaced with class V gravel, concrete or asphalt.

11. That the **PERMITTEE** must obtain all applicable permits to ensure that the structures and driveway(s) are compliant with all applicable state and local codes.

12. That should the **PERMITTEE** die or sell the **Subject Property**, the **Permit** shall be automatically terminated, except that in the case of death, should a surviving spouse or child, residing at the same address, desire to continue the home occupation, written notice to that effect shall be given to the City Administrator and the City Council may authorize continuation of the **Permit** without further hearing.

13. The **PERMITTEE** shall reside on the **Subject Property**; if the **PERMITTEE** does not reside on the **Subject Property**, the **Permit** shall be terminated.

14. That adequate water supply and on-site sewage disposal facilities shall be the responsibility of the **PERMITTEE**.

15. The **PERMITTEE** shall be responsible for maintaining any applicable State or County licenses.

16. The **PERMITTEE** shall be responsible for all costs incurred in the administration and enforcement of this Permit.

17. That the City Administrator, or his/her designee, shall have the right to inspect the **Subject Property** for compliance and safety purposes annually or at any time, upon reasonable request.

The motion for the adoption of the foregoing resolution was duly seconded by Councilmember _____, and upon vote being taken thereon, the following voted in favor thereof:

and the following voted against the same:

and the following abstained:

and the following were absent:

Whereupon said resolution was declared duly passed and adopted by the Ramsey City Council this the _____ day of August, 2018.

Troy and Linda Neiss, owner(s) of fee title to the Subject Property, hereby acknowledge receipt of this Permit and has reviewed the conditions of this Permit and has agreed to comply with the terms of this Permit.

Troy Neiss

Linda Neiss

STATE OF MINNESOTA)
) ss.
COUNTY OF _____)

On this _____ day of _____, _____, before me a Notary Public, personally appeared Troy and Linda Neiss, owner(s) of fee title to the Subject Property, to me known to be the person(s) described in and who executed the foregoing instrument and acknowledged that he/she executed the same as his/her free act and deed.

_____
Notary Public

Linda Neiss, owner(s) of fee title to the Subject Property, hereby acknowledge receipt of this Permit and has reviewed the conditions of this Permit and have agreed to comply with the terms of this Permit.

_____ _____
Troy Neiss Linda Neiss

STATE OF MINNESOTA)
) ss.
COUNTY OF _____)

On this _____ day of _____, _____, before me a Notary Public, personally appeared Troy and Linda Neiss owner(s) of fee title to the Subject Property, to me known to be the person(s) described in and who executed the foregoing instrument and acknowledged that he/she executed the same as his/her free act and deed.

_____
Notary Public

CITY OF RAMSEY:

By: _____ By: _____
Acting Mayor City Clerk

STATE OF MINNESOTA)
) ss.
COUNTY OF ANOKA)

On this _____ day of _____, _____, before me, a Notary Public, personally appeared Acting Mayor John LeTourneau and JoAnn M Thieling, to me personally known, who, being each by me duly sworn did say that they are respectively the Mayor and City Clerk of the City of Ramsey, the Municipal Corporation named in the foregoing instrument, and seal affixed to said instrument is the corporate seal of said Municipal corporation, and the said instrument was signed and sealed on behalf of said Municipal Corporation by authority of its City Council and said John LeTourneau and JoAnn M. Thieling acknowledge said instrument to be the free act and deed of said Municipal Corporation.

_____
Notary Public

The document drafted by:
The City of Ramsey
7550 Sunwood Dr NW
Ramsey, Minnesota 55303

This document reviewed by:
Ratwik, Roszak & Maloney, P.A.
300 U.S. Trust Building
730 Second Avenue South
Minneapolis, MN 55402

Regular Planning Commission **5. 3.**

Meeting Date: 08/02/2018

By: PeggySue Imihy, Community Development

Information

Title:

PUBLIC HEARING: Consider Variance Request to Build an Attached 2 Stall Garage within the Required Setback from the Shoreline of the Rum River at 15795 Juniper Ridge Drive NW (Project No. 18-123); Case of Rick and Diane Farrell

Purpose/Background:

The City has received an application from Rick and Diane Farrell (the "Applicant") for a variance to construct an attached 2 stall garage within the required setback from the Rum River on the property located at 15795 Juniper Ridge Drive NW (the "Subject Property"). The Planning Commission met previously and approved a variance for a detached one stall garage, the applicant has revised his proposal.

Notification:

City Staff attempted to notify all property owners within 350 feet of the subject property of the request by U.S. Mail and published a notice of public hearing in the Anoka Union Herald, the city's official newspaper.

Observations/Alternatives:

The Subject Property is located within the R-1 Residential (MUSA) zoning district and is approximately 0.88 acres in size. The surrounding parcels are also zoned R-1 Residential (MUSA) and are of a similar size. The Subject Property is within the Wild and Scenic Overlay District, which has additional standards aimed at protecting the scenic qualities of the Rum River, including a setback from the Ordinary High Watermark (OHW) and restricted vegetative clearing activities. The OHW can also be described as the shoreline. The Overlay District is created by Minnesota Rules, and requires that the City administer said rules.

There are two significant materials standards of the Overlay District to consider with this request.

- Minimum setback of 150 feet from the shoreline and 30 feet from bluffline (steep slope)
- Clear cutting activities of significant trees are prohibited

The home and deck on the Subject Property are approximately eighty-nine (89) feet from the shoreline. It is considered lawful, non-conforming as it was constructed in the late 1970s and predates the standards of the Overlay District. There also is a 'pool house' on the Subject Property, which appears to have been constructed without a permit before the Applicant purchased the home and encroaches into the shoreline setback (about 77 feet from the shoreline). The entire home and the majority of the property lie within the required 150 foot setback from the ordinary high water line.

There is also a Scenic Easement in favor of the City and Anoka County encumbering a portion of the Subject Property (as well as the properties to the east and west). Staff overlayed the Scenic Easement with an aerial image for reference (see attached exhibit). It does not appear that the proposed attached accessory structure would encroach into the easement.

At the July 12th, 2018 Planning Commission meeting, the Applicant applied for a variance to the Ordinary High Watermark setback to to construct a fourteen by twenty-four foot (14' x 24') detached accessory building approximately eight-four (84) feet from the shoreline and greater than thirty (30) feet from the bluffline. A variance was granted with the condition that the proposed accessory building be brought in line with the front line of the

home, approximately one hundred and forty-two (142) feet from the shoreline. The Applicant does not want to disturb trees or the grass area where a shed could be located and has instead modified his proposal to include an attached two stall garage.

The Applicant is proposing a twenty-two by twenty-three foot (22' x 23') attached, 2 stall garage which would be approximately one hundred and fifteen (115) feet from the shoreline and greater than thirty (30) feet from the bluffline. The proposed structure would be in line with the rear line of the home and nearer to the front property line than the existing deck. The location of the proposed structure would not require the removal of any trees or disturb any vegetation. The proposed addition would be on the driveway and extend the existing garage.

The DNR has been notified of this application and has not submitted comment. A previous comment from the DNR was that a proposed structure on the Subject Property should at least equal the setback of the existing home so as not to exacerbate a nonconformity.

Alternatives

Alternative 1: Approve Resolution #18-157 as requested. This would allow the garage addition to be built one hundred and fifteen [115] feet from the shoreline. Staff supports this alternative as it does not exacerbate the existing non conformity, nor does it result in any loss of trees or clear vegetation.

Alternative 2: Deny Resolution #18-157. Based on the current setback requirement from the shoreline, any building on this lot would require a variance from either the shoreline setback, the front yard setback, and in some cases, both setbacks. Staff feels that additional garage space is a reasonable request and use of the land. Staff feels the installation of a attached accessory building is a reasonable use of a single family residential property and it would not alter the essential character of the neighborhood. Staff would not support this alternative.

Funding Source:

All costs associated with this request are the responsibility of the Applicant.

Recommendation:

Staff recommends Alternative #1, recommending the Planning Commission approve Resolution #18-157.

?Please note that the Planning Commission is acting in a quasi-judicial capacity. This means that the Planning Commission is making the final decision, not a recommendation to the City Council. The Applicant or impacted persons can appeal the Planning Commission decision to the City Council.

Action:

Motion to approve Resolution #18-157 granting a variance to the Ordinary High Watermark setback to the Rum River to build a two stall attached garage addition at 15795 Juniper Ridge Drive NW.

Attachments

Site Location Map
Site Plan for Proposed Attached Garage
Setbacks
Previous Planning Commission Case dated July 12, 2018
Minutes of the July 2018 Planning Commission
Resolution 18-157

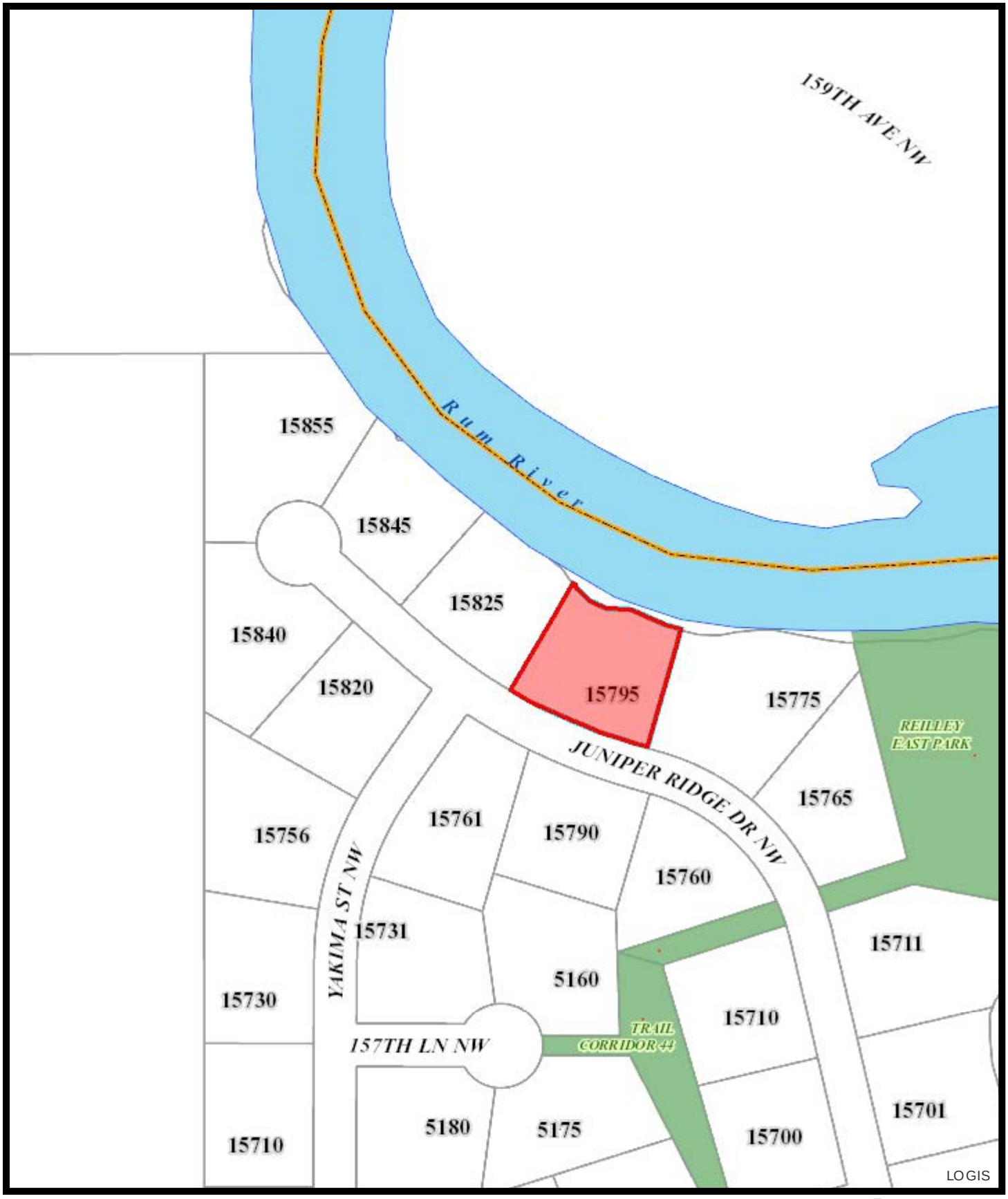
Form Review

Inbox	Reviewed By	Date
Tim Gladhill	Tim Gladhill	07/27/2018 08:05 AM

Form Started By: PeggySue Imihy Started On: 07/23/2018 03:22 PM
Final Approval Date: 07/27/2018

Site Location Map

13-32-25-43-0011
15795 JUNIPER RIDGE DR NW



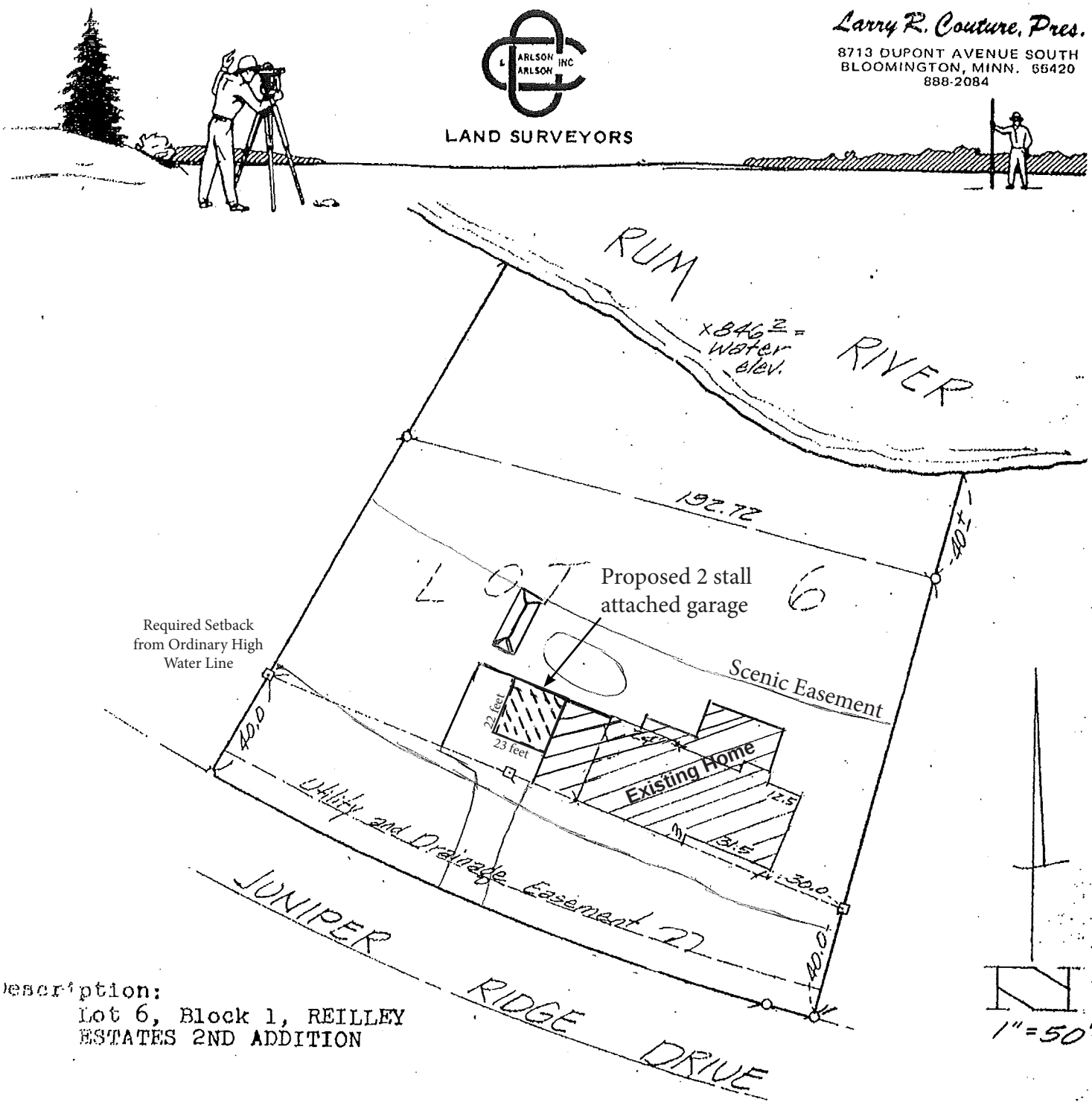
Feet
0 50100 200 300 400

Print Date: June 8, 2018

CERTIFICATE OF SURVEY

LARLSON ARLSON INC
LAND SURVEYORS

Larry R. Couture, Pres.
8713 DUPONT AVENUE SOUTH
BLOOMINGTON, MINN. 55420
888-2084

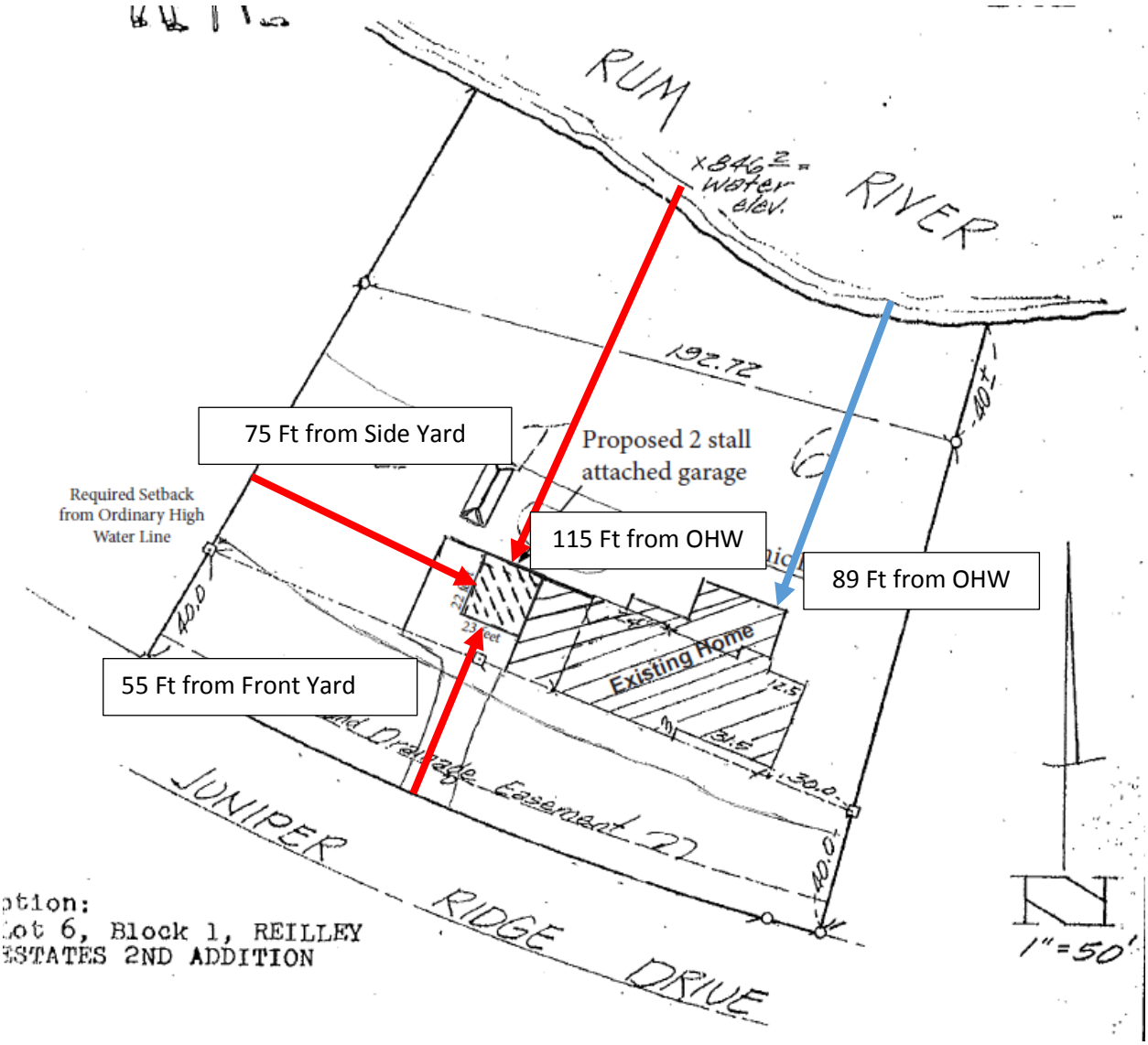


Description:
Lot 6, Block 1, REILLEY ESTATES 2ND ADDITION

Proposed Site Plan for 2 Stall Attached Garage Addition
at 15975 Juniper Ridge Drive NW, Ramsey

Requires variance from required 150 foot setback
from ordinary high water line of the Rum River

Exhibit showing setbacks



Regular Planning Commission **5. 1.**

Meeting Date: 07/12/2018

By: PeggySue Imihy, Community Development

Information

Title:

PUBLIC HEARING: Consider Variance Request to Place a Detached Accessory Building within the Required Setback from the Ordinary High Water Mark of the Rum River at 15795 Juniper Ridge Drive NW (Project No. 18-123); Case of Rick and Diane Farrell

Purpose/Background:

The City has received an application from Rick and Diane Farrell (the "Applicant") for a variance to construct a detached accessory building within the required setback from the Rum River on the property located at 15795 Juniper Ridge Drive NW (the "Subject Property").

Notification:

City Staff attempted to notify all property owners within 350 feet of the subject property of the request by U.S. Mail and published a notice of public hearing in the Anoka Union Herald, the city's official newspaper.

Observations/Alternatives:

The Subject Property is located within the R-1 Residential (MUSA) zoning district and is approximately 0.88 acres in size. The surrounding parcels are also zoned R-1 Residential (MUSA) and are of a similar size. The Subject Property is within the Wild and Scenic Overlay District, which has additional standards aimed at protecting the scenic qualities of the Rum River, including a setback from the Ordinary High Watermark (OHW) and restricted vegetative clearing activities. The Overlay District is created by Minnesota Rules, and requires that the City administer said rules.

There are two significant materials standards of the Overlay District to consider with this request.

- Minimum setback of 150 feet from the shoreline and 30 feet from bluffline (steep slope)
- Clear cutting activities of significant trees are prohibited

The home on the Subject Property is approximately eighty-nine (89) feet from the shoreline. However, it is considered lawful, non-conforming as it was constructed in the late 1970s and predates the standards of the Overlay District. There also is a 'pool house' on the Subject Property, which appears to have been constructed without a permit before the Applicant purchased the home and encroaches into the shoreline setback (about 77 feet from the shoreline).

The Applicant originally proposed to construct a fourteen by twenty-four foot (14' x 24') detached accessory building approximately seventy-two (72) feet from the shoreline and greater than thirty (30) feet from the bluffline. After working with City Staff, the Applicant has amended their application and is now proposing to build the accessory structure approximately eighty-four (84) feet from the shoreline. The proposed location would require the removal of several trees; however, the structure would be more inconspicuous from the street in the proposed location as it would be within the treeline.

There is a Scenic Easement in favor of the City and Anoka County encumbering a portion of the Subject Property (as well as the properties to the east and west). Staff overlayed the Scenic Easement with an aerial image for reference (see attached exhibit). It does not appear that the proposed detached accessory structure would encroach into the easement; however, without a survey of the Subject Property depicting the Scenic Easement and the proposed shed location, that cannot be definitively confirmed.

Previous Planning Commission Case

Based on the required setback of 150 feet from the OHW, and the required 30 foot front yard setback, a variance will be required to place an accessory building anywhere on the Subject Property. However, it does appear that there is space to move the location further back from the river, which would decrease the deficiency, a standard often applied when contemplating variances. Other than the shoreline setback, there proposed accessory building is in compliance with all other applicable standards.

The applicant has raised the concern to staff that the southwest corner of the subject property is the only other location for future septic needs. Currently the septic tank is located directly in front of the primary structure, in the southeast corner of the subject property.

City Staff did forward this request to the MN DNR for comments. The DNR has stated that the proposed structure should at least equal the setback of the existing home so as not to exacerbate a nonconformity. Furthermore, there is space to move the shed forward which would reduce the necessary setback deviation while still complying with the local front yard setback. Moreover, that would more or less align with a detached accessory building constructred a couple years ago (with the issuance of a variance to the shoreline setback) on the property to the west.

This case was heard by the Environmental Policy Board (EPB) on June 18th, 2018, which exclusively reviews the variance for the potential impacts to the viewshed (from the river) and natural resources of the Subject Property and the Rum River. The EPB recommended that the accessory structure be moved forward to be built in line with the front wall of the home. Subsequent to the EPB's review of the case, the Applicant submitted photos (attached) from the river showing the wooded nature of the property and indicating that the accessory structure would not be readily visible to users of the river.

A resident of the neighborhood has submitted an anonmyous letter (attached) expressing concern about the proposed garage due to concerns about the viewshed of the river and the potential impact to the environment.

Previous Planning Commission Case

Alternatives

Alternative 1: Approve Resolution #18-123 as recently amended and requested (allowing the accessory structure to be eighty-four [84] feet from the shoreline). The proposed location of the shed would be inconspicuous from the river based on the elevation change (about twenty [20] feet in difference from the water to the top of the bluffline) and would be reasonably hidden from Juniper Ridge Drive. Any other location would require a variance to the front yard setback and would be visible from the street. Other locations would also require removal of trees and paving over grass. Additionally the Applicant requests that he be allowed to extend the existing gravel driveway to the proposed accessory structure. While gravel is not an allowed driveway surface in the MUSA, given the rural nature of the property staff would support this. Staff supports this alternative. Please note: Staff supports discussion on this alternative, although it is not consisistent with recommendations from the DNR and Ramsey EPB.

Alternative 2: Approve Resolution #18-123 conditioned upon the Applicant moving the location of the shed so that it is in line with the front wall of the home on the Subject Property. This would be more visable from the road but increases the setback from the shoreline closer to about 120 feet (and would follow the recommendation of the EPB). Depending on the location, this alternative may eliminate the need for removing any existing trees but would require the exisitng grass front yard be paved over for a driveway. The existing septic could be replaced with a mound system if needed. Staff could support this alternative.

Alternative 3: Approve Resolution #18-123 conditioned upon the Applicant moving the location of the shed so that it is no closer to the shoreline than the rear wall of the home on the Subject Property. This would eliminate yet another non-conforming structure on the Subject Property as it relates to the setback from the shoreline. This would increase the setback from the shoreline compared to the proposed location but would be more visible from the street. Staff could support this alternative.

Alternative 4: Deny the variance. Based on the current setback requirement from the shoreline, placement of an accessory building is not possible without a variance. Installation of a detached accessory building is a reasonable use of a single family residential property and it would not alter the essential character of the neighborhood. Staff

does not support this alternative.

Funding Source:

All costs associated with this request are the responsibility of the Applicant.

Action:

Motion to approve resolution #18-123 granting a variance to shoreline setbacks to the Rum River at 15795 Juniper Ridge Drive NW so that the front of the proposed structure is even with the existing dwelling (EPB and DNR recommendation).

Attachments

Site Location Map
Applicant Site Plan
Amended Site Plan
Aerial View of Site
Scenic Easement Document
Scenic Easement Exhibit
Site Plan with Trees
Property Photos
Anonymous Letter
DRAFT Resolution #18-123

Form Review

Inbox	Reviewed By	Date
Chris Anderson	Chris Anderson	06/27/2018 12:38 PM
Tim Gladhill	Tim Gladhill	07/05/2018 10:26 PM
Form Started By: PeggySue Imihy		Started On: 06/19/2018 01:48 PM
Final Approval Date: 07/05/2018		

Previous Planning Commission Case

PLANNING COMMISSION
CITY OF RAMSEY
ANOKA COUNTY
STATE OF MINNESOTA

The Ramsey Planning Commission conducted a regular meeting on Thursday, July 12, 2018, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present:	Chairperson Randy Bauer Commissioner Bruce Anderson Commissioner Cheri Gengler Commissioner Daniel Onyambu Commissioner Patrick Surma Commissioner Gary VanScoy Commissioner Matt Woestehoff
Members Absent:	None
Also Present:	Community Development Director Timothy Gladhill City Planner Chloe McGuire Brigl Planning Intern PeggySue Imihy

1. CALL TO ORDER

Chairperson Bauer called the regular meeting to order at 7:00 p.m.

2. CITIZEN INPUT

None.

3. APPROVAL OF AGENDA

Chairperson Bauer requested Item 6.01 be removed from the agenda per the developer's request.

Motion by Commissioner VanScoy, seconded by Commissioner Surma, to approve the agenda as amended.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners VanScoy, Surma, Anderson, Gengler, Onyambu, and Woestehoff. Voting No: None. Absent: None.

4. APPROVE PLANNING COMMISSION MINUTES

4.01: Approve the Following Planning Commission Minutes:

4.01.1: Planning Commission Meeting Minutes Dated June 7, 2018

Commissioner Surma requested a correction to the minutes on Page 5 in the fourth paragraph stating she needs to be changed to he.

Motion by Commissioner Anderson, seconded by Commissioner Woestehoff, to approve the following minutes as amended: Planning Commission Meeting Minutes dated June 7, 2018.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners Anderson, Woestehoff, Gengler, Onyambu, Surma, and VanScoy. Voting No: None. Absent: None.

5. PUBLIC HEARINGS/COMMISSION BUSINESS

5.01: Public Hearing: Consider Variance Request to Place a Detached Accessory Building within the Required Setback from the Ordinary High Water Mark of the Rum River at 15795 Juniper Ridge Drive NW (Project No. 18-123); Case of Rick and Diane Farrell

Public Hearing

Chairperson Bauer called the public hearing to order at 7:03 p.m.

Presentation

Planning Intern Imihy presented the staff report stating the City has received an application from Rick and Diane Farrell (the "Applicant") for a variance to construct a detached accessory building within the required setback from the Rum River on the property located at 15795 Juniper Ridge Drive NW (the "Subject Property"). Staff reviewed the request in further detail and recommended approval of the variance in alignment with the EPB and DNR recommendation.

Citizen Input

Commissioner Anderson requested clarification on where the property owner was proposing to place the garage.

Planning Intern Imihy described the location of the proposed detached accessory building in further detail with the Commission. She explained the property owner's primary goal was to minimize views from the street and the river. It was noted Alternate #1 was the location recommended by staff, the EPB and DNR.

City Planner McGuire Brigl commented if Alternate #1 was approved by the Planning Commission, the applicants would amend their request to increase the size of the proposed detached accessory structure to more closely match their neighbors shed size.

Commissioner Anderson asked if more trees would be lost if Alternate #2 were approved.

Planning Intern Imihy reported this was the case.

Commissioner VanScoy questioned if Alternate #1 would create a steep grade change.

Planning Intern Imihy explained this was a concern for the applicant. Even with this concern in mind, she commented staff believed it was important to support the EPB and DNR recommendation, which was Alternate #1.

City Planner McGuire Brigl reported staff and the DNR would be supportive of Alternates #1 and #2.

Rick Farrell, 15795 Juniper Ridge Drive, thanked staff for all of their assistance with his request. He indicated he was requesting the variance to allow him to store a truck in the detached accessory garage. He explained the original location was proposed as it was the least impactful, visually from the road and the river. He reviewed a number of pictures of his property and noted the location of the garage on his property. He questioned what would be gained by placing the garage closer to the street and requested the Commission allow him to place the garage per his request as this was the least visible and impactful option.

Chairperson Bauer asked what the garage size would be if the applicant were forced to place the accessory building on the Alternate #1 or #2 site.

Mr. Farrell commented his property was so pristine and heavily wooded. He indicated if the variance was not approved per his request, he would not be pursuing a garage at all. He discussed how his property would be adversely impacted if the garage had to be located in the open space.

Commissioner VanScoy stated when the Commission reviewed this type of request, the City worked to ensure the nonconformance was not made worse.

Gary Steinke, 15825 Juniper Ridge Drive, explained he lived next to the applicant. He stated he received a variance three years ago for his garage. He reported he followed all of the City's rules and requested Mr. Farrell be required to follow the same rules. In addition, he feared that the applicant's proposed location would obstruct his view of the river.

Susan Anderson, 15854 Juniper Ridge Drive, explained she lived on the opposite side of the street. She expressed concern with the letter she received from the City and stated the information provided was very confusing.

Mr. Farrell reported his proposed garage location would not block his neighbor's view of the river.

Commissioner Surma questioned what alternative location would work for both parties.

Mr. Farrell stated neither of the alternatives would work for him. He explained he was not interested in taking down trees or jeopardizing his property. He indicated he was not interested in placing the garage where a large driveway would be required and greenspace would be lost.

Mr. Steinke commented Mr. Farrell has enough space to locate a garage on his property while still meeting the EPB and DNR recommendations.

Planning Intern Imihy reviewed the alternatives that would be supported by staff: Alternate #1, Alternate #2 and Alternate #3 (the applicant's proposed location). She explained the proposed accessory building would not block the neighbors view shed of the river in any of the three locations.

Motion by Commissioner Anderson, seconded by Commissioner Surma, to close the public hearing.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners Anderson, Surma, Gengler, Onyambu, VanScoy, and Woestehoff. Voting No: None. Absent: None.

Chairperson Bauer closed the public hearing closed at 7:49 p.m.

Commission Business

Commissioner VanScoy asked if each of the alternatives required a variance.

City Planner McGuire Brigl explained constructing a garage anywhere on this property would require a variance.

Commissioner VanScoy stated it has always been the City's intent to not increase non-conformities on properties when considering variance requests. He believed it was a reasonable request to place a garage on this property. He indicated he could not support the garage being located to the rear of the property.

Commissioner Anderson explained he could not support Alternate #3 as an option. He stated he could entertain Alternate #1 as this was supported by the EPB and DNR.

Motion by Commissioner Anderson, seconded by Commissioner Woestehoff, to recommend that City Council adopt Resolution #18-123 granting a variance to shoreline setbacks to the Rum River at 15795 Juniper Ridge Drive NW so that the front of the proposed structure is even with the front of the existing dwelling and also requiring an approved driveway to this structure.

Further discussion

Commissioner VanScoy asked what type of variance was being requested.

Community Development Director Gladhill reported the applicant required a variance to the Ordinary High Water Line to the Rum River.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners Anderson, Woestehoff, Gengler, Onyambu, Surma, and VanScoy. Voting No: None. Absent: None.

5.02: Public Hearing: Consider Request for Zoning Amendment (Text) to the E-1 Employment District and a Conditional Use Permit to Allow Motor Vehicle Sales on the Property Located at 14300 Sunfish lake Boulevard NW (Project No. 122); Case of John Buzick

Public Hearing

Chairperson Bauer called the public hearing to order at 8:01 p.m.

Presentation

Community Development Director Gladhill presented the staff report stating the City has received an application from John Buzick (the "Applicant") requesting a Zoning Amendment to the text of the E-1 Employment to identify motor vehicle sales as a Conditional Use and a Conditional Use Permit to allow motor vehicle sales on the property located at 14300 Sunfish Lake Blvd NW (the "Subject Property"). That there is an existing Conditional Use Permit (CUP) for the Subject Property, which was approved by the City in 1993, that allows for a towing operation and motor vehicle repairs. The Applicant is proposing a similar business model that he has implemented on two (2) other properties within the City. That model creates multiple tenant suites in a building that are leased out to individuals. Staff provided further comment on the request and recommended denial Zoning Amendment.

Citizen Input

Commissioner Woestehoff asked how much of the City was zoned E-1.

Community Development Director Gladhill reviewed several hundred acres in the City were zoned E-1.

Commissioner VanScoy questioned if the City had received other requests for car sales in the E-1 or E-2 zoning districts.

Community Development Director Gladhill reported this was a rare request and not of this magnitude. He stated there were other zoning districts in the City that better supported this use.

John Buzick, 14300 Sunfish Lake Boulevard, discussed the history of his business and stated he has not had any complaints. He indicated his current location worked as an incubator for small business operators. He explained the property he was looking to purchase has been used for auto repair and towing since 1993. He reported he had 11 people interested in working in Ramsey selling cars from this location. He requested the Commission allow used car sales to occur on this property, along with auto repair and towing.

Darren Guthmiller, 14400 Wolfram Street, explained he lived around the corner from the subject property. He expressed concern with having all of the E-1 properties in Ramsey available for used car sales. He noted all of the other businesses along Sunfish Lake Boulevard have curb and gutter as they have been updated. He commented the current towing company has poor signage and

recommended this be improved so as not to impact the adjacent neighborhood. He described how the businesses along Sunfish Lake Boulevard have improved over the years and stated he did not want to see a new business bring this image down.

Commissioner VanScoy asked if the towing business would remain in place.

Mr. Buzick reported this was the case.

Community Development Director Gladhill explained that Mr. Buzick would not be allowed to park vehicles on grass anywhere on the subject property. He anticipated this could be addressed with a proper paving and site plan. He reported the towing use was a lawful non-conforming use on this site.

Motion by Commissioner VanScoy, seconded by Commissioner Surma, to close the public hearing.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners VanScoy, Surma, Anderson, Gengler, Onyambu, and Woestehoff. Voting No: None. Absent: None.

Chairperson Bauer closed the public hearing closed at 8:23 p.m.

Commission Business

Commissioner VanScoy asked if the proposed Zoning Amendment would allow vehicle sales to occur in all E-1 zoning districts.

Community Development Director Gladhill reported this was the case. He then reviewed the location of all E-1 zoning districts in the City.

Commissioner Gengler stated she appreciated the applicant's efforts to incubate businesses in Ramsey, however, she noted she could not support the request. She stated she had concerns with the proposed Zoning Amendment and how this would impact the City of Ramsey.

Chairperson Bauer agreed.

Motion by Commissioner VanScoy, seconded by Commissioner Woestehoff, to recommend that City Council deny the request to allow motor vehicle sales in the City's industrial zoning districts.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners VanScoy, Woestehoff, Anderson, Gengler, Onyambu, and Surma. Voting No: None. Absent: None.

5.04: Public Hearing: Consider Ordinance #18-12; Text Amendment to City Code Section 117-351 Home Occupations Ordinance

Public Hearing

Chairperson Bauer called the public hearing to order at 8:29 p.m.

Presentation

Planning Intern Imihy presented the staff report stating under staff direction from the City Council and the Planning Commission, a text amendment has been made to City Code Section 117-351, Home Occupations. This text amendment specifically limits the number of allowed employees and prohibits outdoor storage. Based on recent Applications, Staff was directed to consider additional standards based on the following:

- More explicit prohibition on outside storage.
- Creation of categorical prohibitions (such as contracting companies that traditionally have significant outdoor storage)
- Additional limitations on number of employees to reduce number of vehicle trips to site

Citizen Input

Chairperson Bauer asked if a pickup truck could be parked outside on a property.

Planning Intern Imihy explained a pickup truck would not be considered outdoor storage.

Community Development Director Gladhill reported the proposed text amendment would not prohibit contractors from parking their work truck (Xfinity, Comcast, etc.) in their residential driveway.

Commissioner VanScoy requested further information on how the City would be addressing off site employees.

Community Development Director Gladhill described how off-site employees and a dispatch center scenario would be addressed by this Ordinance. It was noted employees would not be allowed to come to a site and be dispatched to another location per this Ordinance.

Chairperson Bauer stated he did not want to see the City become so restrictive that residents with a home occupation were not able to move into the City.

Community Development Director Gladhill reported the Planning Commission did not have to take action on this item tonight. He explained the Commission could continue to review the proposed text amendment.

Further discussion ensued regarding the number of employees that should be allowed on the site based on acreage. Staff reviewed the number allowed by neighboring communities.

Community Development Director Gladhill asked how the Commission wanted to proceed at this time.

Chairperson Bauer suggested staff amend the text to address the number of employees that would be allowed if a site is over three acres, while also addressing the number of employees that could be allowed under three acres through a CUP. He questioned if the City had an accurate number of home occupations currently operating in Ramsey.

Community Development Director Gladhill stated he would have to run some analysis and could provide this information to the Commission in August.

Commissioner Woestehoff commented the existing home occupations would not be impacted, but rather the Commission should be focused on how future home occupations should operate in the City.

Motion by Commissioner VanScoy, seconded by Commissioner Anderson, to close the public hearing.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners VanScoy, Anderson, Gengler, Onyambu, Surma, and Woestehoff. Voting No: None. Absent: None.

Chairperson Bauer closed the public hearing closed at 8:50 p.m.

Commission Business

Motion by Commissioner Anderson, seconded by Commissioner Surma, to postpone action in this item to the August 2, 2018 Planning Commission meeting.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners Anderson, Surma, Gengler, Onyambu, and VanScoy. Voting No: Woestehoff. Absent: None.

5.03: Public Hearing: Consider Ordinance #18-13; Amendment to City Code Chapter 117 (Zoning and Subdivision of Land) to add a Neighborhood Business District

Public Hearing

Chairperson Bauer called the public hearing to order at 8:51 p.m.

Presentation

Planning Intern Imihy presented the staff report stating in 2016, following the Public Hearing regarding the property located at 6139 157th Lane NW, staff was instructed to create a new zoning district within the City of Ramsey for the purposes of commercial property located near or adjacent to residential properties. Primarily, this Zoning District is needed to correct a previous zoning action (improper use of a conditional use permit).

Planning Intern Imihy explained this zoning district did not move forward in 2016 and staff has been directed to bring the case back to the Planning Commission as a discussion item. This proposed zoning district is slightly more restrictive than the current B-1 district and would not

occur along Highways 47 or 10. The intent of this ordinance is truly small-scale, neighborhood-scale commercial uses. The intent is not to allow higher intensity uses most commonly found along highway corridors. This district can be a valuable tool moving forward as the City attempts to accomplish comprehensive plan goals to provide a mix of uses focused on neighborhoods. For example, another potential area for this zoning district could be used would be near the new elementary school (not proposed at this time).

Planning Intern Imihy reported staff drafted a proposed zoning district which includes four permitted uses, four conditional uses and six prohibited uses. Following the feedback from last month's Planning Commission, Staff has moved on-sale liquor to a conditional use and added the sales of tobacco, tobacco products or tobacco related devices to the prohibited uses. She provided further comment on the proposed text amendment and recommended adoption of the Ordinance.

Citizen Input

Commissioner VanScoy questioned how the City would implement this Ordinance.

Planning Intern Imihy reported the City's zoning map would need to be updated and property owners would have to be notified of the proposed change.

Community Development Director Gladhill explained the new zoning would be a tool available to the City to assist in fostering neighborhood businesses.

Motion by Commissioner Anderson, seconded by Commissioner Woestehoff, to close the public hearing.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners Anderson, Woestehoff, Gengler, Onyambu, Surma, and VanScoy. Voting No: None. Absent: None.

Chairperson Bauer closed the public hearing closed at 8:59 p.m.

Commission Business

Motion by Commissioner Gengler, seconded by Commissioner VanScoy, to recommend that City Council adopt Ordinance #18-13, which would create a new zoning district titled the Neighborhood Business District.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners Gengler, VanScoy, Anderson, Onyambu, Surma, and Woestehoff. Voting No: None. Absent: None.

5.05: Consider Zoning Amendment to Allow a Microbrewery at 17201 St. Francis Boulevard NW; Case of Tim and Corin O'Shaughnessy

No action was taken on this item.

6. COMMISSION BUSINESS

6.01: Receive Update from Continental Properties Regarding Potential Project (Springs at Ramsey)

This item was removed from the agenda per the developer's request.

7. COMPREHENSIVE PLAN UPDATE ITEMS

Community Development Director Gladhill provided the Commission with an update on the Comprehensive Plan.

8. COMMISSION / STAFF INPUT

8.01: Receive Staff Update

The Staff Update was noted.

8.02: Zoning Bulletins

Zoning Bulletins were noted.

9. ADJOURNMENT

Motion by Commissioner VanScoy, seconded by Commissioner Surma, to adjourn the meeting.

Motion Carried. Voting Yes: Chairperson Bauer, Commissioners VanScoy, Surma, Anderson, Gengler, Onyambu, and Woestehoff. Voting No: None. Absent: None.

The regular meeting of the Planning Commission adjourned at 9:09 p.m.

Respectfully submitted,

_____
Tim Gladhill
Community Development Director

ATTEST:

_____
JoAnn Shaw
Planning Division Secretary

Drafted by Heidi Guenther
TimeSaver Off Site Secretarial, Inc.

Commissioner _____ introduced the following resolution and moved for its adoption:

RESOLUTION #18-157

A RESOLUTION APPROVING THE ISSUANCE OF A VARIANCE TO CONSTRUCT AN ATTACHED ACCESSORY STRUCTURE WITHIN THE REQUIRED SETBACK OF THE ORDINARY HIGH WATERMARK OF THE RUM RIVER ON THE PROPERTY GENERALLY KNOWN AS 15795 JUNIPER RIDGE DR NW AND DECLARING TERMS OF SAME.

RECITALS

1. Albert Farrell, hereinafter referred to as the "Permittee", has properly applied for a Variance to construct a attached accessory structure within the required setback of the ordinary high watermark of the Rum River on the property located at 15795 Juniper Ridge Dr NW and legally described as follows:

   REILLEY ESTATES SECOND ADDITION LOT 6 BLK 1 REILLEY ESTATES SECOND ADDITION) (SUBJECT TO EASE AS SHOWN ON PLAT) (SUBJECT TO A SCENIC EASE TO THE CITY OF RAMSEY & CNTY OF ANOKA FILED 9-14-78)

   ("Subject Property")

2. That the Subject Property is zoned R-1 Residential (MUSA) District; the surrounding parcels to the west, north, south, and east are also zoned R-1 Residential (MUSA).

3. That the Subject Property is approximately 0.88 acres in size.

4. That the Subject Property is subject to the Scenic Overlay District of the Rum River.

5. That adjacent properties are also subject to the Scenic Overlay District of the Rum River

6. That the Permittee has proposed to construct a attached accessory building (the "Addition") in a location that would meet or exceed the required setbacks for the R-1 Residential (MUSA) zoning district but would be within the required setback of the ordinary high watermark of the Rum River.

7. That the proposed Addition would be 22' x 23' feet and 506 square feet in size, would have an exterior finish that matches the home, and would include soffit, fascia, and eave overhangs to match the home.

8. That the proposed Addition would comply with all other applicable standards for attached accessory buildings.

9. That the Subject Property has an existing pool house which is 11' x 25' feet in size and was built without a permit prior to the purchase of the home by the Applicant.

10. That the pool house on the Subject Property falls within the current scenic easements and Ordinary High Watermark.

FINDINGS OF FACT

1. That the proposed use will/will not adversely impact traffic in the area.

2. That the proposed use will/will not substantially or adversely impair the use, enjoyment or market value of surrounding properties.

3. That the variance for the proposed use will/will not include the pre-existing pool house which cannot be expanded upon.

4. That the proposed use will/will not be constructed so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and such use will/will not change the essential character of the area.

5. That the proposed use will/will not create additional requirements at public cost for public facilities and services.

6. That the proposed use will/will not be detrimental to the economic welfare of the community.

7. That the proposed use will/will not be disturbing or hazardous to existing or future neighboring uses.

8. That the proposed use will/will not involve uses, activities, processes, materials and equipment and conditions of operation that may be detrimental to any persons, property or the general welfare, by reason of excessive production of traffic, noise, smoke or glare.

9. That the proposed use will/will not be in accordance with the objectives of the intent of Section 117-51 (Conditional Use Permits) of the City Code.

NOW THEREFORE, BE IT RESOLVED BY THIS PLANNING COMMISSION OF THE CITY OF RAMSEY, ANOKA COUNTY, STATE OF MINNESOTA, as follows:

That the Ramsey Planning Commission hereby grants approval of a variance (the "Variance") to construct the Addition on the Subject Property contingent upon the following conditions:

CONDITIONS

1. That there shall be no additional accessory structures constructed on the **Subject Property**, unless in accordance with City Code.

2. That the **Permittee** shall construct the **Addition** in accordance with all other provisions of City Code Section 117-349 (Accessory Uses and Buildings) and City Code Section 117-111 (R-1 Residential District).

3. That the **Permittee** agrees that there will not be any commercial activities within the detached accessory building unless in full compliance with City Code Section 117-351 (Home Occupations).

4. That the Permittee agrees to construct the **Addition** as shown in **Exhibit 1**.

5. That the **Permittee** agrees that there will not be any habitation within the attached garage.

6. That this **Permit** shall be perpetual in duration as long as the terms are herein complied with.

7. That the **Permittee** shall be responsible for all City costs incurred in administering and enforcing this **Permit**.

8. That the **Permittee** shall obtain all necessary permits prior to commencing any construction of the **Addition,** including a Building Permit.

9. That the City Administrator, or his/her designee, shall have the right to inspect the **Subject Property** for compliance and safety purposes annually or at any time, upon reasonable request.

10. That this **Permit** shall automatically expire if the use is not initiated by August 2, 2018 and issuance of the Building Permit shall constitute initiation.

The motion for the adoption of the foregoing resolution was duly seconded by Commissioner _____, and upon vote being taken thereon, the following voted in favor thereof:
and the following voted against the same:

and the following abstained:

and the following were absent:

whereupon said resolution was declared duly passed and adopted by the Ramsey Planning Commission this the 2nd day of August, 2018

PERMITTEE

Albert Farrell, hereby acknowledge receipt of this **Permit** and that they have reviewed the conditions of this **Permit** and have agreed that they will comply with the terms of this **Permit**.

By:_____
Albert Farrell

STATE OF MINNESOTA)
) ss.
COUNTY OF _____)

On this _____ day of _____, _____, before me, a Notary Public, personally appeared Albert Farrell, to me known to be the persons described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

CITY OF RAMSEY

By:_____ By:_____
Planning Commission Chair City Clerk

STATE OF MINNESOTA)
) ss.
COUNTY OF ANOKA)

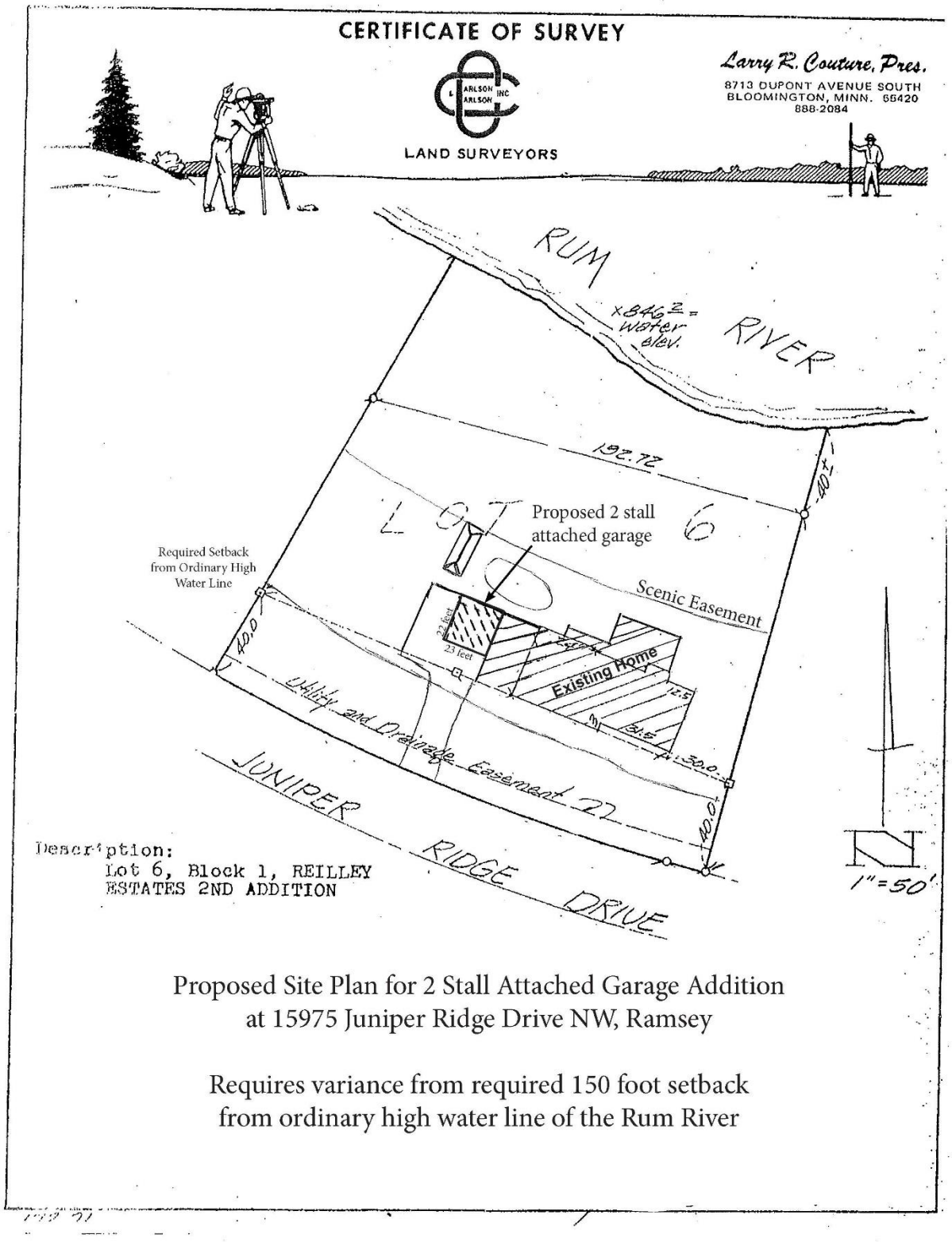
On this _____ day of _____, _____, before me a Notary Public personally appeared Randy Bauer and Jo Ann M. Thieling, to me personally known, who, being each by me duly sworn, did say that they are respectively the Planning Commission Chairperson and City Clerk of the City of Ramsey, the Municipal Corporation named in the foregoing instrument, and seal affixed to said instrument is the corporate seal of said Municipal corporation, and the said instrument was signed and sealed on behalf of said Municipal Corporation by authority of its City Council, and said Randy Bauer and Jo Ann M. Thieling acknowledge said instrument to be the free act and deed of said Municipal Corporation.

_____
Notary Public

This document drafted by:
The City of Ramsey
7550 Sunwood Drive NW
Ramsey, MN 55303

This document reviewed by:
Ratwik, Roszak & Maloney
730 Second Ave. S., Suite 300
Minneapolis, MN 55402

Exhibit 1
Site Plan



Proposed Site Plan for 2 Stall Attached Garage Addition
at 15975 Juniper Ridge Drive NW, Ramsey

Requires variance from required 150 foot setback
from ordinary high water line of the Rum River

Regular Planning Commission **5. 4.**

Meeting Date: 08/02/2018

By: PeggySue Imihy, Community Development

Information

Title:

PUBLIC HEARING: Review Site Plan, Preliminary Plat and Conditional Use Permit for Motor Vehicle Sales and Repair Facility Expansion (Project #18-126); Case of Lazydays RV

Purpose/Background:

The purpose of this case is to review an application received by Lazydays RV ("the Applicant') for a Site Plan, Preliminary Plat, and Conditional Use Permit on the property located at PID 29-32-25-13-0007, legally described as Outlot A, Alpaca Estates 4th Addition ("the Subject Property"). The proposed building is located in the B-2 Business District and would include one (1) 1-story building which would have twenty (20) service bays to be used for motor vehicle, implement, and recreation equipment sales and service. The Subject Property is approximately 9.38 acres.

The site is currently owned by Shorewood RV. Lazydays RV is in the process of acquiring Shorewood RV and planning an expansion for a new maintenance facility.

Notification:

City Staff attempted to notify all property owners within 700 feet of the subject property of the request by U.S. Mail and published a notice of public hearing in the Anoka Union Herald, the city's official newspaper.

Observations/Alternatives:

Zoning

The Subject Property is zoned B-2 Highway Business District which allows for motor vehicle, implement, and recreation equipment sales and service facilities as a conditional use. The applicant has submitted a Conditional Use Permit for this use. The Site Plan, Preliminary Plat and Final Plat presented to the City generally appears to adhere to the B-2 guidelines.

Setbacks and Standards

The proposed site plan, preliminary plat and final plat meets the B-2 Zoning setback requirements.

Utility Plan

The Applicant has provided a utility plan that is not complete as it does not provide detail regarding the proposed septic system. Given that the use of a septic system in this location would require a variance to City Code, the lack of a detailed utility plan has rendered this application incomplete. City Staff is supportive of approving the Preliminary Plat with the condition that the connection to City Sanitary Sewer and Water is made.

Fire Suppression

The Applicant has not identified a Fire Suppression System for the proposed building on the Subject Property. The City Fire Department has reviewed the case and has noted that The Applicant will need to work with a Fire Protection Engineer to identify what type of Fire Suppression system would be needed as well at what sized tanks and fire pumps will be required. These tanks will need to be buried underground to prevent from freezing and cannot be paved or driven over, room for these tanks is not indicated on the site plan.

Hazardous Waste Disposal

The Applicant has not supplied detailed plans for how to address the disposal of hazardous waste which will be

created from the service bays. If a private septic system is used, the Applicant must address how where hazardous waste will be stored as it cannot be put into the septic system. If the connection to City Sanitary Sewer and Water is made, the installation of a flammable waste trap can be used and waste from the service bays can be drained into the City Sanitary Sewer. The City Building Department believes this would be a compelling reason for the Subject Property to be connected to City Sanitary Sewer and Water.

Conditional Use Permit Application
The Applicant has applied for a Conditional Use Permit (CUP) to allow for motor vehicle, implement, and recreation equipment sales and service. This use would be an expansion of the existing use of the property to the North of the Subject Property (8390 Highway 10 NW), which is classified as Lawful, Non-Conforming. The proposed use would expand the existing service center from 10 services bays to 30 bays. The proposed building on the Subject Property will have a customer service and waiting area, part warehouse, receiving dock and additional office space. The Applicant plans to have approximately 30 staff working out of the proposed building on the Subject Property which would be a combination of service managers, service technicians, warehousing and customer service. The Site Plan also indicates an area on the Subject Property to be reserved for a potential future expansion. With the issuance of the CUP, The Applicant acknowledges the forfeiture of any rights associated with the previous legal, non-conforming status of the Subject Property and 8390 Highway 10 NW. CUP Staff recommends approving the Conditional Use Permit with the condition that a connection to City Storm Sewer and Water is made.

Alternatives:

Alternative 1: Recommend City Council approve a Conditional Use Permit to allow for motor vehicle, implement, and recreation equipment sales and service as well as approval of the Site Plan and Preliminary Plat for the Subject Property with the condition that the connection to City Sanitary Sewer and Water is made (Resolution #18-162). The proposed use would be an expansion of the existing legal, non-conforming use which is a reasonable use of the property. Based on the needs of the proposed use, Staff reccomends that the connection to City Sanitary Sewer and Water is made and that plans are corrected to reflect this and all other staff comments.

Alternative 2: Recommend City Council deny the application for a Conditional Use Permit to allow for motor vehicle, implement, and recreation equipment sales and service as well as approval of the Site Plan/Preliminary Plat/Final Plat for the Subject Property. Given the existing legal, non-conforming business it would be reasonable to allow expansion of the business on the Subject Property. Staff does not support this alternative.

Funding Source:
The applicant is responsible for all costs associated with review.

Recommendation:
Staff recommends approval of a Conditional Use Permit (CUP) for motor vehicle, implement, and recreation equipment sales and service as well as approval of the Site Plan and Preliminary Plat for the Subject Property with the condition that the connection to City Sanitary Sewer and Water is made.

Action:
Motion to recommend City Council adopt Resolution #18-162 approving a Conditional Use Permit (CUP), Site Plan, and Preliminary Plat for Lazydays RV, contingent upon revising the utility plans to include a connection connection to City Sanitary Sewer and Water is made and subject to the final review by the City Engineer.

Attachments

Site Location Map
Final Plat Sheets
CUP Memoradum - Lazydays

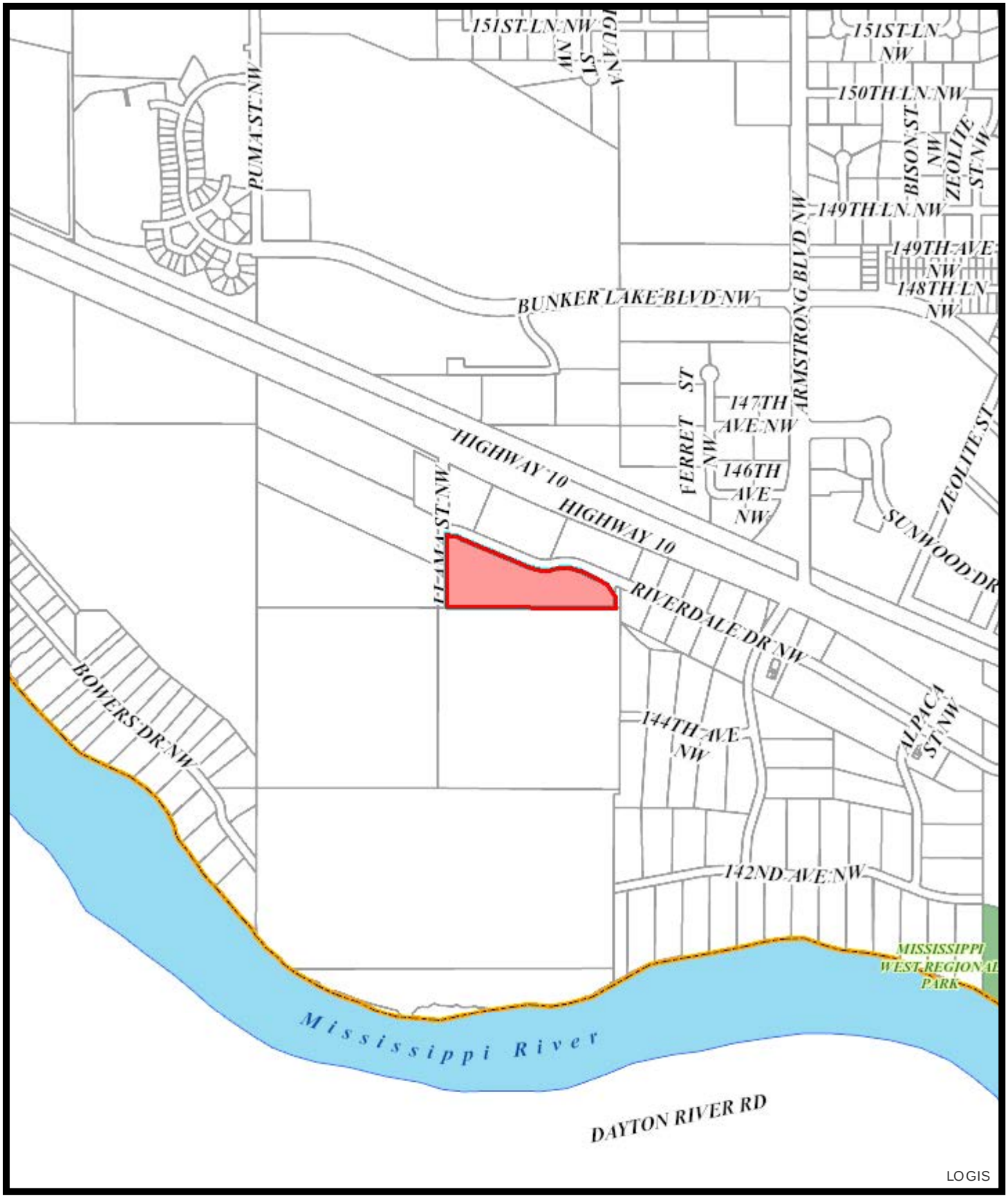
Incomplete Application Letter
Final Plat Changemarks
Planning Staff Technical Report
Landscaping Technical Report
Resolution #18-162

Form Review

Inbox	Reviewed By	Date
Tim Gladhill	Tim Gladhill	07/27/2018 12:50 PM
Form Started By: PeggySue Imihy		Started On: 07/25/2018 09:55 AM
Final Approval Date: 07/27/2018		

29-32-25-13-0007

Site Location Map

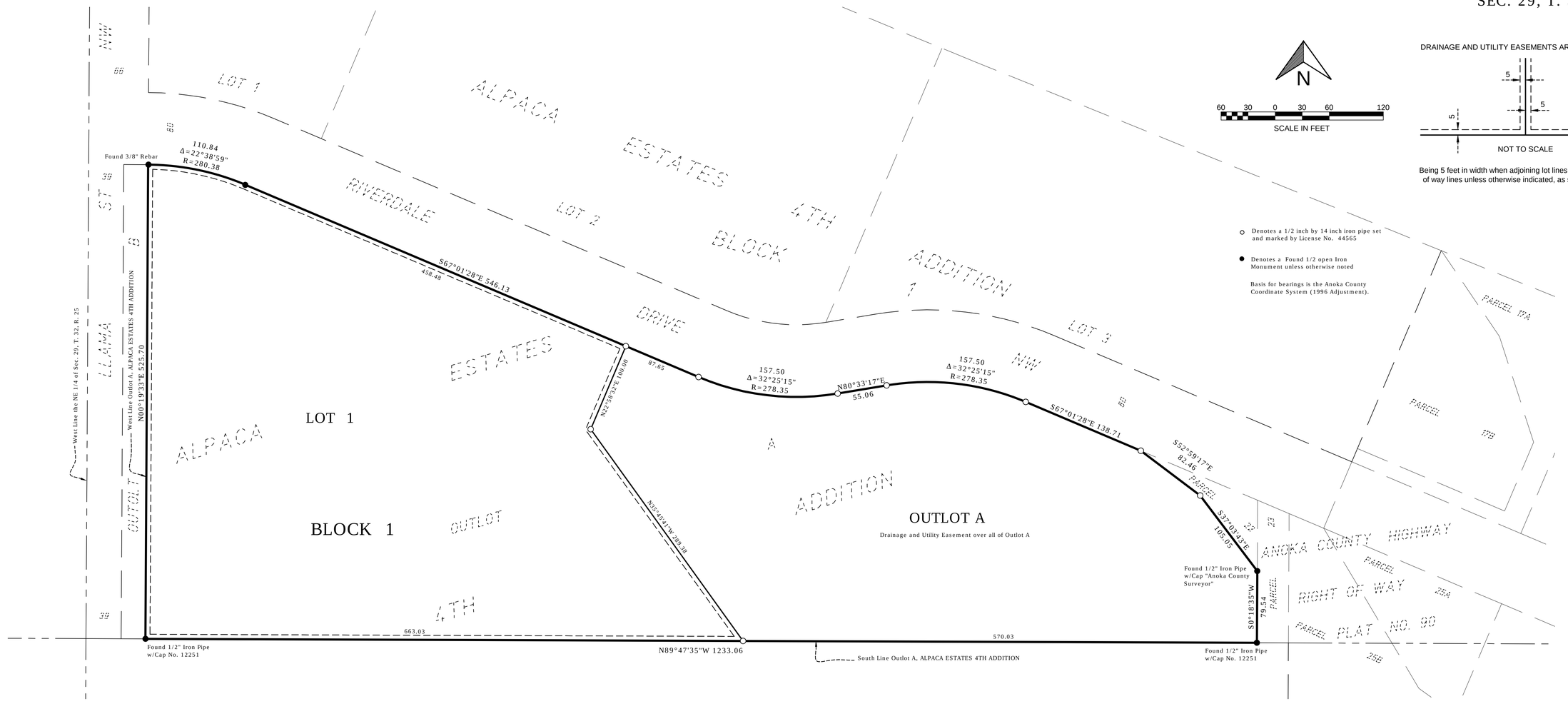


Feet
0 237.5 475 950 1,425 1,900

Print Date: July 12, 2018

LAZYDAYS

CITY OF RAMSEY
COUNTY OF ANOKA
SEC. 29, T. 32, R. 25



KNOW ALL PERSONS BY THESE PRESENTS: XXX, a XXXX corporation, owner of the following described property:

Outlot A, ALPACA ESTATES 4TH ADDITION, according to the recorded plat thereof, Anoka County, Minnesota

EXCEPT

Parcel 22, ANOKA COUNTY HIGHWAY RIGHT-OF-WAY PLAT NO. 90.

Has caused the same to be surveyed and platted as LAZYDAYS and does hereby dedicate to the public for public use the drainage and utility easements as shown on this plat.
In witness whereof said XXX, a XXXX corporation, has caused these presents to be signed by its proper officer this _____ day of _____, 2018.

Signed: XXXXX

_____

_____

STATE OF MINNESOTA
COUNTY OF _____

This instrument was acknowledged before me this _____day of _____, 2018

by _____ , of XXXXXX, a XXXXX corporation.

_____ _____

_____
Notary Public, _____ County, Minnesota
My commission expires _____

SURVEYORS CERTIFICATE

I Rory L. Synstelien do hereby certify that this plat was prepared by me or under my direct supervision; that I am a duly Licensed Land Surveyor in the State of Minnesota; that this plat is a correct representation of the boundary survey; that all mathematical data and labels are correctly designated on the plat; that all monuments depicted on the plat have been, or will be correctly set within one year; that all water boundaries and wet lands, as defined in Minnesota Statutes, Section 505.01, Subd. 3, as of the date of this certificate are shown and labeled on this plat; and all public ways are shown and labeled on this plat.

Dated this _____day of _____, 2018.

_____
Rory L. Synstelien, Licensed Land Surveyor
Minnesota License No. 44565

STATE OF MINNESOTA
COUNTY OF _____
This instrument was acknowledged before me this _____day of _____, 2018 by Rory L. Synstelien.

_____ _____

_____
Notary Public, _____ County, Minnesota

My commission expires _____

CITY COUNCIL

City Council, City of Ramsey, Minnesota

This plat of LAZYDAYS was approved and accepted by the City Council of the City of Ramsey, Minnesota at a regular meeting thereof held this _____ day of _____2018, and said plat is in compliance with the provisions of Minnesota Statutes, Section 505.03, Subd. 2.

City Council, City of Ramsey, Minnesota

By: _____
Mayor

By: _____
Clerk

COUNTY SURVEYOR

I hereby certify that in accordance with Minnesota Statutes, Section 505.021, Subd. 11, this

plat has been reviewed and approved this _____ day of _____,2018.

By: _____
Charles F. Gitzen
Anoka County Surveyor

COUNTY AUDITOR/TREASURER

Pursuant to Minnesota Statutes, Section 505.021, Subd. 9, taxes payable in the year 20___ on the land hereinbefore described have been paid. Also, pursuant to Minnesota Statutes, Section 272.12, there are no delinquent taxes and transfer entered this _____ day of _____,2018.

_____
Property Tax Administrator

By _____, Deputy

COUNTY RECORDER/REGISTRAR OF TITLES

County of Anoka, State of Minnesota

I hereby certify that this plat of LAZYDAYS was filed in the office of the County Recorder/Registrar of Titles for public record on this _____ day of _____, 2018, at_____ o'clock ___.M. and was duly recorded as Document Number _____.

_____
County Recorder/Registrar of Titles

By _____, Deputy

CivilSite GROUP

LAZYDAYS OF MINNEAPOLIS

RAMSEY, MINNESOTA

ISSUED FOR: CITY SUBMITTAL



ARCHITECT

LAMPERT ARCHITECTS
420 SUMMIT AVENUE
ST. PAUL, MN 55102
763-755-1211

DEVELOPER / PROPERTY OWNER:

LAZYDAYS OF MINEAPOLIS
8390 HIGHWAY 10 NW
ANOKA, MN 55303

ENGINEER / LANDSCAPE ARCHITECT:

CIVIL SITE GROUP
4931 W 35TH STREET
SUITE 200
ST LOUIS PARK, MN 55416
612-615-0060

SURVEYOR:

CIVIL SITE GROUP
4931 W 35TH STREET
SUITE 200
ST LOUIS PARK, MN 55416
612-615-0060

GEOTECHNICAL ENGINEER:

PARTNER ENGINEERING AND SCIENCE
2154 TORRANCE BOULEVARD
SUITE 200
TORRANCE, CA 90501

MASTER LEGEND:

1125	EX. 1' CONTOUR ELEVATION INTERVAL		PROPOSED MANHOLE STORM
×1137.12	EXISTING SPOT GRADE ELEVATION		PROPOSED CATCH BASIN OR CATCH BASIN MANHOLE STORM
1137	1.0' CONTOUR ELEVATION INTERVAL		PROPOSED GATE VALVE
41.26	SPOT GRADE ELEVATION (GUTTER/FLOW LINE UNLESS OTHERWISE NOTED)		PROPOSED FIRE HYDRANT
891.00 G	SPOT GRADE ELEVATION TOP OF CURB (GUTTER TOP)		PROPOSED MANHOLE SANITARY
891.00 TC	SPOT GRADE ELEVATION TOP OF WALL		PROPOSED SIGN
891.00 BS/TS	SPOT GRADE ELEVATION BOTTOM OF WALL		PROPOSED LIGHT
	DRAINAGE ARROW		PROPOSED SANITARY SEWER
	EMERGENCY OVERFLOW		PROPOSED STORM SEWER
EOF=1135.52			PROPOSED WATER MAIN
	SILT FENCE / BIOROLL - GRADING LIMIT		EXISTING SANITARY SEWER
	INLET PROTECTION		EXISTING STORM SEWER
	STABILIZED CONSTRUCTION ENTRANCE		EXISTING WATER MAIN
			EXISTING GAS MAIN
SB-1	SOIL BORING LOCATION		EXISTING UNDERGROUND ELECTRIC
			EXISTING UNDERGROUND CABLE
70	CURB AND GUTTER (T.O = TIP OUT)		EXISTING MANHOLE
			EXISTING CATCH BASIN
			EXISTING HYDRANT
			EXISTING STOPBOX
			EXISTING GATE VALVE
			EXISTING ELECTRIC BOX
			EXISTING LIGHT
			EXISTING GAS METER
			EXISTING GAS VALVE

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(651) 454-0002 LOCAL

SHEET INDEX

SHEET NUMBER	SHEET TITLE
C0.0	TITLE SHEET
V1.0	SITE SURVEY
V2.0	PRELIMINARY PLAT
C1.0	REMOVALS PLAN
C1.1	TREE PRESERVATION PLAN
C2.0	OVERALL SITE PLAN
C2.1	SITE PLAN
C3.0	GRADING PLAN
C4.0	UTILITY PLAN
L1.0	LANDSCAPE PLAN
LT1.0	PRELIMINARY LIGHTING PLAN
LT1.1	PRELIMINARY LIGHTING PLAN DETAILS
C5.0	DETAILS
C5.1	DETAILS
SW1.0	SWPPP - EXISTING CONDITIONS
SW1.1	SWPPP - PROPOSED CONDITIONS
SW1.2	SWPPP - DETAILS
SW1.3	SWPPP - NARRATIVE
SW1.4	SWPPP - ATTACHMENTS
SW1.5	SWPPP - ATTACHMENTS

CivilSite GROUP
Civil Engineering • Surveying • Landscape Architecture
4931 W. 35th Street, Suite 200
St. Louis Park, MN 55416
civilsitegroup.com 612-615-0060

Lazydays RV
THE RV AUTHORITY

PROJECT
LAZYDAYS OF MINNEAPOLIS
RIVERDALE DRIVE NW., RAMSEY, MN
LAZYDAYS OF MINNEAPOLIS
8390 HIGHWAY 10 NW, ANOKA, MN 55303

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.

Matthew R. Pavek
DATE 07/09/18 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
07/09/18	CITY SUBMITTAL

REVISION SUMMARY

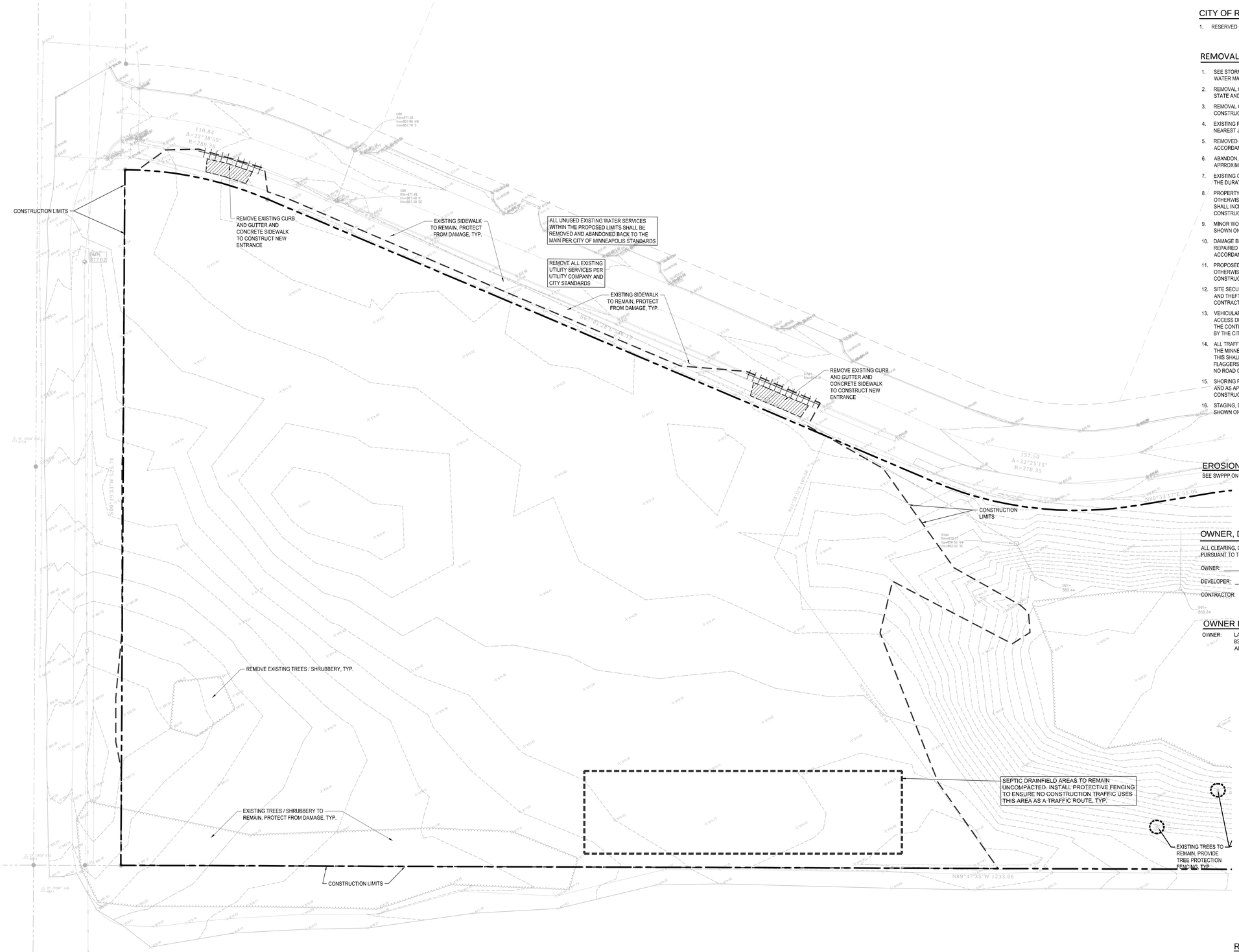
DATE	DESCRIPTION

PROJECT NUMBER: 18213

TITLE SHEET

C0.0

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CITY OF RAMSEY REMOVAL NOTES:

1. RESERVED FOR CITY SPECIFIC REMOVAL NOTES.

REMOVAL NOTES:

1. SEE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PLAN FOR CONSTRUCTION STORM WATER MANAGEMENT PLAN.
2. REMOVAL OF MATERIALS NOTED ON THE DRAWINGS SHALL BE IN ACCORDANCE WITH MNDOT, STATE AND LOCAL REGULATIONS.
3. REMOVAL OF PRIVATE UTILITIES SHALL BE COORDINATED WITH UTILITY OWNER PRIOR TO CONSTRUCTION ACTIVITIES.
4. EXISTING PAVEMENTS SHALL BE SAWCUT IN LOCATIONS AS SHOWN ON THE DRAWINGS OR THE NEAREST JOINT FOR PROPOSED PAVEMENT CONNECTIONS.
5. REMOVED MATERIALS SHALL BE DISPOSED OF TO A LEGAL OFF-SITE LOCATION AND IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
6. ABANDON, REMOVAL, CONNECTION, AND PROTECTION NOTES SHOWN ON THE DRAWINGS ARE APPROXIMATE. COORDINATE WITH PROPOSED PLANS.
7. EXISTING ON-SITE FEATURES NOT NOTED FOR REMOVAL SHALL BE PROTECTED THROUGHOUT THE DURATION OF THE CONTRACT.
8. PROPERTY LINES SHALL BE CONSIDERED GENERAL CONSTRUCTION LIMITS UNLESS OTHERWISE NOTED ON THE DRAWINGS. WORK WITHIN THE GENERAL CONSTRUCTION LIMITS SHALL INCLUDE STAGING, DEMOLITION AND CLEAN-UP OPERATIONS AS WELL AS CONSTRUCTION SHOWN ON THE DRAWINGS.
9. MINOR WORK OUTSIDE OF THE GENERAL CONSTRUCTION LIMITS SHALL BE ALLOWED AS SHOWN ON THE PLAN AND PER CITY REQUIREMENTS.
10. DAMAGE BEYOND THE PROPERTY LIMITS CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED IN A MANNER APPROVED BY THE ENGINEER/LANDSCAPE ARCHITECT OR IN ACCORDANCE WITH THE CITY.
11. PROPOSED WORK (BUILDING AND CIVIL) SHALL NOT DISTURB EXISTING UTILITIES UNLESS OTHERWISE SHOWN ON THE DRAWINGS AND APPROVED BY THE CITY PRIOR TO CONSTRUCTION.
12. SITE SECURITY MAY BE NECESSARY AND PROVIDED IN A MANNER TO PROHIBIT VANDALISM, AND THEFT, DURING AND AFTER NORMAL WORK HOURS, THROUGHOUT THE DURATION OF THE CONTRACT. SECURITY MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY.
13. VEHICULAR ACCESS TO THE SITE SHALL BE MAINTAINED FOR DELIVERY AND INSPECTION ACCESS DURING NORMAL OPERATING HOURS. AT NO POINT THROUGHOUT THE DURATION OF THE CONTRACT SHALL CIRCULATION OF ADJACENT STREETS BE BLOCKED WITHOUT APPROVAL BY THE CITY PRIOR TO CONSTRUCTION ACTIVITIES.
14. ALL TRAFFIC CONTROLS SHALL BE PROVIDED AND ESTABLISHED PER THE REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND THE CITY. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, SIGNAGE, BARRICADES, FLASHERS, AND FLAGGERS AS NEEDED. ALL PUBLIC STREETS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES. NO ROAD CLOSURES SHALL BE PERMITTED WITHOUT APPROVAL BY THE CITY.
15. SHORING FOR BUILDING EXCAVATION MAY BE USED AT THE DISCRETION OF THE CONTRACTOR AND AS APPROVED BY THE OWNERS REPRESENTATIVE AND THE CITY PRIOR TO CONSTRUCTION ACTIVITIES.
16. STAGING, DEMOLITION, AND CLEAN-UP AREAS SHALL BE WITHIN THE PROPERTY LIMITS AS SHOWN ON THE DRAWINGS AND MAINTAINED IN A MANNER AS REQUIRED BY THE CITY.

EROSION CONTROL NOTES:

SEE SWPPP ON SHEETS SW1.0-SW1.5

OWNER, DEVELOPER, CONTRACTOR SIGNED STATEMENT

ALL CLEARING, GRADING, CONSTRUCTION OR DEVELOPMENT WILL BE DONE PURSUANT TO THE PLAN. SINGED BY PARTIES BELOW:

OWNER: _____

DEVELOPER: _____

CONTRACTOR: _____

OWNER INFORMATION

OWNER: LAZYDAYS OF MINNEAPOLIS
8390 HIGHWAY 10 NW
ANOKA, MN 55303

REMOVALS LEGEND:

- EX. 1' CONTOUR ELEVATION INTERVAL
- REMOVAL OF PAVEMENT AND ALL BASE MATERIAL, INCLUDING BIT., CONC., AND GRAVEL PVMTS.
- REMOVAL OF STRUCTURE INCLUDING ALL FOOTINGS AND FOUNDATIONS.
- REMOVE CURB AND GUTTER. IF IN RIGHT-OF-WAY, COORDINATE WITH LOCAL GOVERNING UNIT.
- TREE PROTECTION
- TREE REMOVAL - INCLUDING ROOTS AND STUMPS

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(651) 454-0002 LOCAL

1" = 30'-0"
15'-0" 0 30'-0"

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LAZYDAYS OF MINNEAPOLIS
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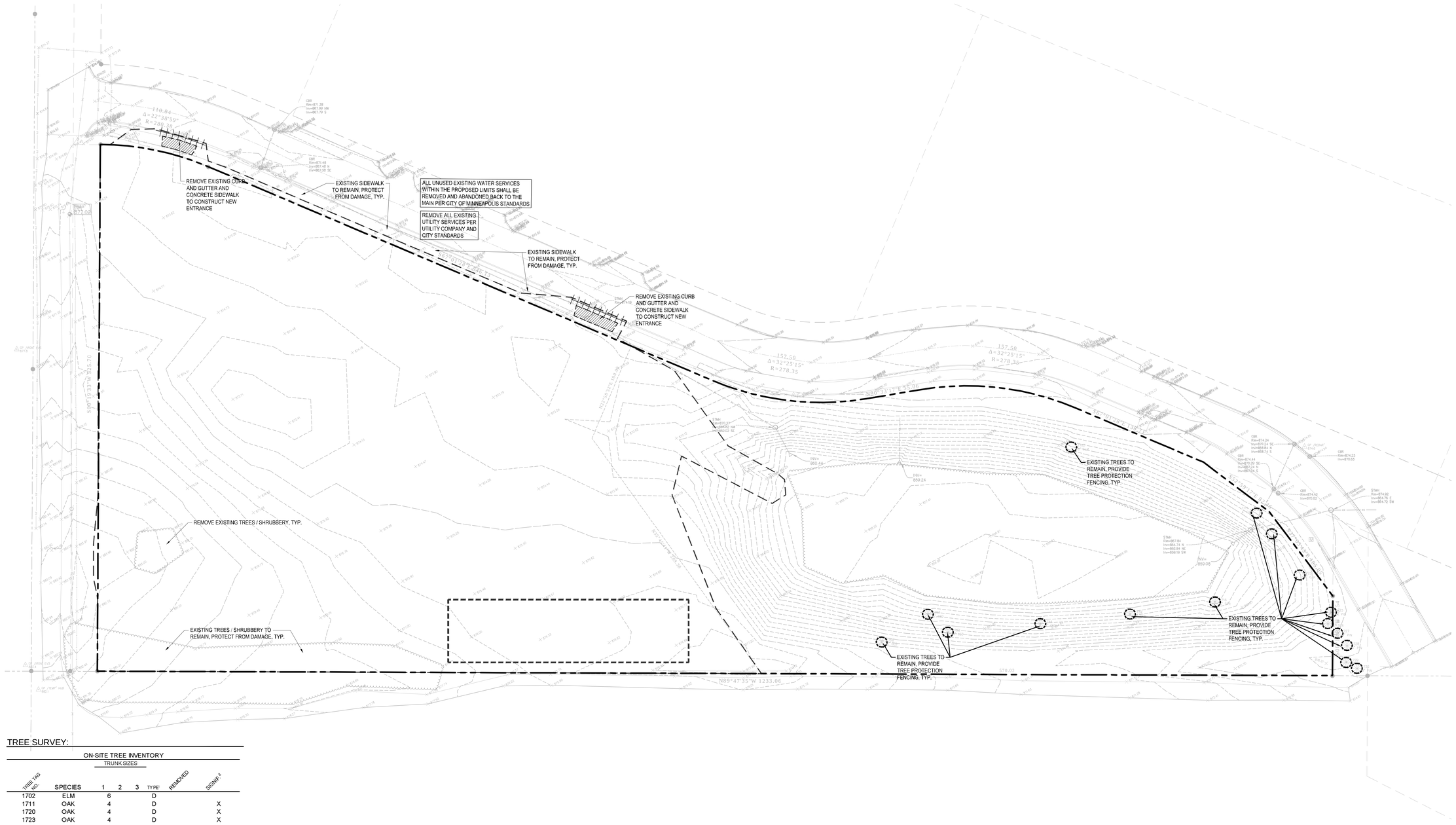
DATE	DESCRIPTION

PROJECT NUMBER: 18213

REMOVALS PLAN

C1.0

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TREE SURVEY:

ON-SITE TREE INVENTORY

TREE TAG NO.	SPECIES	TRUNK SIZES 1	2	3	TYPE	REMOVED	SIGNIF.*
1702	ELM	6			D		
1711	OAK	4			D		X
1720	OAK	4			D		X
1723	OAK	4			D		X
1725	PINE	4			C		X
1726	SPRUCE	4			C		X
③ 1727	PINE	4			C		X
⑤ 1728	PINE	4			C		X
⑤ 1729	PINE	4			C		X
③ 1730	PINE	4			C		X
1716	SPRUCE	4			C		X
1739	CEDAR	4			C		X
1744	CEDAR	4			C		X
1752	CEDAR	4			C		X
1753	CEDAR	4			C		X
1758	CEDAR	4			C		X

OFF-SITE TREES INVENTORIED

③	1727	PINE	4		
③	1728	PINE	4		
⑤	1729	PINE	4		
⑤	1730	PINE	4		

	NUMBER	CAL. INCHES
SIGNIFICANT TREES ON-SITE	11	44
TOTAL ON-SITE	12	50

REMOVALS LEGEND:

- 1125 — EX. 1' CONTOUR ELEVATION INTERVAL
- REMOVAL OF PAVEMENT AND ALL BASE MATERIAL, INCLUDING BIT., CONC., AND GRAVEL PVMTS.
- REMOVAL OF STRUCTURE INCLUDING ALL FOOTINGS AND FOUNDATIONS.
- REMOVE CURB AND GUTTER. IF IN RIGHT-OF-WAY, COORDINATE WITH LOCAL GOVERNING UNIT.
- TREE PROTECTION
- TREE REMOVAL - INCLUDING ROOTS AND STUMPS

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N

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PROJECT
LAZYDAYS OF MINNEAPOLIS
RIVERDALE DRIVE NW., RAMSEY, MN

LAZYDAYS OF MINNEAPOLIS
8390 HIGHWAY 10 NW, ANOKA, MN 55303

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Matthew R. Pavek
DATE 07/09/18 LICENSE NO. 44263

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07/09/18	CITY SUBMITTAL

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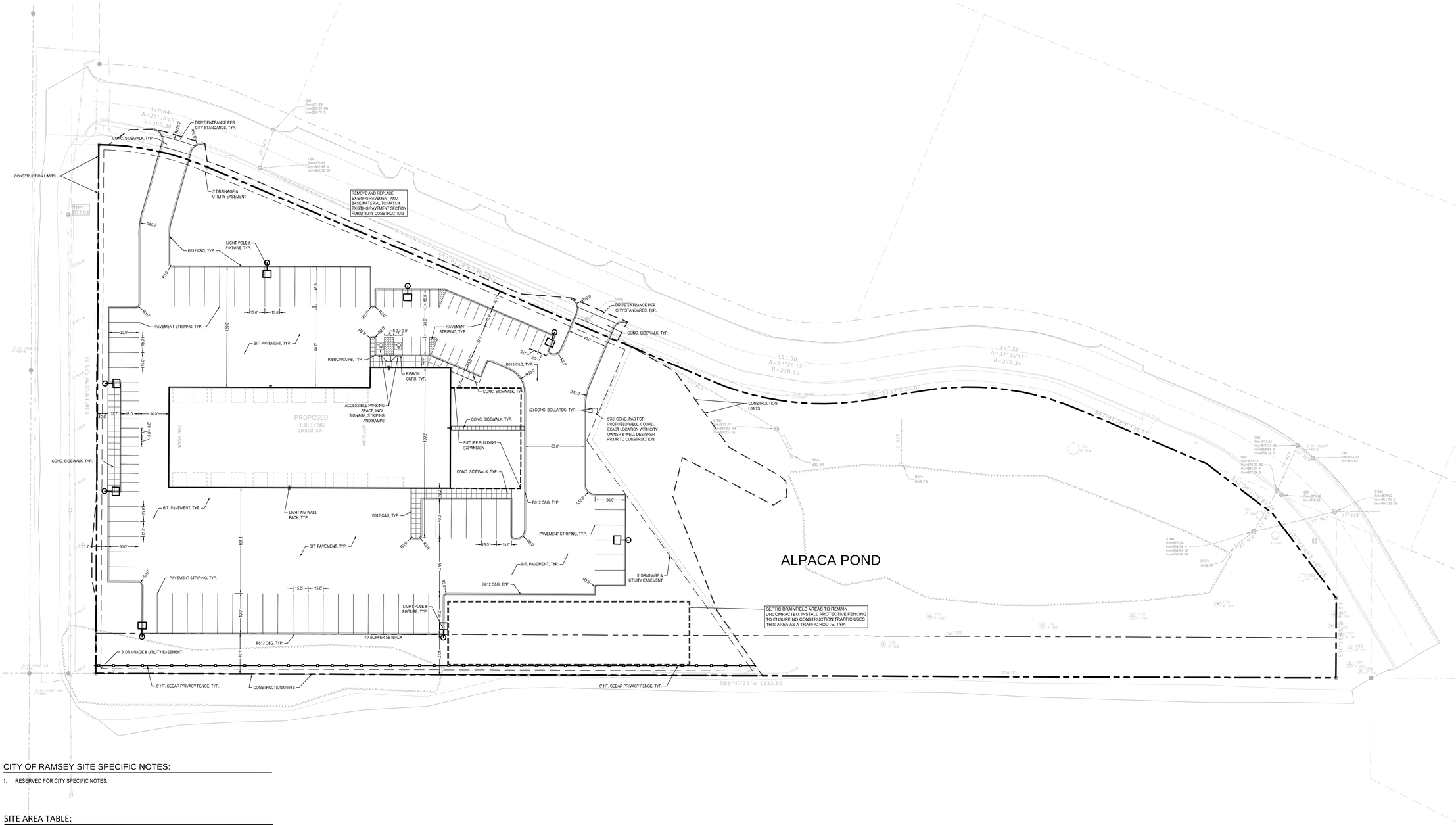
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TREE PRESERVATION PLAN

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CITY OF RAMSEY SITE SPECIFIC NOTES:

1. RESERVED FOR CITY SPECIFIC NOTES.

SITE AREA TABLE:

SITE AREA CALCULATIONS

	EXISTING CONDITION		PROPOSED CONDITION	
BUILDING COVERAGE	0 SF	0.0%	29,600 SF	7.2%
ALL PAVEMENTS	0 SF	0.0%	126,648 SF	31.0%
ALL NON-PAVEMENTS	408,916 SF	100.0%	252,668 SF	61.8%
TOTAL SITE AREA	408,916 SF	100.0%	408,916 SF	100.0%
IMPERVIOUS SURFACE				
EXISTING CONDITION	0 SF	0.0%		
PROPOSED CONDITION	156,248 SF	38.2%		
DIFFERENCE (EX. VS PROP.)	156,248 SF	38.2%		

SITE LAYOUT NOTES:

1. CONTRACTOR SHALL VERIFY LOCATIONS AND LAYOUT OF ALL SITE ELEMENTS PRIOR TO BEGINNING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, LOCATIONS OF EXISTING AND PROPOSED PROPERTY LINES, EASEMENTS, SETBACKS, UTILITIES, BUILDINGS AND PAVEMENTS. CONTRACTOR IS RESPONSIBLE FOR FINAL LOCATIONS OF ALL ELEMENTS FOR THE SITE. ANY REVISIONS REQUIRED AFTER COMMENCEMENT OF CONSTRUCTION, DUE TO LOCATIONAL ADJUSTMENTS SHALL BE CORRECTED AT NO ADDITIONAL COST TO OWNER. ADJUSTMENTS TO THE LAYOUT SHALL BE APPROVED BY THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF MATERIALS. STAKE LAYOUT FOR APPROVAL.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, INCLUDING A RIGHT-OF-WAY AND STREET OPENING PERMIT.
3. THE CONTRACTOR SHALL VERIFY RECOMMENDATIONS NOTED IN THE GEO TECHNICAL REPORT PRIOR TO INSTALLATION OF SITE IMPROVEMENT MATERIALS.
4. CONTRACTOR SHALL FIELD VERIFY COORDINATES AND LOCATION DIMENSIONS OF THE BUILDING AND STAKE FOR REVIEW AND APPROVAL BY THE OWNERS REPRESENTATIVE PRIOR TO INSTALLATION OF FOOTING MATERIALS.
5. LOCATIONS OF STRUCTURES, ROADWAY PAVEMENTS, CURBS AND GUTTERS, BOLLARDS, AND WALKS ARE APPROXIMATE AND SHALL BE STAKED IN THE FIELD, PRIOR TO INSTALLATION, FOR REVIEW AND APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT.
6. CURB DIMENSIONS SHOWN ARE TO FACE OF CURB. BUILDING DIMENSIONS ARE TO FACE OF CONCRETE FOUNDATION. LOCATION OF BUILDING IS TO BUILDING FOUNDATION AND SHALL BE AS SHOWN ON THE DRAWINGS.
7. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR SAMPLES AS SPECIFIED FOR REVIEW AND APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO FABRICATION FOR ALL PREFABRICATED SITE IMPROVEMENT MATERIALS SUCH AS, BUT NOT LIMITED TO THE FOLLOWING, FURNISHINGS, PAVEMENTS, WALLS, RAILINGS, BENCHES, FLAGPOLES, LANDING PADS FOR CURB RAMPS, AND LIGHT AND POLES. THE OWNER RESERVES THE RIGHT TO REJECT INSTALLED MATERIALS NOT PREVIOUSLY APPROVED.
8. PEDESTRIAN CURB RAMPS SHALL BE CONSTRUCTED WITH TRUNCATED DOME LANDING AREAS IN ACCORDANCE WITH A.D.A. REQUIREMENTS-SEE DETAIL.
9. CROSSWALK STRIPING SHALL BE 24" WIDE WHITE PAINTED LINE, SPACED 48" ON CENTER PERPENDICULAR TO THE FLOW OF TRAFFIC. WIDTH OF CROSSWALK SHALL BE 5' WIDE. ALL OTHER PAVEMENT MARKINGS SHALL BE WHITE IN COLOR UNLESS OTHERWISE NOTED OR REQUIRED BY ADA OR LOCAL GOVERNING BODIES.
10. SEE SITE PLAN FOR CURB AND GUTTER TYPE. TAPER BETWEEN CURB TYPES-SEE DETAIL.
11. ALL CURB RADII ARE MINIMUM 3' UNLESS OTHERWISE NOTED.
12. CONTRACTOR SHALL REFER TO FINAL PLAT FOR LOT BOUNDARIES, NUMBERS, AREAS AND DIMENSIONS PRIOR TO SITE IMPROVEMENTS.
13. FIELD VERIFY ALL EXISTING SITE CONDITIONS, DIMENSIONS.
14. PARKING IS TO BE SET PARALLEL OR PERPENDICULAR TO EXISTING BUILDING UNLESS NOTED OTHERWISE.
15. ALL PARKING LOT PAINT STRIPPING TO BE WHITE, 4" WIDE TYP.
16. BITUMINOUS PAVING TO BE "LIGHT DUTY" UNLESS OTHERWISE NOTED. SEE DETAIL SHEETS FOR PAVEMENT SECTIONS.
17. ALL TREES THAT ARE TO REMAIN ARE TO BE PROTECTED FROM DAMAGE WITH A CONSTRUCTION FENCE AT THE DRIP LINE. SEE LANDSCAPE DOCUMENTS.
18. ALL FENCES TO BE LIMITED TO A MAXIMUM OF 8'.

SITE PLAN LEGEND:

- LIGHT DUTY BITUMINOUS PAVEMENT. SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & WEAR COURSE DEPTH. SEE DETAIL.
- HEAVY DUTY BITUMINOUS PAVEMENT. SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & WEAR COURSE DEPTH. SEE DETAIL.
- CONCRETE PAVEMENT AS SPECIFIED (PAD OR WALK) SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & CONCRETE DEPTHS. SEE DETAIL.
- PROPERTY LINE
- CONSTRUCTION LIMITS
- CURB AND GUTTER-SEE NOTES (T.O.) TIP OUT GUTTER WHERE APPLICABLE-SEE PLAN
- TRAFFIC DIRECTIONAL ARROW PAVEMENT MARKINGS
- SIGN AND POST ASSEMBLY. SHOP DRAWINGS REQUIRED.
  HC = ACCESSIBLE SIGN
  NP = NO PARKING FIRE LANE
  ST = STOP
  CP = COMPACT CAR PARKING ONLY

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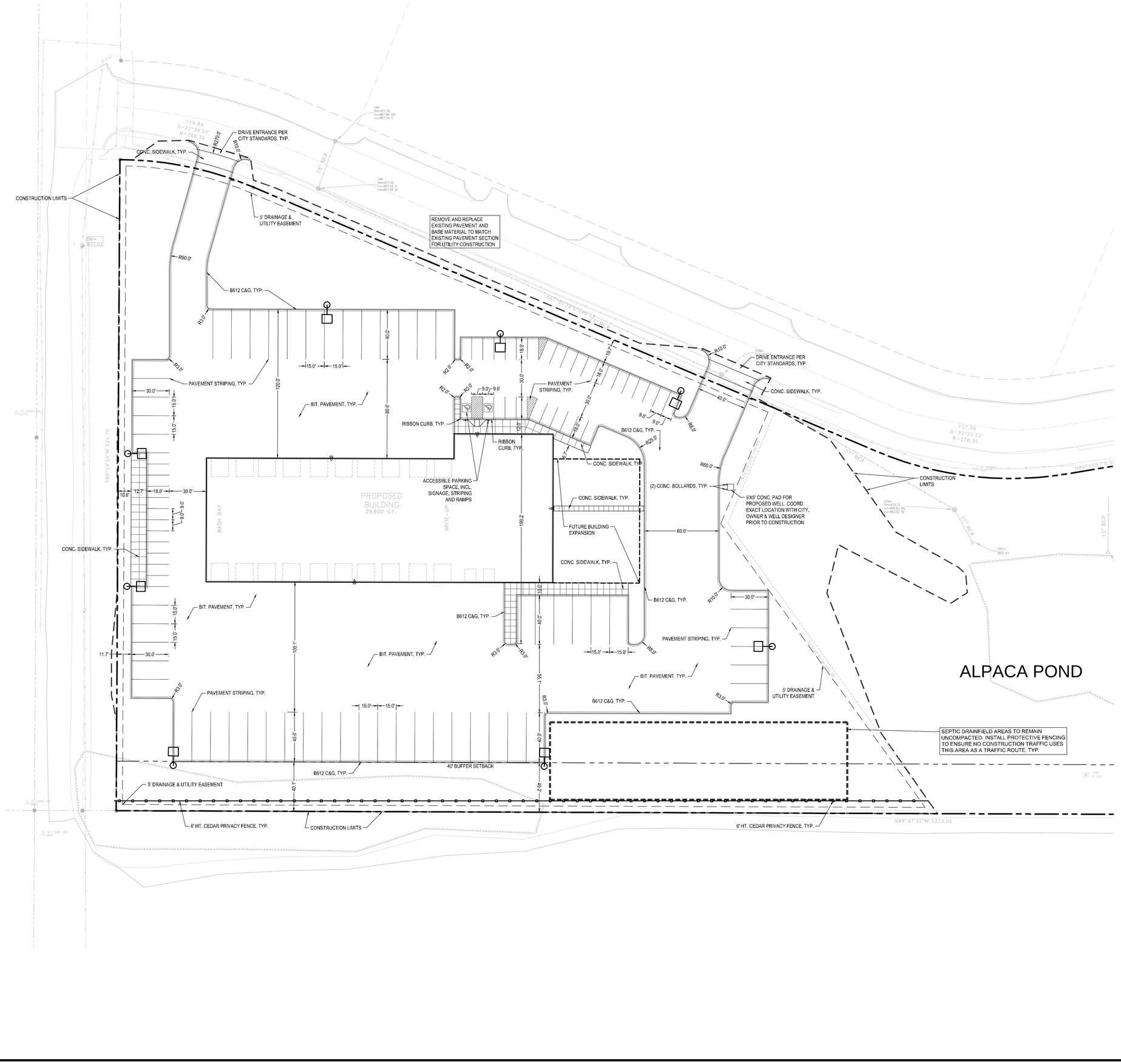
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OVERALL SITE PLAN

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SITE PLAN LEGEND:

- LIGHT DUTY BITUMINOUS PAVEMENT. SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & WEAR COURSE DEPTH, SEE DEATIL.
- HEAVY DUTY BITUMINOUS PAVEMENT. SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & WEAR COURSE DEPTH, SEE DEATIL.
- CONCRETE PAVEMENT AS SPECIFIED (PAD OR WALK) SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & CONCRETE DEPTHS, SEE DETAIL.
- PROPERTY LINE
- CONSTRUCTION LIMITS
- CURB AND GUTTER-SEE NOTES (T.O.) TIP OUT GUTTER WHERE APPLICABLE-SEE PLAN
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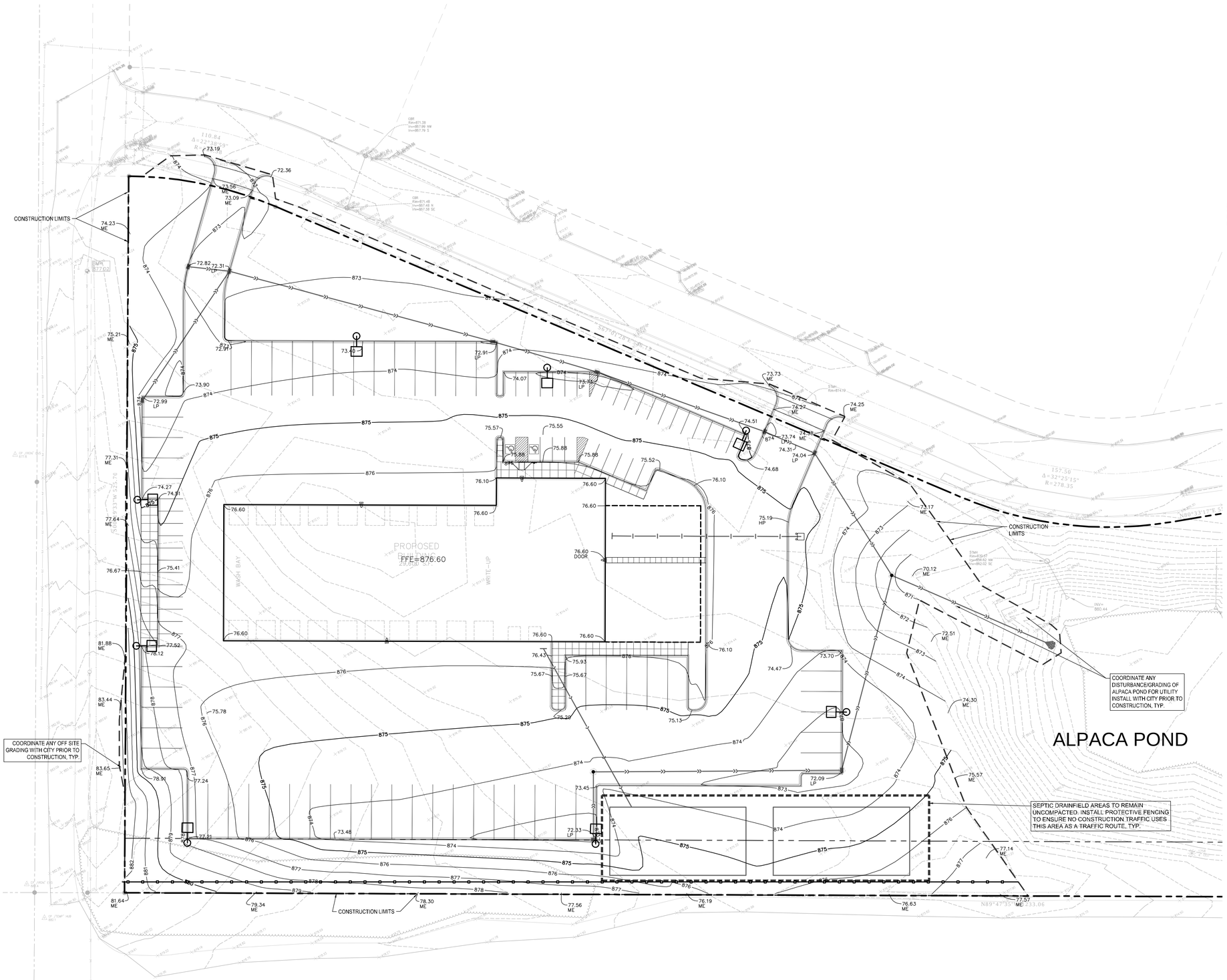
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SITE PLAN

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NON STORM WATER DISCHARGES:

THERE ARE NO KNOWN NON-STORM WATER DISCHARGES ON THE EXISTING SITE AND NONE ARE PROPOSED AS PART OF THIS DEVELOPMENT.

GROUNDWATER STATEMENT:

THIS PROJECT DOES NOT PROPOSE ANY PERMANENT GROUNDWATER DISCHARGE TO THE STORM WATER SYSTEM.

OWNER, DEVELOPER, CONTRACTOR SIGNED STATEMENT

ALL CLEARING, GRADING, CONSTRUCTION OR DEVELOPMENT WILL BE DONE PURSUANT TO THE PLAN. SINGED BY PARTIES BELOW:

OWNER: _____

DEVELOPER: _____

CONTRACTOR: _____

EROSION CONTROL NOTES:

SEE SWPPP ON SHEETS SW1.0-SW1.5

GROUNDWATER INFORMATION:

PER GEOTECHNICAL REPORT BY XXXX., DATED XX-XX-18 GROUNDWATER WAS NOT OBSERVED IN BORINGS.

CITY OF RAMSEY GRADING NOTES:

1. RESERVED FOR CITY SPECIFIC GRADING NOTES.

GENERAL GRADING NOTES:

1. SEE SITE PLAN FOR HORIZONTAL LAYOUT & GENERAL GRADING NOTES.
2. THE CONTRACTOR SHALL COMPLETE THE SITE GRADING CONSTRUCTION (INCLUDING BUT NOT LIMITED TO SITE PREPARATION, SOIL CORRECTION, EXCAVATION, EMBANKMENT, ETC.) IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER'S SOILS ENGINEER. ALL SOIL TESTING SHALL BE COMPLETED BY THE OWNER'S SOILS ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOIL TESTS AND INSPECTIONS WITH THE SOILS ENGINEER.
3. ANY ELEMENTS OF AN EARTH RETENTION SYSTEM AND RELATED EXCAVATIONS THAT FALL WITHIN THE PUBLIC RIGHT OF WAY WILL REQUIRE A "RIGHT OF WAY EXCAVATION PERMIT". CONTRACTOR IS RESPONSIBLE FOR AQUIRING THIS PERMIT PRIOR TO CONSTRUCTION IF APPLICABLE
4. GRADING AND EXCAVATION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS & PERMIT REQUIREMENTS OF THE CITY.
5. PROPOSED SPOT GRADES ARE FLOW-LINE FINISHED GRADE ELEVATIONS, UNLESS OTHERWISE NOTED.
6. GRADES OF WALKS SHALL BE INSTALLED WITH 5% MAX. LONGITUDINAL SLOPE AND 1% MIN. AND 2% MAX. CROSS SLOPE, UNLESS OTHERWISE NOTED.
7. PROPOSED SLOPES SHALL NOT EXCEED 3:1 UNLESS INDICATED OTHERWISE ON THE DRAWINGS. MAXIMUM SLOPES IN MAINTAINED AREAS IS 4:1
8. PROPOSED RETAINING WALLS, FREESTANDING WALLS, OR COMBINATION OF WALL TYPES GREATER THAN 4' IN HEIGHT SHALL BE DESIGNED AND ENGINEERED BY A REGISTERED RETAINING WALL ENGINEER. DESIGN DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF GRADE STAKES THROUGHOUT THE DURATION OF CONSTRUCTION TO ESTABLISH PROPER GRADES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR A FINAL FIELD CHECK OF FINISHED GRADES ACCEPTABLE TO THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO TOPSOIL AND SODDING ACTIVITIES.
10. IF EXCESS OR SHORTAGE OF SOIL MATERIAL EXISTS, THE CONTRACTOR SHALL TRANSPORT ALL EXCESS SOIL MATERIAL OFF THE SITE TO AN AREA SELECTED BY THE CONTRACTOR, OR IMPORT SUITABLE MATERIAL TO THE SITE.
11. EXCAVATE TOPSOIL FROM AREAS TO BE FURTHER EXCAVATED OR REGRADED AND STOCKPILE IN AREAS DESIGNATED ON THE SITE. THE 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. THE 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.
12. FINISHED GRADING SHALL BE COMPLETED. THE 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 FINISH GRADED SHALL BE PROTECTED FROM SUBSEQUENT CONSTRUCTION OPERATIONS, TRAFFIC AND EROSION. REPAIR ALL AREAS THAT HAVE BECOME RUTTED BY TRAFFIC OR ERODED BY WATER 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.
13. PRIOR TO PLACEMENT OF THE AGGREGATE BASE, A TEST ROLL WILL BE REQUIRED ON THE STREET AND/OR PARKING AREA SUBGRADE. THE 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. THE SOILS ENGINEER SHALL DETERMINE WHICH SECTIONS OF THE STREET OR PARKING AREA ARE UNSTABLE. CORRECTION OF THE SUBGRADE SOILS SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SOILS ENGINEER. NO TEST ROLL SHALL OCCUR WITHIN 10' OF ANY UNDERGROUND STORM RETENTION/DETENTION SYSTEMS.
14. TOLERANCES
    - 14.1. THE 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.
    - 14.2. 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.
    - 14.3. 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.
    - 14.4. TOPSOIL SHALL BE GRADED TO PLUS OR MINUS 1/2 INCH OF THE SPECIFIED THICKNESS.
15. MAINTENANCE
    - 15.1. THE CONTRACTOR SHALL PROTECT NEWLY GRADED AREAS FROM TRAFFIC AND EROSION, AND KEEP AREA FREE OF TRASH AND DEBRIS.
    - 15.2. CONTRACTOR SHALL REPAIR AND REESTABLISH GRADES IN SETTLED, ERODED AND RUTTED AREAS TO SPECIFIED TOLERANCES. DURING THE CONSTRUCTION, IF REQUIRED, AND DURING THE WARRANTY PERIOD, ERODED AREAS WHERE TURF IS TO BE ESTABLISHED SHALL BE RESEEDED AND MULCHED.
    - 15.3. WHERE COMPLETED COMPACTED AREAS ARE DISTURBED BY SUBSEQUENT CONSTRUCTION OPERATIONS OR ADVERSE WEATHER, CONTRACTOR SHALL SCARIFY, SURFACE, RESHAPE, AND COMPACT TO REQUIRED DENSITY PRIOR TO FURTHER CONSTRUCTION

GRADING PLAN LEGEND:

1125	EX. 1' CONTOUR ELEVATION INTERVAL
1137	1.0' CONTOUR ELEVATION INTERVAL
41.26	SPOT GRADE ELEVATION (GUTTER/FLOW LINE UNLESS OTHERWISE NOTED)
891.00 G	SPOT GRADE ELEVATION GUTTER
891.00 TC	SPOT GRADE ELEVATION TOP OF CURB
891.00 BS/TS	SPOT GRADE ELEVATION BOTTOM OF STAIRS/TOP OF STAIRS
	CURB AND GUTTER (T.O = TIP OUT)
EOF=1135.52	EMERGENCY OVERFLOW

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15'-0" 0 30'-0"

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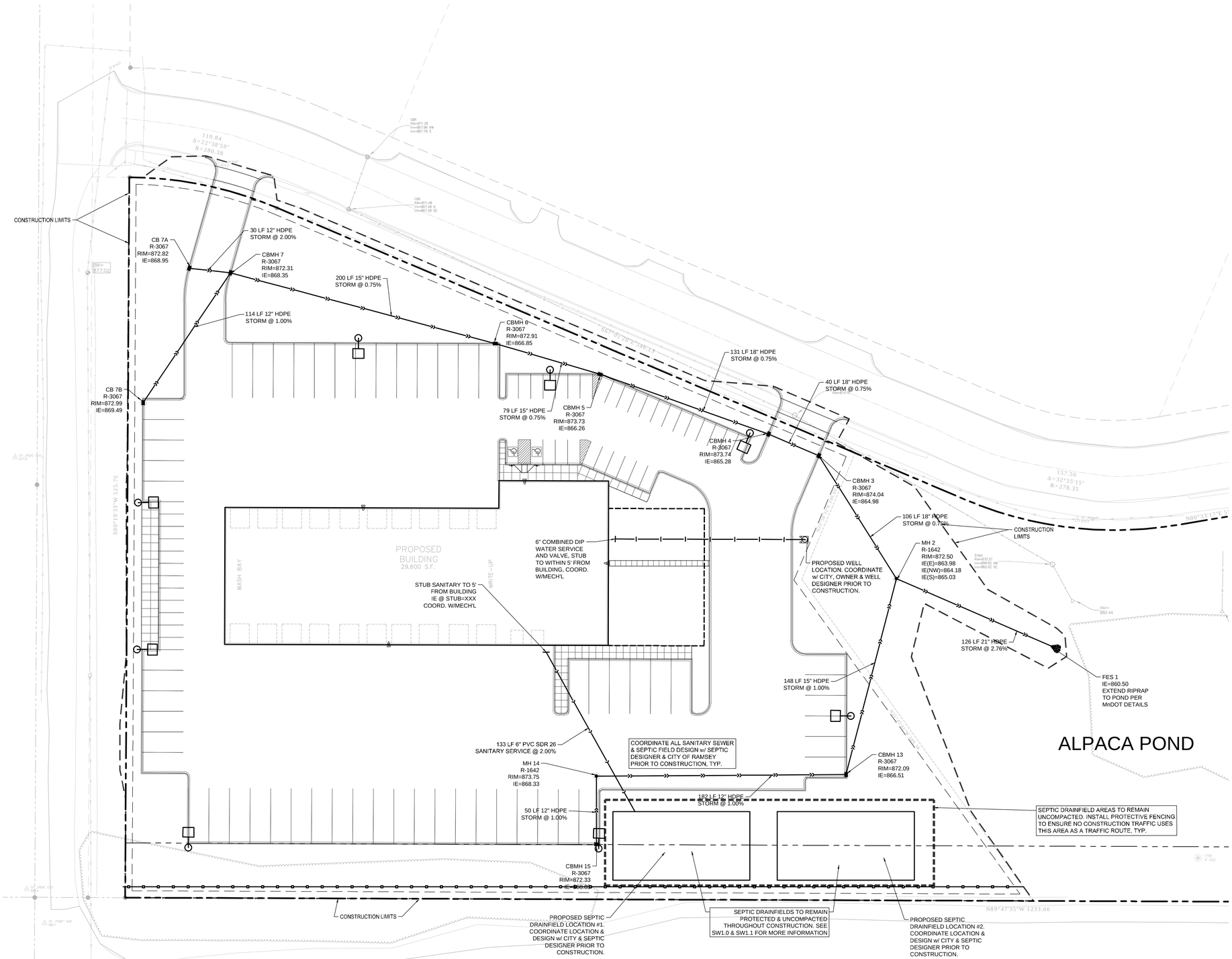
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GRADING PLAN

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CITY OF RAMSEY UTILITY NOTES:

GENERAL UTILITY NOTES:

1. SEE SITE PLAN FOR HORIZONTAL DIMENSIONS AND LAYOUT.
2. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF DISCREPANCIES OR VARIATIONS FROM THE PLANS.
3. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.
4. UTILITY INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE LINE INSTALLATION" AND "SANITARY SEWER AND STORM SEWER INSTALLATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM), AND SHALL CONFORM WITH THE REQUIREMENTS OF THE CITY AND THE PROJECT SPECIFICATIONS.
5. CASTINGS SHALL BE SALVAGED FROM STRUCTURE REMOVALS AND RE-USED OR PLACED AT THE DIRECTION OF THE OWNER.
6. ALL WATER PIPE SHALL BE CLASS 52 DUCTILE IRON PIPE (DIP) AWWA C151, ASME B16.4, AWWA C110, AWWA C153 UNLESS OTHERWISE NOTED.
7. ALL SANITARY SEWER SHALL BE SDR 26 POLYVINYL CHLORIDE (PVC) ASTM D3034 & F679, OR SCH 40 ASTM D1785, 2665, ASTM F794, 1866) UNLESS OTHERWISE NOTED.
8. ALL STORM SEWER PIPE SHALL BE HDPE ASTM F714 & F2306 WITH ASTM D3212 SPEC FITTINGS UNLESS OTHERWISE NOTED.
9. PIPE LENGTHS SHOWN ARE FROM CENTER TO CENTER OF STRUCTURE OR TO END OF FLARED END SECTION.
10. UTILITIES ON THE PLAN ARE SHOWN TO WITHIN 5' OF THE BUILDING FOOTPRINT. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR THE FINAL CONNECTION TO BUILDING LINES. COORDINATE WITH ARCHITECTURAL AND MECHANICAL PLANS.
11. CATCH BASINS AND MANHOLES IN PAVED AREAS SHALL BE SUMPED 0.04 FEET. ALL CATCH BASINS IN GUTTERS SHALL BE SUMPED 0.15 FEET PER DETAILS. RIM ELEVATIONS SHOWN ON THIS PLAN DO NOT REFLECT SUMPED ELEVATIONS.
12. ALL FIRE HYDRANTS SHALL BE LOCATED 5 FEET BEHIND BACK OF CURB UNLESS OTHERWISE NOTED.
13. HYDRANT TYPE, VALVE, AND CONNECTION SHALL BE IN ACCORDANCE WITH CITY REQUIREMENTS. HYDRANT EXTENSIONS ARE INCIDENTAL.
14. A MINIMUM OF 8 FEET OF COVER IS REQUIRED OVER ALL WATERMAIN, UNLESS OTHERWISE NOTED. EXTRA DEPTH MAY BE REQUIRED TO MAINTAIN A MINIMUM OF 18" VERTICAL SEPARATION TO SANITARY OR STORM SEWER LINES. EXTRA DEPTH WATERMAIN IS INCIDENTAL.
15. A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION AND 10 FEET OF HORIZONTAL SEPARATION IS REQUIRED FOR ALL UTILITIES, UNLESS OTHERWISE NOTED.
16. ALL CONNECTIONS TO EXISTING UTILITIES SHALL BE IN ACCORDANCE WITH CITY STANDARDS AND COORDINATED WITH THE CITY PRIOR TO CONSTRUCTION.
17. CONNECTIONS TO EXISTING STRUCUTRES SHALL BE CORE-DRILLED.
18. COORDINATE LOCATIONS AND SIZES OF SERVICE CONNECTIONS WITH THE MECHANICAL DRAWINGS.
19. COORDINATE INSTALLATION AND SCHEDULING OF THE INSTALLATION OF UTILITIES WITH ADJACENT CONTRACTORS AND CITY STAFF.
20. ALL STREET REPAIRS AND PATCHING SHALL BE PERFORMED PER THE REQUIREMENTS OF THE CITY. ALL PAVEMENT CONNECTIONS SHALL BE SAWCUT. ALL TRAFFIC CONTROLS SHALL BE PROVIDED BY THE CONTRACTOR AND SHALL BE ESTABLISHED PER THE REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND THE CITY. THIS SHALL INCLUDE BUT NOT BE LIMITED TO SIGNAGE, BARRICADES, FLASHERS, AND FLAGGERS AS NEEDED. ALL PUBLIC STREETS SHALL BE OPEN TO TRAFFIC AT ALL TIMES. NO ROAD CLOSURES SHALL BE PERMITTED WITHOUT APPROVAL BY THE CITY.
21. ALL STRUCTURES, PUBLIC AND PRIVATE, SHALL BE ADJUSTED TO PROPOSED GRADES WHERE REQUIRED. THE REQUIREMENTS OF ALL OWNERS MUST BE COMPLIED WITH. STRUCTURES BEING RESET TO PAVED AREAS MUST MEET OWNERS REQUIREMENTS FOR TRAFFIC LOADING.
22. CONTRACTOR SHALL CORDINATE ALL WORK WITH PRIVATE UTILITY COMPANIES.
23. CONTRACTOR SHALL COORDINATE CONNECTION OF IRRIGATION SERVICE TO UTILITIES. COORDINATE THE INSTALLATION OF IRRIGATION SLEEVES NECESSARY AS TO NOT IMPACT INSTALLATION OF UTILITIES.
24. CONTRACTOR SHALL MAINTAIN AS-BUILT PLANS THROUGHOUT CONSTRUCTION AND SUBMIT THESE PLANS TO ENGINEER UPON COMPLETION OF WORK.
25. ALL JOINTS AND CONNECTIONS IN STORM SEWER SYSTEM SHALL BE GASTIGHT OR WATERTIGHT. APPROVED RESILIENT RUBBER JOINTS MUST BE USED TO MAKE WATERTIGHT CONNECTIONS TO MANHOLES, CATCHBASINS, OR OTHER STRUCTURES.
26. ALL PORTIONS OF THE STORM SEWER SYSTEM LOCATED WITHIN 10 FEET OF THE BUILDING OR WATER SERVICE LINE MUST BE TESTED IN ACCORDANCE WITH MN RULES, CHAPTER 4714, SECTION 1109.0.

UTILITY LEGEND:

- CATCH BASIN
- MANHOLE
- GATE VALVE AND VALVE BOX
- PROPOSED FIRE HYDRANT
- WATER MAIN
- SANITARY SEWER
- STORM SEWER
- FES AND RIP RAP

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Lazydays RV
THE RV AUTHORITY

PROJECT
LAZYDAYS OF MINNEAPOLIS
RIVERDALE DRIVE NW., RAMSEY, MN
LAZYDAYS OF MINNEAPOLIS
8390 HIGHWAY 10 NW, ANOKA, MN 55303

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.

Matthew R. Pavek
DATE 07/09/18 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
07/09/18	CITY SUBMITTAL

REVISION SUMMARY

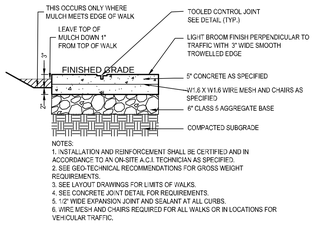
DATE	DESCRIPTION

PROJECT NUMBER: 18213

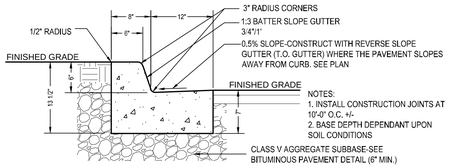
UTILITY PLAN

C4.0

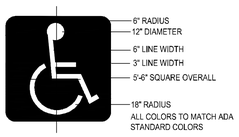
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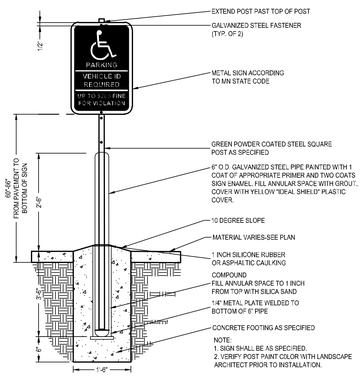
1 LIGHT DUTY CONCRETE WALK/PAD
NTS



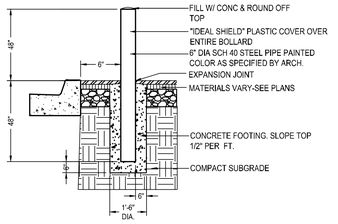
2 B-612 CONCRETE CURB AND GUTTER
NTS



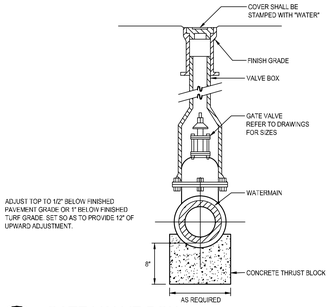
3 ACCESSIBLE PARKING PAVEMENT MARKING
NTS



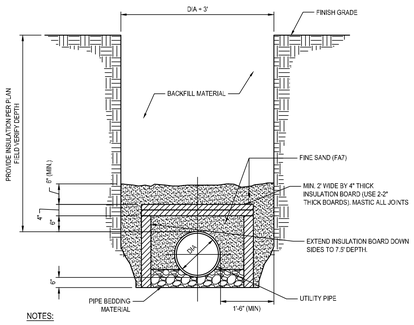
4 ACCESSIBLE SIGN AND POST
NTS



5 PIPE BOLLARD
NTS



6 GATE VALVE BOX
NTS



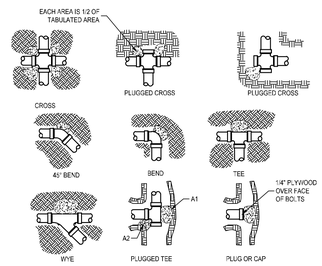
NOTES:

1. INSULATION BOARD TO BE CLOSED CELL. EXTRUDED POLYSTYRENE FOAM MEETING ASTM 578, TYPE VI, 40PSI COMPRESSING STRENGTH (ASTM D1621) 0.1%MAX. WATER ABSORPTION (ASTM C272).

2. BACKFILL MATERIAL AROUND INSULATION MUST BE FINE SAND FREE FROM ROOT, ORGANIC MATERIAL, OR OTHER INJURIOUS MATERIALS.

3. OVERLAP ALL INSULATION BOARD JOINTS.

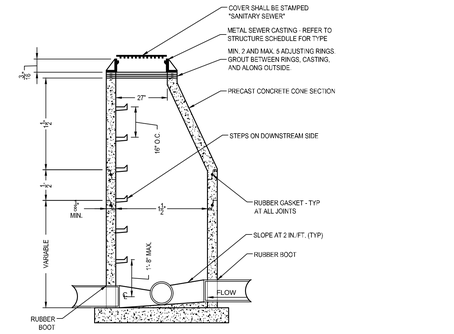
7 UTILITY PIPE INSULATION DETAIL
NTS



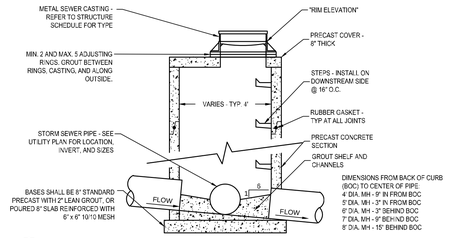
NOMINAL FITTING SIZE (INCHES)	TYE, WYE, PLUG, OR CAP	90° BEND, PLUGGED CROSS	TEE PLUGGED ON RUN		45° BEND	22.5° BEND	11.25° BEND
			A1	A2			
4	1.0	1.4	1.9	1.4	1.0	-	-
6	2.1	3.0	4.3	3.0	1.6	1.0	-
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0
10	5.9	8.4	11.8	8.4	4.6	2.6	1.2
12	8.5	12.0	17.0	12.0	6.6	3.4	1.7
14	11.5	16.3	23.0	16.3	8.9	4.6	2.3
16	15.0	21.3	30.0	21.3	11.6	6.0	3.0
18	19.0	27.0	38.0	27.0	14.6	7.6	3.6
20	23.5	33.3	47.0	33.3	18.1	9.4	4.7
24	34.0	48.0	68.0	48.0	26.2	13.6	6.8

NOTES:
1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
2. KEEP CONCRETE CLEAR OF JOINT AND ACCESSORIES.
3. IF NOT SHOWN ON PLANS, REQUIRED BEARING AT FITTING SHALL BE AS INDICATED ABOVE, ADJUSTED IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES).
4. BEARING AREAS AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER BEARING AREAS AND BLOCKING DETAILS SHOWN THIS STANDARD DETAIL.
5. ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 P.S.I. AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESSURE/150) X (200/SOIL BEARING STRESS) X (TABLE VALUE).

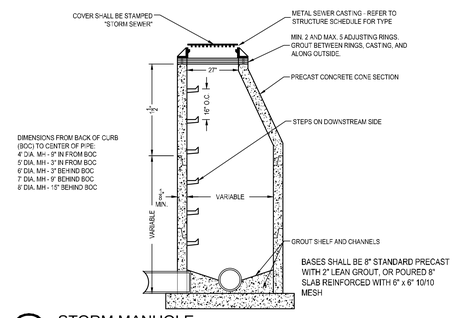
8 THRUST BLOCK
NTS



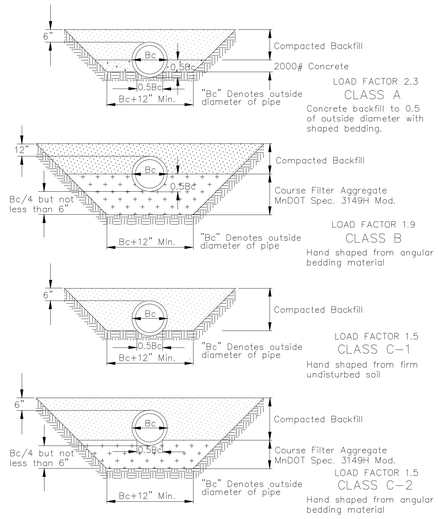
9 SANITARY SEWER MANHOLE
NTS



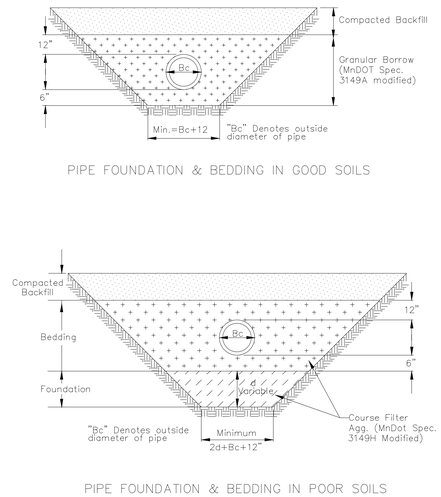
10 CATCH BASIN
NTS



11 STORM MANHOLE
NTS



12 PIPE BEDDING - RCP & DIP
NTS



13 PIPE BEDDING - PVC
NTS

CivilSite GROUP
Civil Engineering • Surveying • Landscape Architecture
4931 W. 35th Street, Suite 200
St. Louis Park, MN 55416
civilsitegroup.com 612-615-0060

Lazydays RV
THE RV AUTHORITY

PROJECT
LAZYDAYS OF MINNEAPOLIS
RIVERDALE DRIVE NW., RAMSEY, MN
LAZYDAYS OF MINNEAPOLIS
8390 HIGHWAY 10 NW, ANOKA, MN 55303

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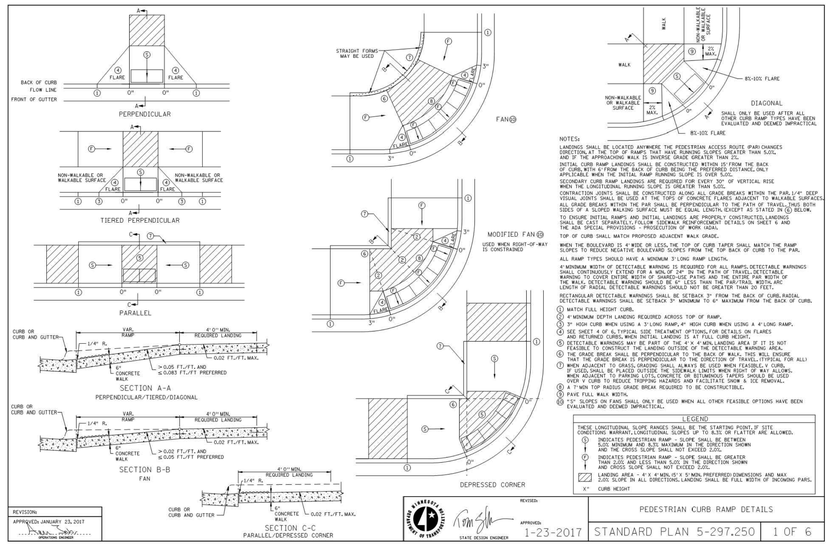
DATE	DESCRIPTION

PROJECT NUMBER: 18213

CIVIL DETAILS

C5.0

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NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR, ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL, THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH, EXCEPT AS STATED IN (3) BELOW.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY, FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISIONS - PROCEDURE OF WORK (ADA).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4'-WIDE OR LESS, THE TOP OF CURB THROUGH SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4'-MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS, DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL, DETECTABLE WARNING TO COVER ENTIRE WIDTH OF SHARED-USE PATHS, AND THE ENTIRE PAR WIDTH OF ISLANDS, WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK). LENGTH OF RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 24 FEET.

RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB, RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.

1. MATCH FULL HEIGHT CURB.
2. 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.
3. 9" HIGH CURB WHEN USING A 3'-LONG RAMP, 6" HIGH CURB WHEN USING A 4'-LONG RAMP.
4. SEE SHEET 4 OF 6 FOR TYPICAL SIDE TREATMENT OPTIONS FOR CURB RAMPS ON FLARES AND RETURNED CURBS, WHEN INITIAL LANDING IS AT FULL CURB HEIGHT.
5. DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.
6. THE CROSS SLOPE OF DETECTABLE WARNINGS SHALL BE 0.0% TO 2.0% (MEASURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL FOR ALL)
7. WHEN ADJACENT TO GRASS/GRADING SHALL ALWAYS BE USED WHEN FEASIBLE, Y CURB, IF USED, SHALL BE 6" HIGH TO AVOID THE "SPEAR" EFFECT WHEN RIGHT-OF-WAY CLOSE. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED INSTEAD OF Y CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
8. A 1" NON-TO PASSED GRADE BREAK REQUIRED TO BE CONSTRUCTIBLE.
9. PAVE FULL WIDTH.
10. T-CURB OR RAISED CURB TO BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT, IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

① INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

② INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX. 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

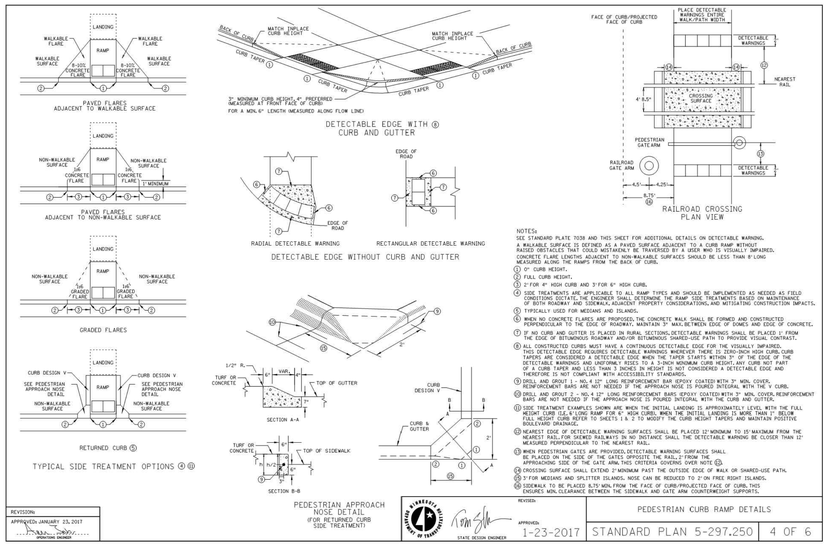
X" CURB HEIGHT

REVISION
APPROVED: JANUARY 23, 2017
OPERATIONS ENGINEER

REVISED:
APPROVED:
1-23-2017
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 1 OF 6



NOTES:

SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.

A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMP'S FROM THE BACK OF CURB.

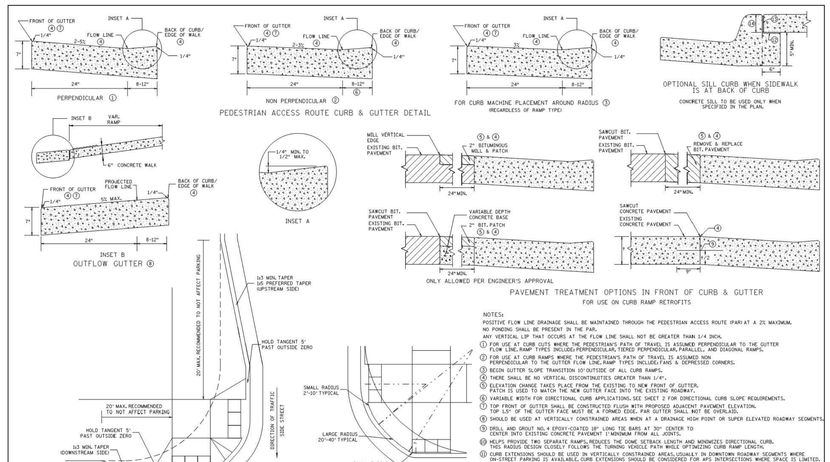
1. 0" CURB HEIGHT.
2. FULL CURB HEIGHT.
3. 2" FOR 4" HIGH CURB AND 3" FOR 6" HIGH CURB.
4. SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS WARRANT. SIDE TREATMENTS SHOULD BE CONSIDERED WHEN THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.
5. TYPICALLY USED FOR MEDIANS AND ISLANDS.
6. WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY, MAINTAIN 3" WALK-BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
7. 3" NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS. DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF ROADWAY. MAINTAIN 3" WALK-BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE WALK.
8. ALL CONSTRUCTED HURDS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB, CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.
9. DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS EPOXY COATED WITH 3" MIN. COVER, REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.
10. DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS EPOXY COATED WITH 3" MIN. COVER, REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.
11. SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6" LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE.
12. NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12'-MINIMUM TO 15'-MAXIMUM FROM THE EDGE OF THE GATE ARM, WHERE THE PAR DOES NOT CONTINUE PAST THE GATE ARM, THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.
13. WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 1' FROM THE APPROACHING SIDE OF THE GATE ARM, THIS CRITERIA GOVERNS OVER NOTE (12).
14. CROSSING SURFACE SHALL EXTEND 2'-MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.
15. 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.
16. SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.

REVISION
APPROVED: JANUARY 23, 2017
OPERATIONS ENGINEER

REVISED:
APPROVED:
1-23-2017
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 4 OF 6



NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR, 1/4" DEEP VISUAL JOINT FOR ALL GRADE BREAKS WITHIN THE PAR SHALL BE CONSTRUCTED WITH CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL, THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY, FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROCEDURE OF WORK).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4'-MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS, DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL, DETECTABLE WARNING TO COVER ENTIRE WIDTH OF SHARED-USE PATHS, AND THE ENTIRE PAR WIDTH OF ISLANDS, WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK). LENGTH OF RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 24 FEET.

RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3"- MINIMUM TO 6"- MAXIMUM FROM THE BACK OF CURB. SEE NOTES (9) & (11) FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

1. MATCH FULL CURB HEIGHT.
2. 3" HIGH CURB WHEN USING A 3'-LONG RAMP
3. 6" HIGH CURB WHEN USING A 4'-LONG RAMP.
4. 3" MINIMUM CURB HEIGHT (15.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
5. 6" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).
6. THE "RAMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS, IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.
7. WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, THE CONCRETE FLARE SHALL BE CONSTRUCTED WITH A 2.0% SLOPE AWAY FROM THE RAMP.
8. GRADING SHALL ALWAYS BE USED WHEN FEASIBLE-6" CURBS, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS. WHEN RIGHT-OF-WAY ALLOWS, WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
9. MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE, SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.
10. RTS TO 10% WALKABLE FLARE.
11. PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.
12. FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 5" FROM BACK OF CURB, A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.
13. RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB, 3" TO 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNING.
14. FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH, ENDS FLUSH WITH EDGE OF WALK/PATH AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.
15. THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB, MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
16. TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT, IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

① INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

② INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX. 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT

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PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 2 OF 6

NOTES:

POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM. NO PONDING SHALL BE PRESENT IN THE PAR.

ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.

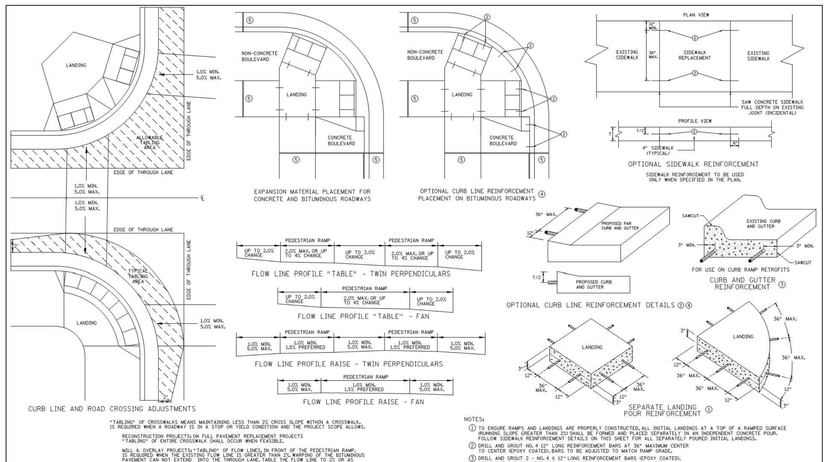
1. FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE, RAMP TYPES INCLUDE (FANS & DEPRESSED CORNERS, PARALLEL, AND DIAGONAL RAMPS).
2. FOR USE AT CURB RAMPS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE, RAMP TYPES INCLUDE (FANS & DEPRESSED CORNERS.
3. BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.
4. THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".
5. ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER, PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.
6. VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS, SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.
7. TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.0" OF THE GUTTER FACE MUST BE A FORMED EDGE, PAR GUTTER SHALL NOT BE OVERLAID.
8. SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.
9. DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1' MINIMUM FROM ALL JOINTS.
10. HELPS PROVIDE TWO SEPARATE RAMPS, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.
11. CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS ALLOWED. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APT. INTERSECTIONS WHERE SPACE IS LIMITED, WHERE ADDITIONAL MULTI-MODAL FACILITIES ARE RECOMMENDED IN THE PUSH BUTTON LOCATION DETAIL SHEET.
12. PLACE BOND BREAKER BETWEEN WALK AND TOP OF SILL.
13. 1/2" PREFORMED JOINT FILLER PER MNDOT SPEC. 3702.
14. DIMENSION TO BE SAME AS SIDEWALK THICKNESS, 4" MIN.

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PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 3 OF 6



NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE AND IS LOCATED IN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSED FLARE.

ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED, GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.

V CURB ADJACENT TO BUILDING SHALL BE A 4" WIDTH AND WILL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.

1. END TAPERS AT TRANSITION SECTION SHALL MATCH INFLACE SIDEWALK GRADES.
2. ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.
3. EDGE BETWEEN NEW V CURB AND INFLACE STRUCTURE SHALL BE SEALED AND BOND BREAKER SHALL BE USED BETWEEN EXISTING STRUCTURE AND PLACED V-CURB.
4. THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1% LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE, WHEN PAR WIDTH IS GREATER THAN 8'-0" THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.
5. TRANSITION PANELS ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).
6. EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT, IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

① INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

② INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX. 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

① TRANSITION PANELS - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A SIDEWALK WHEN THE CROSS SLOPE EXCEEDS 2.0%, TRANSITION AT A RATE OF 1% PER 0.5% PER 1 LINEAR FOOT OF WALK, SEE THIS SHEET FOR ADDITIONAL INFORMATION.

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PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 5 OF 6

NOTES:

① TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.

② DRILL AND GROUT NO. 4 X 12" LONG REINFORCEMENT BARS EPOXY COATED, AT 18" MINIMUM CENTER TO CENTER SPACING, 3" MIN. COVER, REINFORCEMENT BARS ARE NOT REQUIRED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.

③ DRILL AND GROUT 2 - NO. 4 X 12" LONG REINFORCEMENT BARS EPOXY COATED. REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS WITHIN RADIUS.

④ THIS OPTIONAL CURB LINE REINFORCEMENT DETAIL SHOULD ONLY BE USED ON BITUMINOUS ROADWAYS WHEN SPECIFIED IN THE PLAN.

⑤ 1/2 IN. PREFORMED JOINT FILLER MATERIAL PER MNDOT SPEC. 3702.

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PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 6 OF 6

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THE RV AUTHORITY

PROJECT
LAZYDAYS OF MINNEAPOLIS
RIVERDALE DRIVE NW., RAMSEY, MN
LAZYDAYS OF MINNEAPOLIS
8390 HIGHWAY 10 NW, ANOKA, MN 55303

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.

Matthew R. Pavek
DATE 07/09/18 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
07/09/18	CITY SUBMITTAL

REVISION SUMMARY

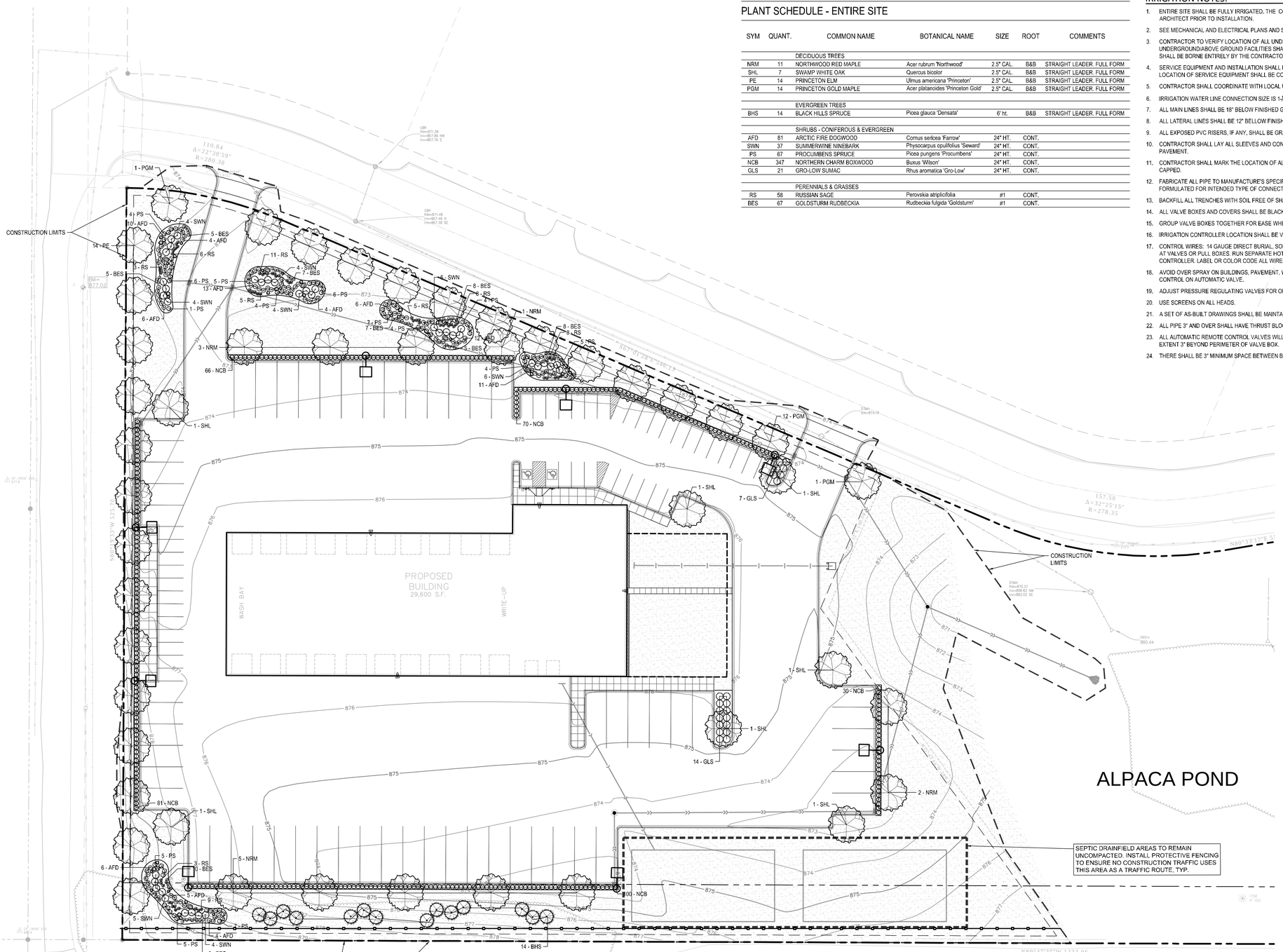
DATE	DESCRIPTION

PROJECT NUMBER: 18213

CIVIL DETAILS

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PLANT SCHEDULE - ENTIRE SITE

SYM	QUANT.	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	COMMENTS
		DECIDUOUS TREES				
NRM	11	NORTHWOOD RED MAPLE	Acer rubrum 'Northwood'	2.5" CAL.	B&B	STRAIGHT LEADER. FULL FORM
SHL	7	SWAMP WHITE OAK	Quercus bicolor	2.5" CAL.	B&B	STRAIGHT LEADER. FULL FORM
PE	14	PRINCETON ELM	Ulmus americana 'Princeton'	2.5" CAL.	B&B	STRAIGHT LEADER. FULL FORM
PGM	14	PRINCETON GOLD MAPLE	Acer platanoides 'Princeton Gold'	2.5" CAL.	B&B	STRAIGHT LEADER. FULL FORM
		EVERGREEN TREES				
BHS	14	BLACK HILLS SPRUCE	Picea glauca 'Densata'	6' ht.	B&B	STRAIGHT LEADER. FULL FORM
		SHRUBS - CONIFEROUS & EVERGREEN				
AFD	81	ARCTIC FIRE DOGWOOD	Cornus sericea 'Farrow'	24" HT.	CONT.	
SWN	37	SUMMERWINE NINEBARK	Physocarpus opulifolius 'Seward'	24" HT.	CONT.	
PS	67	PROCUMBENS SPRUCE	Picea pungens 'Procumbens'	24" HT.	CONT.	
NCB	347	NORTHERN CHARM BOXWOOD	Buxus 'Wilson'	24" HT.	CONT.	
GLS	21	GRO-LOW SUMAC	Rhus aromatica 'Gro-Low'	24" HT.	CONT.	
		PERENNIALS & GRASSES				
RS	58	RUSSIAN SAGE	Perovskia atriplicifolia	#1	CONT.	
BES	67	GOLDSTURM RUDBECKIA	Rudbeckia fulgida 'Goldsturm'	#1	CONT.	

IRRIGATION NOTES:

1. ENTIRE SITE SHALL BE FULLY IRRIGATED. THE CONTRACTOR SHALL SUBMIT IRRIGATION SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
2. SEE MECHANICAL AND ELECTRICAL PLANS AND SPECIFICATIONS FOR IRRIGATION WATER, METER, AND POWER CONNECTIONS.
3. CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND/ABOVE GROUND FACILITIES PRIOR TO ANY EXCAVATION/INSTALLATION. ANY DAMAGE TO UNDERGROUND/ABOVE GROUND FACILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND COSTS ASSOCIATED WITH CORRECTING DAMAGES SHALL BE BORNE ENTIRELY BY THE CONTRACTOR.
4. SERVICE EQUIPMENT AND INSTALLATION SHALL BE PER LOCAL UTILITY COMPANY STANDARDS AND SHALL BE PER NATIONAL AND LOCAL CODES. EXACT LOCATION OF SERVICE EQUIPMENT SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT OR EQUIVALENT AT THE JOB SITE.
5. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANY FOR THE PROPOSED ELECTRICAL SERVICE AND METERING FACILITIES.
6. IRRIGATION WATER LINE CONNECTION SIZE IS 1-½" AT BUILDING. VERIFY WITH MECHANICAL PLANS.COVAGE.
7. ALL MAIN LINES SHALL BE 18" BELOW FINISHED GRADE.
8. ALL LATERAL LINES SHALL BE 12" BELLOW FINISHED GRADE.
9. ALL EXPOSED PVC RISERS, IF ANY, SHALL BE GRAY IN COLOR.
10. CONTRACTOR SHALL LAY ALL SLEEVES AND CONDUIT AT 2'-0" BELOW THE FINISHED GRADE OF THE TOP OF PAVEMENT. EXTEND SLEEVES TO 2'-0" BEYOND PAVEMENT.
11. CONTRACTOR SHALL MARK THE LOCATION OF ALL SLEEVES AND CONDUIT WITH THE SLEEVING MATERIAL "ELLED" TO 2'-0" ABOVE FINISHED GRADE AND CAPPED.
12. FABRICATE ALL PIPE TO MANUFACTURE'S SPECIFICATIONS WITH CLEAN AND SQUARE CUT JOINTS. USE QUALITY GRADE PRIMER AND SOLVENT CEMENT FORMULATED FOR INTENDED TYPE OF CONNECTION.
13. BACKFILL ALL TRENCHES WITH SOIL FREE OF SHARP OBJECTS AND DEBRIS.
14. ALL VALVE BOXES AND COVERS SHALL BE BLACK IN COLOR.
15. GROUP VALVE BOXES TOGETHER FOR EASE WHEN SERVICE IS REQUIRED. LOCATE IN PLANT BED AREAS WHENEVER POSSIBLE.
16. IRRIGATION CONTROLLER LOCATION SHALL BE VERIFIED ON-SITE WITH OWNER'S REPRESENTATIVE.
17. CONTROL WIRES: 14 GAUGE DIRECT BURIAL, SOLID COPPER IRRIGATION WIRE. RUN UNDER MAIN LINE. USE MOISTURE-PROOF SPLICES AND SPLICE ONLY AT VALVES OR PULL BOXES. RUN SEPARATE HOT AND COMMON WIRE TO EACH VALVE AND ONE (1) SPARE WIRE AND GROUND TO FURTHEST VALVE FROM CONTROLLER. LABEL OR COLOR CODE ALL WIRES.
18. AVOID OVER SPRAY ON BUILDINGS, PAVEMENT, WALLS AND ROADWAYS BY INDIVIDUALLY ADJUSTING RADIUS OR ARC ON SPRINKLER HEADS AND FLOW CONTROL ON AUTOMATIC VALVE.
19. ADJUST PRESSURE REGULATING VALVES FOR OPTIMUM PRESSURE ON SITE.
20. USE SCREENS ON ALL HEADS.
21. A SET OF AS-BUILT DRAWINGS SHALL BE MAINTAINED ON-SITE AT ALL TIMES IN AN UPDATED CONDITION.
22. ALL PIPE 3" AND OVER SHALL HAVE THRUST BLOCKING AT EACH TURN.
23. ALL AUTOMATIC REMOTE CONTROL VALVES WILL HAVE 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL UNDERNEATH VALVE AND VALVE BOX. GRAVEL SHALL EXTENT 3" BEYOND PERIMETER OF VALVE BOX.
24. THERE SHALL BE 3" MINIMUM SPACE BETWEEN BOTTOM OF VALVE BOX COVER AND TOP OF VALVE STRUCTURE.

LANDSCAPE NOTES:

1. WHERE SHOWN, SHRUB & PERENNIAL BEDS SHALL BE MULCHED WITH 4" DEPTH (MINIMUM AFTER INSTALLATION AND OR TOP DRESSING OPERATIONS) OF SHREDDED CYPRESS MULCH.
2. ALL TREES SHALL BE MULCHED WITH SHREDDED CYPRESS MULCH TO OUTER EDGE OF SAUCER OR TO EDGE OF PLANTING BED, IF APPLICABLE. ALL MULCH SHALL BE KEPT WITHIN A MINIMUM OF 2" FROM TREE TRUNK.
3. IF SHOWN ON PLAN, RANDOM SIZED LIMESTONE BOULDERS COLOR AND SIZE TO COMPLIMENT NEW LANDSCAPING. OWNER TO APPROVE BOULDER SAMPLES PRIOR TO INSTALLATION.
4. PLANT MATERIALS SHALL CONFORM WITH THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS AND SHALL BE OF HARDY STOCK, FREE FROM DISEASE, DAMAGE AND DISFIGURATION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PLUMPNESS OF PLANT MATERIAL FOR DURATION OF ACCEPTANCE PERIOD.
5. UPON DISCOVERY OF A DISCREPANCY BETWEEN THE QUANTITY OF PLANTS SHOWN ON THE SCHEDULE AND THE QUANTITY SHOWN ON THE PLAN, THE PLAN SHALL GOVERN.
6. CONDITION OF VEGETATION SHALL BE MONITORED BY THE LANDSCAPE ARCHITECT THROUGHOUT THE DURATION OF THE CONTRACT. LANDSCAPE MATERIALS PART OF THE CONTRACT SHALL BE WARRANTED FOR ONE (1) FULL GROWING SEASONS FROM SUBSTANTIAL COMPLETION DATE.
7. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL RECEIVE 4" LAYER LOAM AND SOD AS SPECIFIED UNLESS OTHERWISE NOTED ON THE DRAWINGS.
8. COORDINATE LOCATION OF VEGETATION WITH UNDERGROUND AND OVERHEAD UTILITIES, LIGHTING FIXTURES, DOORS AND WINDOWS. CONTRACTOR SHALL STAKE IN THE FIELD FINAL LOCATION OF TREES AND SHRUBS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
9. ALL PLANT MATERIALS SHALL BE WATERED AND MAINTAINED UNTIL ACCEPTANCE.
10. REPAIR AT NO COST TO OWNER ALL DAMAGE RESULTING FROM LANDSCAPE CONTRACTOR'S ACTIVITIES.
11. SWEEP AND MAINTAIN ALL PAVED SURFACES FREE OF DEBRIS GENERATED FROM LANDSCAPE CONTRACTOR'S ACTIVITIES.
12. REPAIR AT NO COST TO THE OWNER IRRIGATION SYSTEM DAMAGED FROM LANDSCAPE CONSTRUCTION ACTIVITIES.
13. PROVIDE SITE WIDE IRRIGATION SYSTEM DESIGN AND INSTALLATION. SYSTEM SHALL BE FULLY PROGRAMMABLE AND CAPABLE OF ALTERNATE DATE WATERING. THE SYSTEM SHALL PROVIDE HEAD TO HEAD OR DRIP COVERAGE AND BE CAPABLE OF DELIVERING ONE INCH OF PRECIPITATION PER WEEK. SYSTEM SHALL EXTEND INTO THE PUBLIC RIGHT-OF-WAY TO THE EDGE OF PAVEMENT/ BACK OF CURB.
14. CONTRACTOR SHALL SECURE APPROVAL OF PROPOSED IRRIGATION SYSTEM INCLUDING PRICING FROM OWNER, PRIOR TO INSTALLATION.
15. CONTACT DON ZART AT (612)-673-2726 FOR COORDINATION REGARDING PARK DEDICATION FEES

LANDSCAPE CALCULATIONS:

PROPOSED LANDSCAPE:

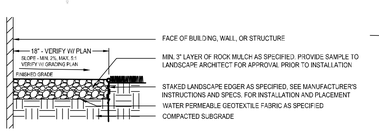
1 TREE / 50 LF OF SITE PERIMETER
2,147.0 SF / 500 = 4 TREES REQUIRED
SEE PLANT SCHEDULE

1 TREE / 1000 SF OF BUILDING FOOTPRINT AREA
29,600.0 SF / 1000 = 30 TREES REQUIRED
SEE PLANT SCHEDULE

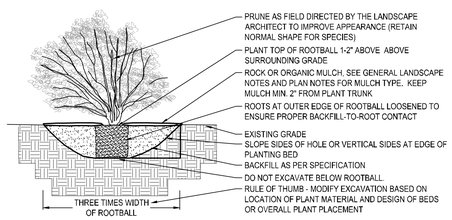
1 SHRUB / 1 LINEAL FOOT OF SITE PERIMETER
2,147.0 SF / 1 = 2,147 SHRUBS REQUIRED
SEE PLANT SCHEDULE

1 SHRUB / 300 SF OF BUILDING FOOTPRINT AREA
29,600.0 SF / 300 = 99 SHRUBS REQUIRED
SEE PLANT SCHEDULE

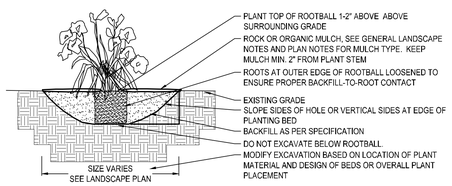
*WHICHEVER IS GREATER SHALL BE APPLIED



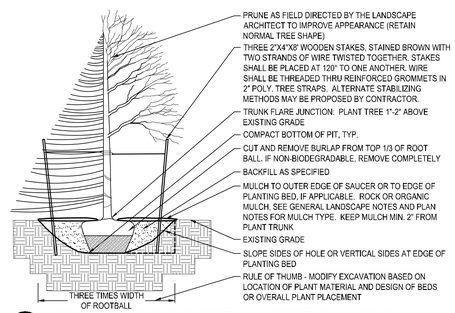
1 AGGREGATE MAINTANENCE STRIP
NTS



2 DECIDUOUS & CONIFEROUS SHRUB PLANTING
NTS



3 PERENNIAL BED PLANTING
NTS



4 DECIDUOUS & CONIFEROUS TREE PLANTING
NTS

LEGEND

- SEED MIX 1 - MNDOT 34-262 WET PRAIRIE, PER MNDOT SEEDING MANUAL SPECIFICATIONS (2014)
- SEED TYPE 2 - MNDOT 35-221 DRY PRAIRIE GENERAL, PER MNDOT SEEDING MANUAL SPECIFICATIONS (2014)
- 1" DIA. DECORATIVE ROCK MAINTENANCE STRIP OVER FILTER FABRIC, SAMPLES REQUIRED. PROVIDE EDGING AS SHOWN ON PLAN
- 2"-4" DIA. ANGULAR RIP-RAP, MIN. 6" DEPTH - SAMPLES REQUIRED.
- ALL PLANTING/SHRUB BEDS - SHREDDED CYPRESS MULCH, SAMPLES REQUIRED PROVIDE EDGING AS SHOWN ON PLAN
- SOD
- PROPOSED CANOPY & EVERGREEN TREE SYMBOLS - SEE SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
- PROPOSED DECIDUOUS AND EVERGREEN SHRUB SYMBOLS - SEE SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
- PROPOSED PERENNIAL PLANT SYMBOLS - SEE SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
- DECORATIVE BOULDERS, 18"-30" DIA.

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(800) 252-1166 TOLL FREE
(651) 454-0002 LOCAL

N
1" = 30'-0"
15'-0" 0 30'-0"

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Lazydays RV
THE RV AUTHORITY

PROJECT
LAZYDAYS OF MINNEAPOLIS
RIVERDALE DRIVE NW., RAMSEY, MN
LAZYDAYS OF MINNEAPOLIS
8390 HIGHWAY 10 NW, ANOKA, MN 55303

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.

Patrick J. Sarver
DATE 07/09/18 LICENSE NO. 24904

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
07/09/18	CITY SUBMITTAL

REVISION SUMMARY

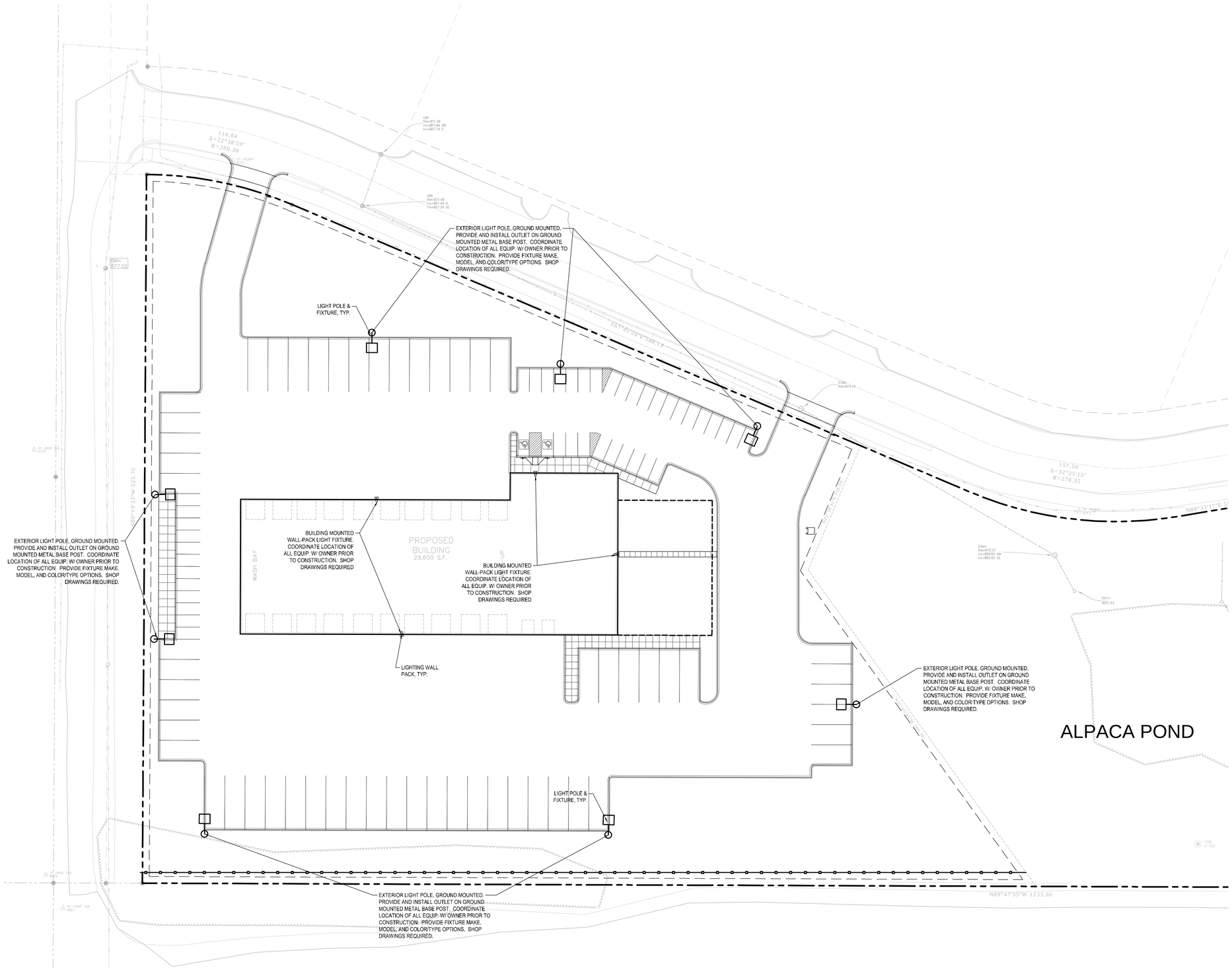
DATE	DESCRIPTION

PROJECT NUMBER: 18213

LANDSCAPE PLAN

L1.0

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LIGHTING NOTES:

1. ALL LIGHTING USED TO ILLUMINATE OFF-STREET PARKING AREAS SHALL BE ARRANGED TO DEFLECT LIGHT AWAY FROM ANY ADJOINING RESIDENTIAL DISTRICT OR PUBLIC STREET.
2. IF ANY BULBS ARE IN EXCESS OF 3,000 LUMENS (150 WATTS), IT SHALL BE DIRECTED THAT THE BULB IS NOT VISIBLE FROM OFF OF THE PROPERTY WHERE SUCH LIGHT SOURCE IS LOCATED.
3. POLE LOCATIONS AND SPACING SHALL COMPLY WITH CMU STANDARDS.
4. OFF-STREET PARKING LIGHT POLES SHALL NOT EXCEED CITY HEIGHT REQUIREMENTS.
5. PROVIDE RAISED BASE FOR ALL POLES IN PAVED PARKING AREAS AND AREAS WITHIN 24" OF CURB FROM EDGE OF POLE BASE.

LEGEND

GROUND-MOUNTED OFF-STREET PARKING LIGHT FIXTURE. MAKE, MODEL, AND COLOR TO BE COORDINATED W/ OWNER PRIOR TO CONSTRUCTION. SHOP DRAWINGS REQUIRED.

EXTERIOR BUILDING MOUNTED L.E.D. LIGHT FIXTURE. COLOR ADJUSTABILITY REQUIRED. SHOP DRAWINGS REQUIRED.

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1" = 30'-0"
15'-0" 0 30'-0"

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Lazydays RV
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PROJECT
LAZYDAYS OF MINNEAPOLIS
RIVERDALE DRIVE NW., RAMSEY, MN

LAZYDAYS OF MINNEAPOLIS
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DATE 07/09/18 LICENSE NO. 24904

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
07/09/18	CITY SUBMITTAL

REVISION SUMMARY

DATE	DESCRIPTION

PROJECT NUMBER: 18213

PRELIMINARY
LIGHTING PLAN

LT1.0

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landscapeforms

CANDELA AREA LIGHT

Product Data Sheet



Candela, designed by Gonzalo Milà in 2011, brings high design to LED lighting for the urban streetscape. Minimal in form, the oval-shaped luminaire is slim and sleek ideal for streetscape settings. Max-in function, Candela offers high output and reach with arrays of up to 96 energy efficient LEDs, poles ranging in height from 26 to 32 feet tall, and arms in two lengths. Available in single, dual and staggered configurations along the pole to achieve light levels tailored to the site. Candela is distinguished contemporary design from Landscape Forms' award-winning Barcelona, Spain partner Santa & Cole.

LED Technology

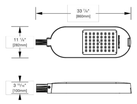
Candela utilizes LED solid state technology and is the perfect choice for owners wanting to reduce traditional maintenance cost associated with lamp replacement. To take advantage of this potential, LED luminaires must be designed and engineered to manage thermal properties of LEDs. Candela's cast aluminum housing dissipates heat while its meticulous details and finish express quality you can see.



Candela

Type 2 Distribution
Housing: Aluminum Injection
Lamp: 48 / 72 / 96 Cree XPGD LEDs
Drive Current: 350mA / 530mA
Optic: Polycarbonate optical lenses
Lens: Clear tempered glass
Power Supply: 130V-277V
LED Driver: Philips Xitanium 40W/100W
Dimmable: 1-10V or DALI
IP Rating: IP66

Candela is equipped with Constant Light Output (CLO) technology. CLO programmatically compensates for lumen depreciation by adjusting the drive current, allowing light output to remain constant throughout the luminaire's maintenance cycle.



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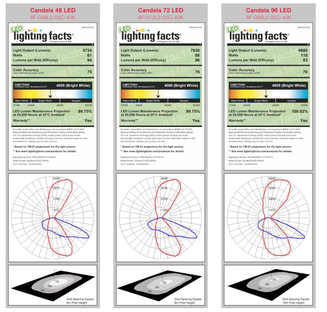
CANDELA AREA LIGHT

Product Data Sheet



Lighting Facts®

Landscape Forms is committed to the development of energy efficient lighting. We participate in the Department of Energy Lighting Facts® label program. This activity is voluntary but helps consumers evaluate the multitude of products on the market today. The Lighting Facts® label provides a quick but comprehensive summary of luminaire performance as measured by the IESNA LM-79 photometric test standard for solid state lighting.



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CANDELA AREA LIGHT

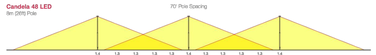
Product Data Sheet



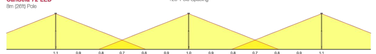
Distribution and Spacing

Candela LED has an IES Type 2 distribution and is capable of meeting IESNA standard RP-8 Roadway Lighting, RP-33 Exterior Environments and DG-5 Walkways & Bikeways. When spaced properly, Candela LED can also meet the "Special Conditions" criteria for RP-33 and DG-5 Pedestrian Mall and Plaza lighting for applications where increased vertical illumination is needed for facial recognition and safety concerns.

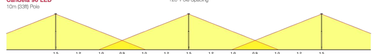
Candela 48 LED
9m (29ft) Pole



Candela 72 LED
9m (29ft) Pole



Candela 96 LED
10m (33ft) Pole



Candela 96 LED
10m (33ft) Pole



Horizontal Illuminance (fc) measured at one mounting height forward.

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CANDELA AREA LIGHT

Product Data Sheet



To Order Candela Luminaire

Specify in order: Product, Lamp, Drive Current, Color Temperature, Input Voltage, Mounting Arm and Finish.

Product	Lamp	Drive Current	Color Temp.	Input Voltage	Mounting	Finish
AF Candela	048L2 (48 LED Type 2) 072L2 (72 LED Type 2) 096L2 (96 LED Type 2)	05C (350mA CLO*) 09C (530mA CLO*)	40K (4000K)	UV1 (120-277VAC)	MS (Med Single Arm) MD (Med Double Arm) LS (Long Single Arm) LD (Long Double Arm)	DG (Dark Grey) LG (Light Grey)

DG=Dark Grey
LG=Light Grey
CLO = Constant Light Output

EXAMPLE: AF – 096L2 – 05C – 40K / UV1 – MS – LG



To Order Aluminum Pole

Specify: Candela pole with desired mounting option, optional 7-pin (ANSI 136.41) twist lock receptacle, and Powdercoat Color.

Height	Pole	Description	Diameter	Weight	Twist Lock
8 meters	AF80097-01	(1) or (2) Candela luminaires at top, no twist lock	5" / 7"	130 lbs	.188"	NO
	AF80097-02	(1) or (2) Candela luminaires at top, with twist lock	5" / 7"	130 lbs	.188"	YES
10 meters	AF80009-01	(1) or (2) Candela luminaires at top, no twist lock	5" / 8"	175 lbs	.250"	NO
	AF80009-02	(1) or (2) Candela luminaires at top, with twist lock	5" / 8"	175 lbs	.250"	YES
	AF80009-03	(2) Candela luminaires at different heights, no twist lock	5" / 8"	175 lbs	.250"	NO
	AF80009-04	(2) Candela luminaires at different heights, with twist lock	5" / 8"	175 lbs	.250"	YES

EXAMPLE: AF80007 – 02 – MER

BLK=Black
MBK=Matte Black
MER=Mercury
SIL=Silver
SCL=Scomclcoat
TMA=Titanium

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CANDELA AREA LIGHT

Product Data Sheet



Finish

LED luminaire body is aluminum injection with grey painted finish. The Pangard IP powdercoat finish on poles is offered exclusively by Landscape Forms.

Product Modifications

Don't see what you are looking for? Our goal is to partner with you as the designer to manufacture solutions needed for the space you are creating. We offer the option to modify our standard product to meet certain design specifications or needs. Contact your local Landscape Forms representitive to learn more about these offerings.

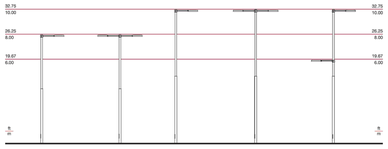
Warranty

Series 5 Cole guarantees the composition and performance features of all material that shape the product for a period of three years. Electrical components including LED boards and electronic drivers are guaranteed for a period of five years.

Other

UL Listed, CE, RoHS
U.S. Patent No. D659,274

Designed by Gonzalo Milà
Candela design is protected by U.S. Patent No. D659,274



Visit landscapeforms.com for more information. Specifications are subject to change without notice. Landscape Forms supports the Landscape Architecture Foundation at the Second Century level.

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ARNE

Product Data Sheet



The Arne LED light is elegant, simple and sustainable. Inspired by Danish modernist architect and designer Arné Jacobsen, it has multiple functions and applications. Arne is available with street or flood optics, in versions of 18 or 36 LEDs. This versatile luminaire can be used as a pendant light, a wall-mounted lamp, a catenary, or fixed to a pole or column. Arne provides full 360° rotation and tilt capabilities to efficiently light all aspects of the environment, from walkways and architectural structures, to monuments and landscapes.

LED Technology

Arne employs solid state LED technology that provides exceptional energy efficiency and very long life, reducing maintenance cost. Designed to maximize this potential by managing the thermal properties of LEDs, the cast aluminum housing and anodized heat sink dissipate heat while its meticulous details and finish express quality you can see.

Flood Optics and Street Optics

Arne is available with Street or Flood optics which provide different light distributions. The Street optics create an IESNA Type 2 distribution, while the Flood optics creates a circular shaped distribution with a NEMA Type 6HBV beam spread with the clear lens, and THeVY with the diffused lens. Combined with the various mounting options, these optics provide an additional level of control, allowing users to put light where it is needed.

Flood Optics

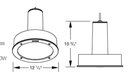


Street Optics



ARNE

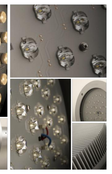
Type 2 Distribution or Flood
Housing: Aluminum Injection
Lamp: 18/36 Cree XPGD LEDs
Color Temperature: 3000K, 4000K
Drive Current: 500mA
Optic: Street or Flood
Lens: Clear or diffused tempered glass
Power Supply: 120V-277V
LED Driver: Philips Xitanium 40W/100W
Dimmable: 1-10V or DALI
IP Rating: IP66
Weight: 18 lbs (Luminaire Only)
EPA: .077 ft²



Flood Optics



Street Optics



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ARNE

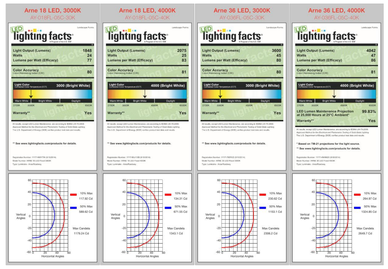
Product Data Sheet



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Flood Optics



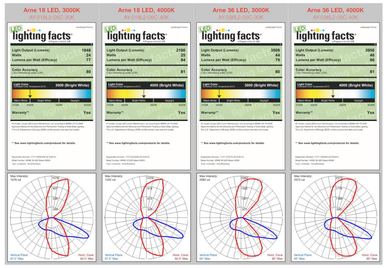
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ARNE

Product Data Sheet



Street Optics



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ARNE

Product Data Sheet



To Order Arne Luminaire

Specify in order: Product, Lamp, Drive Current, Color Temperature, Input Voltage, Mounting Option and Finish.

Product	Lamp	Drive Current	Color Temp.	Input Voltage	Mounting	Finish
AY ARNE	018LF (18 LED Fixed + Clear Lens) 018LFD (18 LED Fixed + Diffused Lens) 018L2 (18 LED Type 2) 036LF (36 LED Fixed + Clear Lens) 036LFD (36 LED Fixed + Diffused Lens) 036L2 (36 LED Type 2)	05C (500mA CLO*)	40K (4000K) 30K (3000K)	UV1 (120-277VAC)	CL (Column Mount) CT (Catenary Mount) PD (Pendant Mount) WL (Wall Mount)	DG (Dark Grey) LG (Light Grey)

DG=Dark Grey
LG=Light Grey
CLO = Constant Light Output

EXAMPLE: AY – 018LF – 05C – 40K – UV1 – CL – LG

To Order Aluminum Pole

Specify: Arne pole with optional 7-pin (ANSI 136.41) twist lock receptacle and powdercoat color.

Height	Pole	Description	Diameter	Weight	Twist Lock
4.5 meters	AY80094-01	Single luminaire at top, no twist lock, with nut covers	5"	45 lbs	NO
	AY80094-02	Single luminaire at top, with twist lock, with nut covers	5"	45 lbs	YES
6 meters	AY80095-01	Single luminaire at top, no twist lock, with nut covers	5"	55 lbs	NO
	AY80095-02	Single luminaire at top, with twist lock, with nut covers	5"	55 lbs	YES
	AY80095-03	(2) luminaires at different heights, no twist lock, with nut covers	5"	55 lbs	NO
	AY80095-04	(2) luminaires at different heights, with twist lock, with nut covers	5"	55 lbs	YES
8 meters	AY80096-01	(2) luminaires at different heights, no twist lock, with nut covers	5" / 7"	150 lbs	NO
	AY80096-02	(2) luminaires at different heights, with twist lock, with nut covers	5" / 7"	150 lbs	YES
	AY80096-03	(4) luminaires at different heights, no twist lock, with nut covers	5" / 7"	150 lbs	NO
	AY80096-04	(4) luminaires at different heights, with twist lock, with nut covers	5" / 7"	150 lbs	YES
10 meters	AY80097-01	(4) luminaires in spiral configuration, no twist lock, with nut covers	5" / 8"	175 lbs	NO
	AY80097-02	(4) luminaires in spiral configuration, with twist lock, with nut covers	5" / 8"	175 lbs	YES
	AY80097-03	(5) luminaires in spiral configuration, no twist lock, with nut covers	5" / 8"	175 lbs	NO
	AY80097-04	(5) luminaires in spiral configuration, with twist lock, with nut covers	5" / 8"	175 lbs	YES

EXAMPLE: AY80094 – 02 – MER

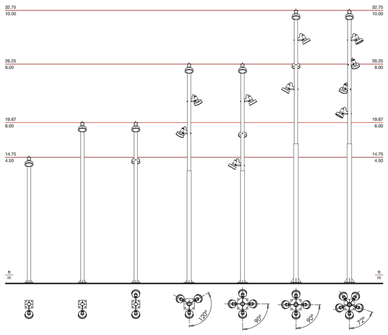
BLK=Black
MBK=Matte Black
MER=Mercury
SIL=Silver
SCL=Scomclcoat
TMA=Titanium

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ARNE

Product Data Sheet





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St. Louis Park, MN 55416
civilsitegroup.com 612-615-0060

Lazydays RV
THE RV AUTHORITY

PROJECT
LAZYDAYS OF MINNEAPOLIS
RIVERDALE DRIVE NW., RAMSEY, MN
LAZYDAYS OF MINNEAPOLIS
8390 HIGHWAY 10 NW, ANOKA, MN 55303

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.

Patrick J. Sarver
DATE 07/09/18 LICENSE NO. 24904

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
07/09/18	CITY SUBMITTAL

REVISION SUMMARY

DATE	DESCRIPTION

PROJECT NUMBER: 18213

PRELIMINARY
LIGHTING PLAN
DETAILS

LT1.1

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(800) 252-1166 TOLL FREE
(651) 454-0002 LOCAL



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SWPPP NOTES:

1. THIS PROJECT IS GREATER THAN ONE ACRE AND WILL REQUIRE AN MPCA NPDES PERMIT. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY EROSION CONTROL PERMITS REQUIRED BY THE CITY.

2. SEE SHEETS SW1.0 - SW1.5 FOR ALL EROSION CONTROL NOTES, DESCRIPTIONS, AND PRACTICES.

3. SEE GRADING PLAN FOR ADDITIONAL GRADING AND EROSION CONTROL NOTES.

4. CONTRACTOR IS RESPONSIBLE FOR SWPPP IMPLEMENTATION, INSPECTIONS, AND COMPLIANCE WITH NPDES PERMIT.

CITY OF RAMSEY EROSION CONTROL NOTES:

1. RESERVED FOR CITY SPECIFIC EROSION CONTROL NOTES.

LEGEND:

- EX. 1' CONTOUR ELEVATION INTERVAL
- 1.0' CONTOUR ELEVATION INTERVAL
- DRAINAGE ARROW
- SILT FENCE / BIOROLL - GRADING LIMIT
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- EROSION CONTROL BLANKET

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1" = 30'-0"
15'-0" 0 30'-0"

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Lazydays RV
THE RV AUTHORITY

PROJECT
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Matthew R. Pavek
DATE 07/09/18 LICENSE NO. 44263

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DATE	DESCRIPTION
07/09/18	CITY SUBMITTAL

REVISION SUMMARY

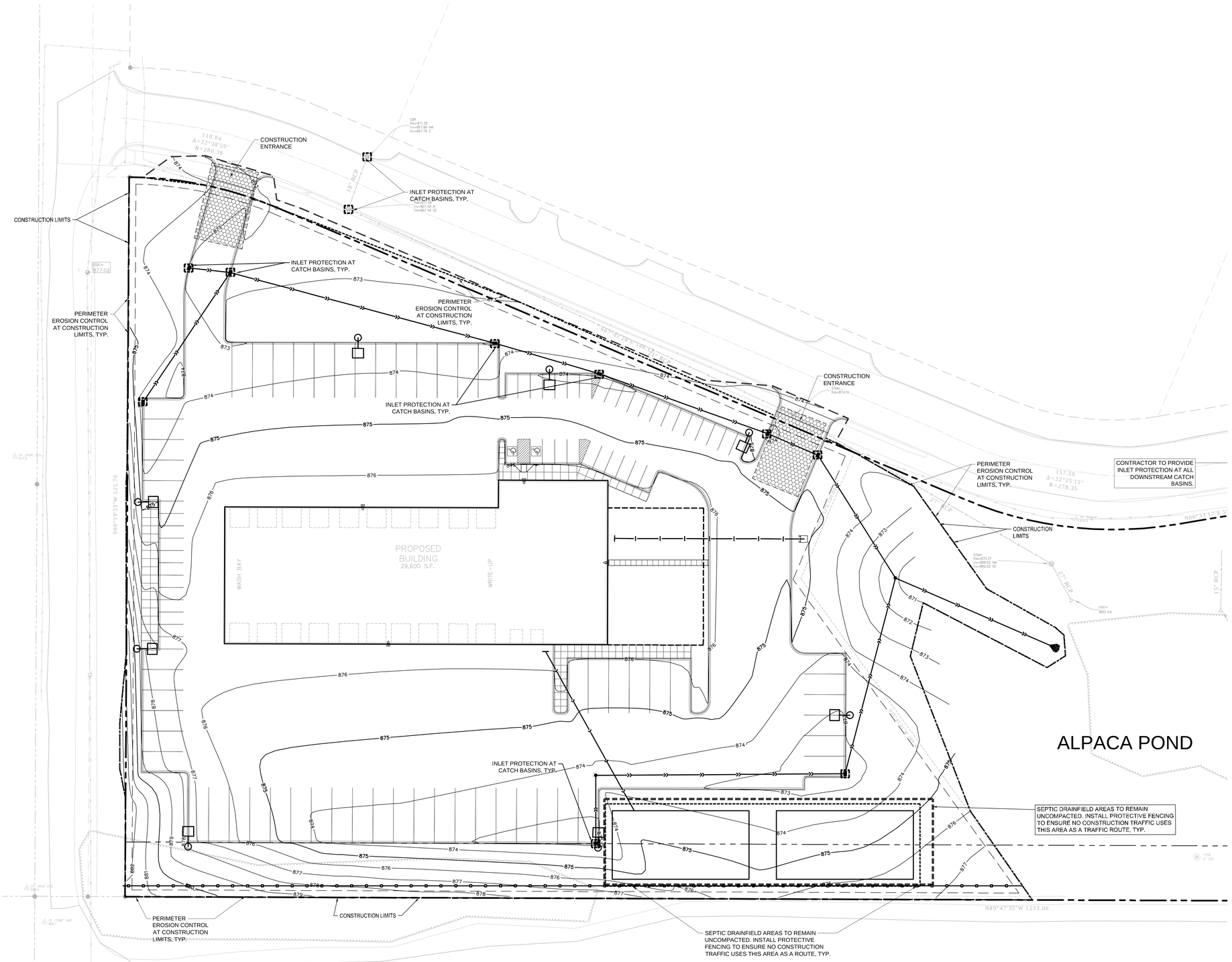
DATE	DESCRIPTION

PROJECT NUMBER: 18213

SWPPP - EXISTING CONDITIONS

SW1.0

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1. RESERVED FOR CITY SPECIFIC EROSION CONTROL NOTES.

LEGEND:

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- 1.0' CONTOUR ELEVATION INTERVAL
- DRAINAGE ARROW
- SILT FENCE / BIOROLL - GRADING LIMIT
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- EROSION CONTROL BLANKET

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PROJECT
LAZYDAYS OF MINNEAPOLIS
RIVERDALE DRIVE NW., RAMSEY, MN

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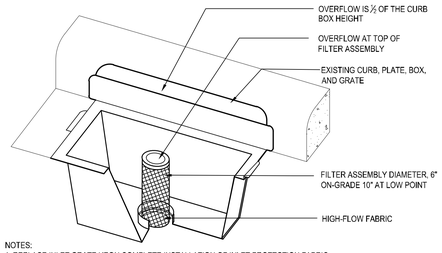
DATE	DESCRIPTION

PROJECT NUMBER: 18213

SWPPP - PROPOSED CONDITIONS

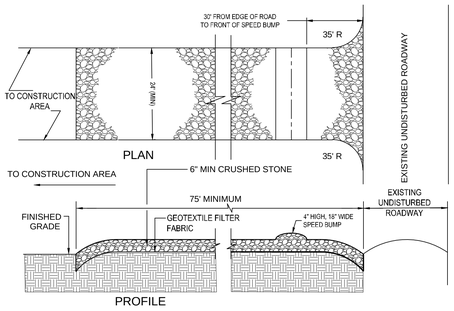
SW1.1

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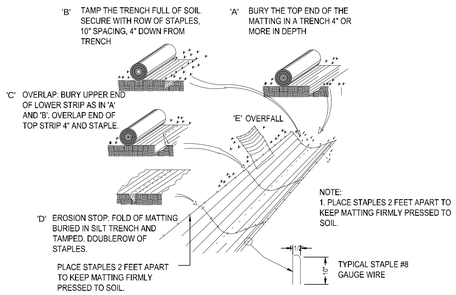
NOTES:
1. REPLACE INLET GRATE UPON COMPLETE INSTALLATION OF INLET PROTECTION FABRIC.
2. CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM THE SURFACE OF THE SYSTEM AFTER EACH STORM EVENT AND AT THE COMPLETION OF THE CONTRACT.
3. REFERENCE APPLE VALLEY STANDARD PLATE ERO-4C.

1 CURB INLET FILTER
NTS

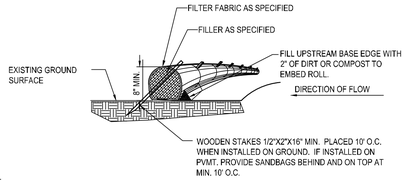


NOTES:
1. PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND UNDISTURBED ROADWAY.
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO UNDISTURBED ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDING STONE TO THE LENGTH OF THE ENTRANCE.
3. REPAIR AND CLEANOUT MEASURES USED TO TRAP SEDIMENT.
4. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO UNDISTURBED ROADWAY SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
5. FINAL LOCATION AND INSTALLATION SHALL BE COORDINATED WITH THE CITY PRIOR TO CONSTRUCTION ACTIVITIES.
6. CRUSHED STONE SHALL BE 1-1/2" DIA. CLOSE GRADED, AND IN ACCORDANCE TO MNDOT SECTION 2118.

2 STABILIZED CONSTRUCTION ACCESS
NTS

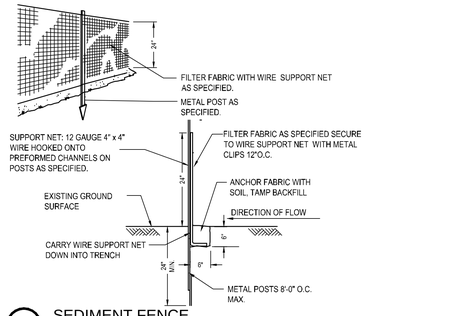


3 EROSION BLANKET
NTS



NOTE:
1. COMPOST FILTER LOGS (BIO ROLLS) SHALL BE FILTREXX EROSION CONTROL SOXX OR APPROVED EQUAL.
2. COMPOST FILLER TO BE MADE FROM A COMPOST BLEND 30%-40% GRADE 2 (SPEC 3890) AND 60%-70% PARTIALLY DECOMPOSED WOOD CHIPS, PER MNDOT SPEC 3897.
3. FILTER FABRIC SHALL BE GEOTEXTILE KNITTED MATERIAL WITH MAX. OPENINGS OF 3/8".
4. IF MULTIPLE ROLLS NEEDED, OVERLAP BY MIN. 12" AT ENDS AND STAKE.
5. SILT SHALL BE REMOVED ONCE IT REACHES 80% OF THE HEIGHT OF THE ROLL OR AS DEEMED NECESSARY BY SITE CONTRACTOR TO MAINTAIN PROPER FUNCTION.

4 SEDIMENT BIO-ROLL / COMPOST FILTER LOG
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5 SEDIMENT FENCE
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St. Louis Park, MN 55416
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Lazydays RV THE RV AUTHORITY

PROJECT
LAZYDAYS OF MINNEAPOLIS
RIVERDALE DRIVE NW., RAMSEY, MN
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REVISION SUMMARY

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PROJECT NUMBER: 18213

SWPPP - DETAILS

SW1.2

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GENERAL SWPPP REQUIREMENTS AND NOTES:

THE CONTRACTOR AND ALL SUBCONTRACTORS INVOLVED WITH A CONSTRUCTION ACTIVITY THAT DISTURBS SITE SOIL OR WHO IMPLEMENT A POLLUTANT CONTROL MEASURE IDENTIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MUST COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT (DATED AUGUST 1, 2013 # MNR100001 PAGES 1-35) AND ANY LOCAL GOVERNING AGENCY HAVING JURISDICTION CONCERNING EROSION AND SEDIMENTATION CONTROL.

PART III STORMWATER DISCHARGE DESIGN REQUIREMENTS

SWPPP (PART III.A)

THE NATURE OF THIS PROJECT WILL BE CONSISTENT WITH WHAT IS REPRESENTED IN THIS SET OF CONSTRUCTION PLANS AND SPECIFICATIONS. SEE THE SWPPP PLAN SHEETS AND SWPPP NARRATIVE (ATTACHMENT A: CONSTRUCTION SWPPP TEMPLATE) FOR ADDITIONAL SITE SPECIFIC SWPPP INFORMATION. THE PLANS SHOW LOCATIONS AND TYPES OF ALL TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMPS. STANDARD DETAILS ARE ATTACHED TO THIS SWPPP DOCUMENT.

THE INTENDED SEQUENCING OF MAJOR CONSTRUCTION ACTIVITIES IS AS FOLLOWS:
1. INSTALL STABILIZED ROCK CONSTRUCTION ENTRANCE
2. INSTALLATION OF SILT FENCE AROUND SITE
3. INSTALL ORANGE CONSTRUCTION FENCING AROUND INFILTRATION AREAS.
4. CLEAR AND GRUB FOR TEMPORARY SEDIMENT BASIN / POND INSTALL
5. CONSTRUCT TEMPORARY SEDIMENT BASIN / POND (PART III.B)
6. CLEAR AND GRUB REMAINDER OF SITE
7. STRIP AND STOCKPILE TOPSOIL
8. ROUGH GRADING OF SITE
9. STABILIZE DENUDED AREAS AND STOCKPILES
10. INSTALL SANITARY SEWER, WATER MAIN STORM SEWER AND SERVICES
11. INSTALL SILT FENCE / INLET PROTECTION AROUND CB'S
12. INSTALL STREET SECTION
13. INSTALL CURB AND GUTTER
14. BITUMINOUS ON STREETS
15. FINAL GRADE BOULEVARD, INSTALL SEED AND MULCH
16. REMOVE ACCUMULATED SEDIMENT FROM BASIN / POND
17. FINAL GRADE POND / INFILTRATION BASINS (DO NOT COMPACT SOILS IN INFILTRATION AREAS.) (PART III.C)
18. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED BY EITHER SEED OR SOD/LANDSCAPING, REMOVE SILT FENCE AND RESEED ANY AREAS DISTURBED BY THE REMOVAL.

RECORDS RETENTION (PART III.E):

THE SWPPP (ORIGINAL OR COPIES) INCLUDING, ALL CHANGES TO IT, AND INSPECTIONS AND MAINTENANCE RECORDS MUST BE KEPT AT THE SITE DURING CONSTRUCTION BY THE PERMITTEE WHO HAS OPERATIONAL CONTROL OF THAT PORTION OF THE SITE. THE SWPPP CAN BE KEPT IN EITHER THE FIELD OFFICE OR IN AN ON SITE VEHICLE DURING NORMAL WORKING HOURS.

ALL OWNER(S) MUST KEEP THE SWPPP, ALONG WITH THE FOLLOWING ADDITIONAL RECORDS, ON FILE FOR THREE (3) YEARS AFTER SUBMITTAL OF THE NOT AS OUTLINED IN PART II.C. THIS DOES NOT INCLUDE ANY RECORDS AFTER SUBMITTAL OF THE NOT.

1. THE FINAL SWPPP;
2. ANY OTHER STORMWATER RELATED PERMITS REQUIRED FOR THE PROJECT;
3. RECORDS OF ALL INSPECTION AND MAINTENANCE CONDUCTED DURING CONSTRUCTION (SEE PART IV.E, INSPECTIONS AND MAINTENANCE);
4. ALL PERMANENT OPERATION AND MAINTENANCE AGREEMENTS THAT HAVE BEEN IMPLEMENTED, INCLUDING ALL RIGHT OF WAY, CONTRACTS, COVENANTS AND OTHER BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE; AND
5. ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORMWATER MANAGEMENT SYSTEMS.

SWPPP IMPLEMENTATION RESPONSIBILITIES:

1. THE OWNER AND CONTRACTOR ARE PERMITTEE(S) AS IDENTIFIED BY THE NPDES PERMIT.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE IMPLEMENTATION OF THE SWPPP, INCLUDING THE ACTIVITIES OF ALL OF THE CONTRACTOR'S SUBCONTRACTORS.
3. CONTRACTOR SHALL PROVIDE A PERSON(S) KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPS TO OVERSEE ALL INSTALLATION AND MAINTENANCE OF BMPS AND IMPLEMENTATION OF THE SWPPP.
4. CONTRACTOR SHALL PROVIDE PERSON(S) MEETING THE TRAINING REQUIREMENTS OF THE NPDES PERMIT TO CONDUCT INSPECTION AND MAINTENANCE OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMIT. ONE OF THESE INDIVIDUAL(S) MUST BE AVAILABLE FOR AN ONSITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY MPCA. CONTRACTOR SHALL PROVIDE TRAINING DOCUMENTATION FOR THESE INDIVIDUAL(S) AS REQUIRED BY THE NPDES PERMIT. THIS TRAINING DOCUMENTATION SHALL BE RECORDED IN OR WITH THE SWPPP BEFORE THE START OF CONSTRUCTION OR AS SOON AS THE PERSONNEL FOR THE PROJECT HAVE BEEN DETERMINED. DOCUMENTATION SHALL INCLUDE:
   - 4.1. NAMES OF THE PERSONNEL ASSOCIATED WITH THE PROJECT THAT ARE REQUIRED TO BE TRAINED PER PART III.F.1 OF THE PERMIT.
   - 4.2. DATES OF TRAINING AND NAME OF INSTRUCTOR AND ENTITY PROVIDING TRAINING.
   - 4.3. CONTENT OF TRAINING COURSE OR WORKSHOP INCLUDING THE NUMBER OF HOURS OF TRAINING.
5. FOLLOWING FINAL STABILIZATION AND THE TERMINATION OF COVERAGE FOR THE NPDES PERMIT, THE OWNER IS EXPECTED TO FURNISH LONG TERM OPERATION AND MAINTENANCE (O & M) OF THE PERMANENT STORM WATER MANAGEMENT SYSTEM.

PART IV. CONSTRUCTION ACTIVITY REQUIREMENTS

CONSTRUCTION ACTIVITY FIELD REQUIREMENTS:

1. ALL FIELD REQUIREMENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NPDES PERMIT AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
2. THE CONTRACTOR MUST IMPLEMENT THE SWPPP AND PROVIDE BMPS IDENTIFIED IN THE SWPPP IN AN APPROPRIATE AND FUNCTION MANNER.
3. THE CONTRACTOR SHALL RESPOND TO CHANGING SITE CONDITIONS AND IMPLEMENT/SUPPLEMENT EROSION PREVENTION AND SEDIMENT CONTROL MEASURES UTILIZED TO PROVIDE ADEQUATE PROTECTION OF DISTURBED SOILS AND ADEQUATE PREVENTION OF SEDIMENT TRANSPORT OFF-SITE. AT A MINIMUM, THE FOLLOWING STORMWATER POLLUTION PREVENTION CONSTRUCTION ACTIVITY FIELD REQUIREMENTS SHALL BE FURNISHED BY THE CONTRACTOR.

EROSION PREVENTION (PART IV.B):

THE CONTRACTOR IS RESPONSIBLE FOR PLANING FOR AND IMPLEMENTING APPROPRIATE CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRADING, AND OTHER CONSTRUCTION PRACTICES THAT MINIMIZE EROSION, SO THAT THE INSPECTION AND MAINTENANCE REQUIREMENTS OF PART IV.E. ARE COMPLIED WITH. THE LOCATION OF AREAS NOT TO BE DISTURBED MUST BE DELINEATED (E.G. WITH FLAGS, STAKES, SIGNS, SILT FENCE ETC.) ON THE DEVELOPMENT SITE BEFORE WORK BEGINS.

ALL EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION BUT NO LATER THAN THE END OF THE NEXT WORK DAY WHEN EARTH-DISTURBING ACTIVITIES WILL CEASE FOR AT LEAST 14 DAYS. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE 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 PART IV.C.5.

SOILS WITHIN 200 FEET OF A PUBLIC WATER (AS DESIGNATED BY THE MINNESOTA DNR) MUST BE STABILIZED WITHIN 24 HOURS DURING FISH SPAWNING TIMES.

THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE THAT DRAINS WATER FROM ANY PORTION OF THE CONSTRUCTION SITE, OR DIVERTS WATER AROUND THE SITE, MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE INTO ANY SURFACE WATER. STABILIZATION OF THE LAST 200 LINEAL FEET MUST BE COMPLETED WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER.

STABILIZATION OF THE REMAINING PORTIONS OF ANY TEMPORARY OR PERMANENT DITCHES OR SWALES MUST BE COMPLETE WITHIN 14 DAYS AFTER CONNECTING TO A SURFACE WATER AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED.

TEMPORARY OR PERMANENT DITCHES OR SWALES THAT ARE BEING USED AS A SEDIMENT CONTAINMENT SYSTEM (WITH PROPERLY DESIGNED ROCK DITCH CHECKS, BIO ROLLS, SILT DIKES ETC.) DO NOT NEED TO BE STABILIZED. THESE AREAS MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.

PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER.

SEED NOTES (PART III.A.4.A):

ALL SEED MIXES AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MNDOT SEEDING MANUAL.

GENERAL RECOMMENDATIONS:
IMMEDIATELY BEFORE SEEDING THE SOIL SHALL BE TILLED TO A MINIMUM DEPTH OF 3 INCHES.

TEMPORARY EROSION CONTROL SEEDING, MULCHING & BLANKET.

SEED
- TEMPORARY SEED SHALL BE MNDOT SEED MIX 21-112 (WINTER WHEAT COVER CROP) FOR WINTER AND 21-111 (OATS COVER CROP) FOR SPRING/SUMMER APPLICATIONS. BOTH SEED MIXES SHALL BE APPLIED AT A SEEDING RATE OF 100 LBS/ACRE.

MULCH
- IMMEDIATELY AFTER SEEDING, WITHIN 24 HOURS, MNDOT TYPE 1 MULCH SHOULD BE APPLIED TO PROTECT AND ENHANCE SEED GERMINATION. MULCH SHALL BE APPLIED AT 90% COVERAGE (2 TONS PER ACRE OF STRAW MULCH)

SLOPES
- 3:1 (HORIZ/VERT.) OR FLATTER MUCH SHALL BE COVERED WITH MULCH
- SLOPES STEEPER THAN 3:1 OR DITCH BOTTOMS SHALL BE COVERED WITH EROSION CONTROL BLANKET.
- SEE PLAN FOR MORE DETAILED DITCH AND STEEP SLOPE EROSION CONTROL TREATMENTS.

SEDIMENT CONTROL (PART IV.C):

SEDIMENT CONTROL PRACTICES MUST MINIMIZE SEDIMENT FROM ENTERING SURFACE WATERS, INCLUDING CURB AND GUTTER SYSTEMS AND STORM SEWER INLETS.

a. TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS THAT ARE DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH ROCK CHECK DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS.

b. IF THE DOWN GRADIENT TREATMENT SYSTEM IS OVERLOADED, ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPS MUST BE INSTALLED TO ELIMINATE THE OVERLOADING, AND THE SWPPP MUST BE AMENDED TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN PART III.A.4. A. THROUGH C.

c. IN ORDER TO MAINTAIN SHEET FLOW AND MINIMIZE RILLS AND/OR GULLIES, THERE SHALL BE NO UNBROKEN SLOPE LENGTH OF GREATER THAN 75 FEET FOR SLOPES WITH A GRADE OF 3:1 OR STEEPER.

SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED IN ACCORDANCE WITH PART IV.G.

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 INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED. HOWEVER, SEDIMENT CONTROL PRACTICES MUST BE INSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.

ALL STORM DRAIN INLETS MUST BE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. INLET PROTECTION MAY BE REMOVED FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (STREET FLOODING/FREEZING) HAS BEEN IDENTIFIED AND THE PERMITTEE(S) HAVE RECEIVED WRITTEN CORRESPONDENCE FROM THE JURISDICTIONAL AUTHORITY (E.G. CITY/COUNTY/TOWNSHIP/MNDOT ENGINEER) VERIFYING THE NEED FOR REMOVAL. THE WRITTEN CORRESPONDENCE MUST BE DOCUMENTED IN THE SWPPP OR AVAILABLE WITHIN 72 HOURS UPON REQUEST. WHEN WRITTEN CORRESPONDENCE CAN NOT BE OBTAINED IN A TIMELY MANNER, THE SPECIFIC INLET PROTECTION CAN BE REMOVED TO ALLEVIATE THE IMMEDIATE SAFETY CONCERN. HOWEVER, EFFORTS TO OBTAIN WRITTEN CORRESPONDENCE MUST BE DOCUMENTED IN THE SWPPP AND AVAILABLE WITHIN 72 HOURS UPON REQUEST. PERMISSION TO REMOVE INLET PROTECTION BASED ON A SPECIFIC SAFETY CONCERN MUST STILL BE OBTAINED FROM THE JURISDICTIONAL AUTHORITY WITHIN 30 DAYS OF REMOVAL.

TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS, AND CANNOT BE PLACED IN 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.

VEHICLE TRACKING OF SEDIMENT FROM THE CONSTRUCTION SITE (OR ONTO STREETS WITHIN THE SITE) MUST BE MINIMIZED BY BMPS SUCH AS STONE PADS, CONCRETE OR STEEL WASH RACKS, OR EQUIVALENT SYSTEMS. STREET SWEEPING MUST BE USED IF SUCH BMPS ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET (SEE PART IV.E.4.D.).

THE PERMITEE MUST MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL. MINIMIZING SOIL COMPACTION IS NOT REQUIRED WHERE THE FUNCTION OF THE SPECIFIC AREA OF THE SITE DICTATES THAT IT BE COMPACTED. METHODS FOR MINIMIZING COMPACTION INCLUDE THE USE OF TRACKED EQUIPMENT, AND STAYING OFF OF AREAS TO BE LEFT UN-COMPACTED. METHODS TO PRESERVE TOPSOIL INCLUDE STRIPPING AND STOCKPILING TOPSOIL PRIOR TO GRADING OR EXCAVATION OPERATIONS.

THE PERMITTEE MUST INSTALL TEMPORARY SEDIMENTATION BASINS AS REQUIRED IN PART III.B. OF THIS PERMIT.

DEWATERING AND BASIN DRAINING (PART IV.D):

DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) RELATED TO THE CONSTRUCTION ACTIVITY 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, DOWNSTREAM LANDOWNERS OR WETLANDS. 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 SHEATHING OR OTHER ACCEPTED ENERGY DISSIPATION MEASURES. ADEQUATE SEDIMENTATION CONTROL MEASURES ARE REQUIRED FOR DISCHARGE WATER THAT CONTAINS SUSPENDED SOLIDS.

FILTER BACKWASH WATERS MUST BE HAULED AWAY FOR DISPOSAL, RETURNED TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. DISCHARGE OF THE BACKWASH WATER TO SANITARY SEWER IS ALLOWED WITH PERMISSION OF THE SANITARY SEWER AUTHORITY.

INSPECTIONS AND MAINTENANCE (PART IV.E):

THE CONTRACTOR IS RESPONSIBLE AT ALL TIMES FOR THE MAINTENANCE AND PROPER OPERATION OF EROSION AND SEDIMENT CONTROL FACILITIES. THE CONTRACTOR SHALL AT A MINIMUM, INSPECT, MAINTAIN AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS FOLLOWING A RAINFALL OF 0.5 INCHES OR GREATER AND WITHIN 7 DAYS AFTER THAT. CONTINUE INSPECTION ACTIVITIES UNTIL LAND-DISTURBING ACTIVITY HAS CEASED, THEREAFTER THE CONTRACTOR SHALL PERFORM THESE RESPONSIBILITIES AT LEAST WEEKLY UNTIL VEGETATIVE COVER IS ESTABLISHED. INSPECTIONS MUST INCLUDE STABILIZED AREAS, EROSION PREVENTION AND SEDIMENT CONTROL BMP'S AND INFILTRATION AREAS.

BASED ON INSPECTION RESULTS THE CONTRACTOR MAY MODIFY THE SWPPP IN ORDER TO PREVENT POLLUTANTS FROM LEAVING THE SITE VIA STORM WATER RUNOFF. THIS MODIFICATION MUST BE MADE WITHIN 7 CALENDAR DAYS OF THE INSPECTION UNLESS OTHERWISE REQUIRED BY THE TERMS OF THE PERMIT, LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS.

INSPECTION REPORTS MUST BE RECORDED WITHIN 24 HOURS IN WRITING AND KEPT ON FILE BY THE CONTRACTOR AS AN INTEGRAL PART OF THE SWPPP ON SITE AND THEN FOR AT LEAST 3 YEARS FROM THE DATE OF COMPLETION OF THIS PROJECT.

ALL PERIMETER CONTROL DEVICES MUST BE REPAIRED, REPLACED OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE. THESE REPAIRS MUST BE MADE BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR THEREAFTER AS SOON AS FIELD CONDITIONS ALLOW ACCESS.

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 TOPSOIL. THIS REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN 7 DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS.

SEE (ATTACHMENT A: CONSTRUCTION SWPPP TEMPLATE) FOR SITE SPECIFIC INSPECTIONS AND MAINTENANCE REQUIREMENTS.

POLLUTION PREVENTION MANAGEMENT (PART IV.F):

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

SOLID WASTE: COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTES MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MINNESOTA POLLUTION CONTROL AGENCY (MPCA) DISPOSAL REQUIREMENTS.

HAZARDOUS MATERIALS: OIL, GASOLINE, PAINT AND 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 AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.

EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTEWATER PROPERLY DISPOSED OF. NO ENGINE DEGREASING IS ALLOWED ON SITE.

CONCRETE WASHOUT: 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 THAT DOES NOT ALLOW WASHOUT LIQUIDS TO ENTER THE GROUND 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 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. CONCRETE WASHOUT MAY ALSO OCCUR OFF SITE ACCORDING TO THE APPROPRIATE REGULATIONS.

FUELING OPERATION PLAN: ALL FUELING SHALL TAKE PLACE AT THE DESIGNATED FUELING LOCATION AND ACCORDING TO BEST PRACTICES FOR SITE FUELING OPERATIONS AS TO MINIMIZE THE POTENTIAL FOR SPILLS

SPILL PREVENTION PLAN: ALL SPILLS SHALL BE IMMEDIATELY CLEANED UP AFTER DISCOVERY. THE SITE SUPERINTENDENT, WHO IS RESPONSIBLE FOR DAY-TO-DAY ONSITE CONSTRUCTION OPERATIONS WILL BE THE SPILL PREVENTION COORDINATOR AND WILL BE RESPONSIBLE FOR IMPLEMENTING CLEAN UP PROCEDURES, POSTING CLEAN UP RECOMMENDATIONS, AND ENSURING PROPER CLEAN UP TRAINING OF APPROPRIATE PERSONNEL.

SANITARY AND SEPTIC WASTE: SANITARY/SEPTIC FACILITIES SHALL BE PROVIDED AND MAINTAINED IN A NEAT AND SANITARY CONDITION, FOR THE USE OF THE CONTRACTOR'S EMPLOYEES, A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY STATE REGULATIONS WILL COLLECT SANITARY WASTE FROM PORTABLE UNITS.

FINAL STABILIZATION (PART IV.G):

THE CONTRACTOR MUST ENSURE FINAL STABILIZATION OF THE SITE ACCORDING THE DEFINITIONS IN THE NPDES GENERAL PERMIT PART IV SECTION G. THE CONTRACTOR MUST SUBMIT A NOTICE OF TERMINATION (N.O.T.) WITHIN 30 DAYS AFTER FINAL STABILIZATION IS COMPLETE OR WITHIN 7 DAYS AFTER SELLING THE SITE OR PORTION OF THE SITE (THAT HAS NOT UNDERGONE FINAL STABILIZATION) TO ANOTHER PARTY. A COPY OF THIS NOTICE OF TERMINATION / PERMIT MODIFICATION FORM MUST GO TO THE NEW OWNER, THE ORIGINAL CURRENT OWNER MUST PROVIDE A SWPPP TO THE NEW OWNER THAT SPECIFICALLY ADDRESSES THE REMAINING CONSTRUCTION ACTIVITY. SEE THE SWPPP PLAN SHEETS AND SWPPP NARRATIVE (ATTACHMENT A: CONSTRUCTION SWPPP TEMPLATE) AND SWPPP PLAN SHEETS FOR FINAL STABILIZATION MEASURES

TRAINING (PART III.A.2)

DESIGN ENGINEER: MATTHEW R. PAVEK P.E.
TRAINING COURSE: DESIGN OF SWPPP
TRAINING ENTITY: UNIVERSITY OF MINNESOTA
INSTRUCTOR: JOHN CHAPMAN
DATES OF TRAINING COURSE: 5/15/2011 - 5/16/2011
TOTAL TRAINING HOURS: 12
RE-CERTIFICATION: 3/16/2017 (8 HOURS), EXP. 5/31/2020

OWNER INFORMATION

OWNER: LAZYDAYS OF MINNEAPOLIS
8390 HIGHWAY 10 NW
ANOKA, MN 55303
CONTACT: NICK TOMASHOT
480-772-5082

AREAS AND QUANTITIES (PART III.A.4.B&C):

SITE AREA CALCULATIONS	EXISTING CONDITION		PROPOSED CONDITION	
BUILDING COVERAGE	0 SF	0.0%	29,600 SF	7.2%
ALL PAVEMENTS	0 SF	0.0%	126,648 SF	31.0%
ALL NON-PAVEMENTS	408,916 SF	100.0%	252,668 SF	61.8%
TOTAL SITE AREA	408,916 SF	100.0%	408,916 SF	100.0%
IMPERVIOUS SURFACE				
EXISTING CONDITION	0 SF	0.0%		
PROPOSED CONDITION	156,248 SF	38.2%		
DIFFERENCE (EX. VS PROP.)	156,248 SF	38.2%		
EROSION CONTROL QUANTITIES				
DISTURBED AREA	262,977 SF	6.04		
SILT FENCE/BIO-ROLL	±3200 LF			
EROSION CONTROL BLANKET	0 SF			
INLET PROTECTION DEVICES	±15 EA			

NOTE: QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL DETERMINE FOR THEMSELVES THE EXACT QUANTITIES FOR BIDDING AND CONSTRUCTION.

SWPPP CONTACT PERSON

CONTRACTOR:

SWPPP INSPECTOR TRAINING: SWPPP
ALL SWPPP INSPECTIONS MUST BE PERFORMED BY A PERSON THAT MEETS THE TRAINING REQUIREMENTS OF THE NPDES CONSTRUCTION SITE PERMIT.
TRAINING CREDENTIALS SHALL BE PROVIDED BY THE CONTRACTOR AND KEPT ON SITE WITH THE

PARTY RESPONSIBLE FOR LONG TERM OPERATION AND MAINTENANCE OF PERMANENT STORM WATER MANAGEMENT SYSTEM

PERMANENT STORMWATER MANAGEMENT IS NOT REQUIRED AS PART OF THIS PROJECT TO MEET NPDES PERMIT REQUIREMENTS. THE PROPERTY OWNER IS RESPONSIBLE FOR THE LONG TERM OPERATION AND MAINTENANCE OF THE PROPOSED STORMWATER SYSTEM.

SWPPP ATTACHMENTS (ONLY APPLICABLE IF SITE IS 1 ACRE OR GREATER):

CONTRACTOR SHALL OBTAIN A COPY OF THE FOLLOWING SWPPP ATTACHMENTS WHICH ARE A PART OF THE OVERALL SWPPP PACKAGE:
ATTACHMENT A. CONSTRUCTION SWPPP TEMPLATE - SITE SPECIFIC SWPPP DOCUMENT
ATTACHMENT B. CONSTRUCTION STORMWATER INSPECTION CHECKLIST
ATTACHMENT C. MAINTENANCE PLAN FOR PERMANENT STORM WATER TREATMENT SYSTEMS
ATTACHMENT D: STORMWATER MANAGEMENT REPORT - ON FILE AT THE OFFICE OF PROJECT ENGINEER. AVAILABLE UPON REQUEST.
ATTACHMENT E: GEOTECHNICAL EVALUATION REPORT - ON FILE AT THE OFFICE OF PROJECT ENGINEER. AVAILABLE UPON REQUEST.

SUPPLEMENTARY SITE SPECIFIC EROSION CONTROL NOTES:

THESE NOTES SUPERCEDE ANY GENERAL SWPPP NOTES.

THIS PROJECT IS GREATER THAN 1.0 ACRES SO AN NPDES PERMIT IS REQUIRED AND NEEDS TO BE SUBMITTED TO THE MPCA. THE CONTRACTOR IS REQUIRED TO FOLLOW THE GUIDELINES IN THE NPDES PERMIT THROUGHOUT CONSTRUCTION.

PROJECT NARRATIVE:

PROJECT IS THE CONSTRUCTION OF A NEW RV SERVICE CENTER ON CURRENTLY UNDEVELOPED LAND. AN EXISTING INFILTRATION BASIN EXISTS ON THE SITE.

SPECIAL TMDL BMP REQUIREMENTS SITE SPECIFIC (IF REQUIRED):

1. DURING CONSTRUCTION:
   A. STABILIZATION OF ALL EXPOSED SOIL AREAS MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION BUT IN NO CASE COMPLETED LATER THAN SEVEN (7) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
   B. TEMPORARY SEDIMENT BASIN REQUIREMENTS DESCRIBED IN PART III.C. MUST BE USED FOR COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED AT ONE TIME.

2. POST CONSTRUCTION:THE WATER QUALITY VOLUME THAT MUST BE RETAINED ON SITE BY THE PROJECT'S PERMANENT STORMWATER MANAGEMENT SYSTEM DESCRIBED IN PART III.D. SHALL BE ONE (1) INCH OF RUNOFF FROM THE NEW IMPERVIOUS SURFACES CREATED BY THE PROJECT, SEE PART III.D.1. FOR MORE INFORMATION ON INFILTRATION DESIGN, PROHIBITIONS AND APPROPRIATE SITE CONDITIONS.

PERMANENT STABILIZATION NOTES SITE SPECIFIC:

PERMANENT SEED MIX
- FOR THIS PROJECT ALL AREAS THAT ARE NOT TO BE SODDED OR LANDSCAPED SHALL RECEIVE A NATIVE PERMANENT SEED MIX.
  - AREAS IN BUFFERS AND ADJACENT TO OR IN WET AREAS MNDOT SEED MIX 33-261 (STORMWATER SOUTH AND WEST) AT 35 LBS PER ACRE.
  - DRY AREAS MNDOT SEED MIX 35-221 (DRY PRAIRIE GENERAL) AT 40 LBS PER ACRE.
- MAINTENANCE SHALL BE IN ACCORDANCE TO THE MNDOT SEEDING MANUAL.

CivilSite GROUP
Civil Engineering • Surveying • Landscape Architecture
4931 W. 35th Street, Suite 200
St. Louis Park, MN 55416
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Lazydays RV
THE RV AUTHORITY

PROJECT
LAZYDAYS OF MINNEAPOLIS
RIVERDALE DRIVE NW., RAMSEY, MN
LAZYDAYS OF MINNEAPOLIS
8390 HIGHWAY 10 NW, ANOKA, MN 55303

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.
Matthew R. Pavek
DATE 07/09/18 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
07/09/18	CITY SUBMIT

ATTACHMENT A: SITE SPECIFIC SWPPP DOCUMENT

PROJECT NAME: LAZY DAYS OF MINNEAPOLIS
PROJECT LOCATION (BRIEFLY DESCRIBE WHERE CONSTRUCTION ACTIVITY OCCURS. INCLUDE ADDRESS IF AVAILABLE.)
ADDRESS: RIVERDALE DRIVE NW
CITY OR TOWNSHIP: RAMSEY
STATE: MN
ZIP CODE: 55303
LATITUDE/LOGITUDE OF APPROXIMATE CENTROID OF PROJECT: 45D14'03.48" N, 93D28'44.96"W
METHOD OF LAT/LONG COLLECTION (CIRCLE ONE): GPS (ONLINE TOOL) USGS TOPOGRAPHIC
ALL CITIES WHERE CONSTRUCTION WILL OCCUR: RAMSEY
ALL COUNTIES WHERE CONSTRUCTION WILL OCCUR: ANOKA
ALL TOWNSHIPS WHERE CONSTRUCTION WILL OCCUR: N/A

PROJECT SIZE (NUMBER OF ACRES TO BE DISTURBED): 6.0

PROJECT TYPE (CIRCLE ONE): RESIDENTIAL (COMMERCIAL/INDUSTRIAL) ROAD CONSTRUCTION
RESIDENTIAL & RD CONSTRUCTION OTHER (DESCRIBE): XXXXX

CUMULATIVE IMPERVIOUS SURFACE (TO THE NEAREST TENTH ACRE)
EXISTING AREA OF IMPERVIOUS SURFACE : 0.0
POST CONSTRUCTION AREA OF IMPERVIOUS SURFACE: 3.6
TOTAL NEW AREA OF IMPERVIOUS SURFACE: 3.6

RECEIVING WATERS

WATER BODY ID WATER (Y/N)	NAME OF WATER BODY	WATER BODY TYPE	SPECIAL WATER? (Y/N)	IMPAIRED
.	MISSISSIPPI RIVER	RIVER	NO	NO
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.

DATES OF CONSTRUCTION
CONSTRUCTION START DATE: 09/18
ESTIMATED COMPLETION DATE: 09/19

GENERAL CONSTRUCTION PROJECT INFORMATION
DESCRIBE THE CONSTRUCTION ACTIVITY (WHAT WILL BE BUILT, GENERAL TIMELINE, ETC): THIS PROJECT WILL BE THE CONSTRUCTION OF A NEW RV SERVICE CENTER, ASSOCIATED PARKING, AND LANDSCAPING.
DESCRIBE SOIL TYPES FOUND AT THE PROJECT: SOILS ON SITE ARE SANDY, TYPE "A" SOILS

SITE LOCATION MAP - ATTACH MAPS (U.S. GEOLOGIC SURVEY 7.5 MINUTE QUADRANGLE, NATIONAL WETLAND INVENTORY MAPS OR EQUIVALENT) SHOWING THE LOCATION AND TYPE OF ALL RECEIVING WATERS, INCLUDING WETLANDS, DRAINAGE DITCHES, STORMWATER PONDS, OR BASINS, ETC. THAT WILL RECEIVE RUNOFF FROM THE PROJECT. USE ARROWS SHOWING THE DIRECTION OF FLOW AND DISTANCE TO THE WATER BODY.



GENERAL SITE INFORMATION (III.A)
1. DESCRIBE THE LOCATION AND TYPE OF ALL TEMPORARY AND PERMANENT EROTION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICIES (BMP'S). INCLUDE THE TIMING FOR INSTALLATION AND PROCEDURES USED TO ESTABLISH ADDITIONAL TEMPORARY BMP'S AS NECESSARY. (III.A.4.A)
THE PROJECT IS PROTECTED BY TWO (W) MAIN BMP'S, SILT FENCE AND INLET PROTECTION DEVICES. THE SILT FENCE WILL BE INSTALLED AT THE DOWNHILL LOCATIONS OF THE SITE AND MONITORED AS NECESSARY. INLET PROTECTION DEVIDES WILL BE INSTALLED IN ALL CATCH BASINS ON THE SITE AND ANY OFF SITE THAT WILL RECEIVE STORMWATER RUNOFF FROM THIS SITE. AS THE PROJECT PROGRESSES ADDITIONAL BMP'S SUCH AS EROSION CONTROL BLANKET MAY BE UTILITZED.
2. ATTACH TO THIS SWPPP A TABLE WITH THE ANTICIPATED QUANTITIES FOR THE LIFE OF THE PROJECT FOR ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S (III.A.4.B) SEE PAGE SW1.3
3. ATTACH TO THIS SWPPP A SITE MAP THAT INCLUDES THE FOLLOWING FEATURES (III.A.3.B-F):
EXIST AND FINAL GRADES, INCLUDING DIVIDING LINES AND DIRECTION OF FLOW FOR ALL PRE AND POST-CONSTRUCTION STORMRWATER RUNOFF DRAINAGE AREAS LOCATED WITHIN THE PROJECT LIMITS.

LOCATIONS OF IMPERVIOUS SURFACES AND SOIL TYPES.
- EXISTING AND FINAL GRADES, INCLUDING DIVIDING LINES AND DIRECTION OF FLOW FOR ALL PRE AND POST-CONSTRUCTION STORMWATER RUNOFF DRAINAGE AREAS LOCATED WITHIN PROJECT LIMITS.
- LOCATIONS OF AREAS NOT TO BE DISTRUBED.
- LOCATION OF AREAS OF PHASED CONSTRUCTION.
- ALL SURFACE WATERS AND EXISTING WETLANDS WITHIN ONE MILE FROM THE PROJECT BOUNDARIES THAT WILL RECEIVE STORMWATER RUNOFF FROM THE SITE (IDENTIFIABLE ON MAPS SUCH AS USGS 7.5 MINUTE QUADRANGLE MAPS OR EQUIVALENT. WHERE SURFACE WATERS RECEIVING RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITY WILL NOT FIT ON THE PLAN SHEET, THEY MUST BE IDENTIFIED WITH AN ARROW, INDICATING BOTH DIRECTION AND DISTANCE TO THE SURFACE WATER.
- METHODS TO BE USED FOR FINAL STABILIZATION OF ALL EXPOSED SOIL AREA

4. WERE STORMWATER MITIGATION MEASURES REQUIRED AS THE RESULT OF AN ENVIRONMENTAL, ARCHAEOLOGICAL, OR OTHER REQUIRED LOCAL, STATE OR FEDERAL REVIEW OF THE PROJECT? NO
IF YES, DESCRIBE HOW THESE MEASURES WERE ADDRESSED IN THE SWPPP. (III.A.6)
N/A
5. IS THE PROJECT LOCATED IN A KARST AREA SUCH THAT ADDITIONAL MEASURES WOULD BE NECESSARY OT PROJECT DRINKING WATER SUPPLY MANAGEMENT AREAS AS DESCRIBED IN MINN. R. CHAPTERS 7050 AND 7060? NO
IF YES, DESCRIBE THE ADDITIONAL MEASURES TO BE USED. (III.A.7)
N/A
6. DOES THE SITE DISCHARGE TO A CALCEREOUS FEN LISTED IN MINN. R. 7050.0180, SUBP. 6 B? NO
IF YES, A LETTER OF APPROVAL FROM THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES MUST BE OBTAINED PRIOR TO APPLICATION FOR THIS PERMIT. (PART I B.6 AND PART III.A.8)
7. DOES THE SITE DISCHARGE TO A WATER THAT IS LISTED AS IMPARED FOR THE FOLLOWING POLLUTANT(S) OR STRESSOR(S): PHOSPHORUS, TURBIDITY, DISSOLVED OXYGEN OR BIOTIC IMPAIRMENT? USE THE SPECIAL AND IMPAIRED WATERS SEARCH TOOL AT: WWW.PCA.STATE.MN.US/WATER/STORMWATER/STORMWATER-C.HTML
N/A
IF NO, SKIP TO TRAINING
DOES THE IMPAIRED WATER HAVE AN APPROVED TOTAL MAXIMUM DAILY LOADS (TMDL) WITH AN APPROVED WASTE LOAD ALLOCATION FOR CONSTRUCTION ACTIVITY? NO
IF YES;
A. LIST THE RECEIVING WATER, THE AREAS OF THE SITE DISCHARGING TO IT, AND THE POLLUTANT(S) IDENTIFIED IN THE TMDL.
B. LIST THE BMP'S AND ANY OTHER SPECIFIC CONSTRUCTION STORMWATER RELATED IMPLEMENTATION ACTIVITIES IDENTIFIED IN THE TMDL.

IF THE SITE HAS A DISCHARGE POINT WITHIN ONE MILE OF THE IMPAIRED WATER AND THE WATER FLOWS TO THE IMPAIRED WATER BUT NO SPECIFIC BMPS FOR CONSTRUCTION ARE IDENTIFIED IN THE TMDL, THE ADDITIONAL BMPS IN APPENDIX A (C.1, C.2, C.3 & (C.4-TROUT STREAM)) MUST BE ADDED TO THE SWPPP AND IMPLEMENTED. (III.A.7). THE ADDITIONAL BMPS ONLY APPLY TO THOSE PORTIONS OF THE PROJECT THAT DRAIN TO ONE OF THE IDENTIFIED DISCHARGE POINTS.

N/A

8. IDENTIFY ADJACENT PUBLIC WATERS WHERE THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES (DNR) HAS DECLARED "WORK IN WATER RESTRICTIONS" DURING FISH SPAWNING TIMEFRAMES
N/A

SELECTION OF A PERMANENT STORMWATER MANAGEMENT SYSTEM (III.D.)

1. WILL THE PROJECT CREATE A NEW CUMULATIVE IMPERVIOUS SURFACE GREATER THAN OR EQUAL TO ONE ACRE? YES

IF YES, A WATER QUALITY VOLUME OF ONE INCH OF RUNOFF FROM THE CUMULATIVE NEW IMPERVIOUS SURFACES MUST BE RETAINED ON SITE (SEE PART III.D OF THE PERMIT) THROUGH INFILTRATION UNLESS PROHIBITED DUE TO ONE OF THE REASONS IN PART III.D.1.J. IF INFILTRATION IS PROHIBITED IDENTIFY OTHER METHOD OF OTHER VOLUME REDUCTION (E.G., FILTRATION SYSTEM, WET SEDIMENTATION BASIN, REGIONAL PONDING OR EQUIVALENT METHOD

2. DESCRIBE WHICH METHOD WILL BE USED TO TREAT RUNOFF FROM THE NEW IMPERVIOUS SURFACES CREATED BY THE PROJECT (III.D):

- WET SEDIMENTATION BASIN
- INFILTRATION/FILTRATION
- REGIONAL PONDS
- COMBINATION OF PRACTICES

INCLUDE ALL CALCULATIONS AND DESIGN INFORMATION FOR THE METHOD SELECTED. SEE PART III.D OF THE PERMIT FOR SPECIFIC REQUIREMENTS ASSOCIATED WITH EACH METHOD.

INFILTRATION / FILTRATION / REGIONAL PONDING

CALCULATIONS ARE WITHIN THE SITE STORM WATER MANAGEMENT REPORT AND PART OF THIS SWPPP AS ATTACHMENT D.

3. IF IT IS NOT FEASIBLE TO MEET THE TREATMENT REQUIREMENT FOR THE WATER QUALITY VOLUME, DESCRIBE WHY. THIS CAN INCLUDE PROXIMITY TO BEDROCK OR ROAD PROJECTS WHERE THE LACK OF RIGHT OF WAY PRECLUDES THE INSTALLATION OF ANY PERMANENT STORMWATER MANAGEMENT PRACTICES. DESCRIBE WHAT OTHER TREATMENT, SUCH AS GRASSES SWALES, SMALLER PONDS, OR GRIT CHAMBERS, WILL BE IMPLEMENTED TO TREAT RUNOFF PRIOR TO DISCHARGE TO SURFACE WATERS. (III.C)

IT IS FEASIBLE TO MEET REQUIREMENT FOR WATER QUALITY VOLUME.

4. FOR PROJECTS THAT DISCHARGE TO TROUT STREAMS, INCLUDING TRIBUTARIES TO TROUT STREAMS, IDENTIFY METHOD OF INCORPORATING TEMPERATURE CONTROLS INTO THE PERMANENT STORMWATER MANAGEMENT SYSTEM.

N/A

EROSION PREVENTION PRACTICES (IV.B)
DESCRIBE THE TYPES OF TEMPORARY EROSION PREVENTION BMP'S EXPECTED TO BE IMPLEMENTED ON THIS SITE DURING CONSTRUCITON:
1. DESCRIBE CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRADING, AND OTHER CONSTRUCTION PRACTICES TO MINIMIZE EROSION. DELINEATE AREAS NOT TO BE DISTURBED (E.G., WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC.) BEFORE WORK BEGINS.
SILT FENCE WILL BE INSTALLED AT ATHE DOWNHILL LOCATIONS OF THE SITE.
2. DESCRIBE METHODS OF TEMPORARILY STABILIZING SOILS AND SOIL STOCKPILES (E.G., MULCHES, HYDRAULIC TACKIFIERS, EROSION BLANKETS, ETC.):
TEMPORARY EROSION PROTECTION WILL BE SEED AND MULCH AND EROSION BLANKETS WHERE REQUIRED, WITH PERMANENT COVER BEING EITHER SOD OR LANDSCAPE FEATURES.
3. DESCRIBE METHODS OF DISSIPATING VELOCITY ALONG STORMWATER CONVEYANCE CHANNELS AND AT CHANNEL OUTLETS (E.G., CHECK DAMS, SEDIMENT TRAPS, RIP RAP, ETC.):
SOD WILL BE UTILIZED ALONG CHANNELS AND RIP RAP AT CHANNEL.
4. DESCRIBE METHODS TO BE USED FOR STABILIZATION OF DITCH AND SWALE WETTED PERIMETERS (NOTE THAT MULCH, HYDRAULIC SOIL TACKIFIERS, HYDROMULCHES, ETC. ARE NOT ACCEPTABLE SOIL STABILIZATION METHODS FOR ANY PART OF A DRAINAGE DITCH OR SWALE)
FINAL STABILIZATION OF SWALES WILL BE SOD
5. DESCRIBE METHODS TO BE USED FOR ENERGY DISSIPATION AT PIPE OUTLETS (E.G., RIP RAP, SPLASH PADS, GABIONS, ETC.)
RIP RAP WILL BE UTILIZED AT PIPE OUTLETS
6. DESCRIBE METHODS TO BE USED TO PROMOTE INFILTRATION AND SEDIMENT REMOVAL ON THE SITE PRIOR TO OFFSITE DISCHARGE, UNLESS INFEASIBLE (E.G., DIRECT STORMWATER FLOW TO VEGETATED AREAS):
DISCONNECTED IMPERVIOUS AREA AND INFILTRATION AREAS WILL BE UTILIZED
7. FOR DRAINAGE OR DIVERSION DITCHES, DESCRIBE PRACTICES TO STABILIZE THE NORMAL WETTED PERIMETER WITHIN 200 LINEAL FEET OF THE PROPERTY EDGE OR POINT OF DISCHARGE TO SURFACE WATER. THE LAST 200 LINEAL FEET MUST BE STABILIZED WITHIN **24 HOURS** AFTER CONNECTING TO SURFACE WATERS AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED FOR ALL DISCHARGES TO SPECIAL, IMPAIRED OR "WORK IN WATER RESTRICTIONS". ALL OTHER REMAINING PORTIONS OF THE TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 14 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER, PROPERTY EDGE AND CONSTRUCTION IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED.
N/A, NO DITCHES ON SITE
8. DESCRIBE ADDITIONAL EROSION PREVENTION MEASURES THAT WILL BE IMPLEMENTED AT THE SITE DURING CONSTRUCTION (E.G., CONSTRUCTION PHASING, MINIMIZING SOIL DISTURBANCE, VEGETATIVE BUFFERS, HORIZONTAL SLOPE GRADING, SLOPE DRAINING/TERRACING, ETC.):
OTHER EROSION CONTROL PRACTICES INCLUDE BUT ARE NOT LIMITED TO; MINIMIZING SITE EXPOSURE WHEN POSSIBLE.
9. IF APPLICABLE, INCLUDE ADDITIONAL REQUIREMENTS IN APPENDIX A PART C.3 REGARDING MAINTAINING A 100-FOOT BUFFER ZONE OR INSTALLING REDUNDANT BMPS FOR PORTIONS OF THE SITE THAT DRAIN TO SPECIAL WATERS).
N/A
10. IF APPLICABLE, DESCRIBE ADDITIONAL EROSION PREVENTION BMPS TO BE IMPLEMENTED AT THE SITE TO PROTECT PLANNED INFILTRATION AREAS
MINIMIZE SITE EXPOSURE IN AREAS ADJACENT TO INFILTRATION AREAS.

SEDIMENT CONTROL PRACTICIES (IV.C)
DESCRIBE THE METHODS OF SEDIMENT CONTROL BMPS TO BE IMPLEMENTED AT THIS SITE DURING CONSTRUCTION TO MINIMIZE SEDIMENT IMPACTS TO SURFACE WATERS, INCLUDING CURB AND GUTTER SYSTEMS
1. DESCRIBE METHODS TO BE USED FOR DOWN GRADIENT PERIMETER CONTROL:
SILT FENCE WILL BE INSTALLED AROUND THE ENTIRE PERIMETER OF THE SITE
2. DESCRIBE METHODS TO BE USED TO CONTAIN SOIL STOCKPILES:
SEED AND MULCH AS WELL AS EROSION CONTROL BLANKETS WILL BE UTILIZED AS NECESSARY
3. DESCRIBE METHODS TO BE USED FOR STORM DRAIN INLET PROTECTION:
SEE INLET PROTECTION DETAILS
4. DESCRIBE METHODS TO MINIMIZE VEHICLE TRACKING AT CONSTRUCTION EXITS AND STREET SWEEPING ACTIVITIES:
THE PROJECT WILL UTILIZE A ROCK CONSTRUCTION ENTRANCE.
5. DESCRIBE METHODS, IF APPLICABLE, ADDITIONAL SEDIMENT CONTROLS (E.G., DIVERSION BERMS) TO BE INSTALLED TO KEEP RUNOFF AWAY FROM PLANNED INFILTRATION AREAS WHEN EXCAVATED PRIOR TO FINAL STABILIZATION OF THE CONTRIBUTING DRAINAGE AREA:
SILT FENCE TO BE INSTALLED IMMEDIATELY AFTER GRADING TO PROTECT INFILTRATION AREAS.
6. DESCRIBE METHODS TO BE USED TO MINIMIZE SOIL COMPACTION AND PRESERVE TOP SOIL (UNLESS INFEASIBLE) AT THIS SITE:
LIGHT TRACKED EQUIPMENT WILL BE USED, TOPSOIL WILL BE STRIPPED AND STOCKPILED
7. DESCRIBE PLANS TO PRESERVE A 50-FOOT NATURAL BUFFER BETWEEN THE PROJECT'S SOIL DISTURBANCE AND A SURFACE WATER OR PLANS FOR REDUNDANT SEDIMENT CONTROLS IF A BUFFER IS INFEASIBLE:
DOUBLE ROW OF SILT FENCE WILL BE INSTALLED ALONG WETLAND. PROJECT WILL NOT DISTURB WITHIN 200 FEET OF WETLAND.
8. DESCRIBE PLANS FOR USE OF SEDIMENTATION TREATMENT CHEMICALS (E.G., POLYMERS, FLOCCULANTS, ETC.) SEE PART IV.C.10 OF THE PERMIT:
N/A
9. IS THE PROJECT REQUIRED TO INSTALL A TEMPORARY SEDIMENT BASIN DUE TO 10 OR MORE ACRES DRAINING TO A COMMON LOCATION OR 5 ACRES OR MORE IF THE SITE IS WITHIN 1 MILE OF A SPECIAL OR IMPAIRED WATER?
NO
IF YES, DESCRIBE (OR ATTACH PLANS) SHOWING HOW THE BASIN WILL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH PART III.C OF THE PERMIT.
N/A

DEWATERING AND BASIN DRAINING (IV.D)
1. WILL THE PROJECT INCLUDE DEWATERING OR BASIN DRAINING? NO
IF YES, DESCRIBE MEASURES TO BE USED TO TREAT/DISPOSE OF TURBID OR SEDIMENT-LADEN WATER AND METHOD TO PREVENT EROSION OR SCOUR OF DISCHARGE POINTS (SEE PART IV. D OF THE PERMIT):
N/A
2. WILL THE PROJECT INCLUDE USE OF FILTERS FOR BACKWASH WATER? NO
IF YES, DESCRIBE HOW FILTER BACKWASH WATER WILL BE MANAGED ON THE SITE OR PROPERLY DISPOSED (SEE PART III.D.3. OF THE PERMIT):
N/A

ADDITIONAL BMP'S FOR SPECIAL WATERS AND DISCHARGES TO WETLANDS (APPENDIX A, PARTS C AND D)
1. SPECIAL WATERS. DOES YOUR PROJECT DISCHARGE TO SPECIAL WATERS? NO
2. IF PROXIMITY TO BEDROCK OR ROAD PROJECTS WHERE THE LACK OF RIGHT OF WAY PRECLUDES THE INSTALLATION OF ANY OF THE PERMANENT STORMWATER MANAGEMENT PRACTICES, THEN OTHER TREATMENT SUCH AS GRASSED SWALES, SMALLER PONDS, OR GRIT CHAMBERS IS REQUIRED PRIOR TO DISCHARGE TO SURFACE WATERS. DESCRIBE WHAT OTHER TREATMENT WILL BE PROVIDED.
N/A
3. DESCRIBE EROSION AND SEDIMENT CONTROLS FOR EXPOSED SOIL AREAS WITH A CONTINUOUS POSITIVE SLOPE TO A SPECIAL WATERS, AND TEMPORARY SEDIMENT BASINS FOR AREAS THAT DRAIN FIVE OR MORE ACRES DISTURBED AT ONE TIME.
N/A
4. DESCRIBE THE UNDISTURBED BUFFER ZONE TO BE USED (NOT LESS THAN 100 LINEAR FEET FROM THE SPECIAL WATER).
N/A
5. DESCRIBE HOW THE PERMANENT STORMWATER MANAGEMENT SYSTEM WILL ENSURE THAT THE PRE AND POST PROJECT RUNOFF RATE AND VOLUME FROM THE 1, AND 2-YEAR 24-HOUR PRECIPITATION EVENTS REMAINS THE SAME.
N/A
6. DESCRIBE HOW THE PERMANENT STORMWATER MANAGEMENT SYSTEM WILL MINIMIZE ANY INCREASE IN THE TEMPERATURE OF TROUT STREAM RECEIVING WATERS RESULTING IN THE 1, AND 2-YEAR 24-HOUR PRECIPITATION EVENTS.
N/A
7. **WETLANDS.** DOES YOUR PROJECT DISCHARGE STORMWATER WITH THE POTENTIAL FOR SIGNIFICANT ADVERSE IMPACTS TO A WETLAND (E.G., CONVERSION OF A NATURAL WETLAND TO A STORMWATER POND)? YES OR NO
IF YES, DESCRIBE THE WETLAND MITIGATION SEQUENCE THAT WILL BE FOLLOWED IN ACCORDANCE WITH PART D OF APPENDIX A.
N/A

INSPECTIONS AND MAINTENANCE (IV.E)
DESCRIBE PROCEDURES TO ROUTINELY INSPECT THE CONSTRUCTION SITE:
- ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND
- WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS, AND WITHIN (7) DAYS AFTER THAT

INSPECTIONS MUST INCLUDE STABILIZED AREAS, EROSION PREVENTION,AND SEDIMENT CONTROL BMP'S AND INFILTRATION AREAS.
INSPECTOR WILL FOLLOW REQUIREMENTS SPECIFIED ABOVE AND FILL OUT "ATTACHMENT B - CONSTRUCTION STORMWATER INSPECTION CHECKLIST"
1. Describe practices for storage of building products with a potential to leach pollutants to minimize exposure to stormwater:
ALL BUILDING PRODUCTS WILL BE SEALED AND STORED IN A MANNER TO MINIMIZE EXPOSURE
2. Describe practices for storage of pesticides, herbicides, insecticides, fertilizers, treatment chemical, and landscape materials:
ALL LANDSCAPE TREATMENT CHEMICALS WILL BE SEALED AND STORED IN A MANNER TO MINIMIZED EXPOSURE
3. Describe practices for storage and disposal of hazardous materials or toxic waste (e.g., oil, fuel, hydraulic fluids, paint solvents, petroleum-based products, wood preservative, additives, curing compounds, and acids) according to Minn. R. ch. 7045, including restricted access and secondary containment:
ALL HAZARDOUS WASTE WILL BE APPROPRIATELY DISPOSED OF OFF SITE ACCORDING TO LOCAL AND STATE LAWS.
4. Describe collection, storage and disposal of solid waste in compliance with Minn. R. ch. 7035:
ALL CONSTRUCTION DEBRIS AND SOLID WASTER WILL BE APPROPRIATELY DISPOSED OF OFF SITE ACCORDING TO LOCAL AND STATE LAWS
5. Describe management of portable toilets to prevent tipping and disposal of sanitary wastes in accordance with Minn. R. ch. 7040:
SANITARY AND SEPTIC SERVICES WILL BE PROVIDED TO WORKERS WITH PORTABLE FACILITIES MAINTAINED AS NEEDED BY THE PROVIDER.
6. Describe spill prevention and response for fueling and equipment or vehicle maintenance:
EMPLOYEES WILL BE TRAINED IN TECHNIQUES DESIGNED TO MINIMIZE SPILLS. VEHICLES AND EQUIPMENT SHALL BE CHECKED FOR LEAKS.
7. Describe containment and disposal of vehicle and equipment wash water and prohibiting engine degreasing on the site:
ALL CONSTRUCTION VEHICLES SHALL BE WASHED OFF SITE
8. Describe storage and disposal of concrete and other washout wastes so that wastes do not contact the ground:
ALL CONCRETE WASHOUT SHALL OCCUR OFF SITE.

FINAL STABILIZATION (IV.G)
1. DESCRIBE METHOD OF FINAL STABILIZATION (PERMANENT COVER) OF ALL DISTURBED AREAS:
FINAL STABILIZATION WILL BE ACCOMPLISHED WITH PAVEMENT, SOD AND LANDSCAPE MATERIALS.
2. DESCRIBE PROCEDURES FOR COMPLETING FINAL STABILIZATION AND TERMINATING PERMIT COVERAGE (SEE PART IV.G.1-5):
UPON STABILIZATION DESCRIBED ABOVE, THE CONTRCTOR AND OWNER SHALL MUTUALLY TRANSFER THE NPDES PERMIT TO THE NEXT OWNER WITH DOCUMENTS DESCRIBING THE NATURE OF TERMINATION PROCEDURE.
DOCUMENTATION OF INFEASIBILITY: (IF APPLICABLE)

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Civil Engineering • Surveying • Landscape Architecture
4931 W. 35th Street, Suite 200
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Lazydays RV THE RV AUTHORITY

PROJECT
LAZYDAYS OF MINNEAPOLIS
RIVERDALE DRIVE NW., RAMSEY, MN

LAZYDAYS OF MINNEAPOLIS
8390 HIGHWAY 10 NW, ANOKA, MN 55303

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.
Matthew R. Pavek
DATE 07/09/18 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
07/09/18	CITY SUBMITTAL

REVISION SUMMARY

DATE	DESCRIPTION

PROJECT NUMBER: 18213

SWPPP - ATTACHMENTS

SW1.4

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ATTACHMENT B: SWPPP INSPECTION FORM

NOTE: THIS INSPECTION REPORT DOES NOT ADDRESS ALL ASPECTS OF THE NATIONAL APOLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM (NPDES/SDS) CONSTRUCTION STORMWATER PERMIT ISSUED ON AUGUST 1, 2013. THE COMPLETION OF THIS CHECKLIST DOES NOT GUARANTEE THAT ALL PERMIT REQUIREMENTS ARE IN COMPLIANCE; IT IS THE RESPONSIBILITY OF THE PERMITTEE(S) TO READ AND UNDERSTAND THE PERMIT REQUIREMENTS.

FACILITY INFORMATION
SITE NAME:
FACILITY ADDRESS: PERMIT NUMBER:
CITY: STATE: ZIP CODE:

INSPECTION INFORMATION
INSPECTOR NAME: _____ PHONE NUMBER: _____
DATE (MM/DD/YYYY): _____ TIME: _____ AM / PM
IS THE INSPECTOR CERTIFIED IN SEDIMENT AND EROSION CONTROL AND IS IT DOCUMENTED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP)?
IS THIS INSPECTION ROUTINE OR IN RESPONSE TO A STORM EVENT:
RAINFALL AMOUNT (IF APPLICABLE): _____
IS THE SITE WITHIN ONE AERIAL MILE OF A SPECIAL OR IMPARED WATER?
IF YES, FOLLOW APPENDIX A AND OTHER APPLICABLE PERMIT REQUIREMENTS

NOTE: IF N/A IS SELECTED AT ANY TIME, SPECIFY WHY IN THE COMMENT AREA FOR THAT SECTION.

EROSION CONTROL REQUIREMENT (PART IV.B)

	Y	N	N/A
1. SOIL STABILIZATION WHERE NO CONSTRUCTION ACTIVITY FOR 14 DAYS? (7 DAYS WHERE APPLICABLE)	☐	☐	☐
2. HAS THE NEED TO DISTURB STEEP SLOPES BEEN MINIMIZED?	☐	☐	☐
3. ALL DITCHES STABILIZED 200; BACK FROM POINT OF DISCHARGE WITHIN 24 HOURS? (NOT MULCH)	☐	☐	☐
4. ARE THERE BMP'S FOR ONSITE STOCKPILES?	☐	☐	☐
5. ARE APPROPRIATE BMP'S INSTALLED PROTECTING INLETS/OUTLETS?	☐	☐	☐
6. DO PIPE OUTLETS HAVE ENERGY DISSIPATION?	☐	☐	☐

COMMENTS:

SEDIMENT CONTROL REQUIREMENT (PART IV.C)

	Y	N	N/A
1. PERIMETER CONTROL INSTALLED ON ALL DOWN GRADIENT PERIMETERS?	☐	☐	☐
2. PERIMETER CONTROL TRENCHED IN WHERE APPROPRIATE?	☐	☐	☐
3. 50 FOOT NATURAL BUFFER MAINTAINED AROUND ALL SURFACE WATERS?	☐	☐	☐
3.1. IF NO, HAVE REDUNDANT SEDIMENT CONTROLS BEEN INSTALLED?	☐	☐	☐
4. INLET PROTECTION ON ALL CATCH BASINS AND CULVERT INLETS?	☐	☐	☐
5. VEHICLE TRACKING BEST MANAGEMENT PRACTICES (BMP'S) AT ALL SITE EXITS?	☐	☐	☐
6. ALL TRACKED SEDIMENT REMOVED WITHIN 24 HOURS?	☐	☐	☐
7. ARE ALL INFILTRATION SYSTEMS STAKED AND MARKED TO AVOID COMPACTION?	☐	☐	☐
8. ARE ALL INFILTRATION AREAS PROTECTED WITH A PRETREATMENT DEVICE?	☐	☐	☐
9. DO ALL STOCKPILES HAVE PERIMETER CONTROLS?	☐	☐	☐

COMMENTS:

MAINTENANCE-EROSION AND SEDIMENT CONTROL BMP'S (PART IV.E.)

	Y	N	N/A
1. ARE ALL PREVIOUSLY STABILIZED AREAS MAINTAINING 90% GROUND COVER?	☐	☐	☐
2. ANY DITCH EROSION OBSERVED?	☐	☐	☐
3. PERIMETER CONTROL: HAS SEDIMENT REACHED ONE HALF THE HEIGHT OF THE DEVICE?	☐	☐	☐
4. ARE INLET PROTECTION DEVICES MAINTAINED AND FUNCTIONING PROPERLY?	☐	☐	☐

COMMENTS:

OTHER

	Y	N	N/A
1. ARE ALL MATERIALS THAT CAN LEACH POLLUTANTS UNDER COVER?	☐	☐	☐
2. HAS ACCESS BEEN RESTRICTED TO ONSITE HAZARDOUS MATERIALS?	☐	☐	☐
3. DOES ON-SITE FUELING ONLY OCCUR IN A CONTAINED AREA?	☐	☐	☐
4. ARE ALL SOLID WASTES BEING PROPERLY DISPOSED OF?	☐	☐	☐
5. IS THE CONCRETE WASHOUT AREA COMPLETELY CONTAINED?	☐	☐	☐
6. IS THE CONCRETE WASHOUT AREA MARKED WITH SIGN?	☐	☐	☐

COMMENTS:

	Y	N	N/A
7. WERE ANY DISCHARGES SEEN DURING THIS INSPECTION, SEDIMENT, WATER, OR OTHERWISE?	☐	☐	☐

7.1. IF YES, STATE THE EXACT LOCATION OF ALL POINTS OF DISCHARGE. PHOTOGRAPH THE DISCHARGE AND DESCRIBE THE DISCHARGE (COLOR, ODOR, FOAM, OIL SHEEN, ETC). HOW WILL IT BE REMOVED? HOW DID THE DISCHARGE HAPPEN? HOW MUCH WAS DISCHARGED? HOW WILL IT BE STOPPED, AND HOW LONG WILL IT TAKE TO STOP? IS THE DISCHARGE GOING INTO AN ADJACENT SITE? WAS THE DISCHARGE A SEDIMENT DELTA? IF YES, WILL THE DELTA BE RECOVERED WITHIN 7 DAYS?

8. WILL A PERMANENT STORMWATER MANAGEMENT SYSTEM BE UTILIZED IN THIS PROJECT AS REQUIRED AND IN ACCORDANCE WITH PART III.D OF THE PERMIT? DESCRIBE:

	Y	N	N/A
9. IS ANY DEWATERING OCCURRING ON SITE?	☐	☐	☐

9.1. IF YES, WHERE? WHAT BMP IS BEING USED? HOW MUCH WATER IS BEING DEWATERED? IS THE WATER CLEAR? WHERE IS THE WATER BEING DISCHARGED TO?

	Y	N	N/A
10. IS A COPY OF THE SWPPP LOCATED ON THE CONSTRUCTION SITE?	☐	☐	☐
11. HAS THE SWPPP BEEN FOLLOWED AND IMPLEMENTED ON SITE?	☐	☐	☐
12. IS A SEDIMENTATION BASIN REQUIRED FOR THIS PROJECT AS SPECIFIED IN THE PERMIT?	☐	☐	☐
12.1. IF YES, ARE THEY MAINTAINED AS SPECIFIED IN THE PERMIT?	☐	☐	☐
13. IS THE TOPSOIL ON THIS PROJECT BEING PRESERVED?	☐	☐	☐

13.1. IF YES, EXPLAIN HOW THE TOP SOIL IS BEING PRESERVED. IF NO, EXPLAIN WHY IT WAS INFEASIBLE.

	Y	N	N/A
14. ARE ALL INFILTRATION SYSTEMS MARKED TO AVOID COMPACTION?	☐	☐	☐
14.1. DO ALL INFILTRATION AREAS HAVE PRETREATMENT DEVICES?	☐	☐	☐

15. DESCRIPTION OF AREAS OF NON-COMPLIANCE NOTED DURING THE INSPECTION, REQUIRED CORRECTIVE ACTIONS, AND RECOMMENDED DATE OF COMPLETION OF CORRECTIVE ACTIONS:

16. PROPOSED AMENDMENTS TO THE SWPPP:

17. POTENTIAL AREAS OF FUTURE CONCERN:

18. ADDITIONAL COMMENTS

DISCLOSURES:

- AFTER DISCOVERY, THE PERMIT REQUIRES MANY OF THE DEFICIENCIES THAT MAY BE FOUND IN THIS CHECKLIST BE CORRECTED WITHIN A SPECIFIED PERIOD OF TIME. SEE PERMIT FOR MORE DETAILS.
- THIS INSPECTION CHECKLIST IS AN OPTION FOR SMALL CONSTRUCTION SITES. LARGE CONSTRUCTION SITES AND LINEAR PROJECTS REQUIRE MORE EXTENSIVE/MORE LOCATION SPECIFIC INSPECTION REQUIREMENTS.
- THE PERMITTEE(S) IS/ARE RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT BMP'S AS WELL AS EROSION PREVENTION AND SEDIMENT CONTROL BMP'S UNTIL ANOTHER PERMITTEE HAS OBTAINED COVERAGE UNDER THIS PERMIT ACCORDING TO PART II.B.5., OR THE PROJECT HAS UNDERGONE FINAL STABILIZATION AND A NOTICE OF TERMINATION HAS BEEN SUBMITTED TO THE MPCA.

ATTACHMENT C: MAINTENANCE PLAN FOR PERMANENT STORM WATER TREATMENT SYSTEM

ATTACHMENT C - ABOVE-GROUND
FACILITY MANAGEMENT SCHEDULE

1. ALL STORMWATER RETENTION, DETENTION AND TREATMENT BASINS MUST BE INSPECTED AT LEAST ONCE A YEAR TO DETERMINE THAT BASIN RETENTION AND TREATMENT CHARACTERISTICS ARE ADEQUATE. A STORAGE TREATMENT BASIN WILL BE CONSIDERED INADEQUATE IF SEDIMENT HAS DECREASED THE WET STORAGE VOLUME BY 50 PERCENT OR DRY STORAGE VOLUME BY 25 PERCENT OF ITS ORIGINAL DESIGN VOLUME. BASED ON THIS INSPECTION, IF A STORMWATER BASIN REQUIRES SEDIMENT CLEANOUT, THE BASIN WILL BE RESTORED TO ITS ORIGINAL DESIGN CONTOURS AND VEGETATED STATE WITHIN ONE YEAR OF THE INSPECTION DATE.
2. ALL OUTLET STRUCTURES, CULVERTS, OUTFALL STRUCTURES AND OTHER STORMWATER FACILITIES FOR WHICH MAINTENANCE REQUIREMENTS ARE NOT OTHERWISE SPECIFIED HEREIN MUST BE INSPECTED IN THE SPRING, SUMMER AND FALL OF EACH YEAR. WITHIN 30 DAYS OF THE INSPECTION DATE, ALL ACCUMULATED SEDIMENT AND DEBRIS MUST BE REMOVED SUCH THAT EACH STORMWATER FACILITY OPERATES AS DESIGNED AND PERMITTED. CONTRIBUTING DRAINAGE AREAS MUST BE KEPT CLEAR OF LITTER AND VEGETATIVE DEBRIS. INFLOW PIPES AND OVERFLOW SPILLWAYS KEPT CLEAR, INLET AREAS KEPT CLEAN, AND UNDESIRABLE VEGETATION REMOVED. EROSION IMPAIRING THE FUNCTION OR INTEGRITY OF THE FACILITIES, IF ANY, WILL BE CORRECTED, AND ANY STRUCTURAL DAMAGE IMPAIRING OR THREATENING TO IMPAIR THE FUNCTION OF THE FACILITIES MUST BE REPAIRED.
3. VOLUME CONTROL FACILITIES AND CONTRIBUTING DRAINAGE AREAS MUST BE INSPECTED EVERY THREE MONTHS DURING THE OPERATIONAL PERIOD (BETWEEN SPRING SNOWMELT AND FIRST SUBSTANTIAL SNOWFALL) AND MONITORED AFTER RAINFALL EVENTS OF 1 INCH OR MORE TO ENSURE THAT THE CONTRIBUTING DRAINAGE AREA IS CLEAR OF LITTER AND DEBRIS, INFLOW PIPES AND OVERFLOW SPILLWAYS ARE CLEAR, INLET AREAS ARE CLEAN, UNDESIRABLE VEGETATION IS REMOVED AND THERE IS NO EROSION IMPAIRING OR THREATENING TO IMPAIR THE FUNCTION OF A FACILITY. IF SEDIMENT HAS ACCUMULATED IN A INFILTRATION FEATURE, WITHIN 30 DAYS OF INSPECTION DEPOSITED SEDIMENTS MUST BE REMOVED, THE INFILTRATION CAPACITY OF THE UNDERLYING SOILS MUST BE RESTORED, AND ANY SURFACE DISTURBANCE MUST BE STABILIZED. INSPECTION MUST ENSURE THAT SEDIMENT TRAPS AND FOREBAYS ARE TRAPPING SEDIMENT AND THAT MORE THAN 50 PERCENT OF THE STORAGE VOLUME REMAINS, THE CONTRIBUTING DRAINAGE AREA IS STABLE (I.E., NO EROSION IS OBSERVED), AND INLETS AND OUTLET/OVERFLOW SPILLWAYS ARE IN GOOD CONDITIONS WITH NO EROSION. MAINTENANCE TECHNIQUES USED MUST PROTECT THE INFILTRATION CAPACITY OF THE PRACTICE BY LIMITING SOIL COMPACTION TO THE GREATEST EXTENT POSSIBLE (E.G., BY USING LOW-IMPACT EARTH-MOVING EQUIPMENT).

CivilSite GROUP
Civil Engineering • Surveying • Landscape Architecture
4931 W. 35th Street, Suite 200
St. Louis Park, MN 55416
civilsitegroup.com 612-615-0060

Lazydays RV THE RV AUTHORITY

PROJECT
LAZYDAYS OF MINNEAPOLIS
RIVERDALE DRIVE NW., RAMSEY, MN

LAZYDAYS OF MINNEAPOLIS
8390 HIGHWAY 10 NW, ANOKA, MN 55303

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.
Matthew R. Pavek
DATE 07/09/18 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
07/09/18	CITY SUBMITTAL

REVISION SUMMARY

DATE	DESCRIPTION

PROJECT NUMBER: 18213

SWPPP - ATTACHMENTS

SW1.5

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CivilSite GROUP
4931 W. 35TH ST. SUITE 200
ST. LOUIS PARK, MN 55416
CivilSiteGroup.com
Matt Pavek 763-213-3944
Pat Sarver 952-250-2003

PROJECT
Lazydays of Minneapolis
Ramsey, Anoka County, Minnesota

CLIENT
RJ Ryan Construction
1100 Mendota Heights Road - Mendota Heights, MN

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 LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA.

RORY LI-SYNSTELIEN
DATE 07/09/2018 LICENSE NO. 44565

VICINITY MAP



REVISION SUMMARY

DATE	DESCRIPTION

PROJECT NO.: 16213

BOUNDARY/ TOPOGRAPHIC SURVEY

V1.0

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DESCRIPTION OF PROPERTY SURVEYED

Outlot A, ALPACA ESTATES 4TH ADDITION, according to the recorded plat thereof, Anoka County, Minnesota

EXECPT

Parcel 22, ANOKA COUNTY HIGHWAY RIGHT-OF-WAY PLAT NO. 90.

General Survey Notes

1. Bearings are based on the Anoka County Coordinate System (1996 Adjustment).

2. Site Address: Unassigned.

3. This property is contained in Zone X (area determined to be outside the 0.2% annual chance floodplain) per Flood Insurance Rate Map, Community Panel No. 27003C0280E, effective date of December 16, 2015.

4. The Gross land area is 408,916 +/- square feet or 9.387 +/- acres.

5. We have shown the location of utilities to the best of our ability based on observed evidence together with evidence from the following sources: plans obtained from utility companies, plans provided by client, markings by utility companies and other appropriate sources. We have used this information to develop a view of the underground utilities for this site. However, lacking excavation, the exact location of underground features cannot be accurately, completely and reliably depicted. Where additional or more detailed information is required, the client is advised that excavation may be necessary. Also, please note that seasonal conditions may inhibit our ability to visibly observe all the utilities located on the subject property.

6. The names of the adjoining owners of the platted lands, as shown hereon, are based on information obtained from Anoka County Online Property Map.

N

40 20 0 20 40 80
SCALE IN FEET

Linetype & Symbol Legend

- FIBER OPTIC
- GASMAIN
- WATERMAIN
- SANITARY SEWER
- STORM SEWER
- OVERHEAD UTILITIES
- TELEPHONE LINE
- ELECTRIC LINE
- CABLE LINE
- CHAINLINK FENCELINE
- CONCRETE SURFACE
- PAVER SURFACE
- BITUMINOUS SURFACE
- GRAVEL SURFACE
- SIGN
- UTILITY MANHOLE
- SANITARY MANHOLE
- STORM MANHOLE
- CATCH BASIN
- TELEPHONE BOX
- TELEPHONE MANHOLE
- ELECTRIC TRANSFORMER
- TRAFFIC SIGNAL
- CABLE TV BOX
- ELECTRICAL METER
- GAS METER
- FOUND IRON MONUMENT
- SET IRON MONUMENT
- CAST IRON MONUMENT
- AIR CONDITIONER
- BOLLARD
- ELECTRIC MANHOLE
- FLAG POLE
- FLARED END SECTION
- GAS VALVE
- HANDICAP SYMBOL
- HYDRANT
- WATER MANHOLE
- WATER VALVE
- POWER POLE
- GUY WIRE
- CONIFEROUS TREE
- DECIDUOUS TREE

CUP Request Memorandum

TO: Planning Commission Board Members
City of Ramsey, MN

FROM: Matt Pavek, PE
Civil Site Group

DATE: 07/09/18

RE: LazyDays RV Expansion

Dear Board Members,

Below is a summary of the CUP request by LazyDays RV for the expansion of an existing facility along Highway 10. As a consultant to the applicant, feel free to contact me with any questions.

Matt Pavek, PE
Civil Site Group
mpavek@civilsitegroup.com
763-213-3944

Lazydays RV (Lazydays) operates Recreation Vehicle ("RV") dealerships and has a comprehensive portfolio of products and services for RV owners and outdoor enthusiasts. We provide RV owners and outdoor enthusiasts a full spectrum of products: RV sales, RV-repair and services, financing products, protection plans, after-market parts and accessories, RV rentals and RV camping. We provide these offerings through our Lazydays branded dealerships. Lazydays is known nationally as the RV Authority.

Currently, Lazydays operates the world's largest dealership located on 126 acres outside Tampa, FL and dealerships in Tucson, AZ and Loveland, Denver and Longmont, CO. Lazydays has the largest selection of RV brands in the nation featuring more than 2,500 new and pre-owned RVs. The Company has over 300 service bays and has RV parts and accessories stores at all locations. Lazydays also has RV rental fleets in all three markets. Lazydays welcomes over 500,000 visitors to our dealership locations annually and employs over 700 people at the five facilities. Our dealership locations are staffed with knowledgeable local team members, providing customers access to extensive RV expertise. Our dealership locations are strategically located in key RV markets.

Lazydays has announced it intention to acquire Shorewood RV Center located in Anoka, Minnesota. The acquisition of Shorewood RV Center fits well with Lazydays' geographic expansion strategy. With the finalization of the acquisition, the Shorewood dealership will be rebranded as Lazydays RV, and Lazydays will then operate six dealerships located in Florida, Colorado, Arizona and Minnesota.

As part of this acquisition, Lazydays will expand the service center from 10 bays (current capacity) to 30 bays. The expansion will be constructed on the parcel of land directly south of the existing dealership. It will consist of 20 service bays, customer service and waiting area, part warehousing, receiving dock and additional office space. We expect the zoning on the expansion to be similar to the current dealership (legal, non-conforming B-2 Business District). With the growth of the RV industry and Lazydays position as a market leader, this expansion fits well with our overall growth strategy.

City of RAMSEY

7550 Sunwood Drive NW • Ramsey, MN 55303
City Hall: 763.427.1410 • Fax: 763.427.5543
www.cityoframsey.com

July 23, 2018

Lazydays, RV
Attn: Srinivas Kuchipudi
6130 Lazydays Blvd
Seffner, FL 33584

Re: Lazydays RV Preliminary Plat/ Final Plat/Site Plan Review and Conditional Use Permit Application

Dear Mr. Kuchipudi:

In accordance with Minnesota Statute 15.99, this letter shall serve as official notification that the City has reviewed your application for the Preliminary Plat/ Final Plat/Site Plan Review and Conditional Use Permit Application submitted on July 9, 2018 and has determined that said **application is incomplete.**

Staff is deeming your application incomplete as the City's Ordinance requires that the Preliminary Plat application include a utility plan in accordance with City Code Article 3 Subdivisions, Division 2 Plat Approval Procedures, Section 117-588 Major Plat (5)

Please provide staff the additional information:

- Utility Plan.

The City will begin the 60-day review time frame established by State Statute for the Preliminary Plat application once all required documents required by ordinance have been submitted. It is staff's intention to continue reviewing the submitted documents with the understanding that the application will not be complete until it is determined that the connection to city sewer and water is to be made or if a private septic and well system is found to be acceptable via a variance by the City Council. City Staff is continuing to determine the best solution to address water and sewer access at the site and will continue to work with you and the City Council.

If you have any questions or need additional information, please don't hesitate to call me at 763-576-4314. Thank you for your cooperation in this process.

Respectfully,

PeggySue Imihy
Planning Intern
pimihy@cityoframsey.com

ProjectDox

Changemarks Report

Project Name: 17-126 Lazy Days RV

Workflow Started: 07/03/2018 8:11 AM

Report Generated: 07/25/2018 09:43 AM

Cycle	Complete?	Status	Department	Snapshot	File	Markup Name	Changemark Subject	Changemark Details	Markup Date	Updated By	Applicant Response
1	False	Unresolved	Planning		LAZYDAYS OF MINNEAPOLIS - L1.0.pdf	CA	Irrigation System	Update notes to specify that a rain sensor is required AND one or more water efficient technologies must be incorporated into the system, such as smart controller, soil moisture sensor, and/or evapotranspiration sensor.	07/13/2018 8:58 AM	Chris Anderson	
1	False	Unresolved	Planning		LAZYDAYS OF MINNEAPOLIS - L1.0.pdf	CA	Calculation Incorrect	This calculation shows 2147/500 to get 4 trees, it should be 2147/50 = 43 trees.	07/13/2018 8:58 AM	Chris Anderson	
1	False	Unresolved	Planning		LAZYDAYS OF MINNEAPOLIS - L1.0.pdf	CA	Shrub Calculation	This should be 1 shrub per 30 lineal feet of site perimeter; 2147/30 = 72 shrubs or 1 shrub per 1000 sq. ft. of building footprint, whichever is greater. This would require 99 shrubs.	07/13/2018 8:58 AM	Chris Anderson	
1	False	Unresolved	Planning		LAZYDAYS OF MINNEAPOLIS - L1.0.pdf	CA	Parking Lot Trees	Code requires 1 tree per every 10 parking stalls, there are 99 proposed stalls, which requires an additional 10 trees.	07/13/2018 8:58 AM	Chris Anderson	
1	False	Unresolved	Planning		LAZYDAYS OF MINNEAPOLIS - L1.0.pdf	CA	Wire Basket	Update note to also specify that the top 1/3 to 1/2 of the wire basket shall also be removed.	07/13/2018 8:58 AM	Chris Anderson	

ProjectDox

Changemarks Report

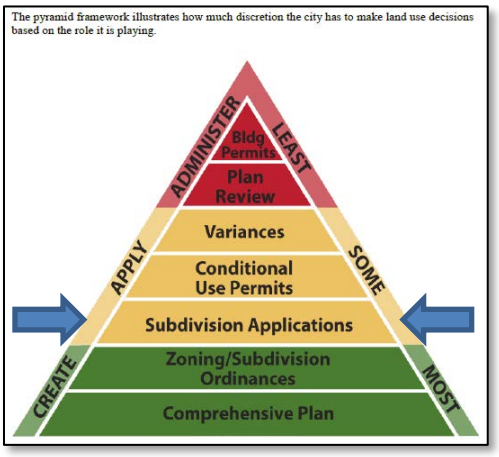
1	False	Unresolved	Planning		LAZYDAYS OF MINNEAPOLIS - L1.0.pdf	CA	Topsoil	All areas disturbed during construction and not improved with buildings or impervious surfacing shall receive 4 inches of topsoil meeting the City's specifications. Load tickets shall be provided to the City and the topsoil inspection shall occur prior to installation of plantings and sod.	07/13/2018 8:58 AM	Chris Anderson	
1	False	Unresolved	Engineering Tech		LAZYDAYS OF MINNEAPOLIS - C5.0.pdf	JJF	Details	Iclude detail for drive entrance. If proposing concrete sidewalk in City ROW must be min. 6" thick. Pedestrian Ramps within City ROW require individual site specific detail. Use City Storm Manhole Detail - existing storm manhole being adjusted.	07/12/2018 3:27 PM	Joe Feriancek	
1	False	Unresolved	Engineering Tech		18213_FinalPlat_07092018.pdf	JJF	D&U Easements	All lots shall have a minimum of a ten-foot drainage and utility easement adjacent to all road right-of-way and unplatted areas	07/12/2018 2:57 PM	Joe Feriancek	
1	False	Unresolved	Civil Engineer		00 - CSG RJ RYAN-RAMSEY RV STORMWATER REPORT - 07-09-18.pdf	LL	Report incomplete	Must include printouts for existing and proposed conditions for 2, 10 and 100 year events (Hydrocad or similar model)	07/10/2018 12:09 PM	Len Linton	
1	False	Unresolved	Civil Engineer		00 - CSG RJ RYAN-RAMSEY RV STORMWATER REPORT - 07-09-18.pdf	LL	Add existing information	MNDOT is using part of the infiltration capacity of the pond for the Interchange. This must be reflected in the calculations.	07/10/2018 12:09 PM	Len Linton	

CITY OF RAMSEY LAND USE APPLICATION
TECHNICAL REVIEW FILE

DATE	JULY 25, 2018	**PROJECT ADDRESS**	8390 HIGHWAY 10 NW
PROJECT. TITLE	LAZYDAYS RV FINAL PLAT, PRELIMINARY PLAT, SITE PLAN REVIEW		
ESCROW #	116453		
DEPARTMENT:	Community Development: Planning Division (Zoning Code)		
TECHNICAL REVIEWER:	Name: PeggySue Imihy, Planning Intern Phone: 763-576-4314 Email: Pimihy@CityOfRamsey.com		

Preliminary and Final Plat Review

General. The purpose of this file is to review the official Preliminary Plat, Final Plat, and Site Plan applications made by LazyDays RV. The associated plans were prepared by CivilSite Group and are dated July 9, 2018. The applicant is requesting approval for one (1) commercial lot and one (1) outlot.



This case is being reviewed per City Code Section 117-115 entitled B-2 Highway Business District, and Chapter 117, Article III entitled Subdivisions.

Staff provides the following comments for general review of applications:

Land Use and Zoning. The Property is guided as Commercial in the Comprehensive Plan and is zoned B-2 Highway Business District. This district is intended to provide for and limit the establishment of motor vehicle oriented or dependent and convenience type, high intensity commercial and service activities characteristically located along major traffic carriers, sewer and water. The proposed use is not consistent with this land use guidance, however it is part of an expansion of an existing legal, non-conforming use.

Lot Dimensions. The minimum lot size in the B-2 Highway Business District is ½ acre. The minimum lot width is 100 feet, measured at the building setback line, and the minimum lot depth is 150 feet. The proposed lot meets the requirements.

Setbacks and Dimensional Standards.

B-2 Highway Business District	
Required	Proposed
Minimum Lot Width: 100 feet	~500 feet
Minimum Lot Depth: 150 feet	446 feet
Front Yard Setback: 35 feet	114 feet
Side Yard Setback : 10 feet	71 feet
Rear Yard Setback: 35 feet	184 feet
Required Buffer Zone (South): 40 feet	40 feet
Parking and Pavement from Street ROW: 20 feet	20 feet
Building Height: 35 feet	30 feet

Setback from Riverdale Drive: 60 feet (from centerline of ROW) plus applicable setback	157 feet

Landscaping. Please refer to the landscaping and streetscape improvements technical memo dated July 12th, 2018.

Streets and Access. The Preliminary and Final Plat show the creation of two new access points off of Riverdale Drive NW.

Development Fees: Development Fees will be due with the Plat including, but not limited to, Park Dedication, Trail Development, and Stormwater Management. These fees are collected at the time the Final Plat is recorded and at the rate in effect when the plat is recorded.

Development Agreement: An executed Development Agreement for the site improvements will be required prior to releasing the plat for recording. Staff will review the engineering estimates once submitted by the Applicant.

Site Plan Review

General. The purpose of this portion of the review is to assess the submitted site plan application for Lazydays RV. The associated plans were prepared by CivilSite Group and are dated July 9, 2018.

Surfacing: The Applicant is proposing a completely bituminous parking lot which is an acceptable material within the B-2 district.

Waste Storage: Elevations provided show the trash enclosure to have an exterior finish of manufactured stone and EIFS that would match the primary structure as is required by the Design Framework, and Ramsey City Code.

Fencing: The Applicant is not proposing any fencing at this time.

Lighting: The plan set provided by CivilSite Group shows two (8) lighting fixtures. City Code requires that lighting used to illuminate an off-street parking area be arranged to deflect light away from adjacent residential districts or public streets. The photometric plan indicates that no illumination will spread beyond the bounds of the site which is in compliance with City Code. The Applicant has provided shop drawings (shown to the left) of the proposed lighting fixtures which show that they are downcast in design and adhere to the City Code requirements for lighting fixture design.

Parking: City Code Section 117-356 addresses commercial development off-street parking requirements. That code indicates that for 90 degree parking stalls, that the stall widths be a minimum of 9 feet wide, that the stall depth be a minimum of 18 feet deep, and that the drive aisle between stalls be a minimum of 24 feet deep. The plans provided show parking stalls and drive aisles which adhere to those dimensional requirements. The City's Zoning Ordinance requires that for motor vehicle, implement, and recreation equipment service and repair facilities there must be three spaces for each enclosed bay and one space for each full time employee. The plan set shows 20 service bays and 97 parking spots and 2 handicapped parking spots. The Applicant plans to employ approximately 30 staff members. Staff believes this is an adequate amount of parking.

Sidewalks: Boulevards shall be six (6) feet in width and shall be clearly labeled on plan sheets. Sidewalks shall also be six (6) feet in width and be clearly labeled on plan sheets.

Landscaping: Please refer to the landscaping and streetscape improvements technical memo dated July 12th, 2018.

Utility Plan: The Applicant has provided a utility plan that is not complete as it does not provide detail regarding the proposed septic system. Given that the use of a septic system in this location would require a variance to City Code, the lack of a detailed utility plan has rendered this application incomplete. City Staff is supportive of approving the Preliminary Plat and Final Plat with the condition that the connection to City Sanitary Sewer and Water is made.

Hazardous Waste Disposal: The Applicant has not supplied detailed plans for how to address the disposal of hazardous waste which will be created from the service bays. If a private septic system is used, the Applicant must address how where hazardous waste will be stored as it cannot be put into the septic system. If the connection to City Sanitary Sewer and Water is made, the installation of a flammable waste trap can be used and waste from the service bays can be drained into the City Sanitary Sewer. The City Building Department believes this would be a compelling reason for the Subject Property to be connected to City Sanitary Sewer and Water.

Fire Suppression: The Applicant has not identified a Fire Suppression System for the proposed building on the Subject Property. The City Fire Department has reviewed the case and has noted that The Applicant will need to work with a Fire Protection Engineer to identify what type of Fire Suppression system would be needed as well at what sized tanks and fire pumps will be required. These tanks will need to be buried underground to prevent from freezing and cannot be paved or driven over, room for these tanks is not indicated on the Site Plan.

CITY OF RAMSEY LAND USE APPLICATION
TECHNICAL REVIEW FILE

DATE	JULY 12, 2018	**PROJECT ADDRESS**	TBD
PROJECT. TITLE	LAZY DAYS RV		
ESCROW #	116453		
DEPARTMENT:	Community Development: Planning Division (Landscape Plan & Environmental Resources)		
TECHNICAL REVIEWER:	Name: Chris Anderson, City Planner Phone: 763-433-9817 Email: canderson@cityoframsey.com		

The proposed project is on what is presently Outlot A, Alpaca Estates 4th Addition and includes a plat to create a buildable lot. The property is in the B-2 Highway Business District and the standards from City Code Section 117-115 are applicable. As this property is adjacent to land zoned R-1 Residential (MUSA) to the south, bufferyard plantings are also required (it appears that a combination of additional tree plantings and a six [6] foot tall cedar privacy fence are proposed to satisfy the bufferyard requirements).

We offer the following comments regarding the Landscape Plan, prepared by CivilSite Group and dated July 9, 2018:

Sheet L1:

- One tree per fifty (50) lineal feet of site perimeter or one tree per 1,000 square feet of building footprint, whichever is greater, is required. One tree for every ten (10) parking stalls is also required. This results in a total of fifty-three (53) trees required. However, the plantings must be increased by 25% because of the required bufferyard along the south lot line, thus, an additional thirteen (13) trees is required, bringing the total minimum required plantings to sixty-six (66) trees. A minimum of six (6) additional trees must be added to the Plant Schedule and should be conifers.
- One shrub per thirty (30) lineal feet of site perimeter or one shrub per 300 square feet of building footprint, whichever is greater, is required. The building footprint is 29,600, which requires ninety-nine (99) shrubs. The proposed number of shrubs greatly exceeds the minimum required and can be reduced if desired.
- At least twenty-five percent (25%) of the trees shall be coniferous. Update Planting Schedule to include a sufficient number conifers.
- Add Landscape Note specifying that all areas, including boulevards, not otherwise improved with impervious surfaces shall receive four (4) inches of topsoil meeting the City's topsoil specification. This includes boulevard areas between property boundaries and streets. Copies of the load tickets shall be provided to the City and a topsoil inspection shall be completed prior to installation of any landscaping.
- Update the Tree Planting Detail to specify that the top 1/3 to 1/2 of the wire basket shall also be removed.

- Add note stating that any deviation from the approved Final Plat Schedule shall require approval of the City prior to installation.

Councilmember _____ introduced the following resolution and moved for its adoption:

RESOLUTION #18-162

A RESOLUTION APPROVING THE ISSUANCE OF A CONDITIONAL USE PERMIT TO ALLOW MOTOR VEHICLE, IMPLEMENT, AND RECREATION EQUIPMENT SALES AND SERVICE; AND APPROVING A SITE PLAN AND FINAL PLAT ON THE PROPERTY GENERALLY KNOWN AS 8930 HIGHWAY 10 NW AND OUTLOT "A" DECLARING TERMS OF SAME

RECITALS

1. Lazydays Recreational Vehicles, hereinafter referred to as the "**Permittee**", has properly applied for a Conditional Use Permit to conduct motor vehicle, implement, and recreation equipment sales and service, and a site plan, preliminary plat, and final plat on the properties generally known as 8390 Highway 10 NW and Outlot "A" and legally described as follows:

   Lots 1, 2 and 3, Block 1; and Outlot A; ALPACA ESTATES 4TH ADDITION, Except Parcel 22, Anoka County Highway Right of Way Plat No. 90.

   (the "**Subject Property**")

2. That Sanco Properties LLC., is the owner of the **Subject Property**.

3. The City of Ramsey received an application for a Conditional Use Permit to conduct motor vehicle, implement, and recreation equipment sales and service, and a Site Plan, Preliminary Plat, and Final Plat for the **Subject Property** on July 9th, 2018.

4. That the **Subject Property** is located within the B-2 Business District as are the properties to the east, while the properties to the south are R-1 Residential MUSA, the properties to the west are R-2 Medium-Density Residential and the properties to the north are The COR. The lots are bisected by Riverdale Drive NW.

5. The **Subject Property** is 20.24 acres total. The parcel to be developed is 9.38 acres and is currently an outlot.

6. That the **Permittee** plans to increase the service bays on the Subject Property from 10 to 20.

7. That the **Permittee** plans to increase the number of employees by an additional 30 employees.

8. That the **Permittee** is proposing an approximately 29,600 square foot commercial building.

9. That the **Permittee** is proposing the commercial building be serviced by a private septic and sewer system.

10. That there is a lawful, non-conforming use of motor vehicle, implement, recreation equipment sales and service on the **Subject Property**.

11. That the **Permittee** is not proposing a new access point on to the **Subject Property** from Highway 10 NW. But is proposing a two new access points on to the **Subject Property** from Riverdale Drive NW.

12. That the proposed building on the **Subject Property** conforms to all applicable setbacks of the B-2 Business District

13. That the proposed use would not produce noise, vibrations, air pollution, fire hazard, or noxious emissions that will disturb or endanger neighboring properties.

FINDINGS OF FACT

1. That the motor vehicle, implement, recreation equipment sales and service will/will not be unduly dangerous or detrimental to persons residing or working in the vicinity of the use, or to the public welfare.

2. That the motor vehicle, implement, recreation equipment sales and service will/will not substantially adversely impair the use, enjoyment or market value of any of the surrounding properties.

3. That the motor vehicle, implement, recreation equipment sales and service will/will not be maintained so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and will not change the essential character of the area.

4. That the motor vehicle, implement, recreation equipment sales and service will/not not be hazardous to existing or future neighboring uses.

5. That the motor vehicle, implement, recreation equipment sales and service will/will not impact essential public facilities and services, such as highways, streets, police and fire protection.

6. That the motor vehicle, implement, recreation equipment sales and service will/will not create excessive additional requirements at public cost for public facilities and services and will not be detrimental to the economic welfare of the community.

7. That the motor vehicle, implement, recreation equipment sales and service will/will not involve uses, activities and equipment that will be detrimental to any persons, property, or

the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors.

NOW THEREFORE, BE IT RESOLVED BY THIS CITY COUNCIL OF THE CITY OF RAMSEY, ANOKA COUNTY, STATE OF MINNESOTA, as follows:

That the Ramsey City Council hereby grants approval of a Conditional Use Permit (the "**Permit**") and the Site Plan, Preliminary Plat, and Final Plat for motor vehicle, implement, recreation equipment sales and service and the construction of a new Building on the **Subject Property** contingent upon the following conditions:

CONDITIONS

1. That this **Permit** allows for motor vehicle, implement, recreation equipment sales and service on the **Subject Property**.

2. That the **Permittee** shall obtain all necessary permits, including a building permit and a zoning permit, prior to construction of the building on the **Subject Property**.

3. That the **Permittee** shall comply with all applicable local, state, and federal regulations.

4. That this **Permit** shall be perpetual in duration as long as the terms are herein complied with.

5. That the **Permittee** shall be responsible for all City costs incurred in administering and enforcing this **Permit**.

6. That the City Administrator, or his/her designee, shall have the right to inspect the premises for compliance and safety purposes annually or at any time, upon reasonable request.

7. That this **Permit** shall automatically expire if the use is not initiated by August XXth, 2019 and adoption of the Zoning Text Amendment by the Ramsey City Council and issuance of a Building Permit for the tenant improvements shall be considered as initiating the use.

8. That the **Subject Property** will be connected to City Sanitary Sewer and Water before a Certificate of Occupancy is issued.

9. That the Permittee shall forfeit any rights associated with the previous legal, non-conforming status of the **Subject Property.**

The motion for the adoption of the foregoing resolution was duly seconded by Councilmember _____, and upon vote being taken thereon, the following voted in favor thereof:

and the following voted against the same:

and the following abstained:

and the following were absent:

whereupon said resolution was declared duly passed and adopted by the Ramsey City Council this the XXth of August, 2018

PERMITTEE

Lazydays Recreation Vehicles hereby acknowledges receipt of this Permit and that they have reviewed the conditions of this Permit and have agreed that they will comply with the terms of this Permit.

By:_____ Its:_____

STATE OF MINNESOTA)
) SS.
COUNTY OF _____)

On this _____ day of _____, ____, before me, a Notary Public, personally appeared _____, Lazydays Recreation Vehicles, to me known to be the person described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

_____
Notary Public

PROPERTY OWNER

Sanco LLC., hereby acknowledges receipt of this Permit and that they have reviewed the conditions of this Permit and have agreed that they will comply with the terms of this Permit.

By:_____ Its:_____

STATE OF MINNESOTA)
) SS.
COUNTY OF _____)

On this _____ day of _____, ____, before me, a Notary Public, personally appeared Sanco LLC., to me known to be the person described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

_____
Notary Public

CITY OF RAMSEY:

By:_____ By:_____
Acting Mayor City Clerk

STATE OF MINNESOTA)
) ss.
COUNTY OF ANOKA)

On this _____ day of _____, ____, before me a Notary Public personally appeared John LeTourneau and Jo Ann M. Thieling, to me personally known, who, being each by me duly sworn, did say that they are respectively the Acting Mayor and City Clerk of the City of Ramsey, the Municipal Corporation named in the foregoing instrument, and seal affixed to said instrument is the corporate seal of said Municipal corporation, and the said instrument was signed and sealed on behalf of said Municipal Corporation by authority of its City Council, and said John LeTourneau and Jo Ann M. Thieling acknowledge said instrument to be the free act and deed of said Municipal Corporation.

_____
Notary Public

This document drafted by:
City of Ramsey
7550 Sunwood Dr NW
Ramsey, MN 55303

This document reviewed by:
Ratwik, Roszak & Maloney
730 Second Ave. S., Suite 300
Minneapolis, MN 55402

Regular Planning Commission **6. 1.**

Meeting Date: 08/02/2018

By: Chloe McGuire Brigl, Community Development

Information

Title:

Review Site Plan Review for Sterling Trophy, 6710 Highway 10; Project 18-125

Purpose/Background:

The purpose of this case is to review the Site Plan application made by Sterling Trophy for a new commercial building located at 6710 Highway 10. The city-owned property is approximately 1. 23 acres and currently vacant. The City is working with the applicant to sell the property. The development would be a 4,048 square foot commercial building to allow for trophy sales, engraving and assembly.

Sterling Trophy currently operates in Anoka and is looking to move to the City of Ramsey.

Notification:

No notification is required for a site plan.

Observations/Alternatives:

Zoning and Land Use

The property is zoned B-2 Business District and guided for future commercial use. The applicant is proposing a retail location with engraving and light assembly of trophies onsite. Retail is an allowed use in this district.

Setbacks

The proposal meets the setback requirements.

Storage

There is no proposed outdoor storage onsite. All storage will be inside.

Parking and Traffic

The applicant is proposing 12 parking stalls, which meets the requirements from the City for this use. The City requires a minimum parking stall width of 9 feet; three stalls currently do not meet the width requirement, including the handicapped accessible stall.

Materials and Architecture

The proposed building is a one-story building with a mix of brick, rockface block, prefinished metal, and aluminium frames. Brick and rockface block are allowed materials in this district, but metal is not an outright permitted material. The Planning Commission and City Council may allow these materials in this district. The City Council has directed staff to aim for high quality, excellent design along Highway 10. Staff believes that the metal accents should meet the requirements of the City Council for great design.

Environmental Policy Board

The EPB recommended approval of the landscape plan contingent upon compliance with the Staff Review Letter and requested the applicant consider or explore options for the southern portion of the property, including the possibility of establishment of a native landscape.

Funding Source:

The applicant is responsible for all costs associated with review.

Recommendation:

Staff recommends approval of Resolution #18-156 for the Site Plan of Sterling Trophy at 6710 Highway 10 NW.

Action:

Motion to recommend the City Council adopt Resolution #18-156 approving the Site Plan for Sterling Trophy at 6710 Highway 10 NW, subject to final review by the City Engineer.

Attachments

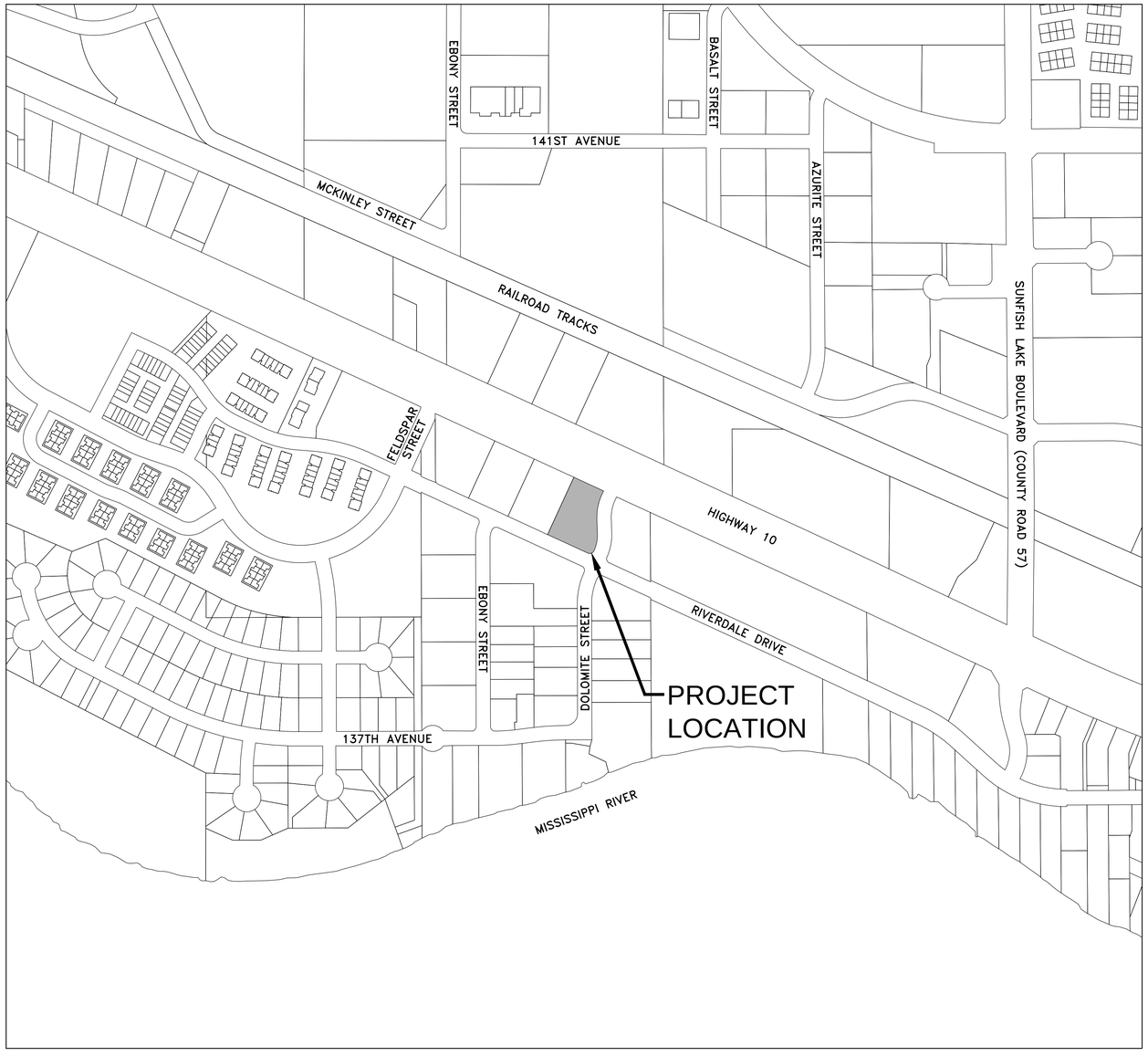
Plan Set
Planning Technical Review
Landscaping Review Memo
Draft Resolution 18-156

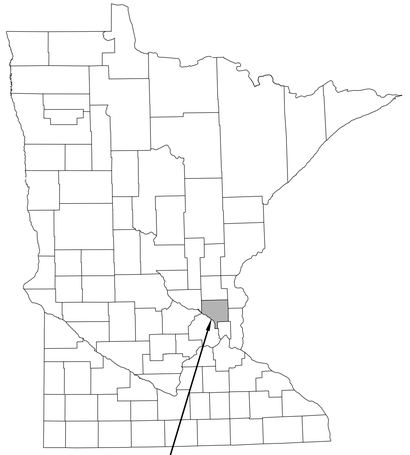
Form Review

Inbox	Reviewed By	Date
Chris Anderson	Chris Anderson	07/26/2018 04:16 PM
Tim Gladhill	Tim Gladhill	07/27/2018 07:49 AM
Form Started By: Chloe McGuire Brigl		Started On: 07/13/2018 10:53 AM
Final Approval Date: 07/27/2018		

STERLING TROPHY

CONSTRUCTION PLANS FOR SITE GRADING, SANITARY SEWER, WATERMAIN, STORM SEWER, CONCRETE CURB AND GUTTER, BITUMINOUS PAVING AND MISCELLANEOUS CONSTRUCTION FOR STONE CONSTRUCTION, INC IN THE CITY OF RAMSEY





CITY OF RAMSEY
ANOKA COUNTY,
MINNESOTA

CONTRACTOR

STONE CONSTRUCTION, INC
2181 107TH LANE NE
BLAINE, MN 55449
PAUL STONE
paul.s@stoneconstructioninc.com
763-784-1950

ENGINEER/SURVEYOR

HAKANSON ANDERSON
3601 THURSTON AVENUE
ANOKA, MN 55303
TIMOTHY A. EGGERICHS, P.E.
time@haa-inc.com
CHARLES R. CHRISTOPHERSON, P.L.S.
charlie@haa-inc.com
763-427-5860

GOVERNING SPECIFICATIONS

THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

THE 2013 EDITION OF THE CITY ENGINEER'S ASSOCIATION OF MINNESOTA "STANDARD SPECIFICATIONS" SHALL GOVERN FOR SANITARY SEWER AND WATERMAIN WORK.

ALL FEDERAL, STATE AND LOCAL LAWS, REGULATIONS, AND ORDINANCES SHALL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

SHEET INDEX

THIS PLAN CONTAINS 7 SHEETS

SHEET NO.	DESCRIPTION
C1	TITLE SHEET
C2	CONSTRUCTION NOTES AND DETAILS
C3	CITY STANDARD DETAILS
C4	EXISTING TOPOGRAPHY AND REMOVALS PLAN
C5	GRADING, DRAINAGE AND EROSION CONTROL PLAN
C6	UTILITY PLAN
C7	PAVING AND RESTORATION PLAN

Hakanson Anderson
Civil Engineers and Land Surveyors
3601 Thurston Ave., Anoka, Minnesota 55303
763-427-5860 FAX 763-427-0520

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

BENCHMARK:
TOP NUT HYDRANT IN THE NORTHWEST CORNER OF THE INTERSECTION OF RIVERDALE DRIVE AND DOLOMITE STREET.
ELEV=863.88 (NAVD 88)

N

250 0 250 500
SCALE IN FEET

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.

TIMOTHY A. EGGERICHS, P.E.
HAKANSON ANDERSON
DESIGN ENGINEER

43362 LIC. NO.

DATE 7/5/18

DATE	REVISION

SHEET C1 OF C7 SHEETS

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GENERAL CONSTRUCTION AND SOILS NOTES:

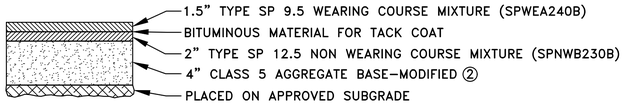
1. STRIP ALL INPLACE TOPSOIL IN AREAS TO BE DISTURBED BY CONSTRUCTION AND REUSE AS SLOPE DRESSING. IN AREAS OF PARKING LOT AND BUILDING CONSTRUCTION, THE EXPOSED SAND SHALL BE SURFACE COMPACTED TO AT LEAST 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY, ASTM D698, IN AT LEAST THE UPPER 3 FEET.
2. UNLESS OTHERWISE RECOMMENDED IN THESE PLANS, THE GRADING SUBGRADE SHALL BE CONSTRUCTED OF SUITABLE GRADING MATERIAL. THE FILL SHALL BE PLACED IN 8'' TO 10'' LOOSE LIFTS, AND COMPACTED TO 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
3. SUITABLE GRADING MATERIAL FOR THIS PROJECT SHALL CONSIST OF ALL SOILS ENCOUNTERED WITH THE EXCEPTION OF TOPSOIL, SILT, DEBRIS, ORGANIC MATERIAL AND OTHER UNSTABLE MATERIAL.
4. IF AVAILABLE, CONTRACTOR SHALL REVIEW GEOTECHNICAL EXPLORATION REPORTS FOR ADDITIONAL SITE PREPARATION REQUIREMENTS.
5. PROVIDE A SAW CUT WHEN PLACING NEW PAVEMENT ADJACENT TO INPLACE PAVEMENT AND AT TERMINI OF CONSTRUCTION TO ENSURE A UNIFORM JOINT.
6. BITUMINOUS AND CONCRETE ITEMS DISTURBED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH MN/DOT SPEC. 2104.
7. USE TACK COAT BETWEEN ALL BITUMINOUS MIXTURES. THE BITUMINOUS TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF 0.04 GAL/SY TO 0.06 GAL/SY BETWEEN BITUMINOUS LAYERS. THE APPLICATION RATES ARE FOR UNDILUTED EMULSIONS (AS SUPPLIED FROM THE REFINERY) OR MC AND RC LIQUID ASPHALTS.
8. PERFORMANCE GRADED (PG) ASPHALT BINDER PG 58S-28, SPEC. 3151, SHALL BE USED FOR ALL BITUMINOUS MIXES ON THIS PROJECT.
9. THE BITUMINOUS MIXTURES SHALL MEET THE REQUIREMENTS OF SPECIFICATIONS 2360 AND 3139.

GENERAL EROSION CONTROL NOTES:

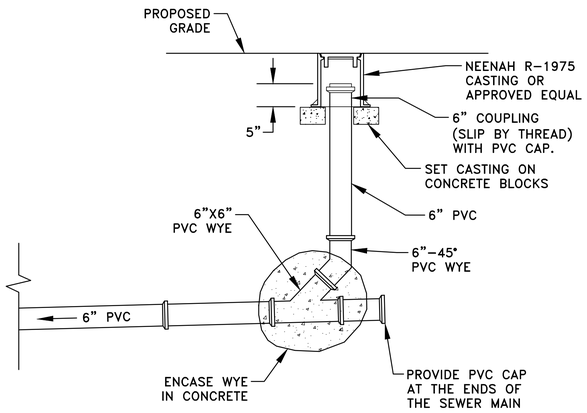
1. EROSION CONTROL SHALL CONFORM TO THE MN/DOT EROSION CONTROL HANDBOOK.
2. THE CONTRACTOR SHALL INSTALL EROSION AND SEDIMENT CONTROL FACILITIES (BMP'S) PRIOR TO GRADING AND REMOVAL ACTIVITIES. BMP'S SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION ACTIVITIES AND POTENTIAL FOR EROSION HAS PASSED.
3. THE CONTRACTOR SHALL SCHEDULE HIS OPERATION TO MINIMIZE THE AMOUNT OF DISTURBED AREA AT ANY GIVEN TIME.
4. BMP'S SHALL BE INSPECTED DAILY BY THE CONTRACTOR. OBSERVATIONS SHALL BE RECORDED IN THE INSPECTION LOG.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION.

REFERENCE NOTES:

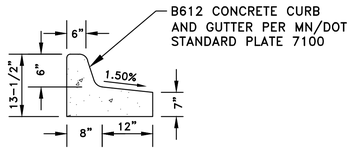
① PAVEMENT SECTION SHALL BE VERIFIED BY GEOTECHNICAL ENGINEER.
② MODIFIED CLASS 5 SPECIFICATION IS SHOWN ON CITY PLATE NO. STR-26.
③ RAIN GUARDIAN-BUNKER DESIGN AS MANUFACTURED BY THE ANOKA CONSERVATION DISTRICT. SEE THE ANOKA CONSERVATION DISTRICT WEBSITE FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.
④ CONTRACTOR SHALL PROTECT THE INFILTRATION BASIN WITH 48" HIGH ORANGE SAFETY FENCE PRIOR TO THE START OF CONSTRUCTION.
⑤ CONSTRUCTION EQUIPMENT SHALL BE MINIMIZED OVER THE FOOTPRINT OF THE BASIN. ONLY LOW PRESSURE, WIDE TRACKED EQUIPMENT SHALL BE USED FOR CONSTRUCTION.
⑥ SEE SHEET C7 FOR INFILTRATION BASIN RESTORATION REQUIREMENTS.



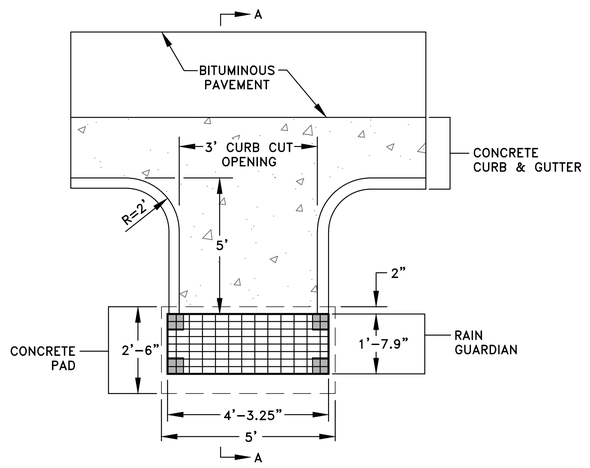
1/C2 BITUMINOUS PAVEMENT SECTION ①
NO SCALE



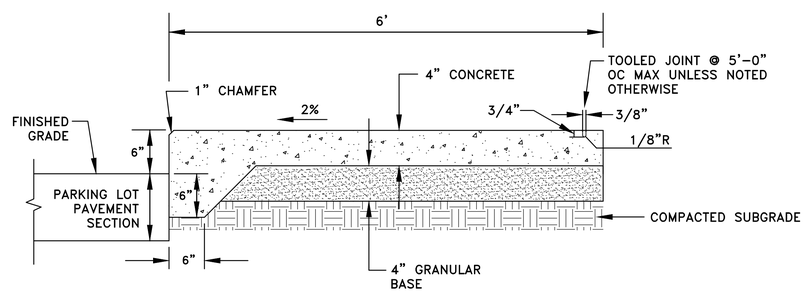
3/C2 SANITARY SEWER CLEANOUT
NO SCALE



2/C2 TIPOUT CURB DETAIL
NO SCALE

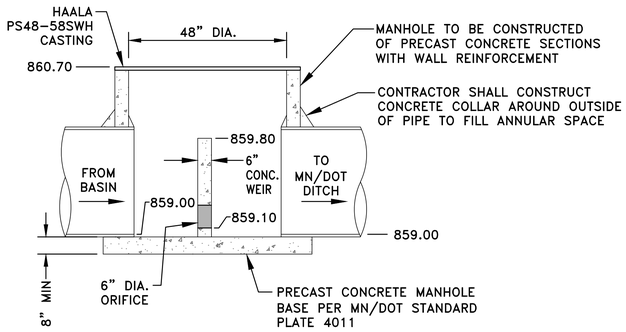


4/C2 RAIN GUARDIAN-BUNKER DETAILS ③

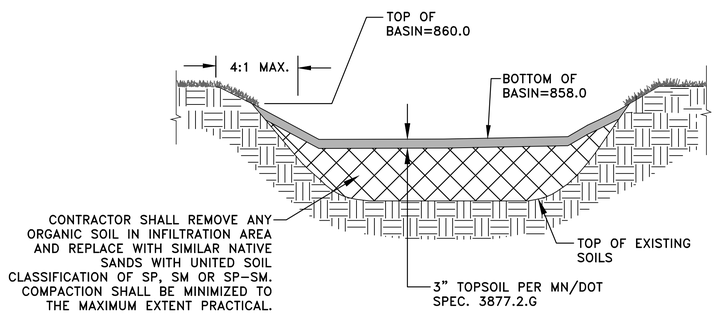


SIDEWALK NOTES:
1. PROVIDE EXPANSION JOINT A MAXIMUM OF EVERY 30' OC.

5/C2 THICKENED EDGE CONCRETE SIDEWALK SECTION



6/C2 POND OUTLET STRUCTURE
NO SCALE



7/C2 INFILTRATION BASIN ④⑤⑥
NO SCALE

DATE	REVISION

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.
TIMOTHY A. EGGERICHS, P.E.
Date 7/5/18 Lic. No. 43362

DESIGNED BY: TAE
DRAWN BY: TAE
CHECKED BY: CJJ

Hakanson Anderson
Civil Engineers and Land Surveyors
3601 Thurston Ave., Anoka, Minnesota 55303
763-427-5860 FAX 763-427-0520
www.hakanson-anderson.com

STERLING TROPHY

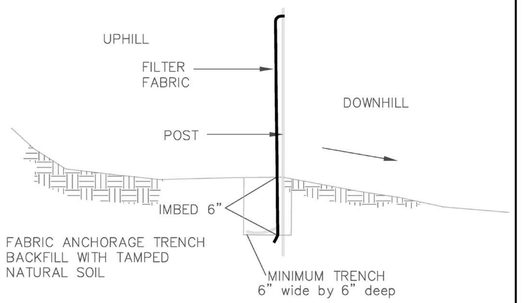
CONSTRUCTION NOTES AND DETAILS

CITY OF RAMSEY, MINNESOTA

SHEET C2 OF C7 SHEETS

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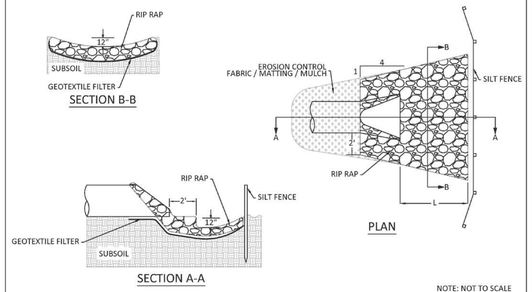


INSTALL AS PER FILTER FABRIC MANUFACTURER'S RECOMMENDATIONS

SILT FENCE DETAIL

NO SCALE

APPROVED: 1 – 2016	City of RAMSEY	STANDARD DETAILS: SILT FENCE
		CITY PLATE No. ERO–1



NOTE: NOT TO SCALE

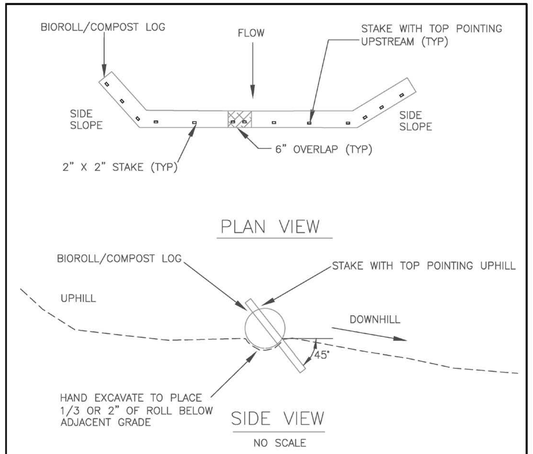
NOTES:

1. ON SLOPES 4:1 OR GREATER, ANCHOR OR STRAIGHT DISKED STRAW MULCH, SEEDED NETTING, GABRIC, OR MATTING SUCH AS EXCELSIOR SHALL BE USED TO STABILIZE DISTURBED SOILS. THESE EXPOSED SOILS MUST BE STABILIZED IMMEDIATELY AFTER GRADING OF SOIL IS COMPLETE.
2. A SKIRTING OF EROSION CONTROL FABRIC OR MULCH MUST BE USED TO PROTECT OUTLETS AS ILLUSTRATED REGARDLESS OF SLOPE.
3. RIP RAP IS CLASS III PLACED 18" THICK.
4. FOR PIPE GREATER THAN 48" DIAMETER OR 58" SPAN, QUANTITY OF GEOTEXTILE FABRIC AND RIP RAP WILL BE HANDLED IN A CASE BY CASE MANNER.
5. GEOTEXTILE FABRIC SHALL COVER THE BOTTOM AND SIDES OF THE AREA EXCAVATED FOR THE RIP RAP MATERIAL.

RIP RAP AT RCP OUTLETS			
DIA. OF PIPE (IN.)	L (FT.)	GEOTEXTILE FABRIC (SY)	18" DEPTH RIP RAP (CU. YD)
12	8	19.6	4.4
15	8	20.8	4.8
18	10	25.6	6.4
21	10	27.4	7.1
24	12	33.4	9.2
27	12	35.2	9.9
30	14	41.6	12.3
36	16	50.5	15.8
42	18	57.8	18.7
48	20	66.5	22.2

RIP RAP AT RCP-A OUTLETS			
SPAN OF PIPE (IN.)	L (FT.)	GEOTEXTILE FABRIC (SY)	18" DEPTH RIP RAP (CU. YD)
22	10	25.6	6.1
28	12	33.2	8.5
36	14	41.5	11.2
43	16	50.5	14.3
51	18	57.5	16.9
58	20	65.2	19.8

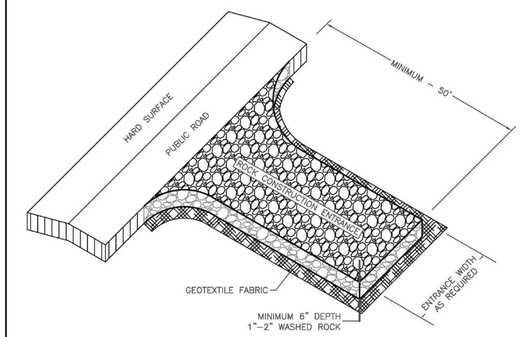
APPROVED: 9 – 2016	City of RAMSEY	STANDARD DETAILS: RIP–RAP
		CITY PLATE No. ERO–3



NO SCALE

NOTE:
STAKE INTO GROUND WITH WOOD STAKES DRIVING STAKE 6" INTO GROUND AND PROTRUDING 2" ABOVE LOG
WOOD STAKES ARE A MINIMUM 0.5" X 2" X 16" AND PLACED EVERY 1' UNLESS PRECLUDED BY A ROCK
WHEN MORE THAN 1 BIOROLL/COMPOST LOG IS NEEDED, OVERLAP ENDS A MINIMUM OF 6" AND STAKE
WOOD STAKES ARE DRIVEN THROUGH BACK HALF OF BIOROLL OR COMPOST LOG AT 45° ANGLE WITH TOP OF STAKE POINTING UPHILL

APPROVED: 3 – 2016	City of RAMSEY	STANDARD DETAILS: BIO ROLL (COMPOST LOG)
		CITY PLATE No. ERO–4



NOTE:
1. MINIMUM CONSTRUCTION ENTRANCE WIDTH EQUAL TO PROPOSED ROADWAY WIDTH.
2. WIDTH OF RADIUS AS REQUIRED TO ENSURE VEHICLES DO NOT TRACK ONTO PUBLIC ROAD.
3. MAINTAINENCE AS REQUIRED TO PREVENT TRACKING ONTO PUBLIC ROADS. THIS MAY REQUIRE TOP DRESSING WITH ADDITIONAL ROCK OR REMOVAL AND REINSTALLATION OF THE ENTRANCE AS NEEDED.

NOT TO SCALE

APPROVED: 1 – 2016	City of RAMSEY	STANDARD DETAILS: ROCK CONSTRUCTION ENTRANCE
		CITY PLATE No. ERO–5

TABLE A
MODIFIED CLASS 5 SPECIFICATIONS

% PASSING

1"	100
3/4"	90 – 100
3/8"	50 – 80
No.4	35 – 70
No.10	20 – 60
No.40	10 – 35
No.200	5 – 10

NOTES:
1. THE AGGREGATE BASE CONSTRUCTION WILL BE ACCEPTED FOR PAYMENT IN ACCORDANCE WITH THE PROVISIONS IN TABLE A.
2. IF THE AGGREGATE BASE FAILS TO MEET THE REQUIREMENTS OF TABLE A THE MATERIAL CAN BE CORRECTED IN PLACE OR REMOVED AND REPLACED WITH MATERIAL THAT MEET THE REQUIREMENTS OF TABLE A.
3. IN THE EVENT THAT RECYCLED MATERIAL IS USE IT MUST MEET MNDOT REQUIREMENTS FOR RECYCLED BASE.

APPROVED: 2 - 2003	City of RAMSEY	STANDARD DETAILS: MODIFIED CLASS 5 SPECIFICATIONS
		CITY PLATE No. STR-26

DATE	REVISION

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.

TIMOTHY A. EGGERICHS, P.E.
Date 7/5/18 Lic. No. 43362

DESIGNED BY:	DRAWN BY:	CHECKED BY:
TAE	TAE	CJJ

Hakanson Anderson
Civil Engineers and Land Surveyors
3601 Thurston Ave., Anoka, Minnesota 55303
763–427–5860 FAX 763–427–0520
www.hakanson–anderson.com

STERLING TROPHY

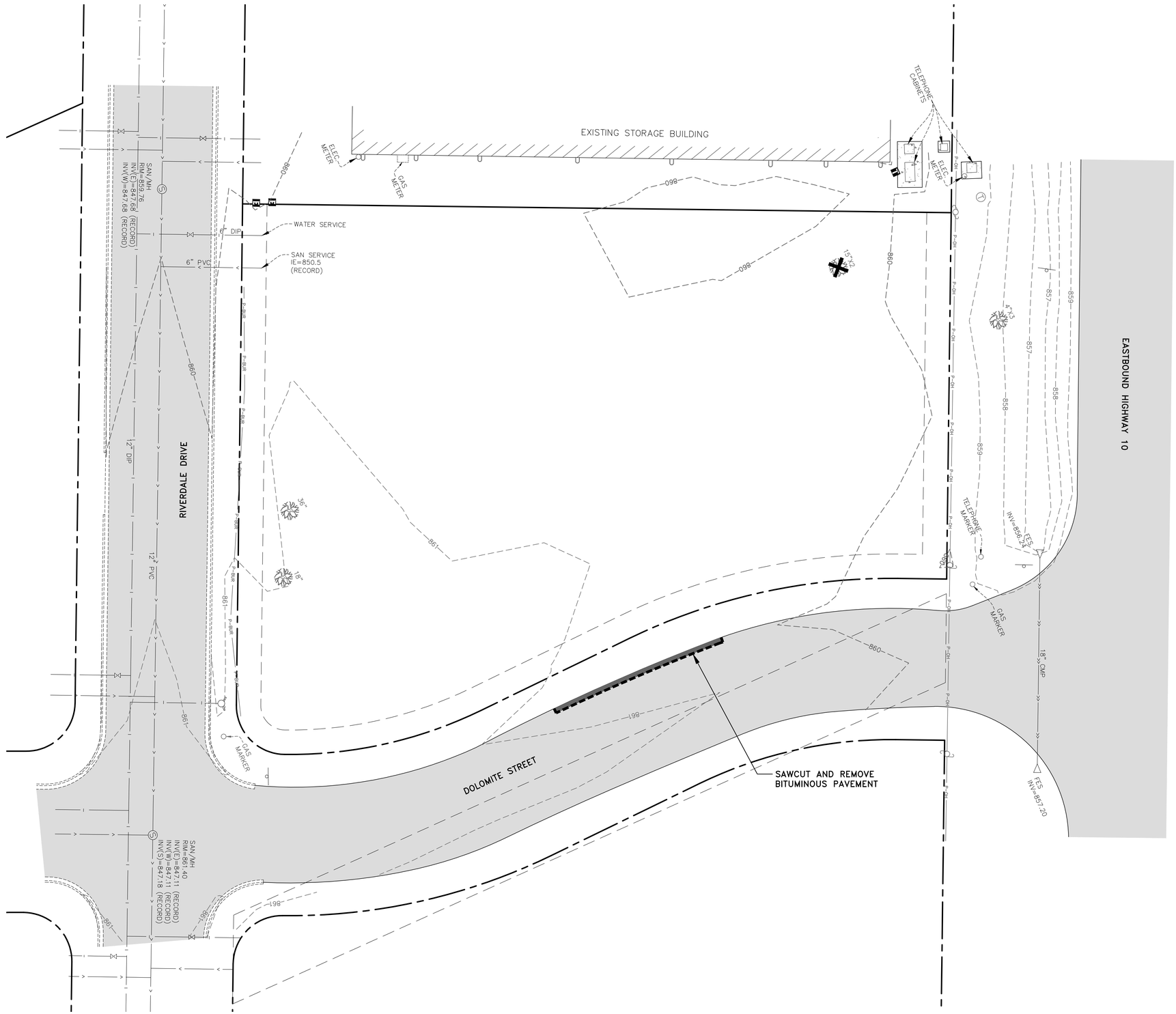
CITY STANDARD DETAILS

CITY OF RAMSEY, MINNESOTA

SHEET C3 OF C7 SHEETS

2285.36

Jul 02, 2018 – 7:43am
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DATE	REVISION

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TIMOTHY A. EGGERICHS, P.E.

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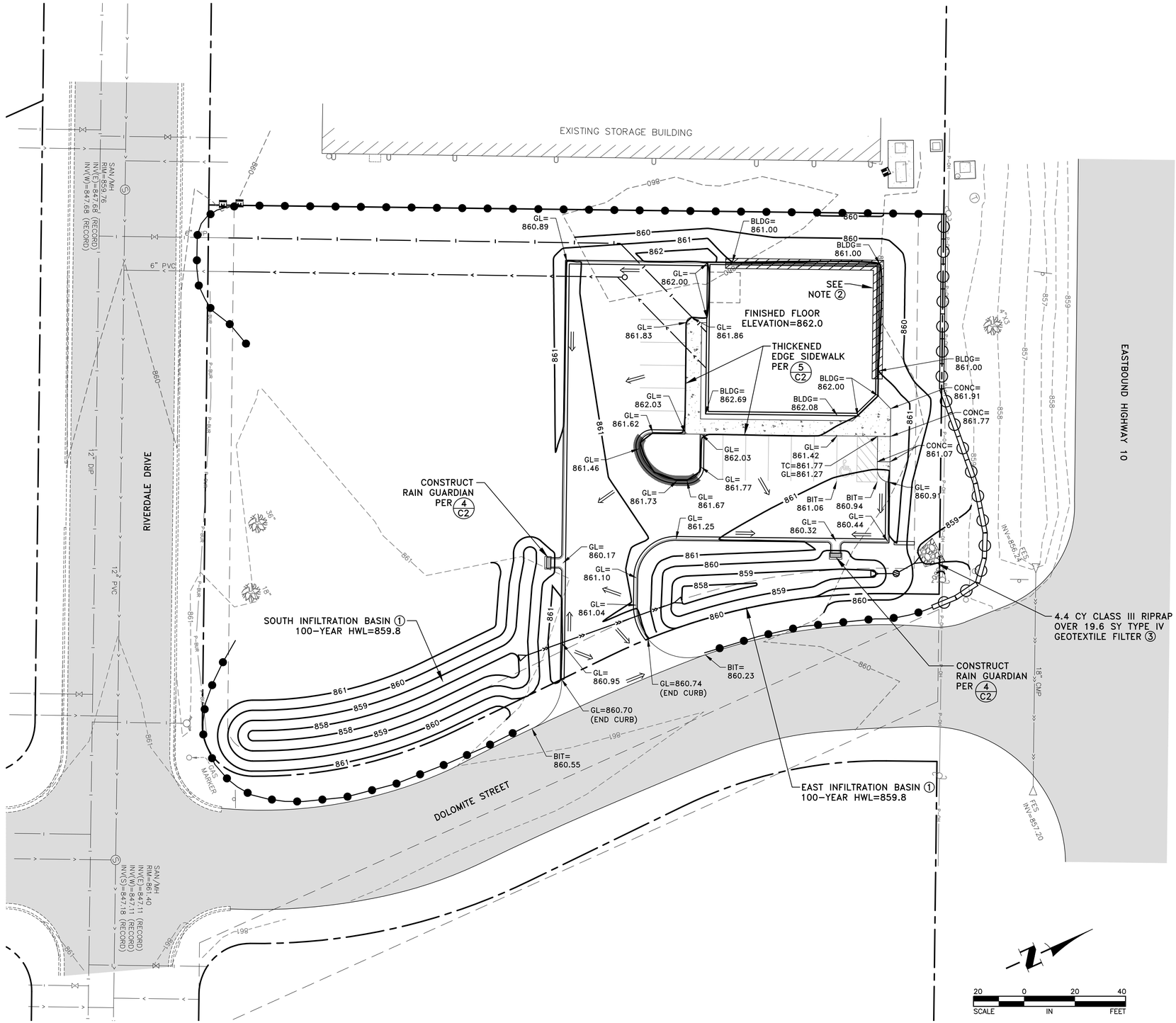
EXISTING TOPOGRAPHY AND REMOVALS PLAN

CITY OF RAMSEY, MINNESOTA

SHEET C4 OF C7 SHEETS

2285.36

Jul 03, 2018 - 7:02am
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LEGEND

- RIGHT-OF-WAY LINE
- PROPERTY LINE
- EASEMENT LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- BURIED POWER LINE
- OVERHEAD POWER LINE
- EXISTING CONCRETE CURB AND GUTTER
- EXISTING SANITARY SEWER
- EXISTING HYDRANT
- EXISTING WATERMAIN VALVE
- EXISTING STORM SEWER APRON
- UTILITY POLE
- UTILITY PEDESTALS
- SIGN
- TREE
- EXISTING CONCRETE PAVEMENT
- EXISTING BITUMINOUS PAVEMENT
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED WATERMAIN
- PROPOSED CONCRETE CURB AND GUTTER
- PROPOSED CONCRETE PAVEMENT
- PROPOSED TIPOUT CURB PER (2) C2
- SILT FENCE PER CITY PLATE NO. ERO-1
- SEDIMENT CONTROL LOG PER CITY PLATE NO. ERO-4
- DRAINAGE ARROW
- GL= XXX.XX — GUTTER LINE ELEVATION
- TC= XXX.XX — TOP OF CURB ELEVATION
- BLDG= XXX.XX — GROUND ELEVATION AT BUILDING
- CONC= XXX.XX — CONCRETE ELEVATION
- BIT= XXX.XX — BITUMINOUS ELEVATION
- DETAIL NUMBER / SHEET NUMBER (X / XX)

GENERAL NOTES:

1. PRIOR TO IMPORTING OR EXPORTING MATERIAL FROM THE SITE, CONTRACTOR SHALL CONSTRUCT A ROCK CONSTRUCTION ENTRANCE PER CITY PLATE NO. ERO-5.
2. VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
3. PERVIOUS AREAS SHALL BE STABILIZED WITHIN 7 DAYS OF ROUGH GRADING.
4. SEDIMENT SHALL BE REMOVED FROM ALL PAVED SURFACES WITHIN 24 HOURS OF DISCOVERY.
5. SEE SHEET C6 FOR THE UTILITY PLAN.
6. SEE SHEET C7 FOR THE PAVING AND RESTORATION PLAN.
7. CONTRACTOR SHALL DETERMINE A LOCATION FOR CONCRETE AND OTHER WASHOUT WASTE. A SIGN SHALL BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY THAT REQUIRES SITE PERSONNEL TO UTILIZE THE PROPER FACILITIES FOR DISPOSAL OF CONCRETE AND OTHER WASTES.

REFERENCE NOTES:

(1) CONSTRUCT INFILTRATION BASIN PER (7) C2.

(2) DROP FOOTING BASED ON PROPOSED GRADES.

(3) PLACE RIPRAP PER CITY PLATE NO. ERO-3.

DATE	REVISION

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TIMOTHY A. EGGERICHS, P.E.

Date 7/5/18 Lic. No. 43362

DESIGNED BY: TAE
DRAWN BY: TAE
CHECKED BY: CJJ

Hakanson Anderson
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3601 Thurston Ave., Anoka, Minnesota 55303
763-427-5860 FAX 763-427-0520
www.hakanson-anderson.com

STERLING TROPHY

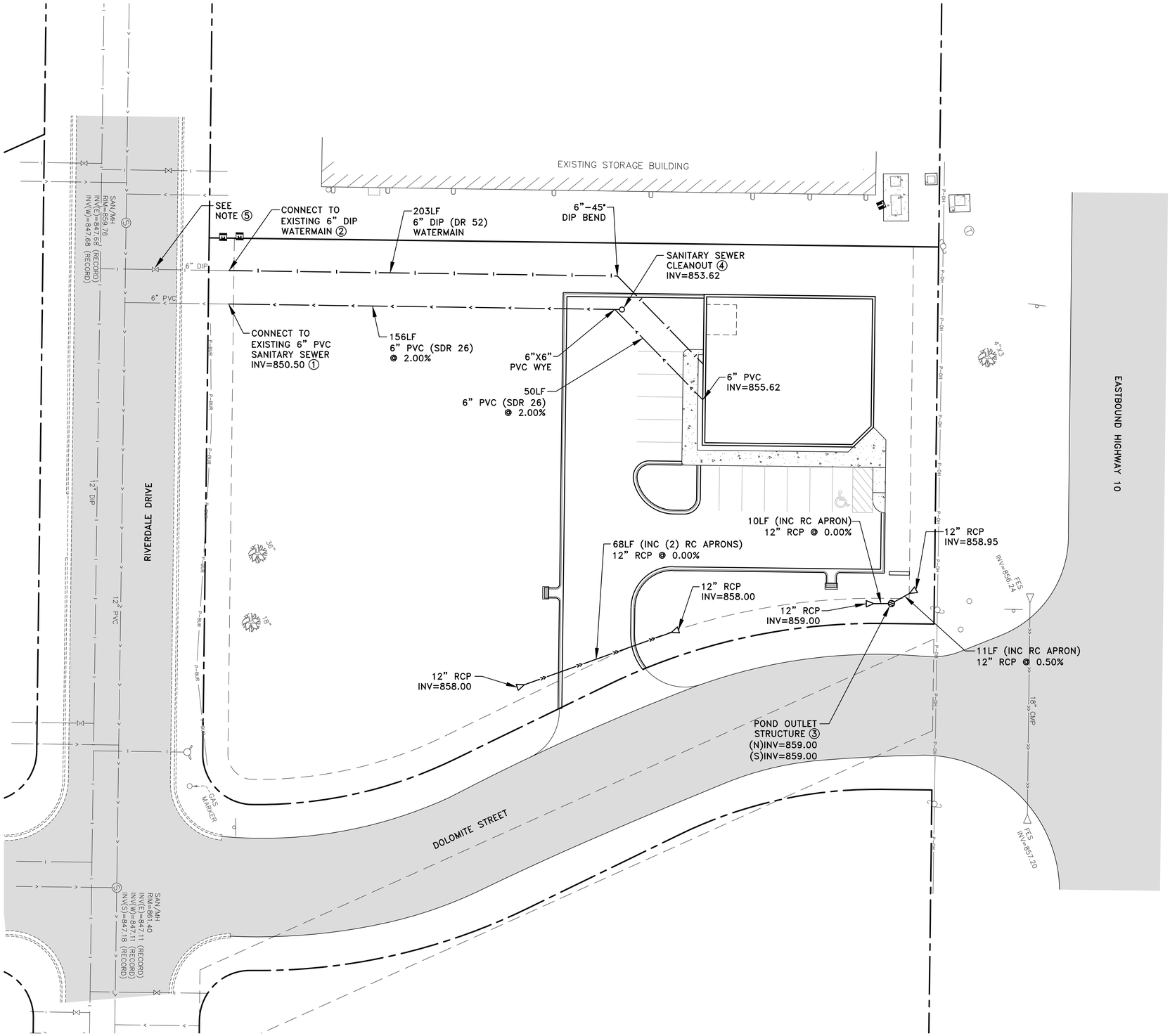
GRADING, DRAINAGE AND EROSION CONTROL PLAN

CITY OF RAMSEY, MINNESOTA

SHEET C5 OF C7 SHEETS

2285.36

Jul 03, 2018 - 1:27pm
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GENERAL NOTES:

1. ALL STORM SEWER STRUCTURES SHALL BE PRECAST CONCRETE SECTIONS PER MN/DOT STANDARD PLATE 4020.
2. MAINTAIN A MINIMUM OF 7.5' OF COVER OVER THE WATER SERVICE.

REFERENCE NOTES:

① LOCATION AND INVERT OF SANITARY SEWER SERVICE STUB SHALL BE VERIFIED PRIOR TO THE START OF CONSTRUCTION.

② LOCATION AND INVERT OF WATER SERVICE STUB SHALL BE VERIFIED PRIOR TO THE START OF CONSTRUCTION.

③ CONSTRUCT POND OUTLET STRUCTURE PER (6/C2).

④ CONSTRUCT SANITARY SEWER CLEANOUT PER (3/C2).

⑤ RECORD PLANS INDICATED THAT THERE IS A VALVE FOR THE WATER SERVICE. THE VALVE COULD NOT BE LOCATED AS PART OF THE SURVEY.

SCALE IN FEET: 20 0 20 40

DATE	REVISION

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TIMOTHY A. EGGERICHS, P.E.
Date 7/5/18 Lic. No. 43362

DESIGNED BY:	TAE
DRAWN BY:	TAE
CHECKED BY:	CJJ

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763-427-5860 FAX 763-427-0520
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STERLING TROPHY

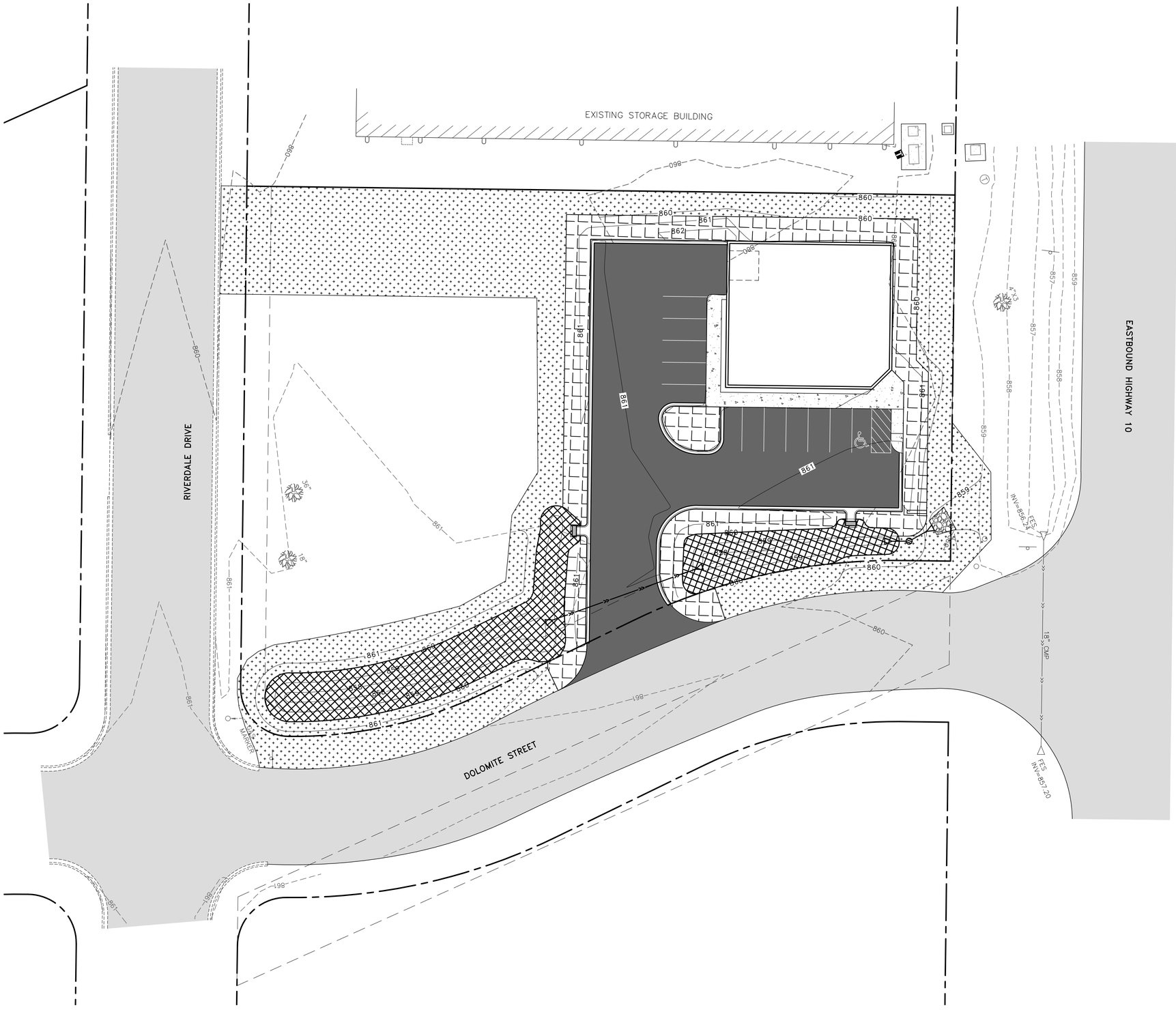
UTILITY PLAN

CITY OF RAMSEY, MINNESOTA

SHEET C6 OF C7 SHEETS

2285.36

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LEGEND

- PROPOSED BITUMINOUS PAVEMENT PER (1/C2)
- SEED MIX 25-131 (220 POUNDS/ACRE)
  HYDRAULIC MULCH MATRIX (2500 POUNDS/ACRE)
  TYPE 1 FERTILIZER (300 POUNDS/ACRE)
- SEED MIX 33-261 (35 POUNDS/ACRE)
  HYDRAULIC MULCH MATRIX (2500 POUNDS/ACRE)
  TYPE 1 FERTILIZER (300 POUNDS/ACRE)
- SOD
  TYPE 1 FERTILIZER (300 POUNDS/ACRE)

GENERAL NOTES:

1. PLACE A MINIMUM OF 4" OF TOPSOIL OVER ALL DISTURBED AREAS OUTSIDE OF THE PROPOSED BUILDING, PARKING LOT AND INFILTRATION BASINS. SEE (7/C2) FOR INFILTRATION BASIN TOPSOIL REQUIREMENTS.

20 0 20 40
SCALE IN FEET

DATE	REVISION

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.
TIMOTHY A. EGGERICHS, P.E.
Date 7/5/18 Lic. No. 43362

DESIGNED BY: TAE
DRAWN BY: TAE
CHECKED BY: CJJ

Hakanson Anderson
Civil Engineers and Land Surveyors
3601 Thurston Ave., Anoka, Minnesota 55303
763-427-5860 FAX 763-427-0520
www.hakanson-anderson.com

STERLING TROPHY

PAVING AND RESTORATION PLAN

CITY OF RAMSEY, MINNESOTA

SHEET C7 OF C7 SHEETS

2285.36

Jul 03, 2018 - 1:29pm
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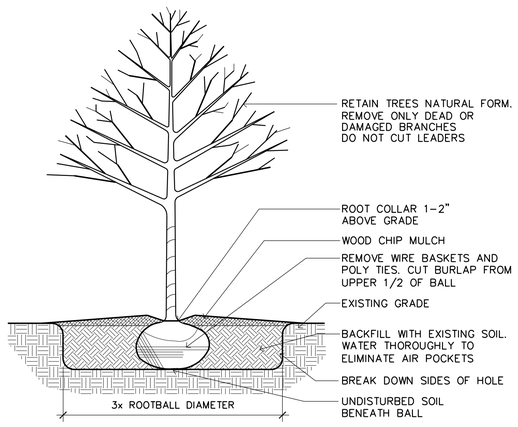
PLANTING SCHEDULE						
QTY.	KEY	COMMON NAME	BOTANICAL NAME	SIZE	MTHD	REMARKS
2	AB	AUTUMN BLAZE MAPLE	ACER FREEMANII	2.5" CAL.	BB	
2	IH	IMPERIAL HONEYLOCUST	GLEDITSIA TRICANTHOS	2.5" CAL.	BB	
1	RS	RED SPLENDOR CRAB	MALUSxHYBRIDS 'RED SPLENDOR'	1.5" CAL.	BB	
9	SR	SHRUB ROSE	ROSA 'KNOCKOUT'	12" TALL	CONT.	
8	BB	COMPACT BURNING BUSH	EUONYMUS ALATUS 'COMPACTA'	18"-24" TALL	CONT.	
5	PL	PURPLE LILAC	SYRINGA VULGARIS PURPUREA	36" TALL	CONT.	

LANDSCAPE NOTES:

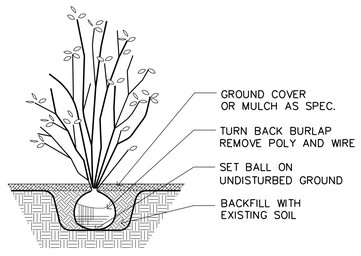
1. SEED/SOD AREAS AS SHOWN ON THE PLAN.
2. SEE PLAN FOR PLANTINGS LOCATED IN ROCK MULCH BED. ROCK MULCH BEDS SEPARATED FROM SOD BY BLACK VINYL EDGER. OTHER PLANTINGS TO HAVE WOOD MULCH RING TO PREVENT WEED GROWTH AND CONSERVE WATER.
3. UNDERGROUND IRRIGATION SYSTEM TO BE PROVIDED FOR ALL FOUNDATION PLANTINGS AND TURF AREAS. PROVIDE MOISTURE SENSOR. IRRIGATION DESIGN BY CONTRACTOR.
4. SEE PLAN FOR EXISTING TREES TO BE SAVED OR REMOVED
5. TREE CALCULATION:
   1 TREE PER 1,000 S.F. OF BUILDING S.F.
   4,048 S.F. @ 1/1000 = 4 DECIDUOUS TREES
   5 TREES PROVIDED
6. SHRUB CALCULATION:
   1 SHRUB PER 300 S.F. OF BUILDING S.F.
   4,048 S.F. @ 1/300 = 14 SHRUBS
   22 SHRUBS PROVIDED

SITE LIGHTING NOTES:

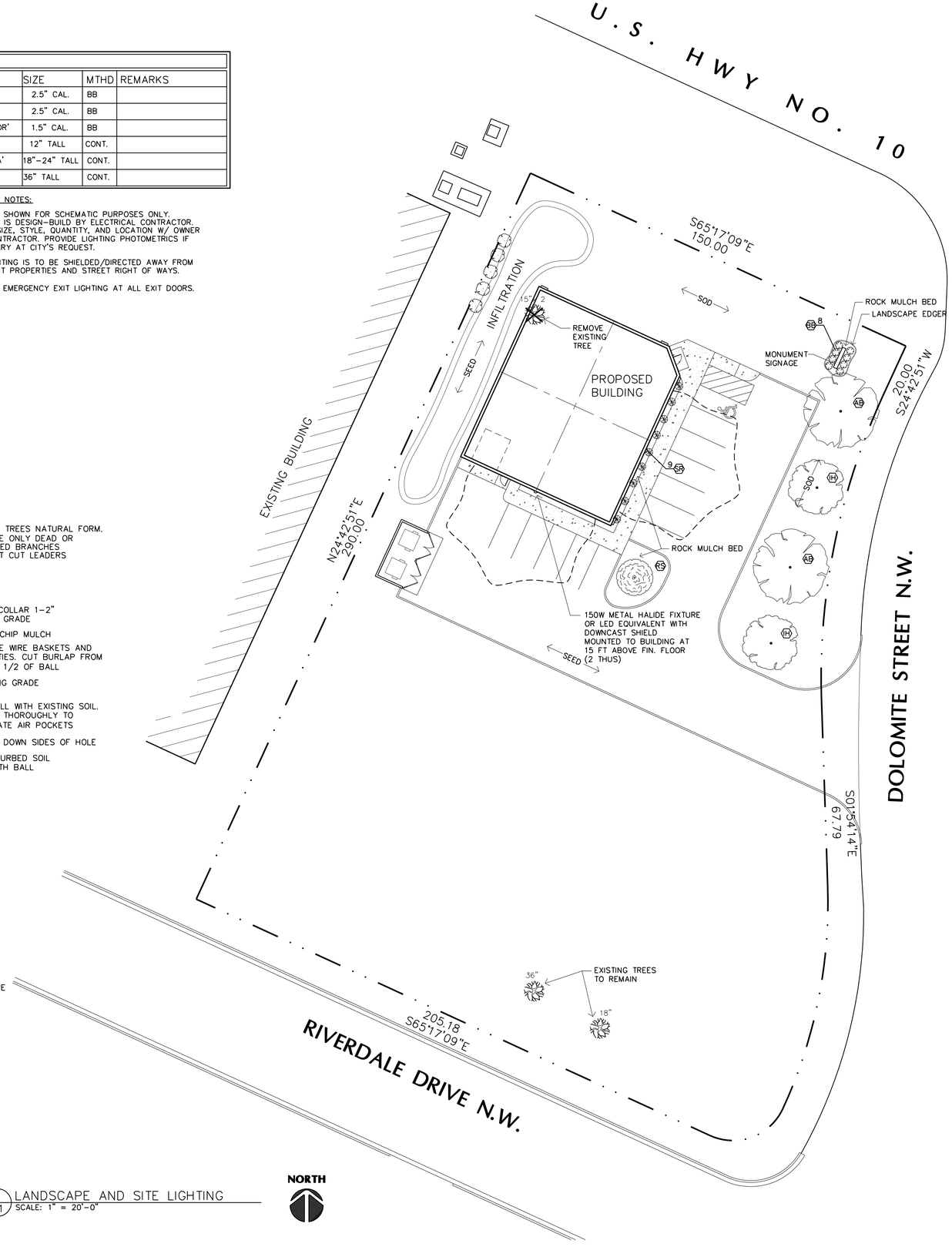
1. LIGHTING SHOWN FOR SCHEMATIC PURPOSES ONLY. LIGHTING IS DESIGN-BUILD BY ELECTRICAL CONTRACTOR. VERIFY SIZE, STYLE, QUANTITY, AND LOCATION W/ OWNER AND CONTRACTOR. PROVIDE LIGHTING PHOTOMETRICS IF NECESSARY AT CITY'S REQUEST.
2. ALL LIGHTING IS TO BE SHIELDED/DIRECTED AWAY FROM ADJACENT PROPERTIES AND STREET RIGHT OF WAYS.
3. PROVIDE EMERGENCY EXIT LIGHTING AT ALL EXIT DOORS.



2 L1 TREE PLANTING DETAIL
SCALE: NOT TO SCALE



3 L1 SHRUB PLANTING DETAIL
SCALE: NOT TO SCALE



1 L1 LANDSCAPE AND SITE LIGHTING
SCALE: 1" = 20'-0"

NORTH

Filename: STERLING TROPHY\STERLING TROPHY-L1

PRELIMINARY NOT FOR CONSTRUCTION

(763) 784-1950
FAX 784-9707

STONE CONSTRUCTION, INC.
2181 - 107th LANE N.E.
BLAINE, MINNESOTA 55434

STERLING TROPHY
Ramsey, Minnesota

Drawn By: JRB
Checked By: LL
Revisions

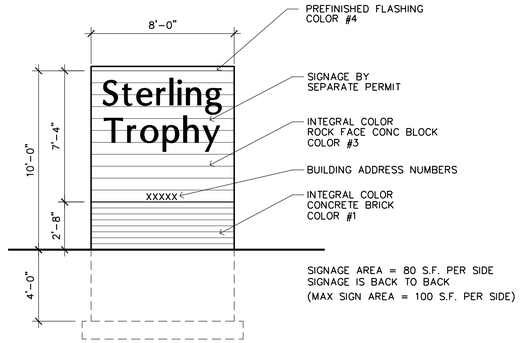
6/28/18	PRELIMINARY

LANDSCAPE AND SITE LIGHTING PLAN

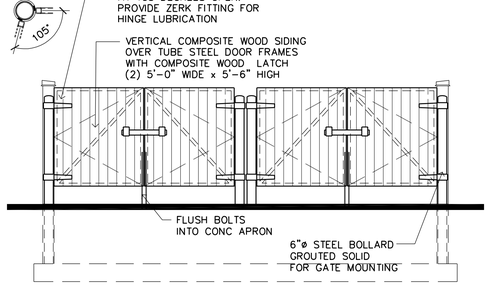
Sheet Number

L1

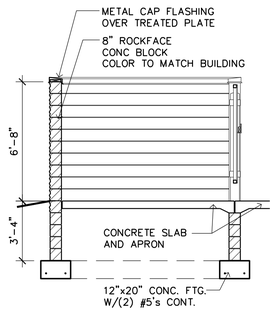
Project No. 180228-4



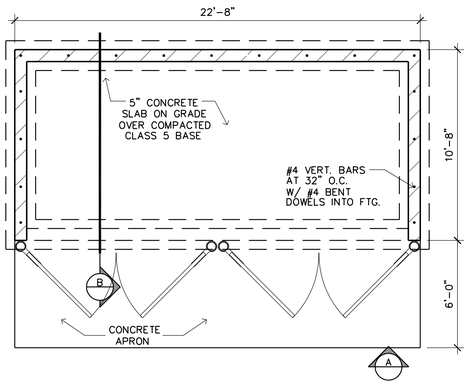
3 / A1 MONUMENT SIGN DETAIL
SCALE: 1/4" = 1'-0"



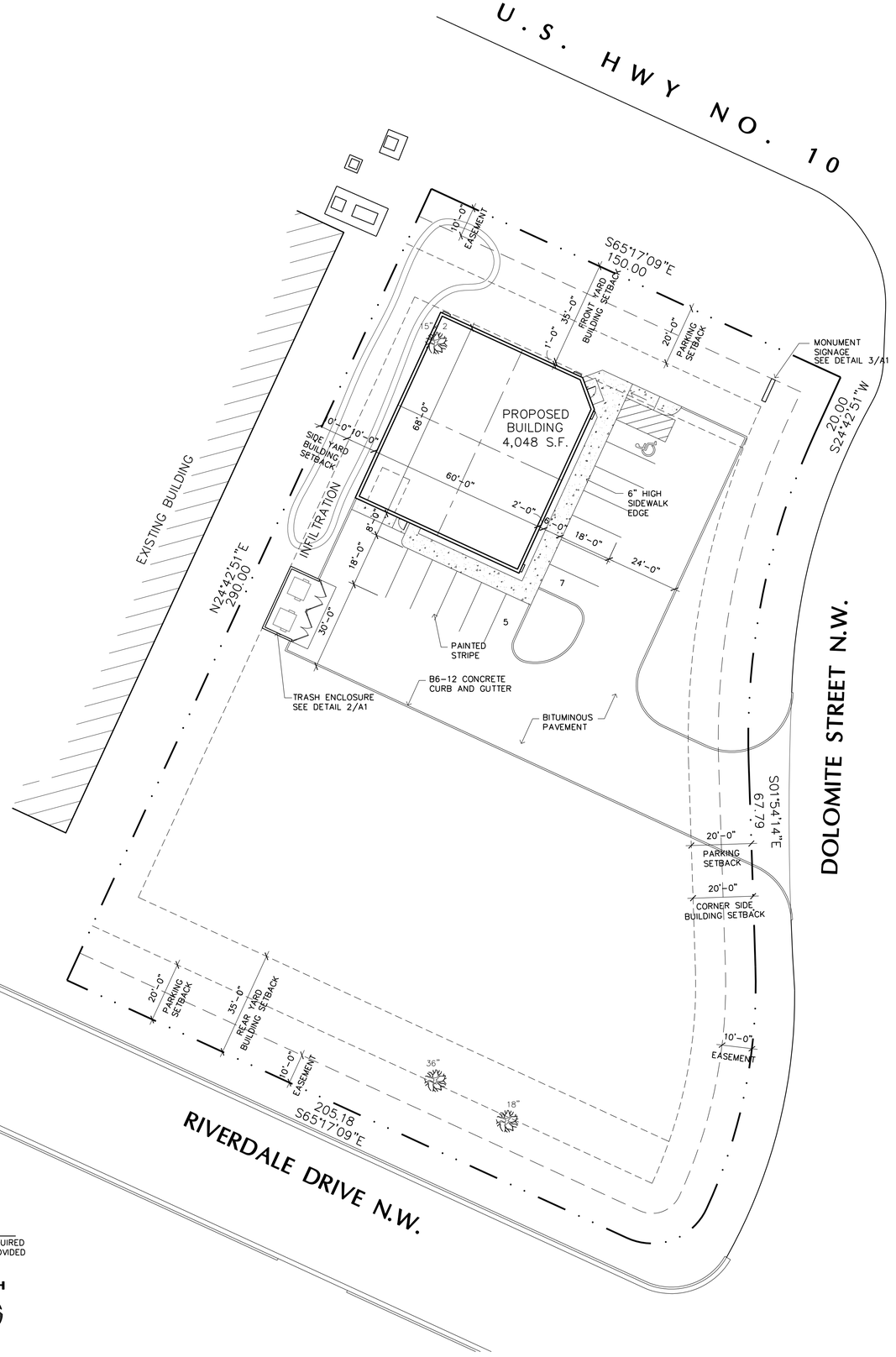
ELEVATION 'A'



SECTION 'B'



2 / A1 TRASH ENCLOSURE
SCALE: 1/4" = 1'-0"



SITE DATA

LOT 4, BLOCK 1, RIVERSIDE WEST
LOT AREA – 53,845 S.F. = 1.24 ACRES
ZONING – B-2, HIGHWAY BUSINESS DISTRICT
BUILDING – 4,048 S.F.
BUILDING COVERAGE – 4,048/ 53,845 = 7.5%
IMPERVIOUS SURFACE – 15,602/ 53,845 = 29.0%

PARKING DATA

RETAIL – 1,500 S.F. AT 1/200 = 8 STALLS
WAREHOUSE – 2,500 S.F. AT 1/1,000 = 3 STALLS
11 STALLS REQUIRED
12 STALLS PROVIDED

1 / A1 SITE PLAN
SCALE: 1" = 20'-0"

NORTH

LAMPERT ARCHITECTS
420 Summit Avenue
St. Paul, MN 55102
Phone:763.755.1211 Fax:763.757.2849
lampert@lampert-arch.com

ARCHITECT CERTIFICATION:
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 ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRELIMINARY
NOT FOR CONSTRUCTION

SIGNATURE
LEONARD LAMPERT
PRINT NAME
13669
LICENSE NUMBER
DATE

(763) 784-1950
FAX 784-9707
STONE CONSTRUCTION, INC.
2181 – 107th LANE N.E.
BLAINE, MINNESOTA 55434

STERLING TROPHY
Ramsey, Minnesota

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Leonard Lampert Architects Inc.

Project Designer: JAMES B
Drawn By: JRB
Checked By: LL
Revisions

6/28/18	PRELIMINARY

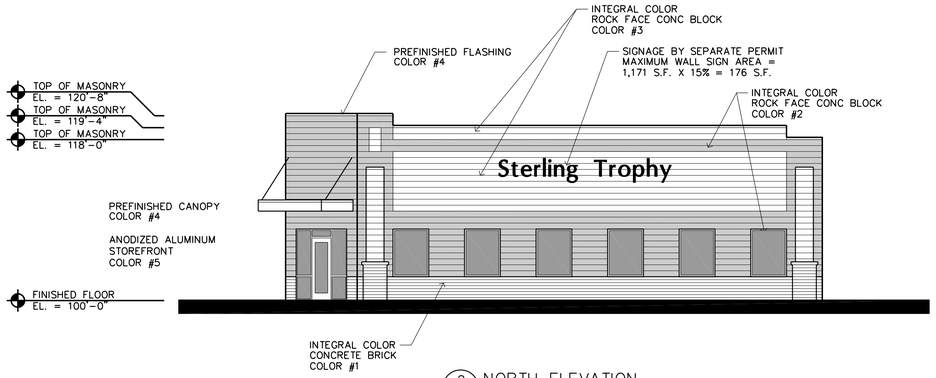
SITE PLAN

Sheet Number

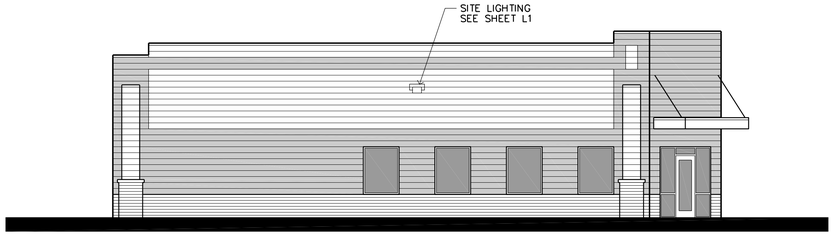
A1

Project No. 180228-4

Filename: STERLING TROPHY\STERLING TROPHY-A1



2 A2 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



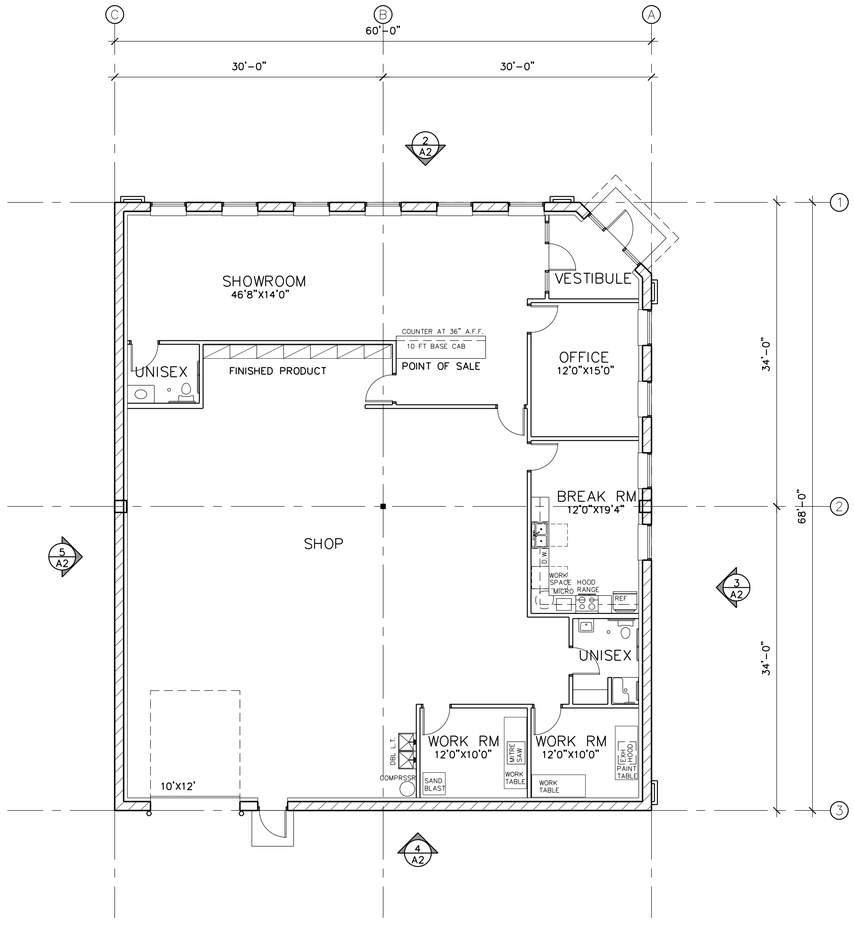
3 A2 EAST ELEVATION
SCALE: 1/8" = 1'-0"



4 A2 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



5 A2 WEST ELEVATION
SCALE: 1/8" = 1'-0"



1 A2 FLOOR PLAN
SCALE: 1/8" = 1'-0"

NORTH

LAMPERT
ARCHITECTS
420 Summit Avenue
St. Paul, MN 55102
Phone:763.755.1211 Fax:763.757.2849
lampert@lampert-arch.com

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SIGNATURE
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PRINTED NAME
13669
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00/00/00
DATE

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BLAINE, MINNESOTA 55434

STERLING TROPHY
Ramsey, Minnesota

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Leonard Lampert Architects Inc.

Project Designer: JAMES B
Drawn By: JRB
Checked By: LL
Revisions

6/28/18	PRELIMINARY

FLOOR PLAN
BUILDING ELEVATIONS
Sheet Number

A2

Project No. 180228-4

Filename: STERLING TROPHY\STERLING TROPHY-A2

ALTA/ACSM Land Title Survey

~ for ~

City of Ramsey HRA

DESCRIPTION OF PROPERTY

From Commitment for Title of Old Republic National Title Insurance Company, Commitment No. 1403101 effective dated October 29, 2014. ("The Commitment")

Lot 4, Block 1, RIVERSIDE WEST, according to the plat on file and of record in the Office of the Registrar of Titles, Anoka County, Minnesota.

SCHEDULE B NOTES:

Item 5 – Subject to the right of the State of Minnesota to construct temporary snow fences, and to regulate and control the cutting and planting of grasses, shrubs and trees, as shown in document dated April 14, 1939 and recorded May 3, 1939 in Book 174, Page 73 in the office of the Anoka County Register of Deeds. **(Lies within right of way of U.S. Highway No. 10 as depicted on survey)**

Item 6 – Subject to utility easements in favor of Anoka Electric cooperative as shown in document dated November 20, 1974 and recorded November 22, 1974 in Book 1127, Page 31, in the office of the Anoka County Register of Deeds. **(Depicted on Survey)**

Item 7 – Subject to easement in favor of Bullick, Inc. as contained in Warranty Deed document no. 86446 dated 7/10/1975 and filed 7/8/1975. **(Depicted on Survey)**

Item 8 – Easements for utility and drainage as shown on the recorded plat, if any.. **(Depicted on Survey)**

SURVEY NOTES:

1. The underground utilities shown have been located from field survey information per Gopher State One Call Ticket No. 143090547, construction plans, and previous site plans (by others). The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from information available. The surveyor has not physically located the underground utilities. Prior to any excavation, contact Gopher State One Call for an on-site location (612-454-0002). The subsurface utility information on this survey is utility quality level D. This quality level was determined according to the guidelines of CI/ASCE 38-2, entitled "Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data.

2. The property lies in flood zone C (area of minimal flooding) as designated on Flood Insurance Rate Map (County of Anoka Community No. 270681 0020B) published by the Federal Emergency Management Agency effective date November 1, 1979.

2. Property is Torrens. Certificate of Title No. 124825 (From Title Commitment)

3. Fee simple interest is owned by Housing and Redevelopment Authority in and for the City of Ramsey, Minnesota, a public body under the laws of Minnesota. (From Title Commitment)

4. Area of surveyed property is 53,845 sq. ft. or 1.236 acres.

5. Property is zoned B-2 Business District. (per City of Ramsey Zoning Map)

6. The property has direct access to Riverdale Drive NW and Dolomite Street NW. (No restricted access to U.S. Highway No. 10 per plat of RIVERSIDE WEST or the commitment. Access subject to permit by MnDOT approval).

7. Bearings are based on Anoka County Coordinate System.

8. Address is 6710 Highway 10 NW, Ramsey, MN 55303 (per Anoka County Tax Mapping)

9. Sewer and Water Service locations per plans provided by the City of Ramsey.

10. Surveyor is aware that Dolomite Street NW access to U.S. Highway No. 10 may be closed.

To City of Ramsey, Housing and Redevelopment Authority in and for the City of Ramsey, Minnesota, MDBNK, LLC, Title One, Inc., and Old Republic National Title Insurance Company:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2011 "Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys", jointly established and adopted by ALTA, and NSPS, and includes Items 1, 2, 3, 4, 5, 6(a), 8, and 11(a) of Table A thereof. The field work was completed on November 12, 2014.

Dated: November 14, 2014

Charles R. Christopherson

Charles R. Christopherson
MN License No. 18420
Hakanson Anderson Associates, Inc.
3601 Thurston Avenue North
Anoka, MN 55303
phone (763) 427-5860

N

30 0 30 60

SCALE IN FEET

LEGEND

--835-- = DENOTES SURFACE CONTOUR (1 FT. INTERVAL)
x 835.15 = DENOTES SPOT ELEVATIONS
O = IRON MONUMENT SET AND MARKED WITH LICENSE NO. 18420.
● = DENOTES IRON MONUMENT FOUND
= DENOTES STREET SIGN
= DENOTES GATE VALVE
= DENOTES HYDRANT
= DENOTES SANITARY SEWER MANHOLE
= DENOTES TELEPHONE MANHOLE
= DENOTES TELEPHONE PEDESTAL
= DENOTES ELECTRIC TRANSFORMER
= DENOTES ROOF DRAIN
= DENOTES POWER POLE
= DENOTES WATER LINE
= DENOTES SANITARY SEWER LINE
= DENOTES STORM SEWER LINE
= DENOTES UNDERGROUND TELEPHONE
= DENOTES UNDERGROUND GAS LINE
= DENOTES UNDERGROUND ELECTRIC
= DENOTES OVERHEAD ELECTRIC
= DENOTES DECIDUOUS TREE
= DENOTES CONCRETE SURFACE
= DENOTES BITUMINOUS

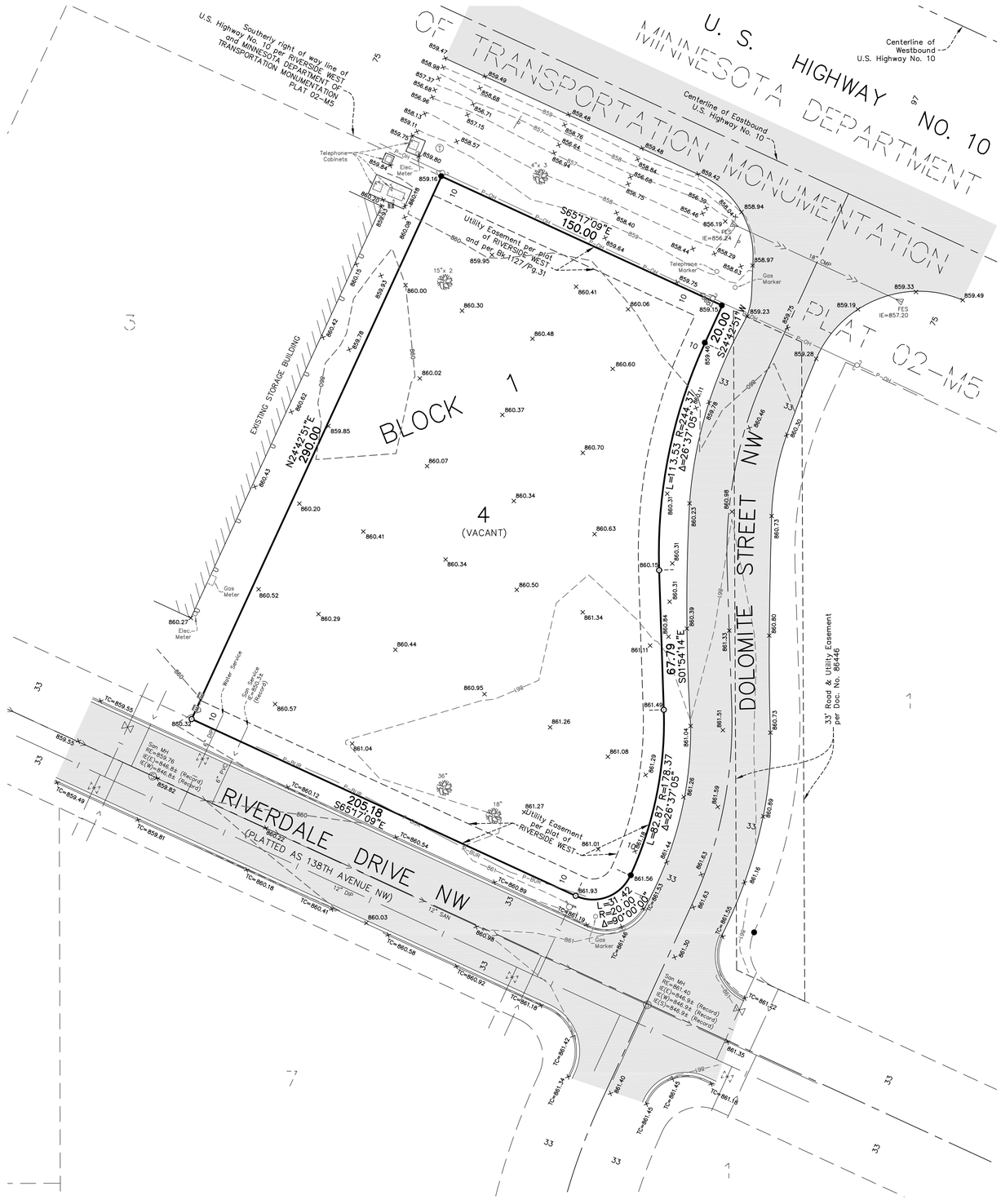
BENCHMARKS

PROJECT BENCHMARK: MnDOT MONUMENT NO. E 257 NEAR THE INTERSECTION OF SUNFISH LAKE BOULEVARD NW AND THE BURLINGTON NORTHERN RAILROAD.
ELEVATION = 863.67 FEET (NAVD 1988)

SITE BENCHMARK: TOP NUT HYDRANT IN THE NORTHWEST QUADRANT OF THE INTERSECTION OF RIVERDALE DRIVE NW AND DOLOMITE STREET NW.
ELEVATION = 863.88 FEET (NAVD 1988)

UTILITY COMPANY CONTACT INFORMATION

UTILITY COMPANY	PHONE NUMBER
CENTER POINT ENERGY	800.778.9140
CENTURYLINK	800.283.4237
CITY OF RAMSEY	763.427.8254
COMCAST	612.522.8141
CONNEXUS ENERGY	763.323.4216
MINNESOTA DEPARTMENT OF TRANSPORTATION	651.366.5750



DATE	REVISION

Nov 14, 2014 – 8:16am sethm
K:\cad_surv\Land Desktop 2008\RA1104\dwg\RA1104.dwg

DESIGNED BY: CRC	BOOK/PAGE:
DRAWN BY: SMM	DATE: 11/14/14
CHECKED BY: CRC	FILE NO. RA1104

Hakanson Anderson Assoc., Inc.
Civil Engineers and Land Surveyors
3601 Thurston Ave., Anoka, Minnesota 55303
763-427-5860 FAX 763-427-0520
www.haa-inc.com

Lot 4, Block 1,
RIVERSIDE WEST,
Anoka County, Minnesota

ALTA/ACSM Land Title Survey
for
City of Ramsey HRA

SHEET 1 OF 1 SHEETS

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CITY OF RAMSEY LAND USE APPLICATION
TECHNICAL REVIEW FILE

DATE	JULY 16, 2018	**PROJECT ADDRESS**	6710 HIGHWAY 10
PROJECT. TITLE	SITE PLAN REVIEW		
ESCROW #	116452		
DEPARTMENT:	Community Development: Planning Division		
TECHNICAL REVIEWER:	Name: Chloe McGuire Brigl, City Planner Phone: 763-433-9821 Email: CMcGuire@cityoframsey.com		

Site Plan Review

Necessary Plan Revisions:

1. All parking must meet the minimum stall width requirement of 9 feet. Currently 3 stalls do not meet this requirement, including the handicapped parking stall.
2. Lighting plan must be uploaded.

General. The purpose of this file is to review the Site Plan application made by Sterling Trophy for a new commercial building located at 6710 Highway 10. The development would be a 4,048 square foot commercial building to allow for trophy sales, engraving and assembly. The associated plans were prepared by Lampert Architects and are dated July 3, 2018.

This case is being reviewed per City Code Section 117-115 entitled B-2 Highway Business District, Section 117-53 entitled Variances, and Section 117-356 Commercial and Industrial Development Off-Street Parking.

Staff provides the following comments for general review of applications:

Land Use and Zoning: The property is guided and zoned B-2 Business District. All surrounding lots on the south side of Highway 10 are also zoned B-2 Business District. This district is intended to provide for and limit the establishment of motor vehicle oriented or dependent and convenience type, high intensity commercial and service activities characteristically located along major traffic carriers. Enclosed retail sales is an allowed use in this district. Sterling Trophy current expects five employees per day, but anticipates growth at their new location.

Lot Dimensions: The existing lot is approximately 1.23 Acres.

Setbacks and Dimensional Standards.

B-2 Business District		
Required	**Required**	**Proposed**
Minimum Lot Area	**.5 Acres**	**1.23 Acres**
Front Yard Setback (North, East)	**35 feet**	**35 feet**
Side Yard Setback (West)	**10 feet**	**10 feet**
Rear Yard Setback (South)	**35 feet**	**180 feet (approx.)**
Parking and Pavement from Street ROW	**20 feet**	**20 feet**
Setback from Highway 10	**60 feet (from street ROW) + applicable setback**	**Lot line is 60+ feet**

Streets and Utilities: The proposed entrance to the site is off Dolomite Street. Staff is supportive of this option, though notes that the access to Dolomite Street off Highway 10 will be closed in the future.

Surfacing: The Applicant is proposing a completely bituminous parking lot which is an acceptable material within the B-2 Business District.

Building Architecture: The proposed structure is one story in height and shows a mixture of proposed façade materials. Those materials include brick, rockface block, prefinished metal and aluminum frames. Stone and brick are allowable materials in this district. The Planning Commission and City Council may also approve other materials. Because the primary materials are allowed in this district and the metal is acting as an accent, Staff is supportive of the materials. Emphasis will be on great design along public street frontage.

Maximum building height in this district is 35 feet; the proposed building is 21 feet at its tallest point. Maximum structure area is 35% of the total lot area. The proposed 4,048 square foot building is less than 10% of the total lot area.

Waste Storage: The Applicant is proposing to locate the trash enclosure on the southwestern edge of the parking lot, approximately 10 feet from the lot line. Staff is supportive of the trash enclosure location so long as the enclosure is fenced in and kept closed except during garbage drop off and pickup. The proposed fencing is composite wood siding with a gate and steel mounts. The concrete block on the sides of the trash enclosure will match the building. Staff supports the trash enclosure.

Fencing: There are no proposed fences on the property except that described above for the trash enclosure.

Outdoor Storage: There is no proposed outdoor storage.

Lighting: Lighting plan shown on landscape plan. The proposed plan shows two wall packs on the south end of the building near the garage door, and two wall packs on the east side of the building by the parking area.

Parking Stall and Drive Aisle Dimensions: City Code Section 117-356 addresses commercial development off-street parking requirements. Code indicates that for 90 degree parking stalls, that the stall widths be a minimum of 9 feet wide, that the stall depth be a minimum of 18 feet deep, and that the drive aisle between stalls be a minimum of 24 feet deep.

Three of the proposed 12 stalls do not meet the minimum requirements. The handicapped stall is approximately 8 feet wide, and the two stalls closest to the bump out (underneath the numerical 5 and 7 on sheet A1) are undersized, at 8.5 feet wide.

Number of Parking Spaces: City Code Section 117-356 addresses commercial development off-street parking requirements. Per the parking calculation in 117-356, the proposed uses require approximately 9 parking stalls. The plans provided show 12 parking stalls. One parking space is handicapped accessible.

Type of Space	Square Feet	Required Stalls
Retail (Showroom, bathroom, vestibule)	921	4.6
Office (Office, Breakroom)	411	1.37
Warehouse (Shop + Workrooms)	2716	2.72
Total	4048	8.69

Signage: The plan set shows a monument sign on the northeast corner of the site, on the corner of Highway 10 and Dolomite Street NW. The proposed sign is 10 feet tall and 8 feet wide and is brick and prefinished flashing with individual letters. As proposed it appears to meet the requirements of the sign ordinance, though the sign will require separate review and a sign (zoning) permit.

Landscaping and Streetscape. A tech report regarding landscaping and streetscape requirements was produced and presented to the City's Environmental Policy Board (EPB). Staff and members of the EPB were generally supportive of the landscaping plan as presented with a few alterations to the plan set required where are detailed in the landscaping tech report.

Development Agreement: An executed Development Agreement for the site improvements will be required prior to releasing the building permit.

CITY OF RAMSEY LAND USE APPLICATION
TECHNICAL REVIEW FILE

DATE	JULY 12, 2018	**PROJECT ADDRESS**	6710 HIGHWAY 10 NW
PROJECT. TITLE	STERLING TROPHY		
ESCROW #	116452		
DEPARTMENT:	Community Development: Planning Division (Landscape Plan & Environmental Resources)		
TECHNICAL REVIEWER:	Name: Chris Anderson, City Planner Phone: 763-433-9817 Email: canderson@cityoframsey.com		

The proposed project is on the property located at 6710 Highway 10 NW and is currently owned by the City. The property is in the B-2 Highway Business District and the standards from City Code Section 117-115 are applicable. We offer the following comments regarding the Landscape Plan, prepared by Lampert Architects and dated June 28, 2018:

Sheet L1:

- One tree per fifty (50) lineal feet of site perimeter or one tree per 1,000 square feet of building footprint, whichever is greater, is required. One tree for every ten (10) parking stalls is also required. The site perimeter is approximately 936 feet and there are twelve (12) proposed parking stalls, requiring nineteen (19) total trees. An additional fourteen (14) trees must be added to the plan.
- Existing trees remaining MAY qualify for credit toward landscaping requirements depending on the species. Please provide this information if credit is sought.
- One shrub per thirty (30) lineal feet of site perimeter or one shrub per 300 square feet of building footprint, whichever is greater, is required. The site perimeter is approximately 936 feet, requiring thirty-one (31) shrubs. An additional nine (9) shrubs must be added to the plan.
- Shrub size at time of installation shall be at least twenty-four (24) inches in height. Update Planting Schedule to reflect this minimum size requirement.
- At least twenty-five percent (25%) of the trees shall be coniferous. Update Planting Schedule to include a sufficient number conifers.
- Conifers shall be at least six (6) feet in height.
- Signage is reviewed under separate sign application. Note that sign height is limited to twenty-five (25) feet and sign area is limited to 100 square feet.
- Add Landscape Note specifying that all areas, including boulevards, not otherwise improved with impervious surfaces shall receive four (4) inches of topsoil meeting the City's topsoil specification. This includes boulevard areas between property boundaries and streets. Copies of the load tickets shall be provided to the City and a topsoil inspection shall be completed prior to installation of any landscaping.
- Update the Tree Planting Detail to specify that the first set of primary roots shall be at finished grade.

- Add note stating that any deviation from the approved Final Plat Schedule shall require approval of the City prior to installation.

Councilmember _____ introduced the following resolution and moved for its adoption:

RESOLUTION #18-156

RESOLUTION GRANTING SITE PLAN APPROVAL FOR STERLING TROPHY

WHEREAS, Sterling Trophy hereafter referred to as "Developer", properly applied for site plan approval at the address, commonly known as 6710 Highway 10 NW, of the following described property located in the City of Ramsey:

Lot 4, Block 1, Riverside West, Anoka County, Minnesota

(Subject Property)

WHEREAS, on July 3, 2018, the City received an application and plans from Sterling Trophy for site plan review for Sterling Trophy; and

WHEREAS, the property is approximately 1.23 acres and zoned B-2 Business District; and

WHEREAS, the developer is proposing an approximately 4,048 square foot commercial building; and

WHEREAS, on July 16, 2018, the Environmental Policy Board reviewed the proposed site plan; and

WHEREAS, on August 9, 2018, the Planning Commission reviewed the proposed site plan and recommended the City Council approve the proposed site plan; and

WHEREAS, on August 28, 2018 the City Council reviewed the site plan for Sterling Trophy; and

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF RAMSEY, ANOKA COUNTY , STATE OF MINNESOTA, as follows:

1) That the City Council of the City of Ramsey does approve the Site Plan for Sterling Trophy, contingent upon compliance with the City Staff Review Letter dated July 16, 2018, approval by the City Engineer, and the Developer entering into a Development Agreement with the City.

The motion for the adoption of the foregoing resolution was duly seconded by Councilmember _____, and upon vote being taken thereon, the following voted in favor thereof:

Acting Mayor LeTourneau
Councilmember Riley
Councilmember Kuzma
Councilmember Johns
Councilmember Shryock

DRAFT

and the following voted against the same:

None

and the following abstained:

None

and the following were absent:

Existing Vacancy
Existing Vacancy

whereupon said resolution was declared duly passed and adopted by the Ramsey City Council this 28th day of August, 2018.

_____
Mayor

ATTEST:

_____
City Clerk

Regular Planning Commission **6. 2.**

Meeting Date: 08/02/2018

By: Tim Gladhill, Community Development

Information

Title:

Review Request from AKM Farms for Revision to the 2040 Comprehensive Plan Update

Purpose/Background:

The purpose of this case is to discuss a request from AKM Farms (Paxmar) to revise the current draft of the Comprehensive Plan Update to change the future/planned land use of two parcels. This case is for discussion only. The City will have until December of this year to make modifications to the current draft.

Notification:

Observations/Alternatives:

The request involves to sites in close proximity.

- Northfork Parcel (western parcel)
- Alpha Development Parcel (eastern parcel)

Northfork Parcel

This site is currently guided as Rural Developing. The site is assumed to be part of the original Northfork Planned Unit Development, although records reflect this in different capacities over the years. Nonetheless, this site is not located in the future urban service area, at the request of the previous land owner. The area is guided for lot of at least 1 acre on private well and septic. Previous feedback from area neighbors is that the density lower than the adjacent development provides transition to the Northfork neighborhood, which is larger lots on private well and septic.

The current owner purchased the property in 2017 and would like to extend municipal water supply and sanitary sewer. There was a previous development proposal submitted that included a public workshop and Planning Commission review. The request was ultimately denied. Any change to the planned land use for this site is a policy decision for the Planning Commission and City Council. From a technical perspective, this can be accomplished. Staff believes there is merit for at least extending the future urban service area. The Owner is requesting a future land use of medium density (detached), which would net approximately 100 households. Based on previous review, Staff believes a compromise could be considered.

Northfork Parcel Alternatives:

- Low Density Residential
- Medium Density Residential
- Mix of Low Density Residential and Medium Density Residential
- No Change - Leave as Rural Lots

Alpha Development Parcel

The Owner, previously under the name as Paxmar, LLC, pitched a similar project in 2017 that was denied by the City Council. That development proposal included a mix of medium density (detached) and low density residential. The primary objection was density transitioning, and a slight deviation to minimum requirements. Additionally, a majority of the City Council felt that it was appropriate to leave this parcel guided as Low Density Residential, given it's direct proximity to adjacent rural lots.

Assuming that there are not requests to deviate from density transitioning requirements, Staff could support a

version of this proposal with some minor modifications. It is noted that AKM Farms is attempting to transition from the High Density Residential in the Riverstone neighborhood to the west of this parcel (future phase).

Alpha Development Alternatives

- No Change - Low Density Residential
- Mix of Low Density Residential and Medium Density Residential

Conclusion

Staff will provide a more detailed presentation to help navigate this multi-faceted request at the Planning Commission Meeting. In either scenario, Staff would recommend a transparent approach (additional notifications and hearings at final adoption) as previous public workshops were held on these proposed land use scenarios in 2017.

Funding Source:

This request is being handled as part of normal Staff duties.

Recommendation:

No action is being requested. This case is for discussion purposes only.

Action:

No action is being requested. This case is for discussion purposes only.

Attachments

AKM Farms Request

Form Review

Inbox	Reviewed By	Date
Tim Gladhill (Originator)	Tim Gladhill	07/27/2018 12:38 PM
Form Started By: Tim Gladhill		Started On: 07/10/2018 05:50 PM
Final Approval Date: 07/27/2018		

LEONARD, O'BRIEN SPENCER, GALE & SAYRE

Brian F. Leonard
Eldon J. Spencer, Jr.+
Michael R. O'Brien
Edward W. Gale⌖†
Grover C. Sayre, III◊+
Thomas R. Haugrud*
Peter M. Rosene£
Joseph J. Deuhs, Jr.
Thomas C. Atmore+⌖
Ernest F. Peake±
Matthew R. Burton◊
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(1923 - 2011)

Thomas W. Newcome III
(Retired)

▫ Also admitted in Arizona
∞ Also admitted in California
□ Also admitted in Illinois
◊ Also admitted in Iowa
§ Also admitted in Montana
± Also admitted in North Dakota
\+ Also admitted in Wisconsin
⌖ Board Certified Civil Trial Specialist *(Minnesota State Bar Association)*
† Board Certified Civil Trial Specialist *(National Board of Trial Advocacy)*
* Certified Real Property Law Specialist *(Minnesota State Bar Association)*
£ Fellow, American College of Employee Benefit Counsel

April 24, 2018

City of Ramsey
Attn: Chris Anderson, City Planner
Chloe McGuire Brigl, City Planner
7550 Sunwood Dr. NW
Ramsey, MN 55303

Re: AKM, LLC

Dear Mr. Anderson and Ms. Brigl:

This office represents AKM, LLC ("AKM") the fee title owners of PIN 19-32-25-41-0004 (Outlot C, Northfork) and PIN 20-32-25-31-0002 (Outlot A, Alpha Development). The two properties are located north of Highway 10 and south of Alpine Drive NW.

A review of the latest draft of the City of Ramsey 2040 Comprehensive Plan Update suggests that the entirety of Outlot A, Alpha Development will be guided Low Density Residential. We request that the land use designation for the easterly half of Outlot A, Alpha Development be changed to Medium Density Residential rather than Low Density (as depicted on the enclosed map). This change is appropriate given that the land immediately to the west of Outlot A, Alpha Development is now being guided as High Density Residential. Allowing for a Medium Density buffer between the High Density site and the Low Density area is sound municipal planning and allows for a better transition.

In addition, we request that Outlot C, Northfork be incorporated into the Metropolitan Urban Service Area and be guided as Medium Density Residential. The parcels immediately adjacent to the east of Outlot C, Northfork are currently proposed to be included within the MUSA and therefore extending to the west is a logical and practical extension. In addition, including Outlot C, Northfork in the MUSA will allow for the land to be developed into its highest and best use under the Medium Density Residential land use designation.

Please feel free to contact the undersigned with any questions or concerns regarding these requests. AKM looks forward to working with the City of Ramsey towards the 2040 Comprehensive Plan Update.

Very truly yours,

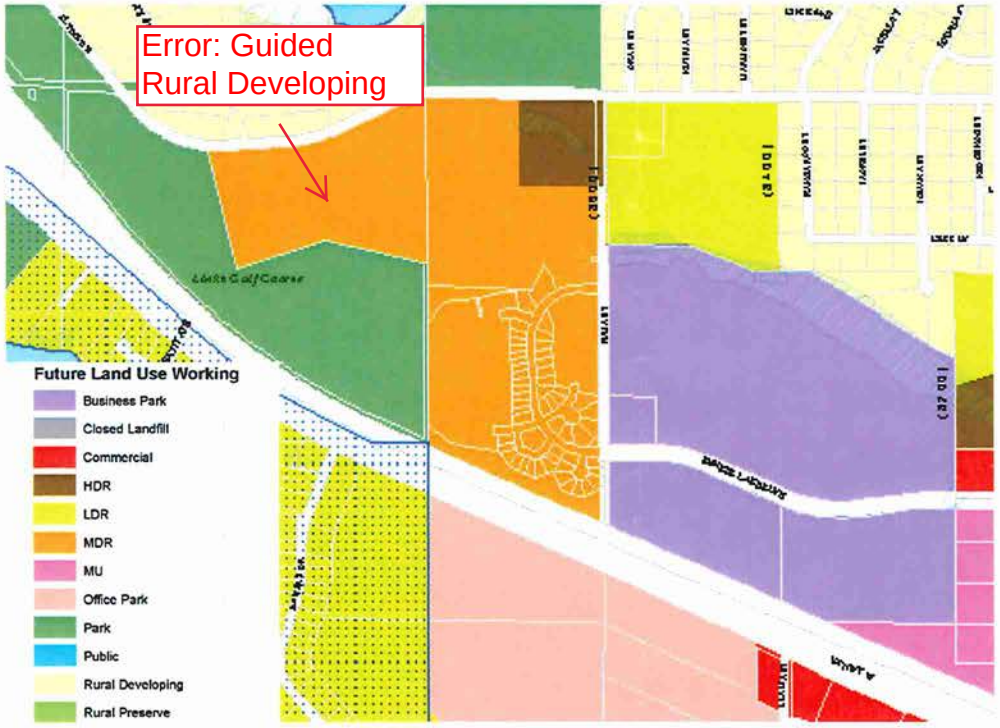
LEONARD, O'BRIEN
SPENCER, GALE & SAYRE, LTD.

By

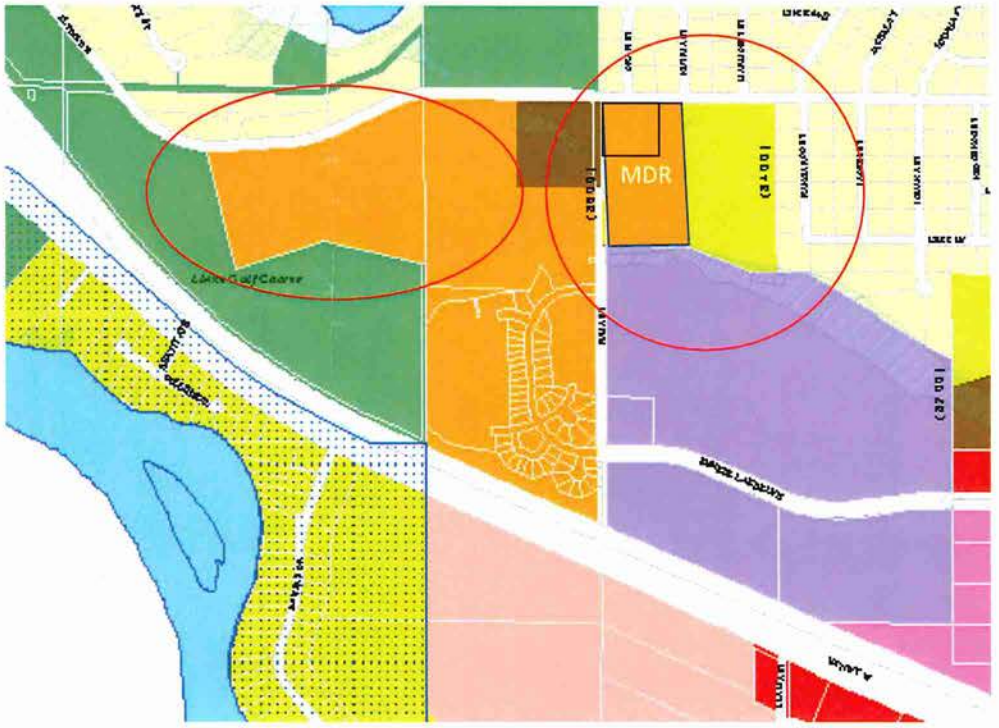
Patrick J. Lindmark
Email: *plindmark@losgs.com*

PJL/vkr
Enclosure
cc: Sarah Strommen, Mayor
Jill Johns, Council Member
Mark Kuzma, Council Member
John LeTourneau, Council Member
Chris Riley, Council Member
Melody Shryock, Council Member
00705489

City 2040 Comp Plan



Landowner Proposed



Regular Planning Commission **6. 3.**

Meeting Date: 08/02/2018

By: Chris Anderson, Community Development

Information

Title:

Consider Response to an Alternative Urban Areawide Review (AUAR) in the City of Dayton

Purpose/Background:

The City has received a DRAFT Alternative Urban Areawide Review (AUAR) document for a development project in the city of Dayton. An AUAR is an environmental review process that can be used in lieu of more traditional environmental reviews such as Environmental Assessment Worksheets (EAW) and Environmental Impact Statements (EIS), as long as the geographic area is covered by an acceptable Comprehensive Plan. In this case, the project area includes 560 acres directly south of Ramsey's identified potential Mississippi River bridge crossing.

Notification:

Notification by the City of Ramsey is not required.

Observations/Alternatives:

There is a proposed development in the City of Dayton that encompasses 560 acres. The project site is located south of Dayton River Road (does not include any land abutting the Mississippi River), directly across from about 170 acres of agricultural land situated between Bowers Drive and 142nd Ave. The full build-out of this development, which is expected to occur over 10-15 years, would result in 1,500 to 1,700 single family residential homes and a small commercial node consisting of neighborhood retail.

City Staff has no objections to the AUAR itself; however, based we have prepared a draft response letter with two (2) primary comments. First and foremost, the project location is directly south of the area identified by Ramsey for a future bridge crossing. Staff has noted a preference that a corridor for a future bridge crossing be identified in the exhibits within the AUAR. It appears that the proposed Zanzibar Avenue could serve as that corridor, which seems ideal as the City of Dayton anticipates Zanzibar Avenue to eventually connect to Interstate 94 via a new interchange. It also would provide a more direct connection for residents of Dayton to the Northstar rail station here in Ramsey.

The northern portion of the AUAR is within the Mississippi River Corridor Critical Area (MRCCA). While no part of the project area actually abuts the river, Staff has noted that the updated MRCCA rules does have provisions addressing public river corridor views, including views from the Ordinary High Watermark from adjacent shorelines. Our intent is to simply reiterate that Dayton should be cognizant of the updated MRCCA rules as their development project unfolds over the coming years.

Funding Source:

This is being handled as part of Staff's regular duties.

Recommendation:

The Planning Commission should review the draft response letter and, if desired, make any revisions and than provide a recommendation to City Council to direct Staff to submit the comments to the City of Dayton.

Action:

Motion to recommend City Council direct Staff to formally submit the response to the North Dayton Development AUAR to the City of Dayton.

Attachments

North Dayton Development Draft AUAR

DRAFT Response Letter

Form Review

Inbox	Reviewed By	Date
Tim Gladhill	Tim Gladhill	07/27/2018 12:40 PM
Form Started By: Chris Anderson		Started On: 07/27/2018 09:16 AM
Final Approval Date: 07/27/2018		

North Dayton Development AUAR

DRAFT Alternative Urban Areawide Review

Dayton, MN

6/29/2018



North Dayton Development Partnership, LLC

Sambatek
Engineering | Surveying | Planning | Environmental

12800 Whitewater Drive, Suite 300
Minnetonka, MN 55343

North Dayton Development

Dayton, MN

Alternative Urban Areawide Review

June 29, 2018

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North Dayton Development

Dayton, MN

Alternative Urban Areawide Review

This Alternative Urban Areawide Review (AUAR) examines approximately 560 acres of land in Dayton, MN to analyze impacts and mitigation measures necessary to accommodate proposed development.

1.	**Project Title**	North Dayton Development
2.	**Proposer**	Dayton Development Partnership, LLC
	Contact Person	Jake Walesch
	Company	Dayton Development Partnership, LLC
	Address	10850 Old County Road 15, Suite 200
	City, State, Zip	Plymouth, MN 55441
	Phone	(763) 546-2727
	Prepared By	Sambatek, Inc.
3.	**RGU**	City of Dayton
	Contact Person	Tina Goodroad
	Address	12260 South Diamond Lake Road
	City, State, Zip	Dayton, Minnesota 55327
	Phone	(763) 421-3487
	E-mail	tgoodroad@cityofdaytonmn.com
4.	**Reason for EAW Preparation**	Over 1,500 residential units proposed for development in a fourth class city triggers a mandatory EIS/AUAR [MN Statute 4410.4400, subpart 14(d)].
5.	**Location and Maps**	The index of figures can be found on the following page.
	County	Hennepin
	City	Dayton
	PLS Location	T120, R22, S8 & T120, R22, S9
	Watershed	Elm Creek Watershed Management Organization
	GPS Coordinates	45°13'07.0"N, 93°28'45.3"W

PIDs and Legal Descriptions

Parcel #	PID	Legal Descriptions
1	912022130001	The Northwest Quarter of the Southeast Quarter of Section 9, Township 120, Range 22, Hennepin County, Minnesota. AND The south 9.17 acres of the Southwest Quarter of the Northeast Quarter of Section 9, Township 120, Range 22, Hennepin County, Minnesota. The east 508.00 feet of the Southwest Quarter of the Northeast Quarter of Section 9, Township 120, Range 22, Hennepin County, Minnesota lying north of the south 9.17 acres thereof. AND The west 500.00 feet of the east 508.00 feet of the Northwest Quarter of the Northeast Quarter of Section 9, Township 120, Range 22, Hennepin County, Minnesota lying southerly of HENNEPIN COUNTY STATE AID HIGHWAY NO, 12, PLAT 23, said Hennepin County, Minnesota.
2	912022120004	That part of the Northwest Quarter of the Northeast Quarter or Section 9, Township 120, Range 22, Hennepin County, Minnesota lying west of the east 508.00 feet thereof and also lying southerly of Hennepin County State Aid Highway No. 12, Plat 23, said Hennepin County, Minnesota. That part of the Southwest Quarter of the Northeast Quarter of Section 9, Township 120, Range 22, Hennepin County, Minnesota lying west of the east 508.00 feet thereof and also lying north of the south 9.17 acres thereof.
3	912022310001	That part of Section 9, Township 120N, Range 22W, described as follows: Commencing at a point 25 feet East of the center of the SIV 1/4 of said Section 9, thence NW 41 feet to a point 32.5 feet North of the center of said SW 1/4; thence North to the NW corner of the NE 1/4 SW 1/4, thence East 80 Rods; thence South 80 Rods; thence West to the Point of beginning, all in Hennepin County, Minnesota.
4	912022240001	That part of the E 1/2 of NW 1/4 of Section 9, Township 120N, Range 22W, lying East of the West 600.66 feet thereof, and Southerly of Dayton River Road, and that part of the West 600.66 feet of the SE 1/4 of the NW 1/4 of said Section 9 lying South of the North 440.1 feet thereof.
5	912022210005	The West 600.66 of the Northwest Quarter of the Northwest Quarter of Section 9, Township 120, Range 22, lying South of the centerline of Hennepin County State Aid Highway No. 12, Plat 23. AND The North 440.10 feet of the West 600.66 feet of the Southeast Quarter of the Northwest Quarter of Section 9, Township 120, Range 22.

6	912022320002	The Northwest Quarter of the Southwest Quarter (NW'/« of SW'/‹) of Section Nine (9), Township One Hundred Twenty (120), Range Twenty-two (22), except that part described as follows: Commencing at the Northwest corner of said NW1/4 of SW1/4; thence South along the West line of said NW1/4 of SW1/4 a distance of 208.71 feet; thence East and parallel with the North line of said NW1/4 of SW1/4 a distance of 208.71 feet; thence North and parallel with the West line of said NW1/4 of SW1/4 to the point of intersection with the North line of said NW1/4 of SW1/4; thence West along the North line of said NW1/4 of SW1/4 to the point of beginning. ALSO: That part of the Northeast Quarter of the Southwest Quarter of Section Nine (9), Township One Hundred Twenty (120), Range Twenty-two (22), beginning at the northeast corner of the Southwest Quarter of the Southwest Quarter (SW'/‹ of SW'/‹) of Section Nine (9), Township One Hundred Twenty (120), Range Twenty-two (22), thence East on quarter-section line Twenty-five (25) feet, thence Northwesterly to quarter-section line Forty-one (41) feet, thence South to the place of beginning.
7	912022320001	That part of the Northwest Quarter of the Southwest Quarter of Section 9, Township 120, Range 22 that is described as follows: Commencing at the Northwest corner of said Northwest Quarter of Southwest Quarter; thence South along the West line of sild Northwest Quarter of the Southwest Quarter a distance of 208.71 feet; thence East and parallel with the North line of said Northwest Quarter of the Southwest Quarter a distance of 208.71 feet; thence North and parallel with the West line of said Northwest Quarter of the Southwest Quarter to the point of intersection with the North line of said Northwest Quarter of the Southwest Quarter; thence West along the North line of said Northwest Quarter of the Southwest Quarter to the point of beginning. Hennepin County, Minnesota
8	912022230003	That part of the West One-Half of the Northwest Quarter, in Section Nine (9), Township One Hundred Twenty (120) and Range Twenty-two (22) lying Southerly of the centerline of Hennepin County State Aid Highway No. 12. Subject to Hennepin County State Aid Highway No. 12.
9	812022410001	The Northeast Quarter of the Southeast Quarter, and the North 66 feet of the Southeast Quarter of the Southeast Quarter, Section 8, Township 120, Range 22, according to the Government Survey thereof.
10	812022140001	Lot 1, Block 1, Dahlheimers Hill.
11	812022140002	The North 676.40 feet of the South 1006.40 feet of the Eat Half of the Northeast Quarter of Section 8, Township 120, Range 22, Hennepin County, Minnesota.
12	812022110004	The North 676.65 feet of the South 1683.05 feet of the Eat 1/2 of the Northeast 1/4 of Section 8, Township 120, Range 22, Hennepin County, Minnesota.
13	812022110006	The North 338.18 feet of the South 2021.23 feet of the East Half of the Northeast Quarter of Section 8, Township 120, Range 22.

14	812022110007	The East Half of the Northeast Quarter of Section 8, Township 120, Range 22, Hennepin County, Minnesota, lying North of the South 2,02 1.33 of the East Half of the Northeast Quarter and except that part thereof platted as Wingard Estates.
15	512022440004	That part of Government Lot 5 of Section 5, Township 120, Range 22, lying southerly of the centerline of Hennepin County State Aid Highway No. 12, Plat 23.
16	512022430004	The East 200 feet of Government Lot 4, Section 5, Township 120, Range 22, West of the 5th Principal Meridian, lying South of Hennepin County Road Number 12, all in Hennepin County, Minnesota.
17	512022430006	All that part of Government Lot 4, Section 5, Township 120, Range 22, Hennepin County, Minnesota described as follows: Commencing at a point on the West line of said Government Lot 4 a distance of 18.28 chains (1206.48 ft) South from the Northwest corner thereof also being 797.13 feet North from the Southwest corner of said Government Lot 4; thence N 80° 00' E 234.13 feet to the actual point of beginning of the land to be described; thence continue N 80° 00' E to the center line of County Road No. 12; thence S 45° 52' E along center line 200.80 feet; thence S 44° 08' W 233.05 feet; thence N 45°54' W 369.42 feet to the point of beginning. Subject to road easement over the Northeasterly 33 feet For the purposes of this description, the West line of Government Lot 4 is assumed to be due North.
18	512022430005	That part of Section 5, Township 120N, Range 22W, described as follows: Commencing at the SW corner of Government Lot 4, thence North along the West line thereof 797.13 feet; thence North 80 degrees East a distance of 234.13 feet; thence South 45 degrees 54 minutes East a distance of 369.42 feet; thence North 44 degrees 08 minutes East to the center line of County Road 12; thence Southeasterly along said center line to a point 200 feet West as measured at right angles from the East line of government lot 4; thence South to the South line thereof; thence West to the Point of Beginning, except road, Hennepin County, Minnesota.
19	812022120001	The SW 1/4 of the NE 1/4; the NW 1/4 of the NE 1/4, except for the road, all in Section 8, Township 120N, Range 22W.
20	812022130001	
21	812022420001	The Northwest Quarter of the Southeast Quarter of Section 8, Township 120, Range 22; AND That part of the North 300 feet of the Northeast Quarter of the Northwest Quarter lying East of a line par with and a distance of 1688.71 feet East from a West line of the Northwest Quarter and that part of the East 300 feet of the Northeast Quarter of the Northwest Quarter lying South of the North 300 feet thereof; all of Section 8, Township 120, Range 22; AND That part of the Northwest Quarter of the Northwest Quarter described as beginning at a point on the West line thereof a distance of 274.71 feet South from the Northwest Corner thereof; thence East 208.71 feet; thence South 25.29 feet; thence East 91.29 feet; thence South 535 feet; thence East 83 feet; thence South 295 feet; thence West 383 feet to the West line thereof; thence North to the point of beginning, excepting the road; all of Section 8, Township 120, Range 22.

The following is a complete list of figures in this AUAR which can be found in **Appendix "A"**.

Figure #	Figure Title
1	Project Regional Location
2	AUAR Study Boundary
3	USGS Map
4	Existing Conditions Aerial
5	Draft Proposed Master Planned Development
6	Existing Cover Types
7	Proposed Cover Types
8	Soils
9	Existing Land Use
10	Future Land Use
11	Mississippi River Critical Area Districts
12	National Wetland Inventory
13	Well Locations
14	Dayton 2010 City Sewer Service Areas
15	Dayton Trunk Sanitary Sewer Plan
16	Dayton Trunk Stormwater Plan
17	Dayton 2010 City Water Service Areas
18	Draft Dayton Comprehensive Trail Plan
19	West Mississippi River Regional Trail Search Corridor

6. Description

The description section of an AUAR should include the following elements for each major development scenario included:

a. Provide a project summary of 50 words or less to be published in the EQB Monitor.

EQB Monitor Heading..... Alternative Urban Areawide Review

Comment Deadline..... August 8, 2018

Project Title ..... North Dayton Development

Project Description..... The proposed North Dayton Development project would entail the development of approximately 560 acres within the City of Dayton, MN. The land in question is generally located north of North Diamond Lake Road, south of Dayton River Road, east of the Daytona Golf Club, and west of Oxbow Lane and the adjacent farmstead. The site currently consists primarily of open farm fields, homesteads, wooded areas and wetlands. Complete development of the site would result in multi-phased development consisting primarily of single family residential surrounding a core of commercial development. The development density is expected to average approximately 3 units per acre, with 1,500 to 1,700 single-family residential homes and a small commercial node consisting of neighborhood retail. City of Dayton's 2030 Future Land Use plan has a higher density than the preferred land use designation proposed by the developer. As outlined in the table below, the single (preferred) scenario studied by this AUAR is less impactful than the City's 2030 Land Use designation.

2030 Future Land Use Designation (2040 Full Build)		**Preferred Land Use Designation (2040 Full Build)**	
Single Family	954 units	Single Family	1,342 units
Multifamily Housing	745 units	Multifamily Housing	267 units
Commercial	168.6 KSF	Commercial	58.2 KSF

By State statute, this level of development requires a mandatory environmental review, so a Scoping Environmental Assessment Worksheet (EAW) was completed in late 2017, and this Alternative Urban Areawide Review (AUAR) was subsequently prepared in accordance with the findings of that document. The EAW Scoping process and comment period did not identify additional scenarios for study.

Copies of the AUAR have been distributed to agencies listed on the most current Minnesota Environmental Quality Board distribution list. The AUAR may be accessed by anyone electronically on the City of Dayton's website; and copies are available for review at City Hall and the Minneapolis Branch of the Hennepin County Public Library (300 Nicollet Mall, Minneapolis).

RGU..... City of Dayton

Contact Person..... Tina Goodroad, AICP

12260 S Diamond Lake Road

Dayton, MN 55327

Phone: 763.421.3487

Email: tgoodroad@cityofdaytonmn.com

b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of

existing structures. Indicate the timing and duration of construction activities.

The area studied by this AUAR is located in the northern portion of the City of Dayton, MN, within Hennepin County (see **Figure 1**). The proposed development site encompasses approximately 560 acres generally located north of North Diamond Lake Road, south of Dayton River Road, east of the Daytona Golf Club, and west of Oxbow Lane and the adjacent farmstead (see **Figure 2**). The topography is comprised of rolling hills (see **Figure 3**). A vast majority of the study area is currently active farmland, with the remaining acreage used for single-family farm dwellings with outbuildings, scattered woods and wetlands. The proposer owns or controls about 500 acres of the study area, with the balance being large lot, single family homesteads or farms located just west of Vicksburg Lane N.

The proposed size and extent of the facility triggers a mandatory environmental review and the RGU has elected to prepare an AUAR to fulfill this requirement. Approximately 1,500 to 1,700 single-family residential homes and a small commercial node consisting of neighborhood retail are anticipated in the project area, **Figure 5** provides a draft representation of the proposed master planned development.

The proposed development of the project area is anticipated to take 10 to 15 years and will begin with single family development on the east side of the project area. The first phase will be graded in 2019 and home construction could begin in late 2019 or possibly 2020. The first phase will be accessed from the east via Riverside Parkway in the adjacent residential development. In the future, the project area is anticipated to develop from east to west based on market demand for homes in the area.

The overall timeline for development (10 to 15 years) may be impacted by the extension of Zanzibar Lane to the project area. It is anticipated that Zanzibar Lane will be connected to Interstate 94 with a new interchange. If this connection is made and Zanzibar Lane is extended to the project area, the pace of development may increase and it would also precipitate the development of a small commercial and multifamily node at the intersection of Zanzibar Lane and the future East/West collector road as shown on **Figure 5**.

The uses for the proposed project consist of residential, commercial and multifamily. The commercial and multifamily uses are anticipated along Zanzibar Lane (see **Figure 5**).

City of Dayton's Draft Park and Trail Plan includes a search area for a Community Park and a Neighborhood Park within the project site; this need is acknowledged and will be addressed by the project (see **Figure 18**).

For purposes of this study we have assumed that 33% of the development will occur at the east side of the project area by 2025. We have also assumed that Zanzibar Lane has not been extended through the project area by 2025 and that access is provided to the project area via Dayton River Road and North Diamond Lake Road.

Development of the site will involve general grading as necessary to facilitate proper drainage, trench cuts for the installation of needed utilities, and grading as needed for overall stormwater management including on-site ponding. A significant focus of grading and stormwater management will be the

adequate treatment of all stormwater and/or potential contaminants on-site prior to discharge. Wetland areas will be preserved in most areas; however, there may be some impacts from new roadways and structures that may require mitigation.

New public roads are planned through the AUAR study area and the AUAR will examine these and adjacent road capacities and intersection configurations to assess whether the existing infrastructure is sufficient to accommodate the proposed development and to identify any needed upgrades.

c. Project Magnitude Data

Total project acreage .....560 acres

Total Building Area..... 1,500 to 1,700 single-family homes

Building Heights .....up to 3 story single family or attached homes

North Dayton Development - Potential Development Yield:

Gross Parcel Acreage (AUAR Study Area) ..... 577.79 acres

-- *less Dayton River Road ROW* .....*3.98 acres*

-- *less Proposed ROW (Arterials)*.....*34.13 acres*

-- *less MRCCA Tree Preservation Area*.....*5.01 acres*

Net Developable Acres..... 534.68 acres

Proposed Land Use	Gross Developable Acres [1]	Land Use Break-down	Residential Units / Acre [2]	City of Dayton Land Use	Total Residential Units	Total Residents [3]	Commercial Building Square Footage (est.)
Low Density Residential - Single Family				2.3 to 4.0 units/acre			
Large Lot (80'x140')	64.2	12%	2.50	–	160	401	–
Traditional Lot (65'x135')	133.7	25%	3.00	–	401	962	–
Village Lot (55'x135')	133.7	25%	3.50	–	468	1,123	–
Low-Medium Density Residential				4.0 to 8.0 units/acre			–
Detached Single-Family Lots (55'x 135')	58.8	11%	3.50	–	206	494	–
Villa Lots (52' x 115')	26.7	5%	4.00	–	107	257	–
Medium Density Residential				6.0 to 12.0 units/acre			–
Attached Rowhomes	26.7	5%	10.00	–	267	642	–

Commercial - Neighborhood/Retail	5.3	1%	–	–	–	–	58,226
Wetlands/Wetland Buffers/Greenspace	49.0	9%	–	–	–	–	–
Parks/Open Space/Clubhouse/ Recreational	36.6	7%	–	–	–	–	–
Totals	534.7	100%	**3.01 units/ acre** [4]		**1,609**	3,879	58,226

[1] *Gross Developable Acreage= Gross Acreage Less Proposed Arterial ROW & MRCCA Tree Preservation Area*

[2] *Development Specific Target Density, including stormwater management areas*

[3] *Total Residential Units x Generic 2.4/unit*

[4] *Average Development Density (1609 total residential units divided by 534.68 acres)*

d. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

The purpose of the project is to provide needed residential housing and neighborhood oriented commercial uses. A governmental unit is not carrying out the project.

e. Are future stages of this development (including development on any other property) planned or likely to happen?

Full project development is proposed to be completed by 2035. No future phases of development are proposed on the project site and planned development in the area is not proposed at this time.

f. Is this project a subsequent stage of an earlier project?

No

MITIGATION MEASURES (QUESTION 6):

- Mitigation measures for the potential development scenario are detailed throughout this AUAR.

7. Cover Types

Estimate the acreage of the site with each of the following cover types before and after development:

- Wetlands – identified by type (Circular 39)
- Watercourses – rivers, streams, creeks ditches
- Lakes – identify protected waters status and shoreland management classification
- Woodlands – breakdown by classes where possible
- Grassland – identify native and old field
- Cropland
- Current development

Please refer to **Figure 6** for a visual depiction of the following existing cover types within the study area:

Cover Types	Before Acres
Types 1-8 wetlands [1]	22.0
Deep Water/Streams	0.0
Wooded/forest	51.0
Brush/Grassland	0.0
Cropland	467.0
Lawn/landscaping	10.0
Impervious surfaces	10.0
Stormwater Pond	0.0
Other (describe)	0.0
TOTALS:	**560.0**

[1] *Wetland acreages are currently estimated based on the available aerial imagery. Future wetland delineations and determinations will ultimately determine the amount of wetland on the site. As development of the site may include wetland impacts, it is recognized that replacement will be needed at a ratio of 2.0:1 or 2.5:1 as part of any final development plan. The future mitigation plan will identify specific requirements.*

MN DNR National Wetland Inventory:

The Minnesota DNR National Wetland Inventory Update was reviewed for the Project Area. The NWI map (see **Figure 12**) identifies 34.1 acres of wetland within the Project Area with the following breakdown:

- 16.5 acres are categorized as Type 1 Seasonally Flooded wetlands. Many of the Type 1 wetlands are farmed or fringe deeper wetland habitats.
- 7.3 acres area classified as Type 5, Open Water wetlands, both of the Type 5 wetlands identified within the Project Area are also listed on the DNR Public Water Inventory.
- 5.6 acres are identified as Type 3, Shallow Marsh wetlands;
- 2.9 acres are identified as Type 6, Shrub-scrub wetlands;
- 1.8 acres of wetland are characterized as Type 4, Deep Marsh wetlands.

The wetland area provided by the NWI map is estimated based on the available aerial imagery and topographic data. A wetland delineation will need to be completed to confirm the presence or absence of wetlands and to determine actual boundaries.

Post Development Cover Types:

A development scenario has not been completed to determine what cover types will exist after the development of the site; however, based on preliminary planning some generalizations about changes to cover types can be made (see **Figure 7**). In general, impervious surfaces and stormwater ponding areas will go up while the remaining cover types will go down. This will be due to the construction of residential units and the streets to service them. The average development density will entail approximately 3.01 residential units per acre. Some commercial units will be constructed along the main thoroughfare of the community to serve the new residents. Stormwater ponds and other structures will be

installed to treat the additional runoff created by the new impervious surfaces. Approximately 9% of the site will be maintained as wetland, wetland buffers, and/or greenspace. Efforts will be made to avoid or minimize wetland impacts where feasible. Parks and open space cover types will be maintained on approximately 7% of the site. This will provide recreational opportunities for the local residents while maintaining some of the natural communities on the site.

MITIGATION MEASURES (QUESTION 7):

- Mitigation measures to address changes in cover type are identified throughout the AUAR.
- The AUAR recognizes that the City has a tree preservation ordinance in place to preserve open space within Dayton. The project will strive to avoid impacts to significant wooded areas and will comply with local ordinances.
- Wetland impacts, when unavoidable to accommodate the proposed project, shall require mitigation as required at the time of application.

8. Permits and approvals required.

List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure. All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.

Currently Assumed Approvals Needed:

Unit of Government	Type of Application	Status
FEDERAL		
US Army Corps of Engineers	404 Wetland Permit	To be applied for if needed
US Fish & Wildlife Service	Endangered Species Review	To be applied for if needed
STATE		
MN Pollution Control Agency	Sanitary Sewer Extension Permit	To be applied for
	National Pollution Discharge Elimination System Construction Permit (NPDES)	To be applied for
	401 Certification (concurrent with Corps Section 404 review)	To be applied for

DNR	MN Natural Heritage Database Review	Complete
State Historic Preservation Office	Archeological/historic sites review	Complete
MN Dept. of Health	Watermain Extension	To be applied for
	Abandonment of Water Wells	To be applied for
Metropolitan Council Environmental Services	Sanitary Sewer Extension Permit	To be applied for
LOCAL		
Hennepin County	Roadway Access Permit	To be applied for
	Plat Approval	To be applied for
City of Dayton	Scoping EAW Approval	Complete
	AUAR Approval	In Process
	Draft 2040 Future Land Use—Master Plan Designation *(proposed use for the study area)*	In Process—Land in question is being re-guided through the City's official planning process for their 2040 Comprehensive Plan Update
	Preliminary/Final Plat	To be applied for
	Site Plan Review	To be applied for
	Master Plan Review	To be applied for
	Preliminary & Final Plat	To be applied for
	Grading Permit	To be applied for
	Building Permit(s)	To be applied for
	Sign Permit	To be applied for
	HVAC Permits	To be applied for
	Plumbing Permits	To be applied for
	Electrical Permits	To be applied for
	Permit for fire sprinkler work	To be applied for
	Permit for fire alarm work	To be applied for
Elm Creek Management Commission	Grading/Erosion Control Permit	To be applied for
	Stormwater Permit	To be applied for

MITIGATION MEASURES (QUESTION 8):

- Project proposers will be required to obtain all necessary permits and approvals at the appropriate times throughout the development process and prior to building construction.

9. Land Use

a. Describe:

i. Existing land use of the site as well as areas adjacent to and near the site, including parks, trails, prime or unique farmlands.

As indicated on the Existing Land Use Map (see **Figure 9**), existing use of the study area is identified as Agriculture. Approximately 82% of the proposed study area is currently being used for agricultural crop production, and the remaining 18% is dominated by wooded open space, wetlands, and farmsteads.

An initial review of soils in the area (see **Figure 8**) shows that approximately 36% of the site qualifies as prime farmland, 19% of the site qualifies as prime farmland if drained, and 36% of the site is farmland of statewide significance. Only 10% of the site (approximately) has soils that do not qualify as prime farmland. The breakdown of soil types based on the Hennepin County Soil Survey is as follows:

Map Symbol	SCS Soils Classification	≈ Acres	% of site	Farmland Rating
D4A	Dorset sandy loam, 0 to 2 percent slopes	0.8	0.1%	Farmland of statewide importance
D67B	Hubbard loamy sand, Mississippi River Valley, 2 to 6 percent slopes	0.2	0.0%	Not prime farmland
L16A	Muskego, Blue Earth, and Houghton soils, ponded, 0 to 1 percent slopes	0.4	0.1%	Not prime farmland
L22C2	Lester loam, 6 to 10 percent slopes, moderately eroded	179.7	32.2%	Farmland of statewide importance
L22D2	Lester loam, 10 to 16 percent slopes, moderately eroded	33.5	6.0%	Not prime farmland
L22F	Lester loam, morainic, 25 to 35 percent slopes	5.8	1.0%	Not prime farmland
L23A	Cordova loam, 0 to 2 percent slopes	21.8	3.9%	Prime farmland if drained
L24A	Glencoe clay loam, 0 to 1 percent slopes	15.4	2.8%	Prime farmland if drained
L25A	Le Sueur loam, 1 to 3 percent slopes	19.4	3.5%	Prime farmland if drained
L36A	Hamel, overwash-Hamel complex, 0 to 3 percent slopes	26.3	4.7%	Prime farmland if drained

L37B	Angus loam, 2 to 6 percent slopes	111.2	19.9%	All areas are prime farmland
L44A	Nessel loam, 1 to 3 percent slopes	73.6	13.2%	All areas are prime farmland
L45A	Dundas-Cordova complex, 0 to 3 percent slopes	12.3	2.2%	Prime farmland if drained
L49A	Klossner soils, depressional, 0 to 1 percent slopes	5.1	0.9%	Not prime farmland
L60B	Angus-Moon complex, 2 to 5 percent slopes	13.8	2.5%	All areas are prime farmland
L61C2	Lester-Metea complex, 6 to 12 percent slopes, eroded	12.6	2.3%	Farmland of statewide importance
L64A	Tadkee-Tadkee, depressional, complex, 0 to 2 percent slopes	1.6	0.3%	Not prime farmland
L70D2	Lester-Malardi complex, 12 to 18 percent slopes, eroded	9.2	1.6%	Farmland of statewide importance
L132A	Hamel-Glencoe complex, 0 to 2 percent slopes	9.9	1.8%	Prime farmland if drained
W	Water	5.1	0.9%	Not prime farmland

Per the City of Dayton Park and Open Space Plan, a potential future trail could be developed adjacent to the proposed four lane county collector road that would bisect the site and run north/south.

The AUAR area is adjacent to the West Mississippi River Regional Trail Search Corridor (see **Figure 19**) which will be planned, developed, and operated by Three Rivers Park District and governed by the 2040 Regional Parks Policy Plan. Per the Dayton Park and Open Space Plan, the City will work to connect surrounding communities to greenways and trails. The City of Dayton does not have a coordinated plan for open space, but does focus on accommodating greenways and open spaces in conjunction with development. According to the Dayton Park and Open Space plan, these corridors will ideally "…protect waterways; …restore, protect and enhance land and water connections between existing habitat to create wildlife corridors; and…connect with surrounding communities' greenways and trails." Development of the site will need to take these local planning efforts into consideration and establish the identified connections.

ii. Plans. Describe planned land use as identified in comprehensive plan (if available) and any other applicable plan for land use, water, or resources management by a local, regional, state, or federal agency.

City of Dayton's 2030 Future Land Use Map (see **Figure 10**) indicates future planned land uses in the

AUAR study area will be Mixed Use, Low-Medium Density Residential, Low-Density Residential, and Agricultural Preserve. The Agricultural Preserve land that is located on the eastern edge of the project area is currently enrolled in the Metropolitan Agricultural Preserve Program and the enrollment will expire in 2019. The entire AUAR study area is also a main focus of the City's official 2040 Comprehensive Plan Update, and the entirety of the study area is currently being re-guided for the mix of uses outlined in this AUAR.

iii. Zoning, including special districts or overlays such as shoreland, floodplain, wild and scenic rivers, critical area, agricultural preserves, etc.

The current zoning of the site consists of A-1 Agricultural District and S-A Special Agriculture District. The proposed zoning of the study area will be a Master Plan area to allow for a creative site design that maximizes land use while providing superior building design and stormwater management to protect surrounding sensitive natural areas. The area surrounding the site is planned for low-density residential housing. The northern portion of the site is located within the Mississippi River Corridor Critical Area Program district CA -SR, separated from the river.

The Mississippi River and adjacent river corridor lands are designated and classified as "Wild & Scenic River" and "Critical Area" and are regulated by provisions of the Mississippi River Corridor Overlay District Section and any other applicable City ordinance provisions including Section 1001.07 Mississippi River Corridor of the Zoning Code.(see **Figure 11**).

b. Discuss the project's compatibility with nearby land uses, zoning, and plans listed in Item 9a above, concentrating on implications for environmental effects.

The current zoning of the site consists of A-1 Agricultural District and S-A Special Agriculture District. As discussed earlier, the proposed zoning of the study area will be a Master Plan and the entirety of the study area is currently being re-guided. The existing use of the study area is identified as Agriculture and the 2030 future land uses are identified as Mixed Use, Low-Medium Density Residential, Low-Density Residential, and Agricultural Preserve. The proposed land uses for the site will include Low-Density Residential - Single Family, Low-Medium Density Residential, Medium Density Residential, Commercial - Neighborhood/Retail, Wetlands/Wetland Buffers/Greenspace, and Parks/Open Space/Clubhouse/ Recreational. While the mix of anticipated uses will change somewhat between the 2030 Comprehensive Plan and the 2040 Comprehensive Plan, this area of the community has long been viewed as a prime development site and a main target for urbanization. Surrounding areas are also guided for low-density single-family residential use which cannot be realized until this development takes place. There are no anticipated land use incompatibilities as a result of this proposed development.

c. Identify measures incorporated into the proposed project to mitigate any potential incompatibility as discussed in Item 9b above.

MITIGATION MEASURES (QUESTION 9):

Mitigation measures that will be incorporated into the proposed project to mitigate against the potential

incompatibility of surrounding land uses include:

- Select wetlands on the project site will be maintained.
- Wetland impacts, when unavoidable to accommodate the proposed development, shall require mitigation as required at the time of application.
- Disturbed areas shall be stabilized and protected as soon as possible following disturbances, and facilities will be implemented to retain sediment on the site.
- Building design shall include the following features or characteristics to offset the proposed building heights and potential visual impacts:
  - Building are to be constructed utilizing high quality materials and architectural design;
  - Lighting must be down directional;
  - A high quality landscaping plan will be submitted to provide additional screening to the north and generally beautify the project throughout.

10. Geology, soils and topography/land forms

a. Geology – Describe the geology underlying the project area and identify and map any susceptible geologic features such as sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions. Discuss any limitations of these features for the project and any effects the project could have on these features. Identify any project designs or mitigation measures to address effects to geologic features.

According to the Hennepin County Geologic Atlas, surficial deposits beneath the study area consist primarily of loamy till. Franconia bedrock is located below the surficial deposits across most of the site. The majority of the study area is noted to have a low sensitivity to groundwater from pollution. According to the Minnesota Karst Inventory dataset, no sinkholes, seeps, or springs are identified within the study area. The closest instance of Karst conditions is 6.19 miles northeast of the study area.

b. Soils and topography – Describe the soils on the site, giving NRCS (SCS) classifications and descriptions, including limitations of soils. Describe topography, any special site conditions relating to erosion potential, soil stability or other soils limitations, such as steep slopes, highly permeable soils. Provide estimated volume and acreage of soil excavation and/or grading. Discuss impacts from project activities (distinguish between construction and operational activities) related to soils and topography. Identify measures during and after project construction to address soil limitations including stabilization, soil corrections or other measures. Erosion/sedimentation control related to stormwater runoff should be addressed in response to the stormwater "water resources" question.

For an AUAR, the number of acres to be graded and number of cubic yards of soil to be moved need not be given; instead, a general discussion of the likely earthmoving needs for development of the area should be given, with an emphasis on unusual or problem areas. In discussing mitigation measures, both the

standard requirements of the local ordinances and any special measures that would be added for AUAR purposes should be included.

The project area includes a number of rolling hills and wetland depressions with approximately 84 feet of elevation difference between the lowest and highest points on the site (lowest points are in the NE corner of the property as land slopes towards the Mississippi River, and highest points are generally south-central on the site atop four main hills). Slope changes on the site have the potential to generate erosion, impact wetlands, and introduce discharge to the Mississippi River. Erosion control measures will be implemented to minimize erosion and protect both wetlands and the river from sediment.

In general, earthmoving will involve the flattening of slopes to accommodate the proposed development. This may involve the removal of material from the south central portion of the site to create a more even surface. Since the site currently slopes towards the Mississippi River, special considerations should be made during grading to minimize erosion and sediment delivery to the river.

As shown on **Figure 8**, the soils on the site consist of the following:

Map Symbol	SCS Soils Classification	Percent of Project Area
D4A	Dorset sandy loam, 0 to 2 percent slopes	0.1%
D67B	Hubbard loamy sand, Mississippi River Valley, 2 to 6 percent slopes	0.04%
L16A	Muskego, Blue Earth, and Houghton soils, ponded, 0 to 1 percent slopes	0.1%
L22C2	Lester loam, morainic, 6 to 12 percent slopes, eroded	32.2%
L22D2	Lester loam, morainic, 12 to 18 percent slopes, eroded	6.0%
L22F	Lester loam, morainic, 25 to 35 percent slopes	1.0%
L23A	Cordova loam, 0 to 2 percent slopes	3.9%
L24A	Glencoe loam, depressional, 0 to 1 percent slopes	2.8%
L25A	Le Sueur loam, 1 to 3 percent slopes	3.5%
L36A	Hamel, overwash-Hamel complex, 1 to 4 percent slopes	4.7%
L37B	Angus loam, 2 to 6 percent slopes	19.9%
L44A	Nessel loam, 1 to 3 percent slopes	13.2%
L45A	Dundas-Cordova complex, 0 to 3 percent slopes	2.2%
L49A	Klossner soils, depressional, 0 to 1 percent slopes	0.9%
L60B	Angus-Moon complex, 2 to 5 percent slopes	2.5%
L61C2	Lester-Metea complex, 6 to 12 percent slopes, eroded	2.3%
L64A	Tadkee-Tadkee, depressional, complex, 0 to 2 percent slopes	0.3%
L70D2	Lester-Malardi complex, 12 to 18 percent slopes, eroded	1.6%
L132A	Hamel-Glencoe, depressional, complex, 0 to 3 percent slopes	1.8%

The USDA maps show the majority of the site consists of Lester loam, morainic, 6-12% slopes, eroded and Angus loam, 2-6 % slopes. Both Lester loam and Angus loam consist of loam overlaying clay loam.

The project area will be mass graded in several phases beginning at the east side of the site. The phases will be market driven and likely exist of 20 to 80 acres in each phase. As is typical with residential site grading, the street section will be established following the existing terrain filling some lower areas and cutting the hilltops. Home pads will be graded adjacent to the roadways. Typical cut or fill depths are in the 2 to 10 ft. range. Existing topsoil in the project area is anticipated to be 1 to 3 ft. in depth with greater depths near wetland areas. Topsoil will be stripped and salvaged such that a minimum four inch topsoil layer will be provided for the project area, according to local code requirements.

At this time no unusual requirements are anticipated for the site grading operations.

County Well Index data was used to determine the elevation of the aquifer (see **Appendix B**). Based on well log data for wells located on site, the elevation of the aquifer beneath the site is approximately 65 feet below ground surface. Test wells completed on the site did not identify static water table levels.

MITIGATION MEASURES (QUESTION 10):

Mitigation measures that will be incorporated into the proposed project to mitigate against the potential incompatibility of surrounding land uses include:

- Any vegetation, topsoil, organics, and/or soft clays should be removed from within the building footprints and oversize areas prior to construction.
- Excavation bottoms should be observed by a geotechnical engineer, or their representative, to judge if excavation bottom soils are similar to those encountered within the geotechnical report. Actual depths of excavation will need to be determined in the field at the time of construction by a geotechnical engineer prior to new fill or concrete placement.
- To provide lateral support of structural loads, it is recommend that oversizing (widening) excavations one (1) foot horizontally beyond the footings for each foot excavations extend below bottom-of-footing elevations.
- The contractor should develop a groundwater control plan for use if groundwater is encountered during construction.
- If groundwater is encountered, a dewatering permit from the Minnesota DNR may be required if the dewatering is expected to exceed 10,000 gallons per day or one million gallons per year.
- In areas where site grading will be performed early in the construction phasing (i.e., where a construction delay of at least 6 months can be accommodated), backfill materials should be composed of non-organic mineral soils containing no debris and having a PI (Plastic Index) less than 20. In areas where a construction delay will not be accommodated (i.e., Building E soil corrections), it is recommend that the balance of excavation backfill greater than 10 feet in thickness below bottom of

footing elevations be composed of granular soils. Any fill depths in excess of 10 feet in thickness below footings should consist of granular soil (sand containing less than 10 percent, by weight, of particles passing a size No. 200 sieve) to minimize the risk of detrimental settlement.

- Fill and backfill should be placed in loose lifts no thicker than 12 inches.

11. Water Resources

a. Describe surface water and groundwater features on or near the site in a.i. and a.ii. below.

i. Surface water - lakes, streams, wetlands, intermittent channels, and county/judicial ditches. Include any special designations such as public waters, trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, and outstanding resource value water. Include water quality impairments or special designations listed on the current MPCA 303d Impaired Waters List that are within 1 mile of the project. Include DNR Public Waters Inventory number(s), if any.

Several wetlands are located within the AUAR study area including the following Unnamed DNR Wetlands; 27-104, 27-215, 27-216, 27-217, and 27-124 (also listed as a natural environment lake). The Mississippi River is located just north of the site. The stretch of the river in the vicinity of the project is impaired for fecal coliform, nutrients, polychlorinated biphenyls in fish tissue, and mercury in fish tissue. The study area is located within one mile of two additional impaired waterbodies: Diamond Creek and Diamond Lake (27-125). Diamond Creek is impaired for E. Coli and dissolved oxygen. Diamond Lake is impaired for nutrients. These waterbodies are located south of the study area and do not receive runoff from the study area.

ii. Groundwater – aquifers, springs, seeps. Include: 1) depth to groundwater; 2) if project is within a MDH wellhead protection area; 3) identification of any onsite and/or nearby wells, including unique numbers and well logs if available. If there are no wells known on site or nearby, explain the methodology used to determine this.

Depth to groundwater is estimated at approximately 65 feet below ground level. According to the Minnesota Well Index seven private wells are identified within the study area. The Minnesota Well Index also identifies fourteen test wells within the study area. No geotechnical report is proposed for the site at this time. The development site is located within the vicinity of the proposed North Dayton Well Field. Once completed, the North Dayton Well Field will supply water to future developments within the North Dayton District. The study area is not within an identified MDH wellhead protection area.

b. Describe effects from project activities on water resources and measures to minimize or mitigate the effects in Item b.i. through Item b.iv. below.

i. Wastewater – For each of the following, describe the sources, quantities and composition of all sanitary, municipal/domestic and industrial wastewater produced or treated at the site.

1) If the wastewater discharge is to a publicly owned treatment facility, identify any pretreatment

measures and the ability of the facility to handle the added water and waste loadings, including any effects on, or required expansion of, municipal wastewater infrastructure.

2) If the wastewater discharge is to a subsurface sewage treatment systems (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system.

3) If the wastewater discharge is to surface water, identify the wastewater treatment methods and identify discharge points and proposed effluent limitations to mitigate impacts. Discuss any effects to surface or groundwater from wastewater discharges.

The project site is currently included within the 2030 MUSA Boundary. The study area is in the NE Dayton service area and sewer flows from this site will be routed to the Metropolitan Council Metro Wastewater Treatment Plant which is capable of treating all estimated flows produced by this development (see **Figure 14**). Based on the location of the existing sanitary sewer lines, an extension of the system will be necessary to bring service to the site. The City of Dayton Comprehensive Plan includes proposed trunk sanitary sewer and force main coverage for this project area (see **Figure 15**). Wastewater discharge from the development would be domestic wastewater. The estimated volumes for the development shown below vary based on number of residential homes. Volumes are estimated based on the Metropolitan Council Environmental Services Service Availability Charge (SAC) Procedure Manual dated January 2017. One sac per 274 gallons per day. The receiving water body from the Metropolitan Wastewater Treatment Plant is the Mississippi River.

Use	Building SF	SAC Equivalent	Unit	Rate (Unit/SAC)	SAC	GPD	GPM	Peak GPM	Peak CFS
Residential	NA	1500	Each	1	1500	411,000	381	1142	2.54
Residential	NA	1700	Each	1	1700	465,800	431	1294	2.88

Based on SAC guidelines, daily maximum wastewater generated by the proposed development will vary between 411,000 and 465,800 gallons per day based on the number of residential homes. At a peaking factor of 3, the proposed development is expected to generate a peak wastewater flow of 1,233,000 to 1,397,400 gallons per day.

The Metropolitan Council's Metropolitan Wastewater Treatment Plant, located in St. Paul, has experienced an average wet weather design flow of 314 mgd with an average daily influent of 131.35 mgd from November of 2016 to November of 2017. The facility is capable of treating the volume and composition of wastewater projected to be generated by the development without pretreatment or other plant facility improvements. The receiving waterbody from the Metropolitan Wastewater Treatment Plant is the Mississippi River.

The southwest portion of the project area is outside the 2020 staging of the 2030 Comprehensive Plan Update. The City of Dayton will need to revise the 2020 staging to include this portion of the project either through a comprehensive plan amendment or incorporation within the 2040 Comprehensive Plan Update.

ii. **Stormwater** - Describe the quantity and quality of stormwater runoff at the site prior to and post construction. Include the routes and receiving water bodies for runoff from the site (major downstream water bodies as well as the immediate receiving waters). Discuss any environmental effects from stormwater discharges. Describe stormwater pollution prevention plans including temporary and permanent runoff controls and potential BMP site locations to manage or treat stormwater runoff. Identify specific erosion control, sedimentation control or stabilization measures to address soil limitations during and after project construction.

The existing site consists primarily of previously farmed land, wetlands and some brushy wooded areas. The majority of existing site runoff would be from the previously farmed areas. The type of runoff is typical pasture and previously farmed land (i.e. residual fertilizer, herbicide, pesticide, sediment from tilling and planting, etc.). Ultimately, the area drains to the Mississippi River.

The proposed development will include significant impervious surfaces, but such surfaces would be accompanied by water quality treatment and quantity discharge controls in accordance with current day regulations. Specifically, stormwater would be treated prior to discharge according to the MPCA requirements for Permanent Stormwater Management System in the NPDES Construction Stormwater General Permit and the City of Dayton requirements for stormwater treatment and rate control. Elm Creek Watershed Management Organization (ECWMO) rules will also guide final design.

ECWMO requires rate control, water quality, and water quantity conditions to be met onsite. Post development discharge rates are not to exceed existing rates for the 2-, 10-, and 100-year, 24 hour NOAA Atlas 14 rainfall events. Water quality on site must be such that there is no net increase in total phosphorus or total suspended solids from pre-development to post-development conditions. Abstraction must be provided on site equal to the equivalent of 1.1 inches of runoff from all impervious surfaces.

The project will be required to provide both temporary and permanent erosion and sediment control as required by the City of Dayton, Elm Creek Watershed Management Commission, and the MPCA NPDES Construction Stormwater Permit. Temporary erosion control measures may include rock entrances, silt fences, silt curtain, biorolls, erosion control mats, inlet protection, rock check dams, temporary seeding and mulching, and temporary sediment basins, as needed. Due to the Mississippi River being an impaired waterbody and a Scenic or Recreational River segment, stabilization of exposed soils must occur within 7 days after construction activity has ceased, rather than the typical 14 days. Additionally, temporary sedimentation basins will be required for all drainage locations receiving runoff from 5 or more acres of disturbed area, rather than the typical 10 days. In compliance with the Permanent Stormwater Management System in the NPDES Construction Permit, permanent BMPs will be constructed onsite.

Prior to discharging stormwater runoff into infiltration and filtration facilities, runoff will be pretreated to remove solids in order to maintain the facilities capacities. It is anticipated that permanent stormwater treatment may include the construction of detentions ponds to remove

suspended solids prior to the discharge of stormwater runoff. Storm water ponds and outlet control structures would be designed and constructed to minimize sediment transport. Storage within detention ponds will be sized to contain a volume greater than or equal to a 2.5 inch rainfall over the contributing area.

The majority of the project area consists of loam type soils which may not be suitable for infiltration. Where feasible, infiltration will be the preferred stormwater treatment. Where infiltration is infeasible, credit towards abstraction may be met through soil quality amendments, preservation of undisturbed forest or grassland areas, providing excess wetland buffers, or disconnection of impervious surfaces. Further details on the requirements for these credits are provided in section 3.C.ix of the ECWMO 'Appendix O Rules and Standards'. Additionally, where infiltration is infeasible, biofiltration will be provided for the remainder of the abstraction volume. Where biofiltration is infeasible, filtration through an engineered media to remove soluble phosphorus will be required.

Predevelopment phosphorus loadings are based on existing land cover. The MIDS calculator will be used to determine existing suspended solids loading and proposed phosphorus and suspended solids loading onsite.

iii. **Water appropriation** - Describe if the project proposes to appropriate surface or groundwater (including dewatering). Describe the source, quantity, duration, use and purpose of the water use and if a DNR water appropriation permit is required. Describe any well abandonment. If connecting to an existing municipal water supply, identify the wells to be used as a water source and any effects on, or required expansion of, municipal water infrastructure. Discuss environmental effects from water appropriation, including an assessment of the water resources available for appropriation. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation.

The project site is located in the North Dayton Service Area and will be served by the City of Dayton municipal water supply system for domestic water use and fire protection (see **Figure 17**). A city well exists in the northwest part of Dayton that serves the area known as the Historic Village. The construction of a second well on this system is currently being considered for construction (in 2018). The second well is being considered only to serve as a redundant source, and is not required to serve and additional capacity need. Extension of the network required to serve this development, to connect to the system in the northwest, should be considered for an alternate means for gaining the additional capacity (production) required to support the development. The timing of the extension has not been determined and an additional well to the northeast may be required to provide additional water service if the extension is not completed prior to the completion of the proposed development. The project is anticipated to require 150,000 to 170,000 gallons per day based on typical demand factors for the proposed number of residential units as outlined in the following table.

Use	Building SF	Unit	Number of units per use	Gallon per unit per day	Average Daily demand (GPD)	Peaking Factor	Peak GPD	Peak GPM
Residential	NA	Each	1500	100	150,000	3.0	450,000	417
Residential	NA	Each	1700	100	170,000	3.0	510,000	472

Dewatering may be necessary for installation of underground utilities. Dewatering volumes of less than 50 million gallons will be permitted under the Department of Natural Resources "General Permit for Temporary Water Appropriations." Volumes over 50 million gallons will require an individual permit from the MnDNR. Dewatering volumes will be discharged on site.

iv. Surface Waters

1) **Wetlands** - Describe any anticipated physical effects or alterations to wetland features such as draining, filling, permanent inundation, dredging and vegetative removal. Discuss direct and indirect environmental effects from physical modification of wetlands, including the anticipated effects that any proposed wetland alterations may have to the host watershed. Identify measures to avoid (e.g., available alternatives that were considered), minimize, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed, and identify those probable locations.

   Several wetlands are located within the AUAR study area including the following Unnamed DNR Wetlands; 27-104, 27-215, 27-216, 27-217, and 27-124 (also listed as a natural environment lake).Wetland areas will be preserved in most areas. However, there may be some impacts from new roadways and structures that may require mitigation. Any wetlands used for stormwater treatment must undergo the wetland mitigation process. All wetland impacts would need to be permitted through local, state, and federal agencies as needed at an anticipated replacement ration of 2:1. In accordance with Hennepin County all wetland mitigation will be completed on-site or purchased from an approved wetland bank within Hennepin County. Mitigation measures to reduce wetland impacts may include silt fence, silt curtain, and buffers in addition to permanent stormwater management practices such as sedimentation basins and infiltration basins.

2) **Other surface waters**- Describe any anticipated physical effects or alterations to surface water features (lakes, streams, ponds, intermittent channels, county/judicial ditches) such as draining, filling, permanent inundation, dredging, diking, stream diversion, impoundment, aquatic plant removal and riparian alteration. Discuss direct and indirect environmental effects from physical modification of water features. Identify measures to avoid, minimize, or mitigate environmental effects to surface water features, including in-water Best Management Practices that are proposed to avoid or minimize turbidity/sedimentation while physically altering the water features. Discuss how the project will change the number or type of watercraft on any water body, including current and projected watercraft usage.

The proposed project will not involve physical or hydrologic alterations of surface waters.

MITIGATION MEASURES (QUESTION 11):

- A Stormwater Pollution Prevention Plan (SWPPP) must be prepared to ensure compliance to applicable regulations. The plan will include references to the following:
  - Erosion control blanket will be placed as soon as feasible after the slopes are constructed
  - Only "wildlife friendly" erosion control mesh will be used
  - Permanent vegetation installation procedures will follow MNDOT's "Standard Specifications for Construction", 2005 edition, as may be amended
- Discharge rates will not exceed the existing rates for 2, 10, and 100 year storm events.
- Phosphorus loading in the discharged stormwater runoff will not exceed existing phosphorus loading.
- Infiltration of 1 inch of runoff from new impervious surfaces will be provided, where feasible.
- The project will comply with all applicable setbacks and ordinances, including a 150 foot setback from Public Water Wetland 27-124 and an undisturbed 100 foot buffer zone from the Mississippi River.
- Steep slopes will be protected to avoid downstream degradation of soils.
- Duration of disturbed soils will be minimized through construction phasing.
- All wetlands mitigation will be completed on-site or purchased from an approved wetland bank within Hennepin County.
- In-water construction activity will be avoided, but where it does occur best management practices such as silt curtain will be utilized.

12. Contamination/Hazardous Materials/Wastes

a. Pre-project site conditions - Describe existing contamination or potential environmental hazards on or in close proximity to the project site such as soil or ground water contamination, abandoned dumps, closed landfills, existing or abandoned storage tanks, and hazardous liquid or gas pipelines. Discuss any potential environmental effects from pre-project site conditions that would be caused or exacerbated by project construction and operation. Identify measures to avoid, minimize or mitigate adverse effects from existing contamination or potential environmental hazards. Include development of a Contingency Plan or Response Action Plan.

Based on past land uses and review of the Minnesota Pollution Control Agency's What's in My Neighborhood database, environmental hazards are not expected to be found in the study area. A majority of the subject site is still currently used for agricultural purposes with portions of the property

covered by woods or wetlands. There are no present records of enforcement or other active producers or users of hazardous materials within the study area.

b. Project related generation/storage of solid wastes - Describe solid wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from solid waste handling, storage and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of solid waste including source reduction and recycling.

The generation of regulated solid and liquid wastes by future tenants is anticipated to be at levels typical of residential land and neighborhood supporting commercial uses elsewhere. Solid waste generation by residents would occur as buildings are completed and occupied. Solid waste disposal or recycling would be privately managed and contracted by the tenants from a licensed hauler. The City of Dayton and the developer will require up-to date recycling in accordance with the Minnesota State Building code. Waste minimization will be encouraged through the development project design and will be encouraged of the tenants.

c. Project related use/storage of hazardous materials - Describe chemicals/hazardous materials used/stored during construction and/or operation of the project including method of storage. Indicate the number, location and size of any above or below ground tanks to store petroleum or other materials. Discuss potential environmental effects from accidental spill or release of hazardous materials. Identify measures to avoid, minimize or mitigate adverse effects from the use/storage of chemicals/hazardous materials including source reduction and recycling. Include development of a spill prevention plan.

No hazardous materials are anticipated to be used or stored on site other than those consistent with residential and neighborhood commercial uses. If any tenants require storage of petroleum products or other liquid chemicals, that storage will designed and permitted in accordance with the applicable codes such as the International Building Code, Mechanical Code, Plumbing Code and other requirements that the City of Dayton may require of similar installations.

d. Project related generation/storage of hazardous wastes - Describe hazardous wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from hazardous waste handling, storage, and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of hazardous waste including source reduction and recycling.

If any tenants of the new development generate or store hazardous wastes, all such activity will be designed and permitted in accordance with the applicable codes such as the International Building Code, Mechanical Code, Plumbing Code and other requirements that the City of Dayton may require of similar installations.

MITIGATION MEASURES (QUESTION 12):

Mitigation measures that will be incorporated into the proposed project to mitigate against the potential incompatibility of surrounding land uses include:

- Any existing discarded materials or debris found onsite will be properly disposed offsite. Upon removal of any discarded materials and debris, areas of surficial soil staining, odors, or other evidence of impact, if encountered, will be characterized and appropriately disposed offsite.
- Solid waste produced on site shall be stored appropriately and disposed of correctly. Any tenant that causes extra solid waste beyond the normal use of the site must comply with federal, state, and local rules regarding storage and disposal.
- Any chemicals/hazardous materials generated or stored on site must meet all federal, state, and local requirements.

13. Fish, wildlife, plant communities, and sensitive ecological resources (rare features)

a. Describe fish and wildlife resources as well as habitats and vegetation on or in near the site.

The area being studied is largely dominated by cultivated land with a few areas of wetlands and woods. Wildlife resources that exist throughout the site likely include those species that have adapted to open lands and cropland habitats such as rabbit, fox, coyote, white-tailed deer, wild turkey, songbirds, field mice, and a variety of insects. Cropland habitat is dependent on the established crop or farming use at any given time and is not considered year-round habitat.

b. Describe rare features such as state-listed (endangered, threatened or special concern) species, native plant communities, Minnesota County Biological Survey Sites of Biodiversity Significance, and other sensitive ecological resources on or within close proximity to the site. Provide the license agreement number (LA-____) and/or correspondence number (ERDB 20180177) from which the data were obtained and attach the Natural Heritage letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe the results.

The proposed project overlaps with the North Metro Mississippi River Important Bird Area (IBA). Important Birds Areas, identified by Audubon Minnesota in partnership with the DNR, are part of an international conservation effort aimed at conserving critical bird habitats. They are voluntary and nonregulatory, but the designation does demonstrate the biological value of this surrounding area. The Mississippi Flyway is extremely important for all migratory birds. While the IBA boundaries and the proposed project boundary include disturbed land, the proposed development has the potential to further impact the Mississippi River and the IBA through the loss of wetlands and mature trees and through additional runoff due to increased impervious cover.

The proposed project boundary is near an area of statewide importance to Blanding's turtles (Emydoidea blandingii), a state-listed threatened species, and this rare turtle may be encountered on site. Blanding's turtles use wetlands as well as upland areas over a mile distant from wetlands. Uplands are used for

nesting, basking, periods of dormancy, and traveling between wetlands. Factors believed to contribute to the decline of this species include collisions with vehicles, wetland drainage and degradation, and the development of upland habitat. Any added fatality can be detrimental to populations of Blanding's turtles, as these turtles have a low reproduction rate that depends upon a high survival rate to maintain population levels. The project has the potential to impact this rare turtle through direct fatalities or habitat disturbance/destruction due to dewatering, excavation, fill, or other construction activities associated with the project.

The black sandshell (Ligumia recta), a state-listed mussel of special concern, has been documented in the Mississippi River in the vicinity of the proposed project. Mussels are particularly vulnerable to deterioration in water quality, especially increased siltation. As such, it is important that effective erosion prevention and sediment control practices be implemented and maintained near the river during construction and incorporated into any stormwater management plan.

The northern long-eared bat (Myotis septentrionalis), federally listed as threatened and state-listed as special concern, can be found throughout Minnesota. During the winter this species hibernates in caves and mines, and during the active season (approximately April-October) it roosts underneath bark, in cavities, or in crevices of both live and dead trees. Pup rearing is during June and July. Activities that may impact this species include, but are not limited to, wind farm operation, any disturbance to hibernacula, and destruction/degradation of habitat (including tree removal). The U.S. Fish and Wildlife Service (USFWS) has published a final 4(d) rule that identifies prohibited take. The NHIS does not contain any known occurrences of northern long-eared bat roosts or hibernacula within an approximate one-mile radius of the proposed project.

c. Discuss how the identified fish, wildlife, plant communities, rare features and ecosystems may be affected by the project. Include a discussion on introduction and spread of invasive species from the project construction and operation. Separately discuss effects to known threatened and endangered species.

Populations of species that depend upon cropland will likely be displaced to nearby farm fields and the Three Rivers 3,000 acre park area; some songbirds that readily adapt to suburban habitats may become more numerous. Overall, the project is not expected to result in a regionally significant decline in wildlife abundance or species diversity.

d. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to fish, wildlife, plant communities, and sensitive ecological resources.

The creation of new stormwater ponds will help to mitigate the adverse effects on some wildlife. Stormwater management plans will be drawn up to ensure rates and volumes of surface water discharge are acceptable or better than pre-development conditions, which in turn will support the health of surrounding ecosystems. Preservation of open space will also be implemented to reduce impacts to trees and tree removal as is relates to the Mississippi River IBA.

MITIGATION MEASURES (QUESTION 13):

Mitigation measures that will be incorporated into the proposed project to mitigate against the potential incompatibility of surrounding land uses include:

- Project design will minimize impacts to wooded and wetland areas.
- Development should not encroach into the wetland areas to preserve existing habitat in the area. Loss of wetlands on the interior of the development site shall be mitigated in accordance with all Local, State or Federal regulations as may be applicable.
- Development shall be required to meet all wetland replacement requirements to replace habitat being lost as a result of the proposed development.
- The City will provide Blanding's turtle information sheets prepared by the DNR to contractors working in the study area.
- If Blanding's turtle are encountered during construction activity, the contractor will be required to move turtles that are in harm's way. Turtles that are not in imminent danger shall be left undisturbed.
- Silt fencing shall be set up to keep turtles out of construction areas. It is critical that silt fencing be removed after the area has been re-vegetated.
- All wetlands should be protected from pollution; use of fertilizers and pesticides should be avoided, and run-off from lawns and streets should be controlled.
- Roads should be kept to minimum standards on widths and lanes.
- The development should consider roads that are ditched, and are not curbed or below grade. If curbs must be used in areas adjacent to wetlands and ponds, 4" high curbs at a 3:1 slope are preferred.
- Because trenches can trap turtles, trenches should be checked for turtles by the contractor prior to being backfilled.
- Open space areas should be re-vegetated with native grasses and forbs.
- Vegetation management in infrequently mowed areas -- such as in ditches, along utility access roads, and under power lines -- should be done mechanically (chemicals should not be used). Work should occur fall through spring (after October 1st and before June 1st).
- Erosion control measures will be implemented to limit sedimentation.
- Wildlife friendly erosion control methods such as "Natural Netting" erosion control blanket should be used to prevent wildlife entanglement

14. Historic properties

Describe any historic structures, archeological sites, and/or traditional cultural properties on or in close proximity to the site. Include: 1) historic designations, 2) known artifact areas, and 3) architectural features. Attach letter received from the State Historic Preservation Office (SHPO). Discuss any anticipated effects to historic properties during project construction and operation. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to historic properties.

The SHPO was contacted regarding the potential for historic, cultural, or architectural resources on and near the site. In correspondence dated September 29, 2017, in their search of the Minnesota Archaeological Inventory and Historic Structures Inventory, SHPO identified no historic structures in the project area. SHPO's records indicates there are three archaeological resources in the project vicinity. Offsite resources including the three archaeological sites that are outside of the project area are not anticipated to be impacted by the development of the project. SHPO went on to note that because the majority of archaeological sites in the state and many historic architectural properties have not been recorded, important sites or structures may exist within the search area and may be affected by development projects within that area. Although no known resources have been identified onsite, in the event that a possible resource is encountered during project construction, all activities will cease and proper authorities will be contacted. The SHPO correspondence is included in **Appendix C.**

MITIGATION MEASURES (QUESTION 14):

- None.

15. Visual

Describe any scenic views or vistas on or near the project site. Describe any project related visual effects such as vapor plumes or glare from intense lights. Discuss the potential visual effects from the project. Identify any measures to avoid, minimize, or mitigate visual effects.

Any change from cropland to developed land will have an impact on the visual look of the property, but the development in general is not anticipated to have an impact on specific scenic views or vistas within the community. To offset the general visual impact that comes with any development, the proposed buildings will be constructed using high-quality materials. Landscaping will be introduced throughout the site especially to provide screening from a nearby residential development. All lighting for the development will be shielded and down directional so as to minimize glare onto surrounding properties.

MITIGATION MEASURES (QUESTION 15):

- To offset the general visual impact that comes with any development, the proposed buildings will be constructed using high-quality materials.
- Landscaping should be introduced throughout the site—especially in the northeast corner—to provide screening from a nearby residential development.

- All lighting for the development should be shielded and down directional so as to minimize glare onto surrounding properties.
- Wooded areas along the lakes shall be preserved to maintain a visual barrier when possible.
- The project will comply with the City's Buffering Requirements along all major roads.

16. Air

a. Stationary source emissions - Describe the type, sources, quantities and compositions of any emissions from stationary sources such as boilers or exhaust stacks. Include any hazardous air pollutants, criteria pollutants, and any greenhouse gases. Discuss effects to air quality including any sensitive receptors, human health or applicable regulatory criteria. Include a discussion of any methods used assess the project's effect on air quality and the results of that assessment. Identify pollution control equipment and other measures that will be taken to avoid, minimize, or mitigate adverse effects from stationary source emissions.

The project would not result in stationary source air emissions, and therefore this item is not applicable to the AUAR. Any stationary air emissions source large enough to merit environmental review requires individual review.

b. Vehicle emissions - Describe the effect of the project's traffic generation on air emissions. Discuss the project's vehicle-related emissions effect on air quality. Identify measures (e.g. traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate vehicle-related emissions.

Motor vehicle emissions will be associated with vehicles traveling to and from the redevelopment site and from construction equipment necessary for the proposed construction activities. The most critical pollutant associated with vehicular traffic in Minnesota is carbon monoxide (CO). Carbon monoxide (CO) is one of five vehicle emission pollutants for which the US Environmental Protection Agency has standards. CO is a colorless, odorless and tasteless toxic gas produced by the incomplete burning of carbon in fuel. Concentrations of carbon monoxide are typically greatest at intersections with poor levels of service because of excessive idling or acceleration of vehicles. The existing concentration of carbon monoxide at the project location is considered to be low because no part of Dayton has been identified as a Carbon Monoxide Level Non-Attainment Location. The Minnesota Pollution Control Agency has a nearby ambient air quality monitoring station in Anoka (MPC Station 6020). In addition, charging stations for electric vehicles will be considered in pertinent public areas.

c. Dust and odors - Describe sources, characteristics, duration, quantities, and intensity of dust and odors generated during project construction and operation. (Fugitive dust may be discussed under item 16a). Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.

Odors generated during construction will be mitigated by maintenance of the construction equipment to the manufacturers' specifications and by using appropriate fuel additives when necessary. Grading and

construction will temporarily generate dust. BMPs and other standard construction methods will be used to reduce construction impacts such as intermittent applications of water to exposed soils as needed to reduce dust during dry weather. Construction equipment is expected to be dispersed on the site rather than concentrated in one limited area for extended periods of time to limit potential impacts.

Once the site is developed, the resulting vehicular traffic is not anticipated to generate unusual amounts of dust or odors. Both, arguably, will be lessened when compared to the existing agricultural use. There are no sensitive receptors (such as hospitals) near the site.

MITIGATION MEASURES (QUESTION 16):

- Measures to offset the anticipated traffic impacts are discussed in Question 18. All such mitigation factors should be implemented to address air related concerns.

17. Noise

Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including 1) existing noise levels/sources in the area, 2) nearby sensitive receptors, 3) conformance to state noise standards, and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.

Grading and construction will temporarily generate noise. BMPs and other standard construction methods will be used to reduce construction impacts such as limiting hours of operation to comply with the noise regulations in City ordinance. Construction equipment is expected to be dispersed on the site rather than concentrated in one limited area for extended periods of time to limit potential impacts.

Special consideration will be given to noise levels and proximity to surrounding areas. City of Dayton's Noise Control Ordinance specifies the maximum noise levels by receiving land use as the following:

Sound Levels by Receiving Land Use				
	Day (7:00 a.m. - 10:00 p.m.)		Night (10:00 p.m. - 7:00 a.m.)	
Zoning district	**L50**	**L10**	**L50**	**L10**
Commercial	65	70	65	70
Industrial	75	80	75	80
Residential	60	65	50	55

Once the site is developed and the structures are occupied, the resulting vehicular traffic is anticipated to generate a limited increase in noise in the area. There are no sensitive receptors (such as hospitals) near the site. Vehicular noise will be addressed further in Item 18.

MITIGATION MEASURES (QUESTION 17):

- The project will comply with Dayton's Public Peace and Safety Code, Section 130.08 Noise Control as well as the State's noise regulations to minimize impacts.

18. Transportation

a. Describe traffic-related aspects of project construction and operation. Include: 1) existing and proposed additional parking spaces, 2) estimated total average daily traffic generated, 3) estimated maximum peak hour traffic generated and time of occurrence, 4) indicate source of trip generation rates used in the estimates, and 5) availability of transit and/or other alternative transportation modes.

1) Existing and proposed additional parking spaces,

There are currently no parking spaces provided where the proposed development will be constructed. The residential lots will include separate driveways and garages for off-street vehicle parking and storage. The commercial component will provide off-street parking commensurate with the type of retail development that occurs.

2) Estimated total average daily traffic generated,

The proposed development was analyzed under two development scenarios: existing City of Dayton Land-Use plans and a Developer Preferred land use plan. Under the City's land use designations, approximately 20,822 daily trips (10,411 entering and 10,411 exiting) during an average weekday are expected. The Developer's preferred land use results in approximately 16,820 daily trips during an average weekday are expected (8,410 entering and 8,410 exiting).

3) Estimated maximum peak hour traffic generated and time of occurrence,

The maximum peak hour traffic within the study area occurs during the PM peak, which depending on the intersection, occurs between 4:15 PM to 5:15 PM. It is expected that the proposed development's maximum traffic will also occur during this time. Within this peak hour, the City's proposed land use plan is expected to generate 2,003 trips, consisting of 1,166 entering vehicles and 837 exiting vehicles. The Developer's proposed land use plan is expected to generate 1,699 trips, consisting of 1,037 entering vehicles and 662 exiting vehicles.

See the Traffic Impact Study (**Appendix D**) for a full description of the peak hour traffic in addition to its analyses and recommendations.

4) Indicate source of trip generation rates used in the estimates,

The trip generation analysis for the development site was established using the methods and rates published in the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition*.

It should be noted that Spack Consulting has also completed trip generation studies in the Metro area and found the local trip generation rates for residential uses to be lower than the comparable ITE rates. For the purposes of this study, ITE trip generation rates were used to provide a conservatively high estimate.

See the Traffic Impact Study for full details of the traffic expectations and any recommended mitigation.

5) Availability of transit and/or other alternative transportation modes.

Transit and alternative transportation modes are limited for this site with bus service provided along Dayton River Road and TH 169 only. Also, trails/sidewalks are provided on the east and west end of Dayton River Road, as well as on S. Diamond Lake Road, TH 169, River Hills Parkway, and 141st Avenue near Trunk Highway 101.

b. Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system. If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW. Use the format and procedures described in the Minnesota Department of Transportation's Access Management Manual, Chapter 5 (available at: http://www.dot.state.mn.us/accessmanagement/resources.html) or a similar local guidance.

A Traffic Impact Study for the proposed site was completed in May 2018. Each scenario (City's land use and Developer's land use) assumed the proposed development was one-third complete by 2025 with full occupation by 2040. Since the Developer's land use plan is expected to have less traffic than the City's land use plan, traffic operations were only evaluated using the Developer's land use plan.

Due to general background growth and adjacent specific developments, the following mitigation is recommended with or without the proposed North Dayton development for the year 2025:

- Continue to explore options for corridor improvements on the TH 169 and CSAH 81 corridor with other agencies.
- Re-stripe the Dayton River Road approach to TH 169 to provide dual left turn lanes, a left turn/through lane, and a right turn lane. Additional pavement on northbound TH 169 will be needed.
- Update signal timing at all signalized intersections at least every three to five years.
- Construct a single-lane roundabout at the N Diamond Lake Road/Brockton Lane, reserving right-of-way for future right turn lanes, or a traffic signal with dedicated turn lanes.

Accounting for additional traffic from the proposed development, the following mitigation will also be necessary to accommodate the full projected 2025 volumes:

- Construct a single-lane roundabout at the Dayton River Road/Pineview Lane intersection, reserving right-of-way for future right turn lanes, or a traffic signal with dedicated turn lanes.

Hennepin County prefers dedicated turn lanes at its county road intersections and could request them at the proposed development key access intersections. Three study intersections are considered these key access points with entering and exiting traffic from the development: Dayton River Road/River Hills Parkway, Dayton River Road/Vicksburg Lane, and North Diamond Lake Road/Zanzibar Lane. Although the capacity analyses suggest no improvements are necessary, the County may still request dedicated turn lanes at these intersections.

Beyond year 2025, the long-range time frame and uncertainty of potential developments, roadway network, and travel patterns result in multiple assumptions for this analysis. Due to this inherent uncertainty, year 2040 recommendations should not be constructed today. Instead, right-of-way should be preserved for these needs when required based on actual traffic growth.

The following modifications to the study roads and intersections, assuming the planned roadway network is implemented, are recommended for the year 2040 to address potential issues due to general background growth and other specific development traffic with or without the proposed North Dayton site:

- Continue to work on long-term solutions with other agencies to accommodate future congestion on the TH 169 and CSAH 81 corridors.
- Construct a multi-lane roundabout at the Dayton River Road/South Diamond Lake Road intersection, with two-lane Dayton River Road approaches, or a traffic signal with dedicated turn lanes.
- Construct single-lane roundabouts or traffic signals with dedicated turn lanes at the intersections of 129th Avenue/Pineview Lane, Dayton River Road/Brockton Lane, and South Diamond Lake Road/Pineview Lane.
- Continue to update signal timing at all signalized intersections at least every three to five years.

With the North Dayton proposed development traffic contributing to the study area volumes, the following additional 2040 mitigation is recommended:

- Provide dedicated right turn lanes for the Dayton River Road/Pineview Lane intersection single-lane roundabout using the reserved right-of-way if a roundabout was constructed as part of the 2025 mitigation.
- Construct a single-lane roundabout or a traffic signal with dedicated turn lanes at the N Diamond Lake Road/Zanzibar Lane intersection.
- Construct multi-lane roundabout at the Dayton River Road/N Diamond Lake Road intersection, with two-lane Dayton River Road approaches, or a traffic signal with dedicated turn lanes.

- Provide dedicated right turn lanes for the N Diamond Lake Road/Brockton Lane intersection single-lane roundabout using the reserved right-of-way if a roundabout was constructed as part of the 2025 mitigation.

In addition to these roadway improvements, the following items are also recommended based upon the traffic analysis for the proposed development:

- Reserve space, if necessary, for the future trail network in this area.
- Consider internal sidewalks/trails to connect to a future trail network and between the residential/commercial components of the proposed Developer's plan.
- Consider potential bicycle parking areas and other amenities (repair stations) on-site for when the future trail network is developed.
- Follow the requirements of the MnMUTCD for signing and striping.
- Work with the City, as necessary, in their continued dialogue with Metro Transit and Hennepin County on the potential expansion of the transit system.

See the Traffic Impact Study for a further description of the traffic associated with the proposed development and its impact on the surrounding transportation network.

c. Identify measures that will be taken to minimize or mitigate project-related transportation effects.

Beyond the measures identified above, the proposed development is expected to work with the City on the transportation network beyond the streets for vehicles. This work potentially includes internal sidewalks and trails with connections to external routes and expansion of the transit network and facilities to serve these new residents. Development of a trail system is typically seen as an amenity by residents and provides for recreational and commuter trips by non-motorized means. With more residents in a concentrated area, expansion of the fixed transit routes currently operating in Champlin or Maple Grove may be appropriate. Although the developer will assist as possible, any new or expanded transit routes are likely a long-term improvement requiring initiative by the City in cooperation with Metro Transit.

MITIGATION MEASURES (QUESTION 18):

Due to general background growth and adjacent specific developments, the following mitigation is recommended with or without the proposed North Dayton development for the year 2025:

- Continue to explore options for corridor improvements on the TH 169 and CSAH 81 corridor with other agencies.
- Re-stripe the Dayton River Road approach to TH 169 to provide dual left turn lanes, a left turn/through lane, and a right turn lane. Additional pavement on northbound TH 169 will be needed.
- Update signal timing at all signalized intersections at least every three to five years.

- Construct a single-lane roundabout at the N Diamond Lake Road/Brockton Lane, reserving right-of-way for future right turn lanes, or a traffic signal with dedicated turn lanes.

Accounting for additional traffic from the proposed development, the following mitigation will also be necessary to accommodate the full projected 2025 volumes:

- Construct a single-lane roundabout at the Dayton River Road/Pineview Lane intersection, reserving right-of-way for future right turn lanes, or a traffic signal with dedicated turn lanes.

Hennepin County prefers dedicated turn lanes at its county road intersections and could request them at the proposed development key access intersections. Three study intersections are considered these key access points with entering and exiting traffic from the development: Dayton River Road/River Hills Parkway, Dayton River Road/Vicksburg Lane, and North Diamond Lake Road/Zanzibar Lane. Although the capacity analyses suggest no improvements are necessary, the County may still request dedicated turn lanes at these intersections.

Beyond year 2025, the long-range time frame and uncertainty of potential developments, roadway network, and travel patterns result in multiple assumptions for this analysis. Due to this inherent uncertainty, year 2040 recommendations should not be constructed today. Instead, right-of-way should be preserved for these needs when required based on actual traffic growth.

The following modifications to the study roads and intersections, assuming the planned roadway network is implemented, are recommended for the year 2040 to address potential issues due to general background growth and other specific development traffic with or without the proposed North Dayton site:

- Continue to work on long-term solutions with other agencies to accommodate future congestion on the TH 169 and CSAH 81 corridors.
- Construct a multi-lane roundabout at the Dayton River Road/South Diamond Lake Road intersection, with two-lane Dayton River Road approaches, or a traffic signal with dedicated turn lanes.
- Construct single-lane roundabouts or traffic signals with dedicated turn lanes at the intersections of 129th Avenue/Pineview Lane, Dayton River Road/Brockton Lane, and South Diamond Lake Road/Pineview Lane.
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With the North Dayton proposed development traffic contributing to the study area volumes, the following additional 2040 mitigation is recommended:

- Provide dedicated right turn lanes for the Dayton River Road/Pineview Lane intersection single-lane roundabout using the reserved right-of-way if a roundabout was constructed as part of the 2025 mitigation.
- Construct a single-lane roundabout or a traffic signal with dedicated turn lanes at the N Diamond Lake Road/Zanzibar Lane intersection.

- Construct multi-lane roundabout at the Dayton River Road/N Diamond Lake Road intersection, with two-lane Dayton River Road approaches, or a traffic signal with dedicated turn lanes.
- Provide dedicated right turn lanes for the N Diamond Lake Road/Brockton Lane intersection single-lane roundabout using the reserved right-of-way if a roundabout was constructed as part of the 2025 mitigation.

In addition to these roadway improvements, the following items are also recommended based upon the traffic analysis for the proposed development:

- Reserve space, if necessary, for the future trail network in this area.
- Consider internal sidewalks/trails to connect to a future trail network and between the residential/commercial components of the proposed Developer's plan.
- Consider potential bicycle parking areas and other amenities (repair stations) on-site for when the future trail network is developed.
- Follow the requirements of the MnMUTCD for signing and striping.
- Work with the City, as necessary, in their continued dialogue with Metro Transit and Hennepin County on the potential expansion of the transit system.

See the Traffic Impact Study for a further description of the traffic associated with the proposed development and its impact on the surrounding transportation network.

19. Cumulative potential effects

(Preparers can leave this item blank if cumulative potential effects are addressed under the applicable EAW Items)

The AUAR, by design, will examine and address cumulative impacts of development for the scenarios being studied.

Cumulative effects were considered for the overall project and known surrounding projects that are being developed or will be developed. The only cumulative effect that was identified was for traffic impacts. The current and future developments will have a cumulative effect on the transportation network. This impact is included in the traffic analysis; the traffic study has looked at the year 2025 No-Build Scenarios based on development staging plans from the City of Dayton. Using these plans the developments were sorted into several geographic areas and a trip generation analysis was done on each area. These trip generation tables can be found in the Traffic Study Appendices, Appendix D – Trip Generation Tables, Pages D3 and D4.

a. Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.

N/A

b. Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales and timeframes identified above.

N/A

c. Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.

N/A

MITIGATION MEASURES (QUESTION 19):

- None

20. Other potential environmental effects

If the project may cause any additional environmental effects not addressed by items 1 to 19, describe the effects here, discuss the how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.

At this time, no environmental impacts beyond what will be studied in question 1 through 19 of the AUAR have been identified.

MITIGATION MEASURES (QUESTION 20):

- None

RGU Certification

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The AUAR describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9c and 60, respectively.
- Copies of this AUAR are being sent to the entire EQB distribution list.

Signature: Tina Goodroad **Date:** 6-27-18

Title: City Administrator/Development Director

APPENDIX

A

FIGURES

Appendix "A" contains the following Figures:

Figure #	Figure Title
1	Project Regional Location
2	AUAR Study Boundary
3	USGS Map
4	Existing Conditions Aerial
5	Draft Proposed Master Planned Development
6	Existing Cover Types
7	Proposed Cover Types
8	Soils
9	Existing Land Use
10	Future Land Use
11	Mississippi River Critical Area Districts
12	National Wetland Inventory
13	Well Locations
14	Dayton 2010 City Sewer Service Areas
15	Dayton Trunk Sanitary Sewer Plan
16	Dayton Trunk Stormwater Plan
17	Dayton 2010 City Water Service Areas
18	Draft Dayton Comprehensive Trail Plan
19	West Mississippi River Regional Trail Search Corridor



4-10-18

Project Regional Location

North Dayton Development

Dayton, MN

Legend

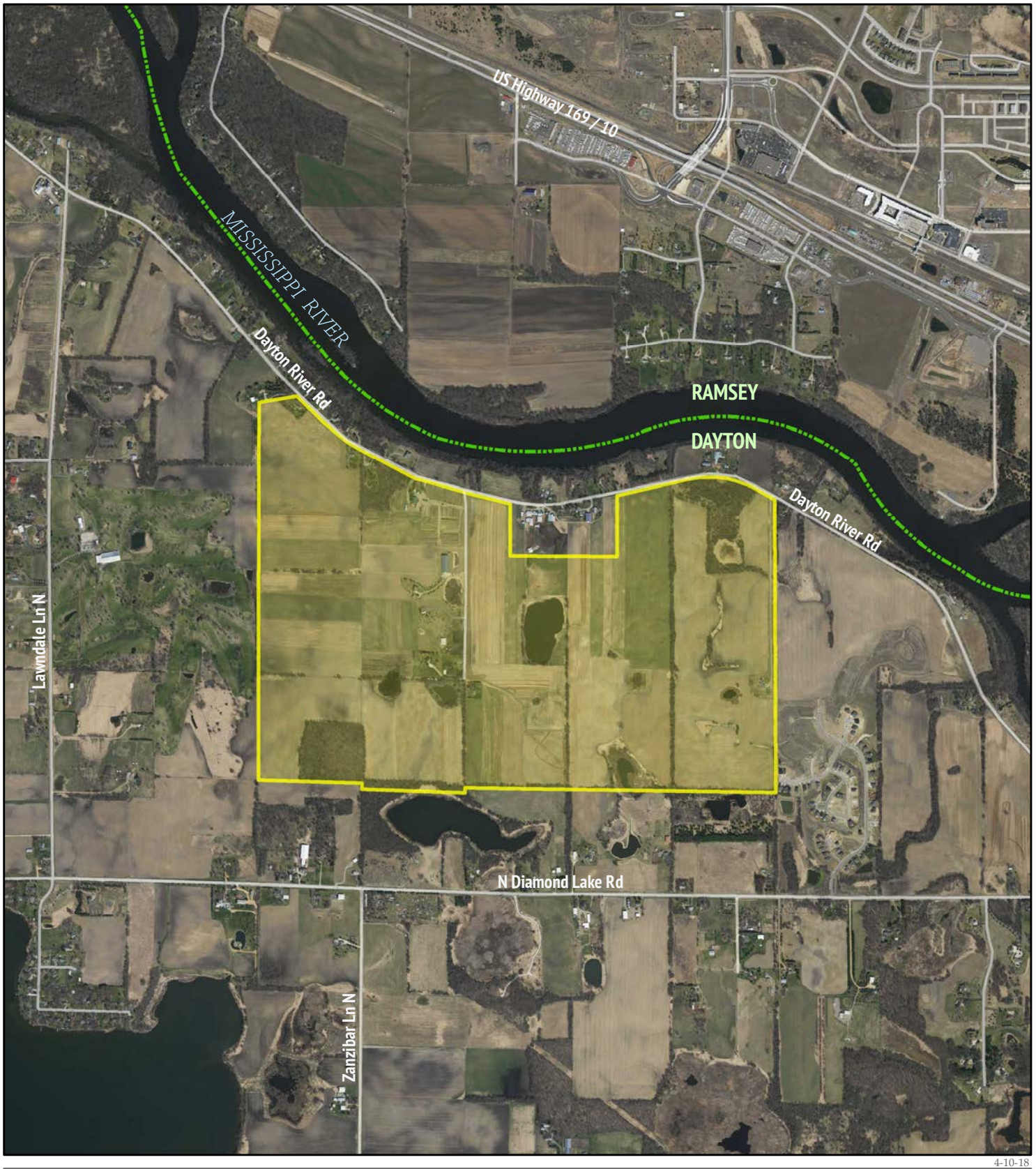
- US or State Highway
- Interstate
- AUAR Study Area
- County Lines

N

Sources: MetroGIS, MnDOT

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FIGURE 2



4-10-18

AUAR Boundary

North Dayton Development

Dayton, MN

Legend

AUAR Study Area

Municipal Boundary Line

Sources: MetroGIS, MnDOT

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4-10-18

USGS Map

North Dayton Development

Dayton, MN

Legend

AUAR Study Area

Municipal Boundary Line

Sources: MetroGIS, MnDOT

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4-10-18

AUAR Boundary

North Dayton Development

Dayton, MN

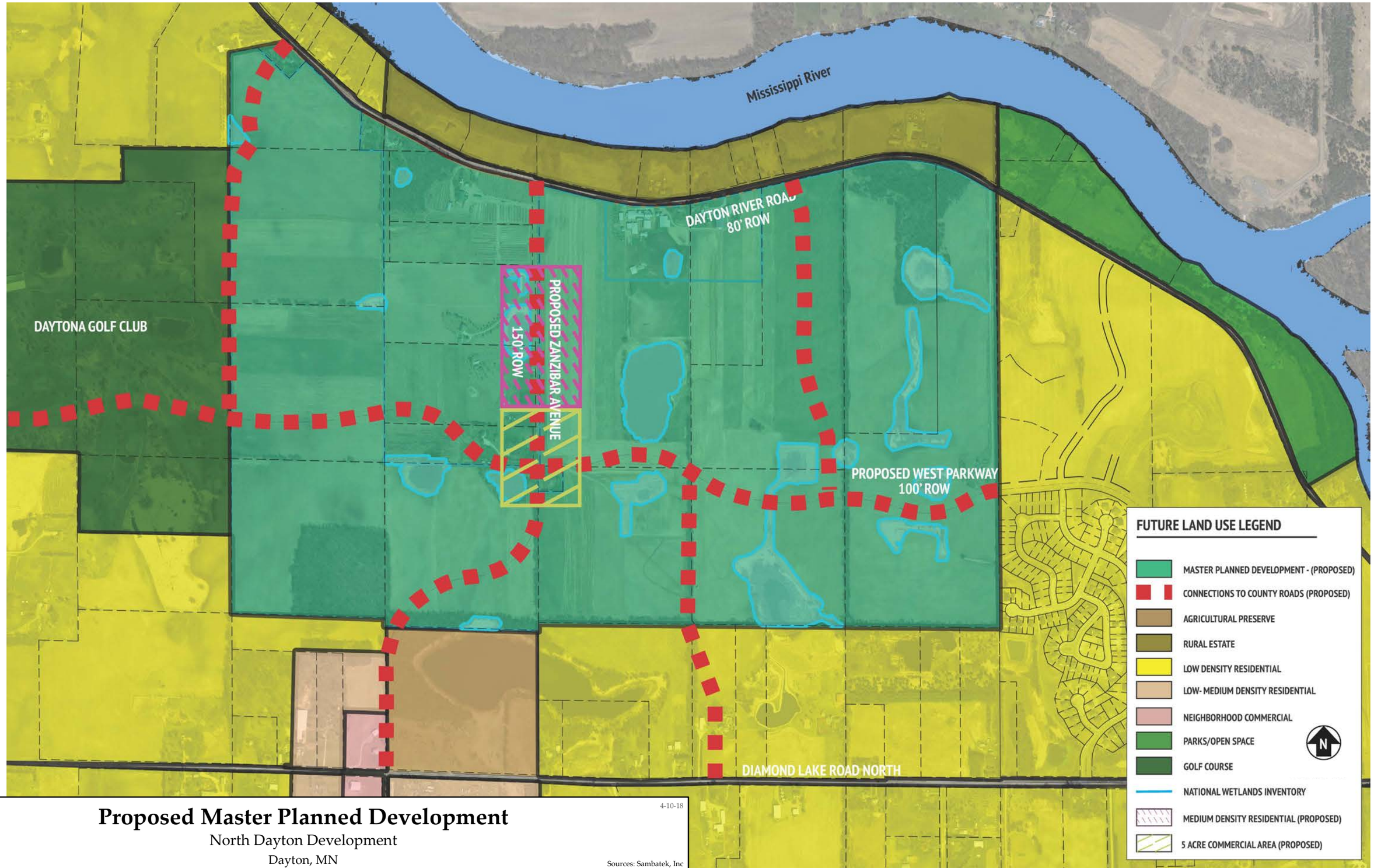
Legend

AUAR Study Area

Municipal Boundary Line

Sources: MetroGIS, MnDOT

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4-10-18

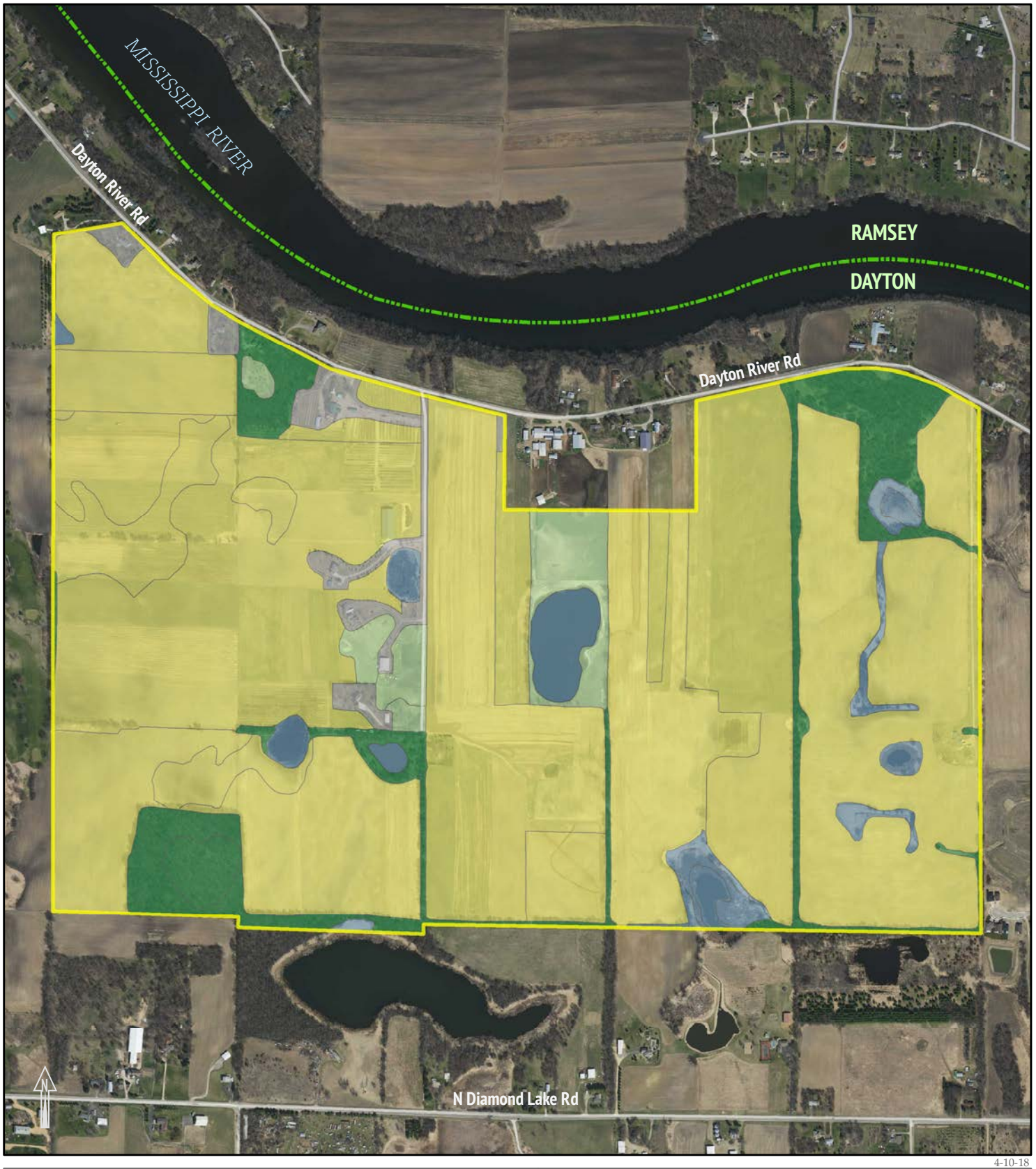
Proposed Master Planned Development

North Dayton Development

Dayton, MN

Sources: Sambatek, Inc

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4-10-18

Existing MLCCS Cover Types

North Dayton Development

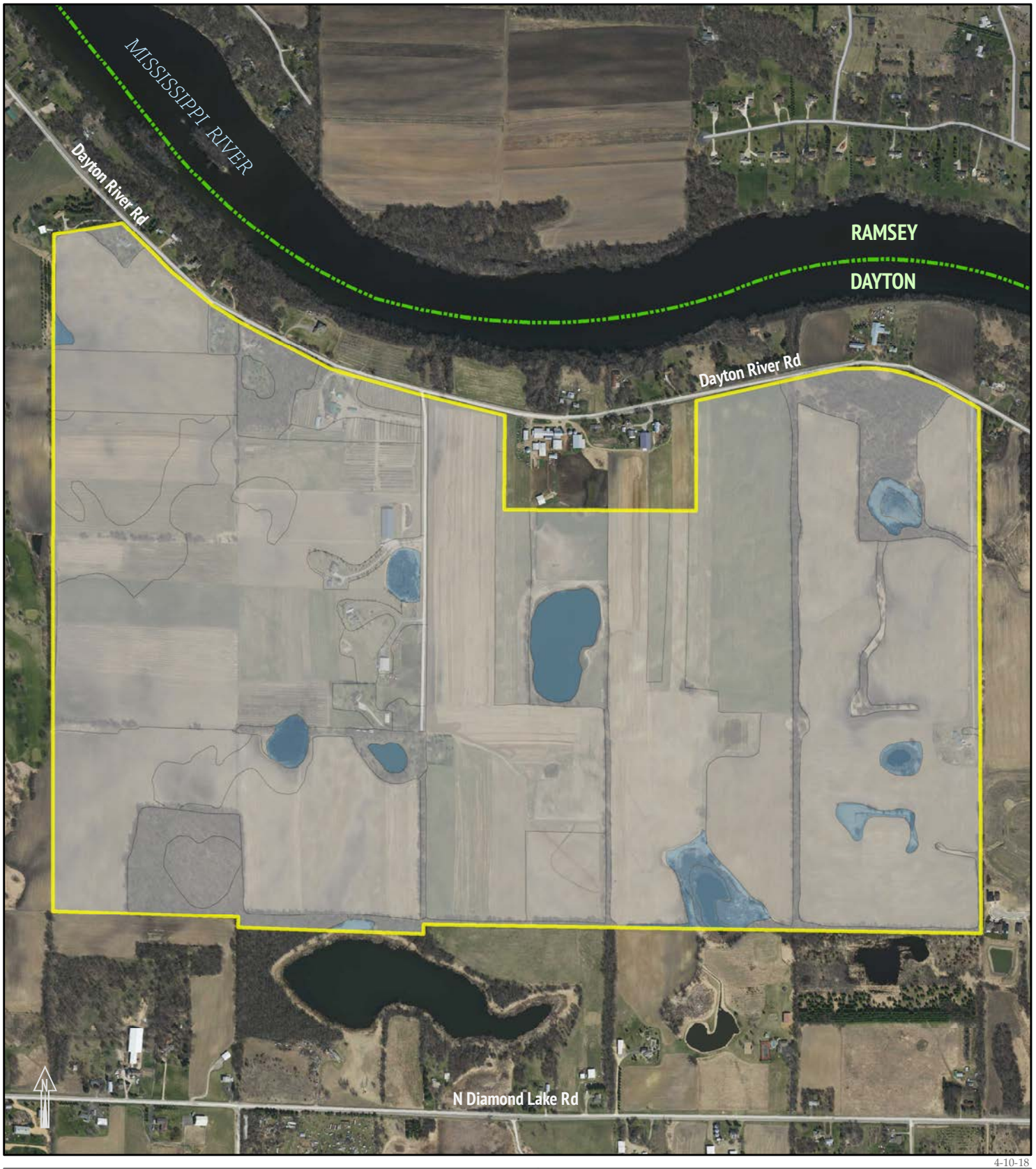
Dayton, MN

Generalized MLCCS Cover Types

Sources: MetroGIS, MnDOT, USFWS

- Cropland
- Grassland
- Wetland
- Forest/Woodland
- Developed Land
- AUAR Study Area

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4-10-18

Proposed MLCCS Cover Types

North Dayton Development

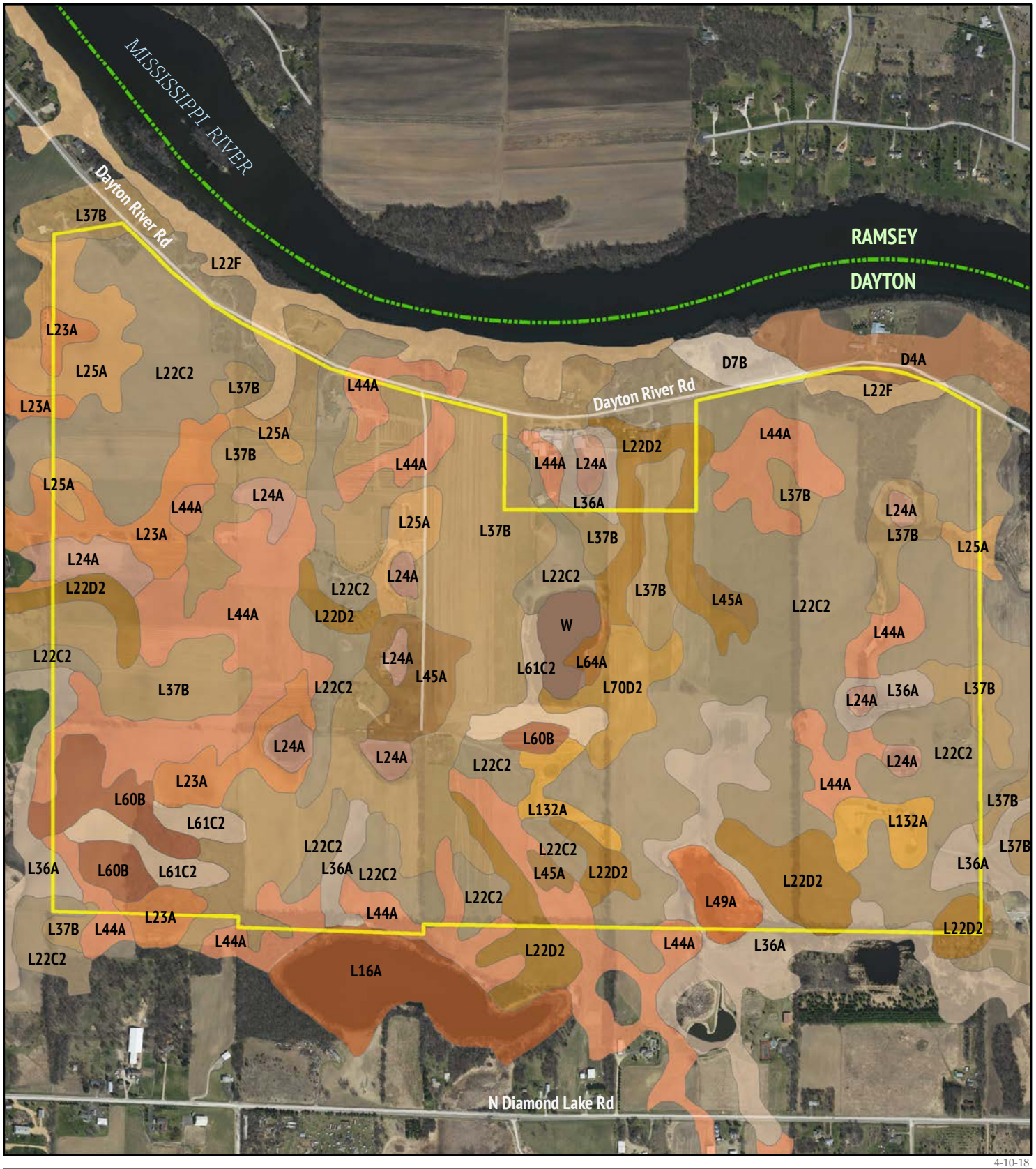
Dayton, MN

Generalized MLCCS Cover Types

Sources: MetroGIS, MnDOT, USFWS

- Wetland
- Developed Land 20% to 50% Impervious
- AUAR Study Area

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4-10-18

Soils

North Dayton Development

Dayton, MN

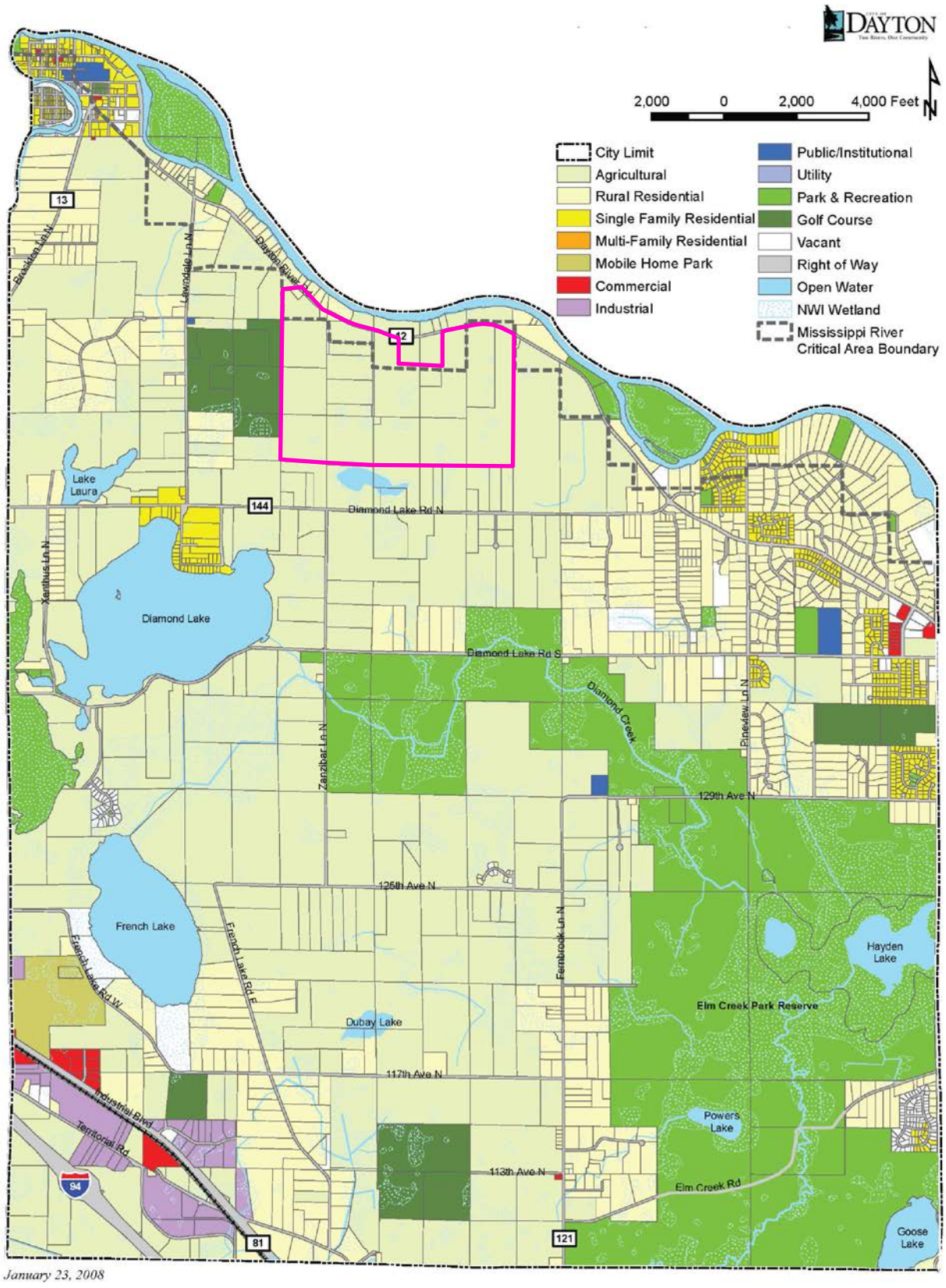
Legend

AUAR Study Area

Municipal Boundary Line

Sources: MetroGIS, NRCS, LMIC

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4-10-18

Dayton Existing Land Use Map

North Dayton Development

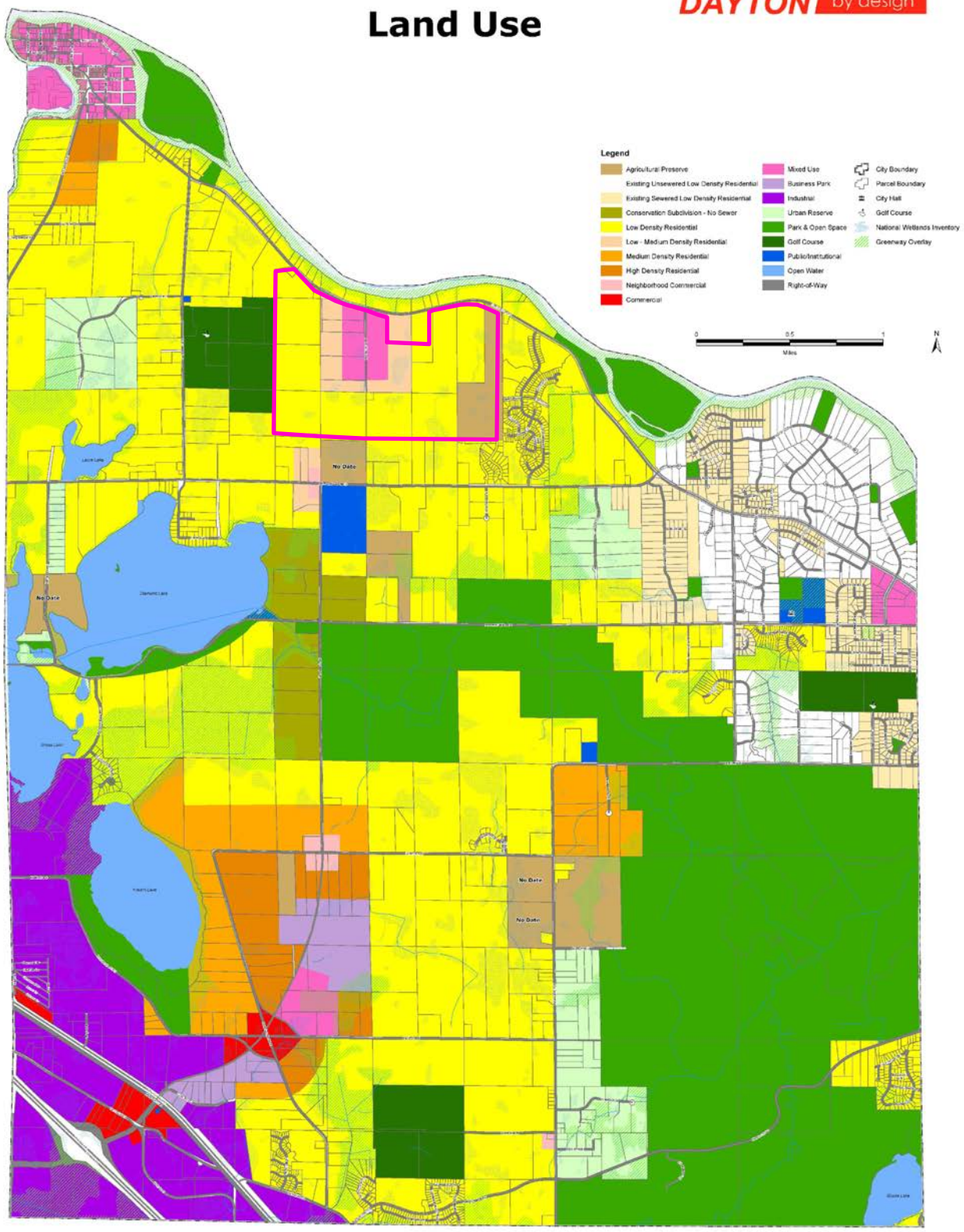
Dayton, MN

Legend

AUAR Study Area

Sources: City of Dayton Comprehensive Plan

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4-13-18

Dayton Planned Land Use Map

North Dayton Development

Dayton, MN

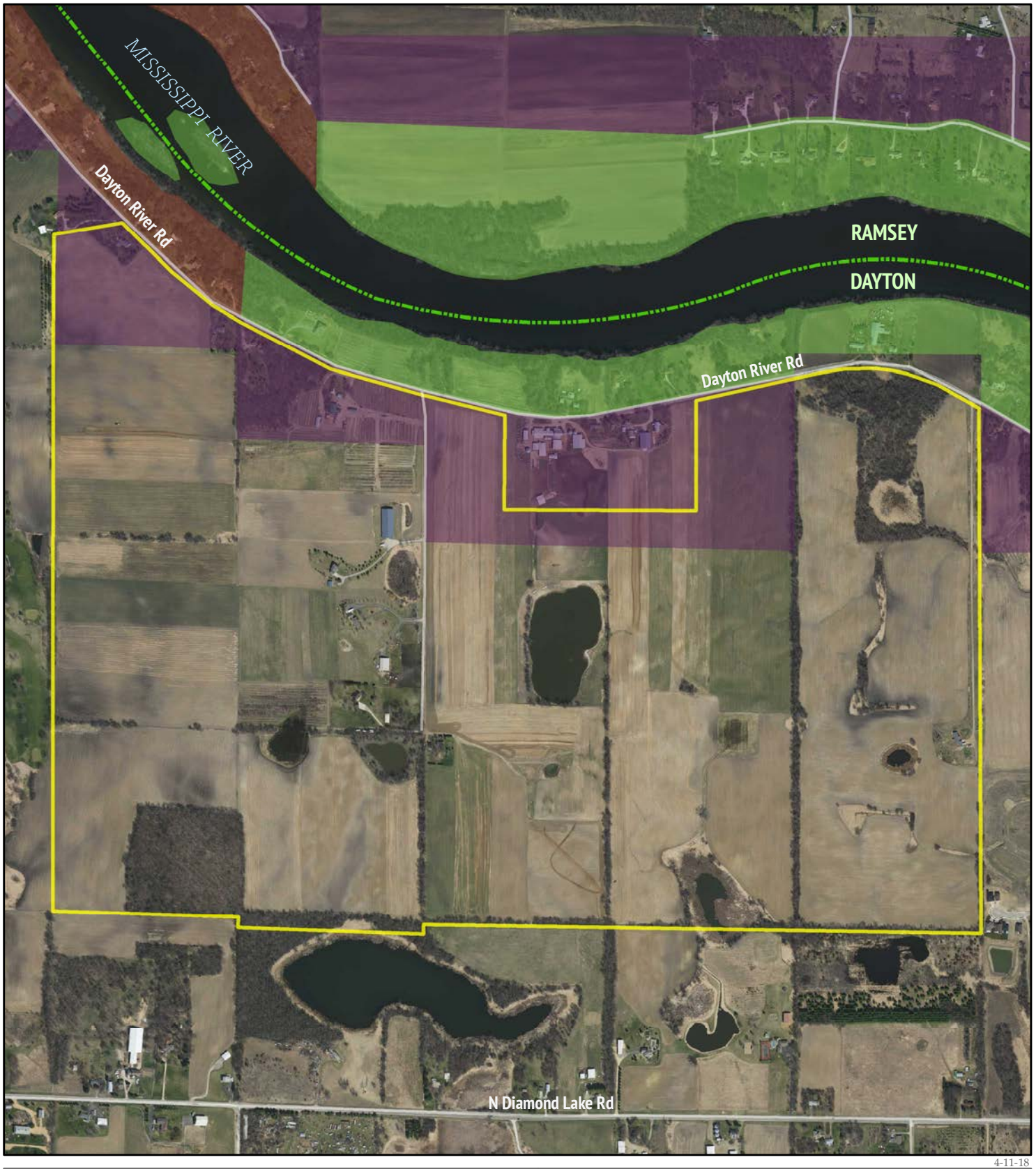
Legend

AUAR Study Area

Sources: MetroGIS, MnDOT

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FIGURE 11



4-11-18

Mississippi River Critical Area Districts

North Dayton Development

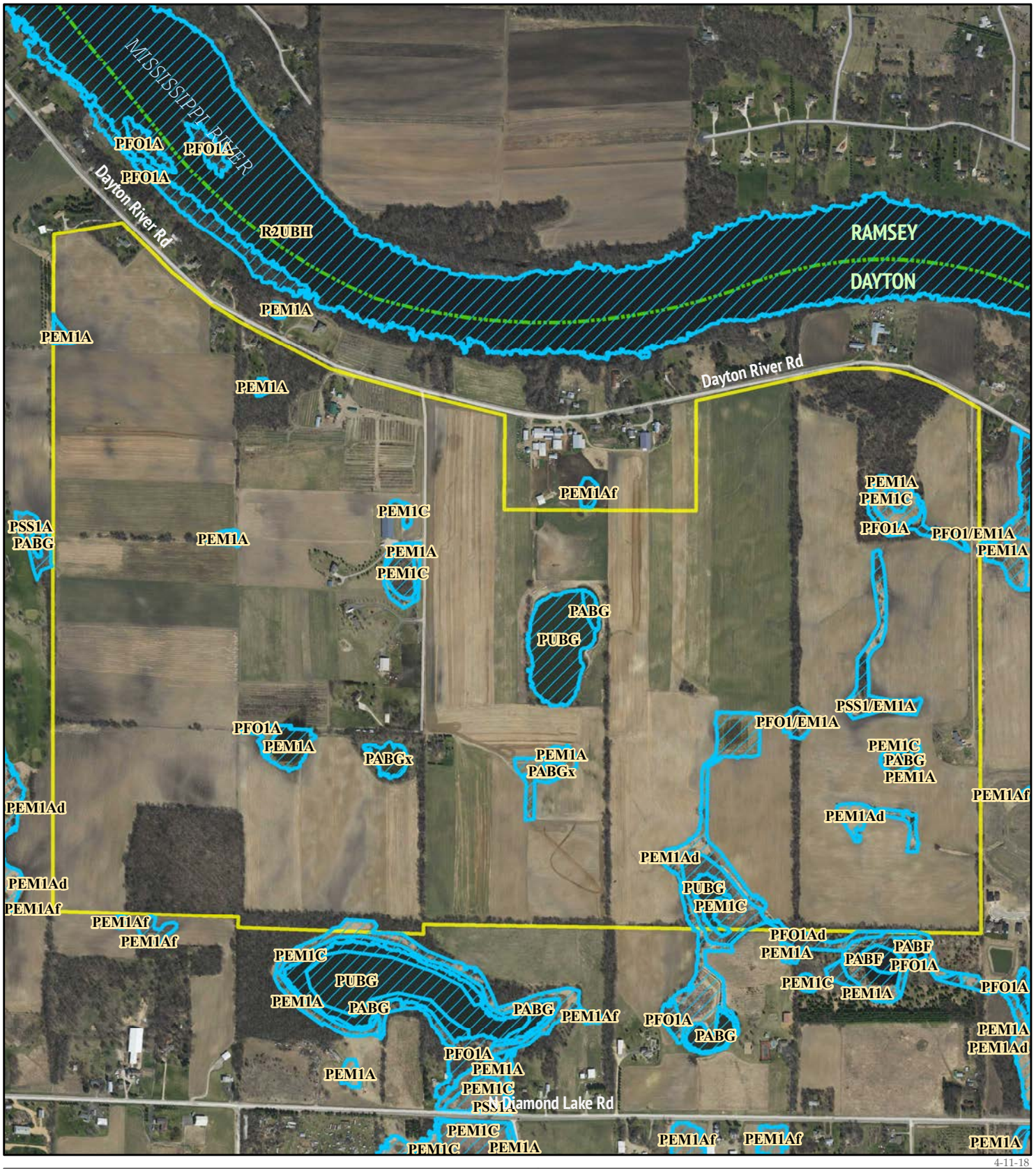
Dayton, MN

Legend

Sources: MetroGIS, MnDOT

- Rural and Open Space District (CA-ROS)
- River Neighborhood District (CA-RN)
- Separated from River District (CA-SR)
- Municipal Boundary Line
- AUAR Study Area

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4-11-18

National Wetlands Inventory

North Dayton Development

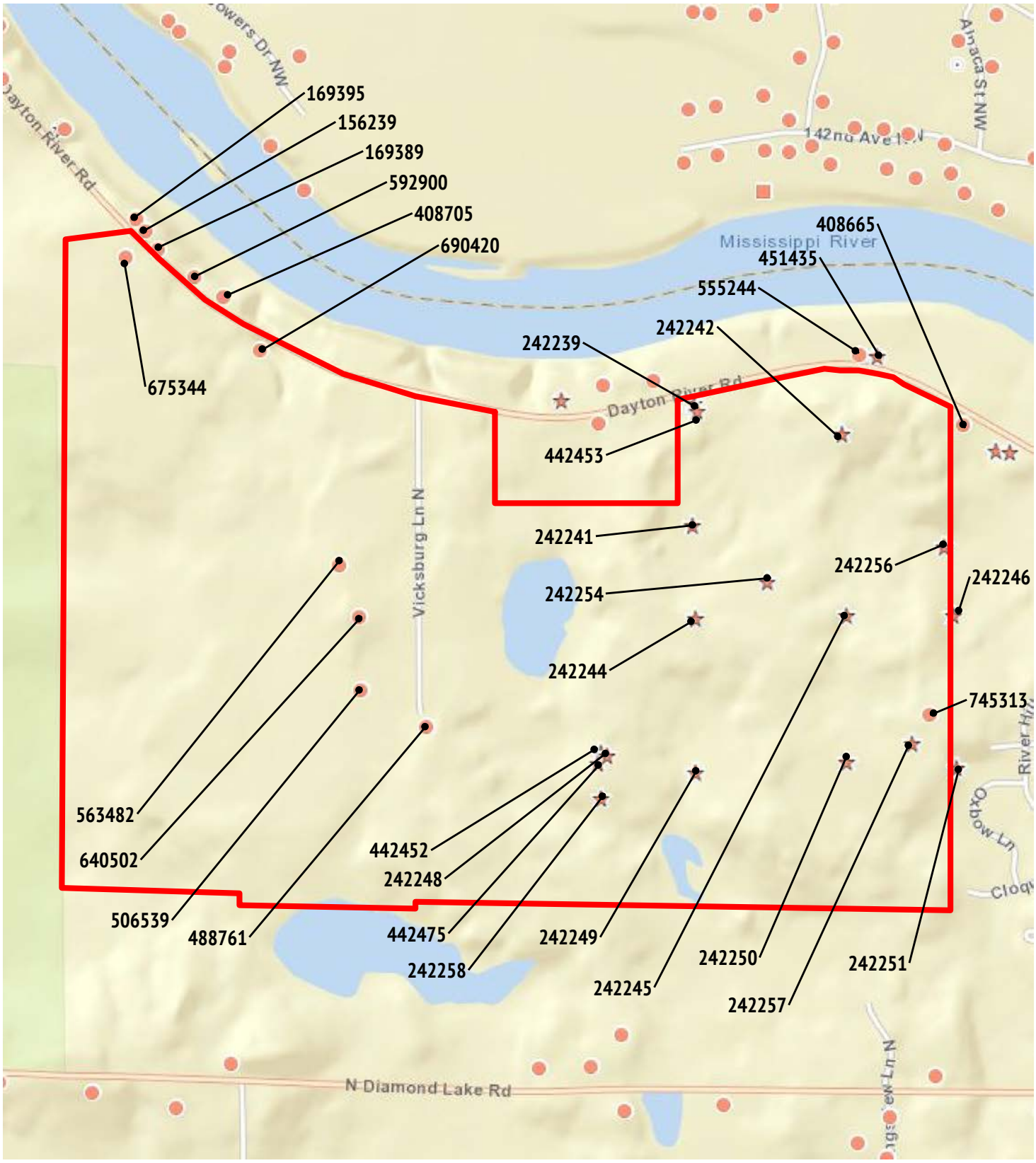
Dayton, MN

Legend

- NWI Wetlands
- AUAR Study Area
- Municipal Boundary Line

Sources: National Wetlands Inventory

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4-10-18

Well Locations & Numbers

North Dayton Development

Dayton, MN

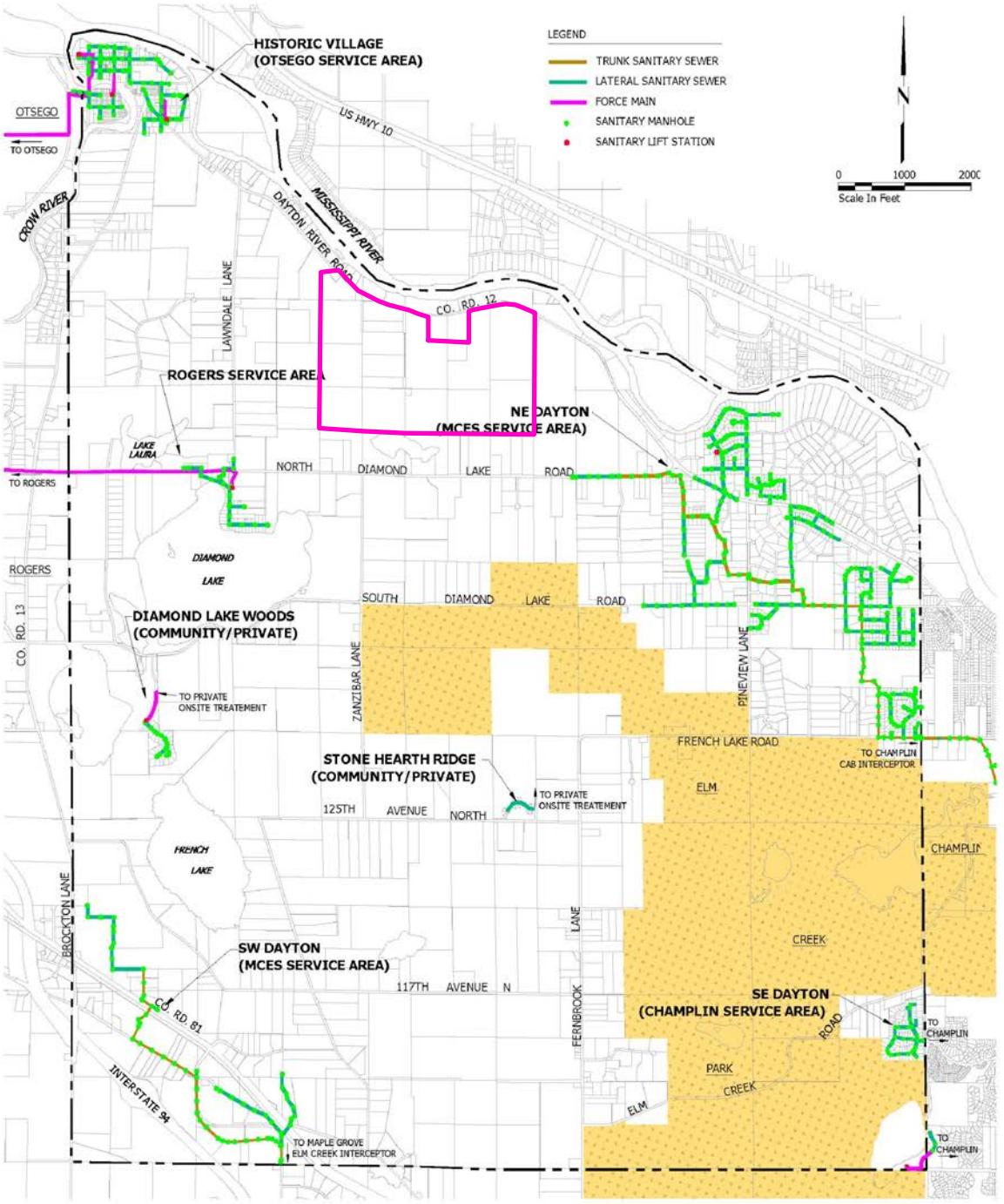
Legend

AUAR Study Area

Municipal Boundary Line

Sources: Minnesota Well Index

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EXISTING SANITARY SEWER SYSTEM

CITY OF DAYTON

NOVEMBER 2010

CITY SEWER 2010.DWG DATE: NOV. 2010 COMM: 174MAP

CITY OF DAYTON
Two Rivers, One Community

4-11-18

Dayton 2010 City Sewer Service Areas

North Dayton Development

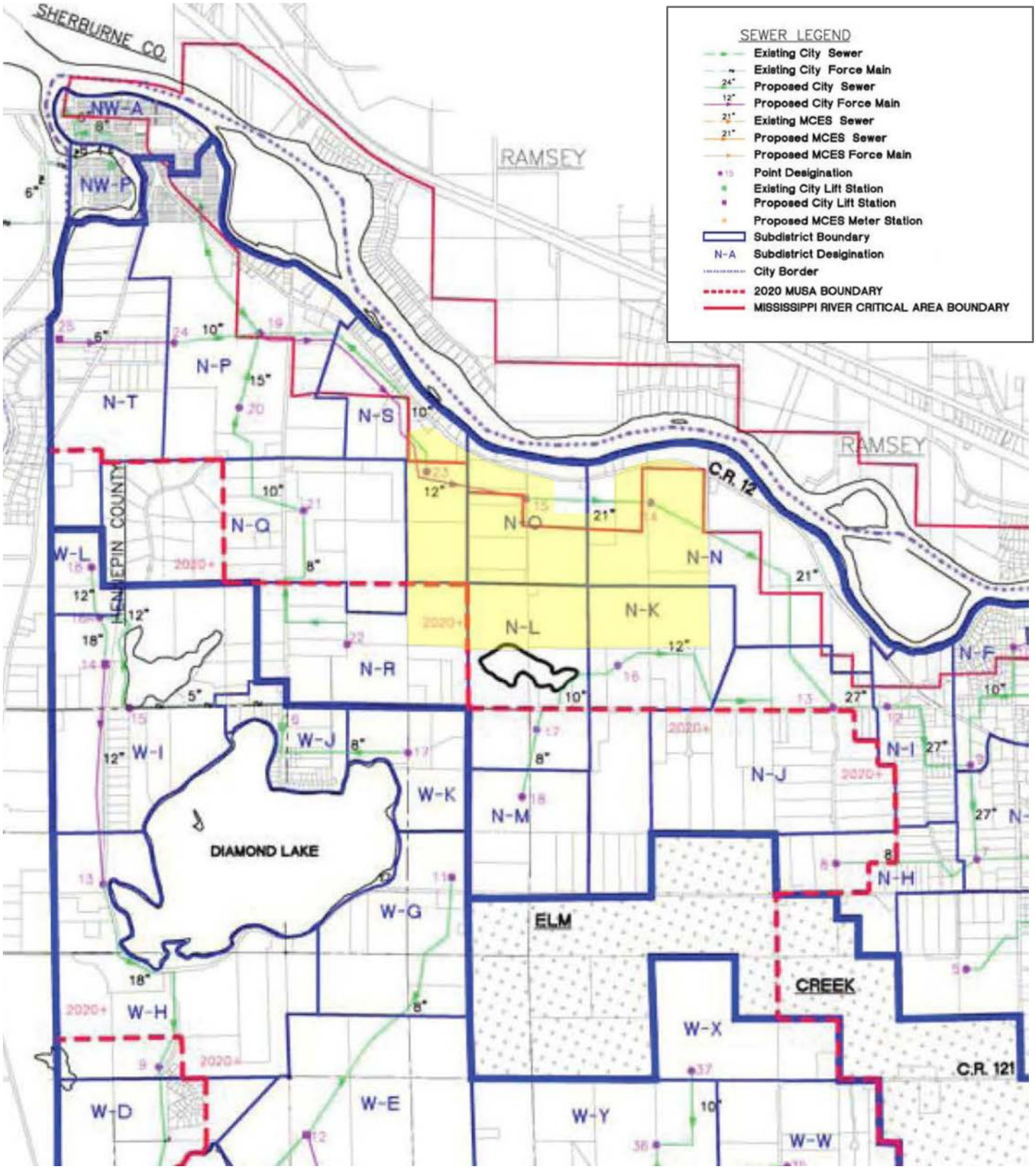
Dayton, MN

Legend

AUAR Study Area

Sources: City of Dayton 2010 Comprehensive Plan

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4-11-18

Dayton 2010 Trunk Sanitary Sewer Plan

North Dayton Development

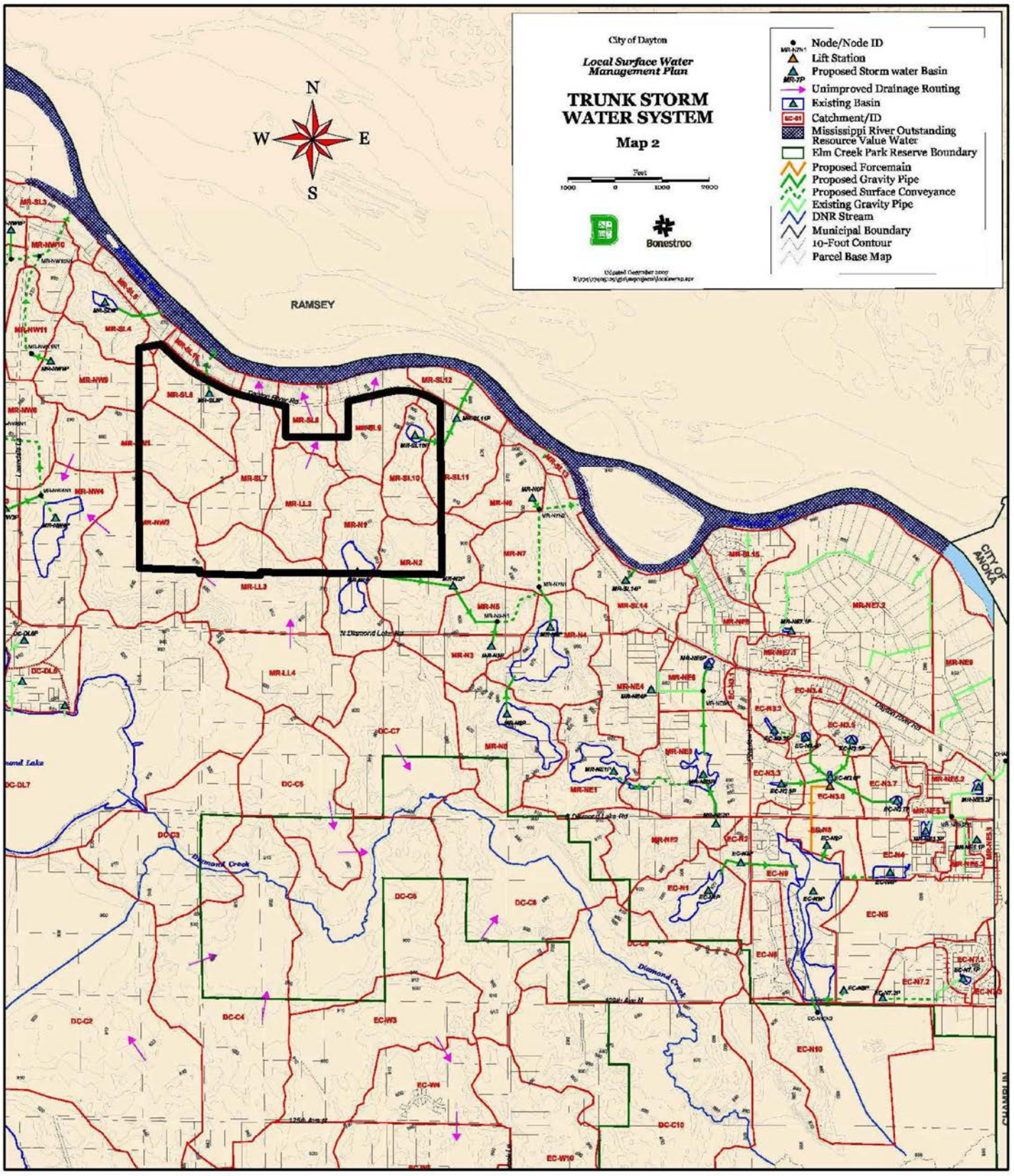
Dayton, MN

Legend

AUAR Study Area

Sources: City of Dayton 2010 Comprehensive Plan

This map was created using MFRA's Geographic Information Systems (GIS), it is a compilation of information and data from various sources. This map is not a surveyed or legally recorded map and is intended to be used as a reference. MFRA is not responsible for any inaccuracies contained herein.



4-11-18

Dayton 2010 Trunk Stormwater Plan

North Dayton Development

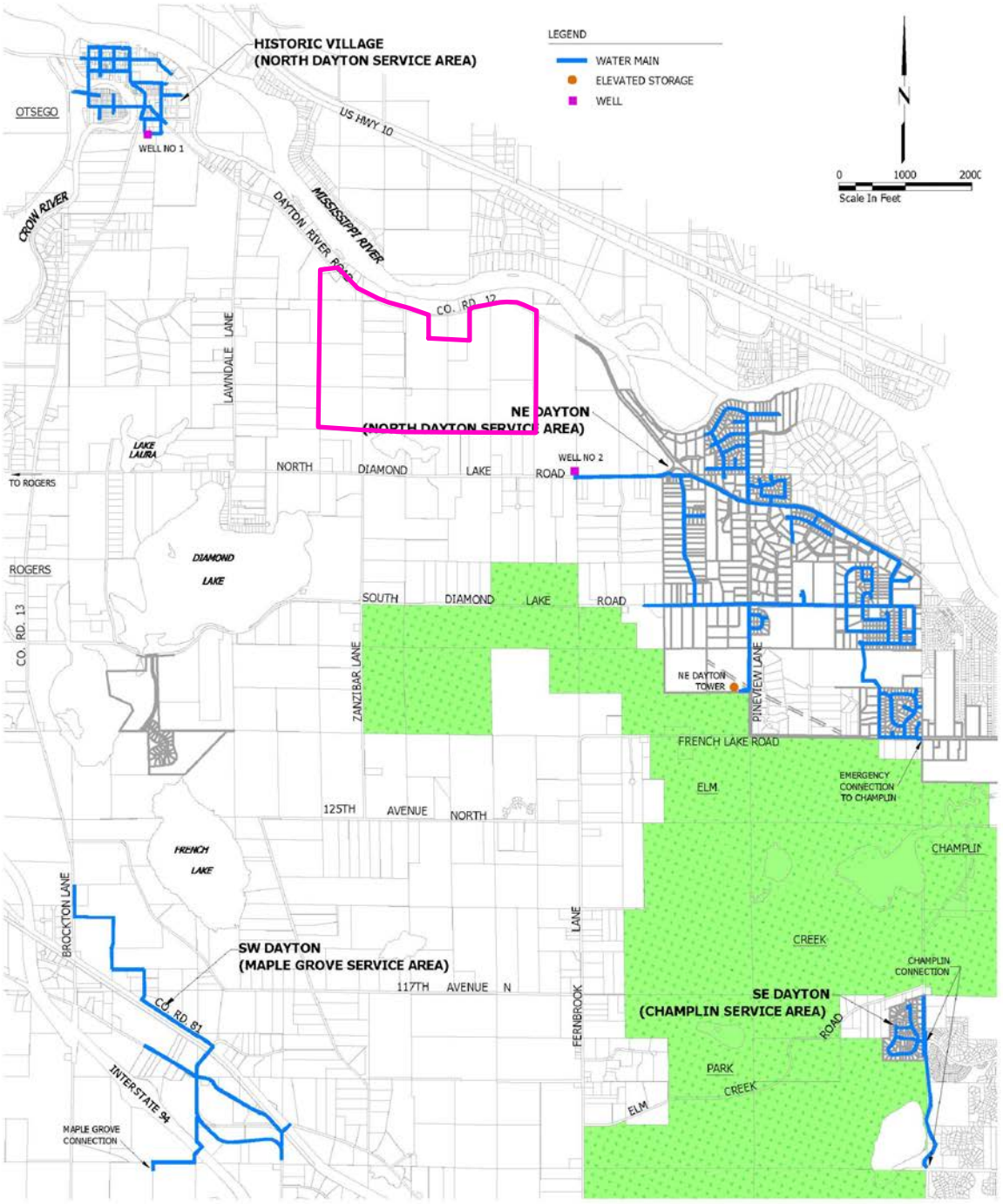
Dayton, MN

Legend

AUAR Study Area

Sources: City of Dayton Local Surface Water Managment Plan

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EXISTING WATER SYSTEM

CITY OF DAYTON

NOVEMBER 2010

CITY WATER 2010.DWG DATE: NOV. 2010 COMM: 174MAP

CITY OF DAYTON
Two Rivers, One Community

4-11-18

Dayton 2010 City Water Service Areas

North Dayton Development

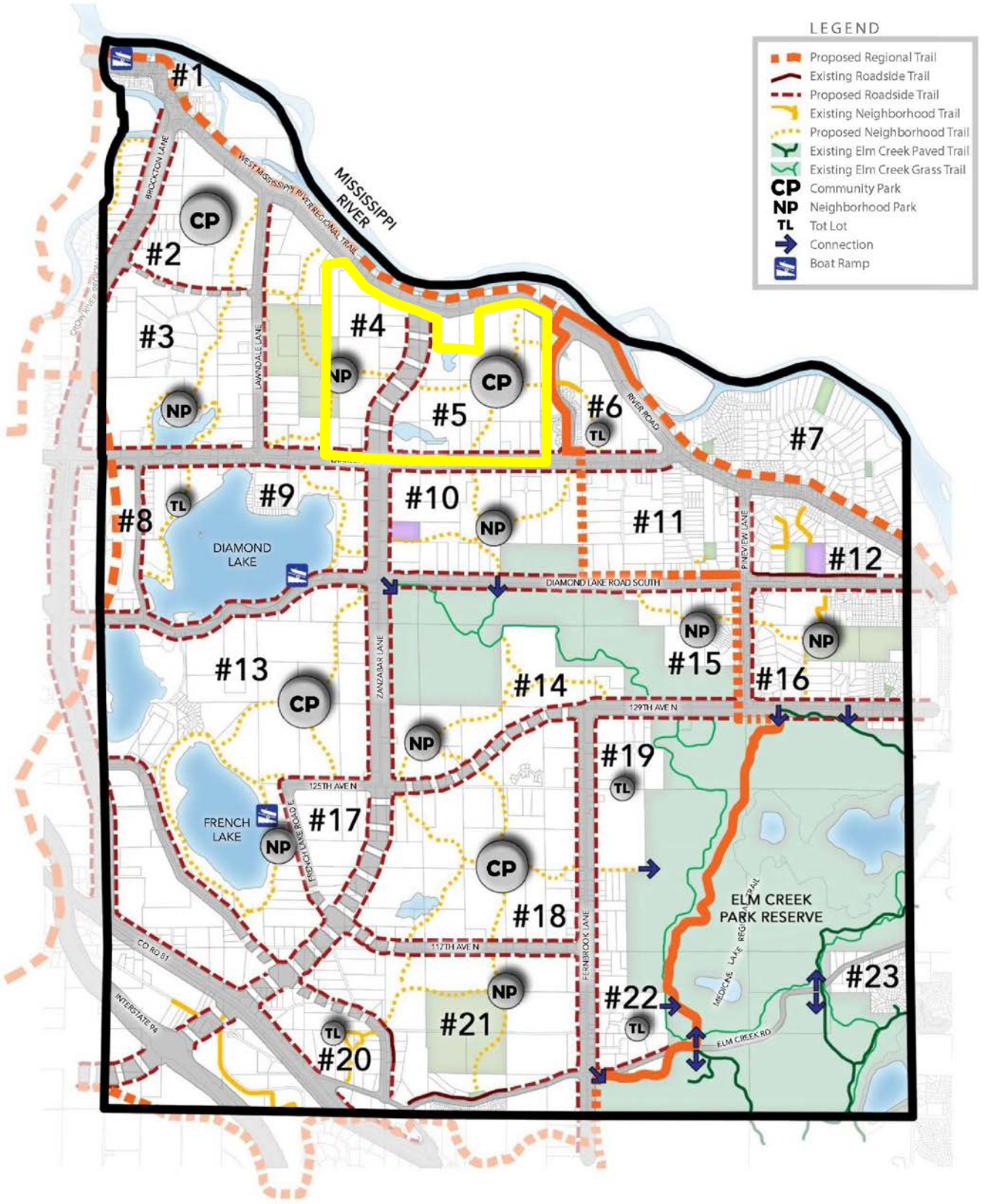
Dayton, MN

Legend

AUAR Study Area

Sources: City of Dayton 2010 Comprehensive Plan

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6-15-18

Dayton Comprehensive Trail Plan

North Dayton Development

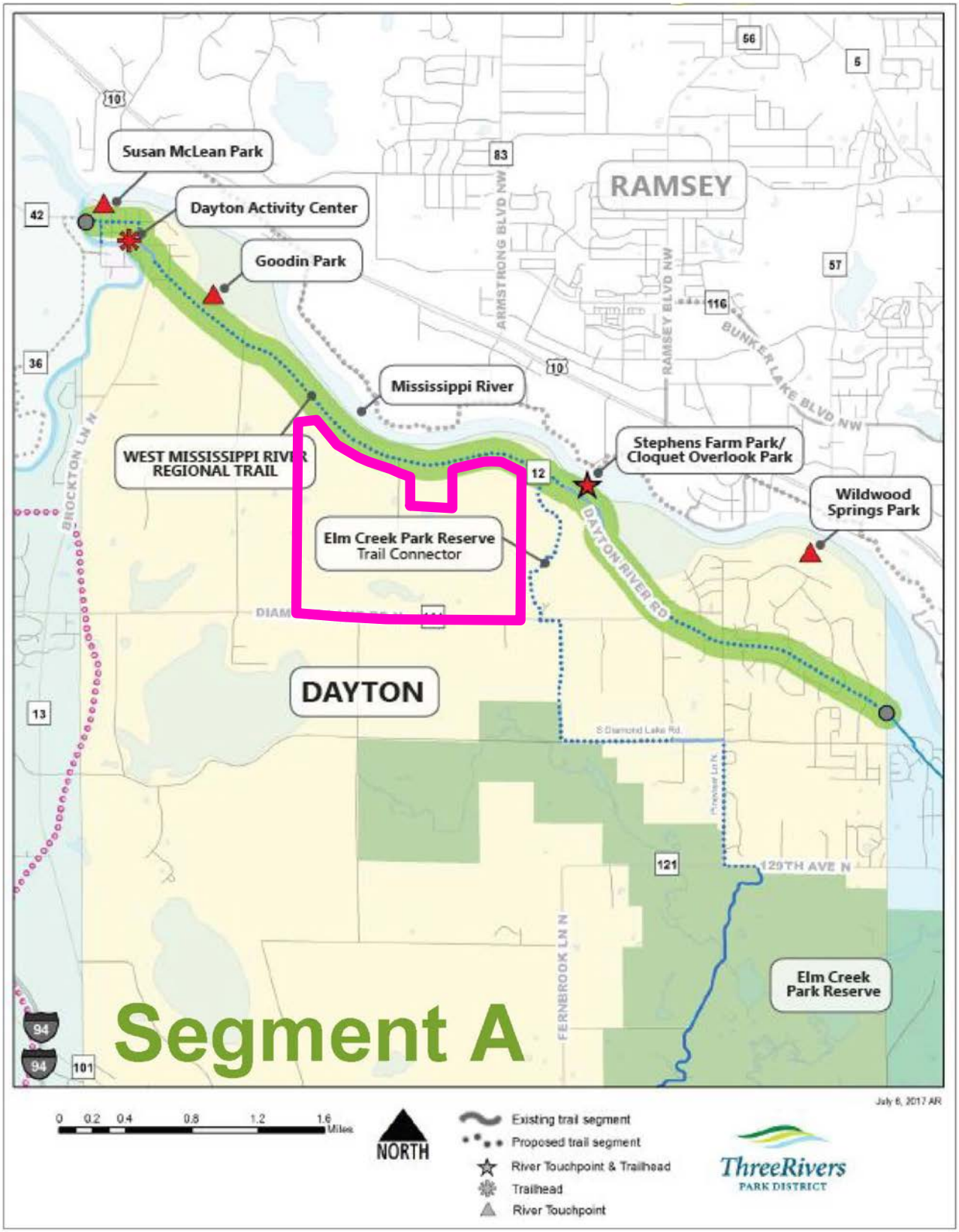
DRAFT Dayton, MN

Legend

AUAR Study Area

Sources: Loucks Associates, Comprehensive Trail Plan

This map was created using MFRA's Geographic Information Systems (GIS), it is a compilation of information and data from various sources. This map is not a surveyed or legally recorded map and is intended to be used as a reference. MFRA is not responsible for any inaccuracies contained herein.



6-15-18

West Mississippi River Regional Trail Search Corridor

North Dayton Development

Dayton, MN

Legend

AUAR Study Area

Sources: Three Rivers Park District

This map was created using MFRA's Geographic Information Systems (GIS), it is a compilation of information and data from various sources. This map is not a surveyed or legally recorded map and is intended to be used as a reference. MFRA is not responsible for any inaccuracies contained herein.

APPENDIX

B

WELL RECORDS

Appendix “B” contains Well Records for nearby well sites.

Minnesota Unique Well Number

242241

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 12/23/2008
Update Date 02/09/2016
Received Date

Well Name	Township	Range	Dir	Section	Subsection
DAYTON -	120	22	W	9	BADCCB

Elevation 903 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
SILTY CLAY	0	2	DK. BRN	MEDIUM
SANDY LEAN CLAY	2	4	BROWN	MEDIUM
SANDY LEAN CLAY	4	13	BROWN	
SAND W/ SILT SM	13	16	LT. BRN	
SANDY LEAN CLAY W/	16	25	BROWN	
SILTY SAND W/ SM	25	28	BROWN	
SAND W/ SILT SM	28	30	BROWN	
SAND W/ SILT LITTLE	30	33	BROWN	
SILT FE W LENSE OF	33	36	BROWN	
SAND F DRY TO MOIST	36	52	LT. BRN	

Remarks

M.G.S. NO. 3779. SEE DETAILED SOIL BORING.

BORING BACKFILLED WITH NEAT CEMENT GROUT TO 3 FT. FROM LAND SURFACE.

Well Depth 52 ft. **Depth Completed** 52 ft. **Date Well Completed** 07/28/1987

Drill Method **Drill Fluid**

Use test well **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type **Joint**
Drive Shoe? Yes ☐ No ☐ **Above/Below**

Open Hole From ft. To ft.

Screen? ☐ **Type** **Make**

Static Water Level

Pumping Level (below land surface)

Wellhead Completion

Pitless adapter manufacturer Model

☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
neat cement		3 ft.	52 ft.
cuttings		ft.	3 ft.

Nearest Known Source of Contamination

feet Direction Type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed

Manufacturer's name

Model Number HP Volt

Length of drop pipe ft Capacity g.p. Typ

Abandoned

Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance

Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous

First Bedrock Aquifer

Last Strat sand+silt-brown Depth to Bedrock ft

Located by Minnesota Geological Survey

Locate Method Digitization (Screen) - Map (1:24,000)

System UTM - NAD83, Zone 15, Meters X 462697 Y 5007590

Unique Number Verification Site Plan Input Date 12/23/2008

Angled Drill Hole

Well Contractor

Twin City Testing M0112

Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

242242

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 12/23/2008
Update Date 02/10/2016
Received Date

Well Name	Township	Range	Dir	Section	Subsection
DAYTON -	120	22	W	9	ABBDCA

Elevation 907 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
SANDY LEAN CLAY W/	0	4	BROWN	
CLAYEY SAND W/	4	7	BROWN	
SAND W/ SILT LITTLE	7	10	BROWN	
SILTY SAND W/	10	12	BROWN	
SAND W/ SILT F DRY	12	14	BROWN	
LEAN CLAY W/ SAND	14	19	BROWN	
SAND W/ SILT LITTLE	19	33	BROWN	
SAND W/ SILT F	33	34	BROWN	
SAND F	34	37	LT. BRN	
SAND W/ SILT F MOIST	37	42	LT. BRN	
SAND W/ SILT LITTLE	42	47	BROWN	
SAND W/ SILT LITTLE	47	62	BROWN	
SAND W/ SILT F WET V	62	70	BROWN	
CLAYEY SAND LITLE	70	73	VARIED	
SILTY SAND F WET V	73	76	BROWN	
SILTY SAND W/ LITTLE	76	79	GRY/BRN	

Remarks

M.G.S. NO. 3786. SEE DETAILED SOIL BORING.

BORING BACKFILLED WITH NEAT CEMENT GROUT TO 3 FT. FROM LAND SURFACE.

Well Depth 79 ft. **Depth Completed** 79 ft. **Date Well Completed** 09/30/1987

Drill Method **Drill Fluid**

Use test well **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type **Joint**
Drive Shoe? Yes ☐ No ☐ **Above/Below**

Open Hole From ft. To ft.

Screen? ☐ **Type** **Make**

Static Water Level

Pumping Level (below land surface)

Wellhead Completion

Pitless adapter manufacturer Model

☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
neat cement		3 ft.	79 ft.
cuttings		ft.	3 ft.

Nearest Known Source of Contamination

feet Direction Type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed

Manufacturer's name

Model Number HP Volt

Length of drop pipe ft Capacity g.p. Typ

Abandoned

Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance

Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous

First Bedrock Aquifer

Last Strat pebbly sand/silt/clay Depth to Bedrock ft

Located by Minnesota Geological Survey

Locate Method Digitization (Screen) - Map (1:24,000)

System UTM - NAD83, Zone 15, Meters X 463029 Y 5007790

Unique Number Verification Site Plan Input Date 12/23/2008

Angled Drill Hole

Well Contractor

Twin City Testing M0112

Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

242245

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 07/08/1996
Update Date 04/01/2016
Received Date

Well Name	Township	Range	Dir	Section	Subsection
DAYTON -	120	22	W	9	ACBDDB

Elevation 903 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
TOPSOIL	0	1		
SILTY CLAY RATHER	1	2	DK. BRN	
LEAN CLAY W/ SAND	2	4	BROWN	
SANDY LEAN CLAY	4	25	BROWN	
SAND W/ SILT F MOIST	25	30	BROWN	
SAND F MOIST DENSE	30	40	LT. BRN	
SILTY CLAY / SAND	40	42	GRY/BRN	SOFT
SAND W/ LITTLE	42	47	LT. BRN	
SAND F MOIST V	47	50	LT. BRN	
SAND W/ SILT LITTLE	50	54	LT. BRN	
FINE SAND DRY	54	55	LT. BRN	
SAND W/ SILT &	55	58	BROWN	
SAND W/ SILT &	58	60	BROWN	
GRAVEL SILT & SAND	60	65	BROWN	
SAND W/ SILT LITTLE	65	76	BROWN	
CLAYEY SAND W/	76	78	RED/BRN	
SILTY SAND LITTLE	78	81	BROWN	
SILTY SAND F WB V	81	84	BROWN	
SILTY SAND W/	84	93	BROWN	
SAND W/ SILT F-M WB	93	96	BROWN	
SILTYSAND F WET	96	99	RED/BRN	
SILTY GRAVEL W/	99	103	BROWN	
SANDSTONE	103	125	VARIED	

Remarks

M.G.S. NO. 3587. SEE DETAILED SOIL BORING.

BORING BACKFILLED WITH NEAT CEMENT GROUT TO 3 FT. FROM LAND SURFACE.

Well Depth 125 ft. **Depth Completed** 125 ft. **Date Well Completed** 09/28/1987

Drill Method **Drill Fluid**

Use test well **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type **Joint**
Drive Shoe? Yes ☐ No ☐ **Above/Below**

Open Hole From ft. To ft.

Screen? ☐ **Type** **Make**

Static Water Level

Pumping Level (below land surface)

Wellhead Completion

Pitless adapter manufacturer Model

☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
neat cement		3 ft.	125 ft.
cuttings		ft.	3 ft.

Nearest Known Source of Contamination

feet Direction Type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed

Manufacturer's name

Model Number HP Volt

Length of drop pipe ft Capacity g.p. Typ

Abandoned

Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance

Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous

First Bedrock Jordan Sandstone Aquifer
Last Strat Jordan Sandstone Depth to Bedrock 103 ft
Located by Minnesota Geological Survey
Locate Method Digitization (Screen) - Map (1:24,000)
System UTM - NAD83, Zone 15, Meters X 463036 Y 5007387
Unique Number Verification Site Plan Input Date 12/23/2008

Angled Drill Hole

Well Contractor

Twin City Testing M0112
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Well Index Report | **242245** | Printed on 09/22/2017

HE-01205-15

Minnesota Unique Well Number

242249

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 12/23/2008
Update Date 11/03/2015
Received Date

Well Name	Township	Range	Dir	Section	Subsection
DAYTON -	120	22	W	9	CAACBB

Elevation 909 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
SILTY CLAY	0	2	GRY/BRN	SOFT
LEAN CLAY BRN/GRY	2	3	VARIED	SOFT
LEAN CLAY W/ SAND	3	7	GRAY	MEDIUM
SANDY LEAN CLAY	7	10	BROWN	MEDIUM
SILTY SAND F MOIST M	10	13	BROWN	
CLAYEY SAND W/	13	16	BROWN	
SAND W/ SILT LITTLE	16	18	BROWN	
CLAYEY SAND W/	18	23	BROWN	
SAND W/ SILT LITTLE	23	42	BROWN	
SAND W/ SILT F MOIST	42	52	BROWN	

Remarks

M.G.S. NO. 3791. SEE DETAILED SOIL BORING.

BORING BACKFILLED WITH NEAT CEMENT GROUT TO 3 FT. FROM LAND SURFACE.

Well Depth	Depth Completed	Date Well Completed
52 ft.	52 ft.	07/29/1987

Drill Method **Drill Fluid**

Use test well **Status** Active

Well Hydrofractured? **Yes** ☐ **No** ☐ **From** **To**

Casing Type **Joint**
Drive Shoe? **Yes** ☐ **No** ☐ **Above/Below**

Open Hole From ft. To ft.

Screen? ☐ **Type** **Make**

Static Water Level

Pumping Level (below land surface)

Wellhead Completion

Pitless adapter manufacturer Model

☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
neat cement		3 ft.	52 ft.
cuttings		ft.	3 ft.

Nearest Known Source of Contamination

feet Direction Type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed

Manufacturer's name

Model Number HP Volt

Length of drop pipe ft Capacity g.p. Typ

Abandoned

Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance

Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous

First Bedrock Aquifer

Last Strat sand+silt-brown Depth to Bedrock ft

Located by Minnesota Geological Survey

Locate Method Digitization (Screen) - Map (1:24,000)

System UTM - NAD83, Zone 15, Meters X 462698 Y 5007044

Unique Number Verification Site Plan Input Date 12/23/2008

Angled Drill Hole

Well Contractor

Twin City Testing M0112

Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

242251

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 12/23/2008
Update Date 09/01/2015
Received Date

Well Name	Township	Range	Dir	Section	Subsection
DAYTON -	120	22	W	9	DBADAA

Elevation 910 ft. **Elev. Method** Surveyed

Address

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
SANDY LEAN CLAY W/	0	4	BROWN	MEDIUM
SANDY LEAN CLAY	4	10	BROWN	
SAND W/ SILT F MOIST	10	28	LT. BRN	
SAND W/ LITTLE	28	33	LT. BRN	
SAND F DRY DENSE	33	40	LT. BRN	
SAND W/ SILT &	40	43	LT. BRN	
SAND F MOIST V	43	54	LT. BRN	
SILTY SAND FINE	54	55	LT. BRN	
SAND W/ SILT F DRY	55	57	BROWN	
SAND F MOIST THEN	57	67	BROWN	

Remarks

M.G.S. NO. 3793. SEE DETAILED SOIL BORING.

BORING BACKFILLED WITH NEAT CEMENT GROUT TO 3 FT. FROM LAND SURFACE.

Well Depth	Depth Completed	Date Well Completed
67 ft.	67 ft.	07/31/1987

Drill Method **Drill Fluid**

Use test well **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type **Joint**
Drive Shoe? Yes ☐ No ☐ **Above/Below**

Open Hole From ft. To ft.

Screen? ☐ **Type** **Make**

Static Water Level

Pumping Level (below land surface)

Wellhead Completion

Pitless adapter manufacturer Model

☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☐ Yes ☐ No ☐ Not Specified

Nearest Known Source of Contamination

feet Direction Type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed

Manufacturer's name

Model Number HP Volt

Length of drop pipe ft Capacity g.p. Typ

Abandoned

Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance

Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous

First Bedrock Aquifer

Last Strat sand-brown Depth to Bedrock ft

Located by Minnesota Geological Survey

Locate Method Digitization (Screen) - Map (1:24,000)

System UTM - NAD83, Zone 15, Meters X 463277 Y 5007050

Unique Number Verification Site Plan Input Date 12/23/2008

Angled Drill Hole

Well Contractor

Twin City Testing M0112

Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

242254

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 12/23/2008
Update Date 02/08/2016
Received Date

Well Name	Township	Range	Dir	Section	Subsection
DAYTON -	120	22	W	9	BDAADD

Elevation 911 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
SANDY SILT DRY	0	2	BROWN	
SANDY LEAN CLAY W/	2	4	BROWN	MEDIUM
SANDY LEAN CLAY W/	4	18	BROWN	
SILTY SAND W/ LITTLE	18	22	BROWN	
SAND W/ SILT F MOIST	22	32	LT. BRN	
SAND W/ LITTLE	32	48	LT. BRN	
SAND W/ LITTLE	48	62	LT. BRN	
SAND F MOIST THEN	62	67	GRY/BRN	

Remarks

M.G.S. NO. 3794. SEE DETAILED SOIL BORING.

BORING BACKFILLED WITH NEAT CEMENT GROUT TO 3 FT. FROM LAND SURFACE.

Well Depth	Depth Completed	Date Well Completed
67 ft.	67 ft.	08/03/1987

Drill Method **Drill Fluid**

Use test well **Status** Active

Well Hydrofractured? **Yes** ☐ **No** ☐ **From** **To**

Casing Type **Joint**
Drive Shoe? **Yes** ☐ **No** ☐ **Above/Below**

Open Hole From ft. To ft.

Screen? ☐ **Type** **Make**

Static Water Level

Pumping Level (below land surface)

Wellhead Completion

Pitless adapter manufacturer Model

☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
neat cement		3 ft.	67 ft.
cuttings		ft.	3 ft.

Nearest Known Source of Contamination

feet Direction Type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed

Manufacturer's name

Model Number HP Volt

Length of drop pipe ft Capacity g.p. Typ

Abandoned

Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance

Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous

First Bedrock Aquifer

Last Strat sand Depth to Bedrock ft

Located by Minnesota Geological Survey

Locate Method Digitization (Screen) - Map (1:24,000)

System UTM - NAD83, Zone 15, Meters X 462862 Y 5007464

Unique Number Verification Site Plan Input Date 12/23/2008

Angled Drill Hole

Well Contractor

Twin City Testing M0112

Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

242257

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 12/23/2008
Update Date 09/01/2015
Received Date

Well Name	Township	Range	Dir	Section	Subsection
DAYTON -	120	22	W	9	DBAABC

Elevation 917 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
SILTY CLAY DARK	0	3	GRY/BRN	MEDIUM
LEAN CLAY	3	9	VARIED	
SANDY LEAN CLAY W/	9	14	BRN/GRY	MEDIUM
SANDY LEAN CLAY W/	14	28	BRN/GRY	
CLAYEY SAND W/	28	33	BRN/GRY	
SAND F, MOIST, M	33	42	LT. BRN	

Remarks

M.G.S. NO. 3797. SEE DETAILED SOIL BORING.

BORING BACKFILLED WITH NEAT CEMENT GROUT TO 3 FT. FROM LAND SURFACE.

Well Depth	Depth Completed	Date Well Completed
42 ft.	42 ft.	08/07/1987

Drill Method **Drill Fluid**

Use test well **Status** Active

Well Hydrofractured? **Yes** ☐ **No** ☐ **From** **To**

Casing Type **Joint**
Drive Shoe? **Yes** ☐ **No** ☐ **Above/Below**

Open Hole From ft. To ft.

Screen? ☐ **Type** **Make**

Static Water Level

Pumping Level (below land surface)

Wellhead Completion

Pitless adapter manufacturer Model

☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☐ Yes ☐ No ☐ Not Specified

Nearest Known Source of Contamination

feet Direction Type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed

Manufacturer's name

Model Number HP Volt

Length of drop pipe ft Capacity g.p. Typ

Abandoned

Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance

Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous

First Bedrock Aquifer

Last Strat sand-brown Depth to Bedrock ft

Located by Minnesota Geological Survey

Locate Method Digitization (Screen) - Map (1:24,000)

System UTM - NAD83, Zone 15, Meters X 463179 Y 5007106

Unique Number Verification Site Plan Input Date 12/23/2008

Angled Drill Hole

Well Contractor

Twin City Testing M0112

Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

242258

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 12/23/2008
Update Date 11/03/2015
Received Date

Well Name	Township	Range	Dir	Section	Subsection
DAYTON -	120	22	W	9	CABCCB

Elevation 914 ft. **Elev. Method** Surveyed

Address

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
NO SAMPLES	0	5		
CLAYEY SAND W/	5	17	BROWN	
SAND W/ SILT LITTLE	17	23	LT. BRN	
CLAYEY SAND W/	23	27	GRAY	
SAND W/ SILT LITTLE	27	32	BROWN	

Remarks

M.G.S. NO. 3798. SEE DETAILED SOIL BORING.

BORING BACKFILLED WITH NEAT CEMENT GROUT TO 3 FT. FROM LAND SURFACE.

Well Depth	Depth Completed	Date Well Completed
32 ft.	32 ft.	10/01/1987

Drill Method **Drill Fluid**

Use test well **Status** Active

Well Hydrofractured? **Yes** ☐ **No** ☐ **From** **To**

Casing Type **Joint**
Drive Shoe? **Yes** ☐ **No** ☐ **Above/Below**

Open Hole From ft. To ft.

Screen? ☐ **Type** **Make**

Static Water Level

Pumping Level (below land surface)

Wellhead Completion

Pitless adapter manufacturer Model

☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
neat cement		3 ft.	32 ft.
cuttings		ft.	3 ft.

Nearest Known Source of Contamination

feet Direction Type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed

Manufacturer's name

Model Number HP Volt

Length of drop pipe ft Capacity g.p. Typ

Abandoned

Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance

Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous

First Bedrock Aquifer

Last Strat sand+silt-brown Depth to Bedrock ft

Located by Minnesota Geological Survey

Locate Method Digitization (Screen) - Map (1:24,000)

System UTM - NAD83, Zone 15, Meters X 462491 Y 5006990

Unique Number Verification Site Plan Input Date 12/23/2008

Angled Drill Hole

Well Contractor

Twin City Testing M0112

Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

416179

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 08/24/1991
Update Date 03/21/2017
Received Date

Well Name	Township	Range	Dir	Section	Subsection
GUIMONT,	120	22	W	9	BABCBD

Elevation 902 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

C/W 15501 DAYTON RIVER RD DAYTON MN 55327

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
TOP SOIL	0	1	BLACK	
CLAY & SAND	1	22	TAN	
SANDY CLAY	22	24	TAN	
GRAVEL	24	67	TAN	
FINE SAND	67	73	BROWN	
CLAY & GRAVEL	73	165	BROWN	
CLAY	165	178	GRAY	
CLAY & GRAVEL	178	206	BROWN	
SHALE	206	244	WHT/YEL	
SANDSTONE & SHALE	244	251	TAN/WHT	SOFT
SANDSTONE SHALE	251	258	WHITE	
SHALE & SANDSTONE	258	295	WHT/BLU	

Remarks

Well Depth	Depth Completed	Date Well Completed
295 ft.	295 ft.	12/05/1986

Drill Method Non-specified Rotary **Drill Fluid**

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint** Threaded
Drive Shoe? Yes ☒ No ☐ **Above/Below** 1 ft.

Casing Diameter	Weight	Hole Diameter
4 in. To 260 ft.	10.7 lbs./ft.	4 in. To 295 ft.

Open Hole From 260 ft. To 295 ft.

Screen? ☐ **Type** **Make**

Static Water Level
65 ft. land surface Measure 12/05/1986

Pumping Level (below land surface)
90 ft. 2 hrs. Pumping at 50 g.p.m.

Wellhead Completion
Pitless adapter manufacturer BAKER Model SNAPPY
☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
bentonite		0 ft.	259 ft.

Nearest Known Source of Contamination
100 feet Southeas Direction Septic tank/drain field Type
Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed 12/09/1986
Manufacturer's name GRUNDFOS
Model Number SP2-12 HP 0.5 Volt 115
Length of drop pipe 90 ft Capacity 12 g.p. Typ Submersible

Abandoned
Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance
Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous
First Bedrock St.Lawrence-Tunnel City Aquifer Tunnel City
Last Strat Tunnel City Group Depth to Bedrock 206 ft
Located by Minnesota Geological Survey
Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table)
System UTM - NAD83, Zone 15, Meters X 462493 Y 5007815
Unique Number Verification Information from Input Date 01/01/1990

Angled Drill Hole

Well Contractor

Licensee Business	Lic. or Reg. No.	Name of Driller
Renner E.H. Well	71015	ROSGA, T.

Minnesota Well Index Report | **416179** | Printed on 09/20/2017 HE-01205-15

Minnesota Unique Well Number

488761

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 12/30/1993
Update Date 03/21/2017
Received Date 04/01/1992

Well Name	Township	Range	Dir	Section	Subsection
DAHLHEINER,	120	22	W	9	CBBBBB

Elevation 923 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Well 14700 VICKSBERG LA DAYTON MN 55327

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	30	YELLOW	MEDIUM
SAND	30	40	YELLOW	SOFT
CLAY & SAND	40	103	YEL/BRN	MEDIUM
CLAY	103	122	RED/BRN	MEDIUM
SAND	122	126	BROWN	SOFT
CLAY	126	165	BROWN	MEDIUM
SHALE & SAND YEL	165	219	VARIED	SFT-HRD
SHALE & SANDROCK	219	260	VARIED	HARD

Remarks

Well Depth 260 ft. **Depth Completed** 260 ft. **Date Well Completed** 02/18/1992

Drill Method Non-specified Rotary **Drill Fluid** Qwik gel

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint**

Drive Shoe? Yes ☒ No ☐ **Above/Below** 1 ft.

Casing Diameter	Weight	Hole Diameter
4 in. To 222 ft.	11 lbs./ft.	8 in. To 30 ft.
		6.5 in. To 222 ft.
		4 in. To 260 ft.

Open Hole From 222 ft. To 260 ft.

Screen? ☐ **Type** **Make**

Static Water Level

77 ft. land surface Measure 02/18/1992

Pumping Level (below land surface)

100 ft. 3 hrs. Pumping at 40 g.p.m.

Wellhead Completion

Pitless adapter manufacturer WHITEWATER Model SU5.5

☐ Casing Protection ☒ 12 in. above grade

☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
bentonite		ft.	222 ft.

Nearest Known Source of Contamination

60 feet South Direction Septic tank/drain field Type

Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed 02/22/1992

Manufacturer's name TEEL 9 (OWNERS)

Model Number HP 0.5 Volt 230

Length of drop pipe 100 ft Capacity 12 g.p. Typ Submersible

Abandoned

Does property have any not in use and not sealed well(s)? ☒ Yes ☐ No

Variance

Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous

First Bedrock Jordan-St.Lawrence Aquifer St.Lawrence-

Last Strat St.Lawrence-Tunnel City Depth to Bedrock 165 ft

Located by Minnesota Geological Survey

Locate Method Digitization (Screen) - Map (1:24,000)

System UTM - NAD83, Zone 15, Meters X 462108 Y 5007150

Unique Number Verification Address verification Input Date 07/15/2008

Angled Drill Hole

Well Contractor

Mc Alpine's Well Co. 27186 MCALPINE, T.

Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

506539

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 12/04/1991
Update Date 04/01/2016
Received Date 09/21/1989

Well Name	Township	Range	Dir	Section	Subsection
DAHLHIEMER,	120	22	W	8	ADDCAC

Elevation 923 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Well 14747 VICKSBURG LA DAYTON MN 55327

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	25	YELLOW	SOFT
SAND & CLAY	25	35	YELLOW	SOFT
CLAY	35	54	YELLOW	SOFT
SAND & GRAVEL	54	68	YELLOW	SOFT
CLAY	68	125	RED/BRN	MEDIUM
CLAY & ROCKS	125	135	BROWN	HARD
SHALE & SANDROCK	135	211	YEL/WHT	MEDIUM
SHALE & SANDROCK	211	260	VARIED	HARD

Remarks

Well Depth 260 ft. **Depth Completed** 260 ft. **Date Well Completed** 08/28/1989

Drill Method Non-specified Rotary **Drill Fluid** Qwik gel

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint**
Drive Shoe? Yes ☒ No ☐ **Above/Below** 1 ft.

Casing Diameter	Weight	Hole Diameter
4 in. To 214 ft.	11 lbs./ft.	6 in. To 214 ft.
		4 in. To 260 ft.

Open Hole From 214 ft. To 260 ft.

Screen? ☐ **Type** **Make**

Static Water Level
68 ft. land surface Measure 08/28/1989

Pumping Level (below land surface)
78 ft. 3 hrs. Pumping at 50 g.p.m.

Wellhead Completion
Pitless adapter manufacturer WHITEWATER Model SU5.5
☐ Casing Protection ☒ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
bentonite		ft. 214	ft.
neat cement		ft.	ft.

Nearest Known Source of Contamination
75 feet Southwes Direction Septic tank/drain field Type
Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed 08/29/1989
Manufacturer's name AERMOTOR
Model Number SD1275 HP 0.75 Volt 230
Length of drop pipe 100 ft Capacity 12 g.p. Typ Submersible

Abandoned
Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No

Variance
Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous
First Bedrock Jordan Sandstone Aquifer St.Lawrence-
Last Strat St.Lawrence-Tunnel City Depth to Bedrock 135 ft
Located by Minnesota Geological Survey
Locate Method Digitization (Screen) - Map (1:24,000)
System UTM - NAD83, Zone 15, Meters X 461965 Y 5007231
Unique Number Verification Address verification Input Date 07/18/2008

Angled Drill Hole

Well Contractor
Mc Alpine's Well Co. 27186 MCALPINE, T.
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

563482

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 12/12/1996
Update Date 04/01/2016
Received Date 08/14/1995

Well Name	Township	Range	Dir	Section	Subsection
KLOSTERMAN,	120	22	W	8	ADABCB

Elevation 929 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Well 14847 VICKSBURG LA DAYTON MN 55327

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	27	YELLOW	SOFT
CLAY & SAND	27	106	BROWN	SOFT
CLAY & SAND	106	119	DK. BRN	M.HARD
CLAY & GRAVEL RED	119	135	VARIED	HARD
ROCKS, GRAVEL &	135	195	VARIED	HARD
SHALE & SANDROCK	195	254	VARIED	HARD

Remarks

Well Depth 254 ft. **Depth Completed** 254 ft. **Date Well Completed** 08/03/1995

Drill Method Non-specified Rotary **Drill Fluid** Qwik gel

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint** Threaded

Drive Shoe? Yes ☒ No ☐ **Above/Below**

Casing Diameter	Weight	Hole Diameter
4 in. To 202 ft.	11 lbs./ft.	6.2 in. To 202 ft.
		4 in. To 254 ft.

Open Hole From 202 ft. To 254 ft.

Screen? ☐ **Type** **Make**

Static Water Level

65 ft. land surface Measure 08/03/1995

Pumping Level (below land surface)

100 ft. 5 hrs. Pumping at 50 g.p.m.

Wellhead Completion

Pitless adapter manufacturer MERRILL Model SPK5.5

☐ Casing Protection ☒ 12 in. above grade

☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
cuttings		30 ft.	254 ft.
bentonite	2 Sacks	ft.	30 ft.

Nearest Known Source of Contamination

50 feet Northwes Direction Septic tank/drain field Type

Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed 08/08/1995

Manufacturer's name AERMOTOR

Model Number 12T75 HP 0.75 Volt 230

Length of drop pipe 100 ft Capacity 12 g.p. Typ Submersible

Abandoned

Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No

Variance

Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous

First Bedrock Jordan-Tunnel City Aquifer Jordan-Tunnel

Last Strat Jordan-Tunnel City Depth to Bedrock 195 ft

Located by Minnesota Geological Survey

Locate Method Digitization (Screen) - Map (1:24,000)

System UTM - NAD83, Zone 15, Meters X 461916 Y 5007505

Unique Number Verification Address verification Input Date 07/15/2008

Angled Drill Hole

Well Contractor

Mc Alpine's Well Co. 27186 MCALPINE, S.

Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

690420

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date
Update Date 08/12/2008
Received Date 04/11/2003

Well Name	Township	Range	Dir	Section	Subsection
LAUREL TREE	120	22	W	5	DDCCCD

Elevation 883 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Well 16301 DAYTON RIVER RD DAYTON MN 55327

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	18	YELLOW	MED-HRD
SAND	18	42	BROWN	SOFT
COARSE GRAVEL	42	50	BRN/BLK	SFT-MED
CLAY & GRAVEL	50	65	GRY/BLK	SOFT
CLAY & GRAVEL	65	74	GRY/BLK	SOFT
CLAY	74	80	RED/BRN	MEDIUM
CLAY, GRAVEL & ROCK	80	137	BRN/BLK	SFT-HRD
SAND BRN, YEL, &	137	156	VARIED	M.HARD

Remarks

Well Depth	Depth Completed	Date Well Completed
156 ft.	156 ft.	03/14/2003

Drill Method Non-specified Rotary **Drill Fluid** Qwik gel

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint** Welded
Drive Shoe? Yes ☐ No ☐ **Above/Below**

Casing Diameter	Weight	Hole Diameter
4 in. To 137 ft.	lbs./ft.	6.5 in. To 148 ft.

Open Hole From ft. To ft.

Screen? ☒ **Type** stainless **Make** JOHNSON

Diameter	Slot/Gauze	Length	Set	
2 in.	10	8 ft.	148 ft.	156 ft.

Static Water Level
40 ft. land surface Measure 03/14/2003

Pumping Level (below land surface)
80 ft. 2 hrs. Pumping at 50 g.p.m.

Wellhead Completion
Pitless adapter manufacturer MERRILL Model MCK6.5
☒ Casing Protection ☒ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
high solids bentonite	2 Sacks	0 ft.	30 ft.
cuttings		30 ft.	148 ft.

Nearest Known Source of Contamination
50 feet Northwes Direction Septic tank/drain field Type
Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed 03/17/2003
Manufacturer's name AERMOTOR
Model Number 12T75 HP 0.75 Volt 230
Length of drop pipe 80 ft Capacity 12 g.p. Typ Submersible

Abandoned
Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No

Variance
Was a variance granted from the MDH for this well? ☐ Yes ☒ No

Miscellaneous
First Bedrock Aquifer Quat. buried
Last Strat sand Depth to Bedrock ft
Located by Minnesota Geological Survey
Locate Method Digitization (Screen) - Map (1:24,000)
System UTM - NAD83, Zone 15, Meters X 461745 Y 5007979
Unique Number Verification Address verification Input Date 07/10/2008

Angled Drill Hole

Well Contractor
McAlpine Well Drilling 27695 MCALPINE, T.
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

745313

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 07/19/2007
Update Date 12/02/2014
Received Date 12/28/2006

Well Name	Township	Range	Dir	Section	Subsection
FAUSTAD	120	22	W	9	ACDDCC

Elevation 924 ft. **Elev. Method** LiDAR 1m DEM (MNDNR)

Address

Well 14771 DAYTON RIVER RD DAYTON MN 55327

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	37	BRN/YEL	MED-HRD
CLAY & SAND	37	43	BROWN	SOFT
SAND	43	70	BROWN	SOFT
CLAY, GRAVEL, SAND	70	142	BRN/BLK	SFT-HRD
CLAY & SAND	142	150	BROWN	SFT-HRD
SAND	150	160	BRN/YEL	MED-HRD
CLAY	160	165	YELLOW	MED-HRD
SAND	165	182	BRN/WHT	MEDIUM

Remarks

Well Depth 182 ft. **Depth Completed** 182 ft. **Date Well Completed** 10/30/2006

Drill Method Non-specified Rotary **Drill Fluid** Qwik gel

Use domestic **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Single casing **Joint** Welded
Drive Shoe? Yes ☐ No ☐ **Above/Below**

Casing Diameter	Weight	Hole Diameter
4 in. To 174 ft.	lbs./ft.	6.5 in. To 174 ft.

Open Hole From ft. To ft.

Screen? ☒ **Type** stainless **Make** JOHNSON

Diameter	Slot/Gauze	Length	Set	
2 in.	10	8 ft.	174 ft.	182 ft.

Static Water Level

77 ft. land surface Measure 11/22/2006

Pumping Level (below land surface)

120 ft. 4 hrs. Pumping at 40 g.p.m.

Wellhead Completion

Pitless adapter manufacturer MERRILL Model MCK6

☒ Casing Protection ☒ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
cuttings		30 ft.	174 ft.
bentonite	3 Sacks	ft.	30 ft.

Nearest Known Source of Contamination

50 feet South Direction Septic tank/drain field Type

Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed 11/22/2006

Manufacturer's name AERMOTER

Model Number S20-150 HP 1.5 Volt 230

Length of drop pipe 120 ft Capacity 20 g.p. Typ Submersible

Abandoned

Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No

Variance

Was a variance granted from the MDH for this well? ☐ Yes ☒ No

Miscellaneous

First Bedrock Jordan Sandstone Aquifer Jordan

Last Strat Jordan Sandstone Depth to Bedrock 165 ft

Located by Minnesota Geological Survey

Locate Method GPS SA Off (averaged)

System UTM - NAD83, Zone 15, Meters X 463218 Y 5007170

Unique Number Verification Address verification Input Date 10/21/2014

Angled Drill Hole

Well Contractor

McAlpines Well Drilling of 1477 MCALPINE, T.

Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Well Index Report | **745313** | Printed on 09/20/2017

HE-01205-15

APPENDIX

C

STATE HISTORIC PRESERVATION OFFICE LETTER

Appendix “C” contains the State Historic Preservation Office Letter.

From: Jesse Kling <jesse.kling@mnhs.org>
Sent: Thursday, September 28, 2017 12:14 PM
To: Data Requests to SHPO
Cc: Michele Ross
Subject: Re: Cultural Recourse Consultation - North Dayton Development
Attachments: HennepinArchaeology2.rtf

THIS EMAIL IS NOT A PROJECT CLEARANCE.

This message simply reports the results of the cultural resources database search you requested. The database search produced results for only previously known archaeological sites and historic properties. Please read the note below carefully.

No historic structures were identified in a search of the Minnesota Archaeological Inventory and Historic Structures Inventory for the search area requested. **A report containing the archaeological sites identified is attached.**

The result of this database search provides a listing of recorded archaeological sites and historic architectural properties that are included in the current SHPO databases. Because the majority of archaeological sites in the state and many historic architectural properties have not been recorded, important sites or structures may exist within the search area and may be affected by development projects within that area. Additional research, including field survey, may be necessary to adequately assess the area's potential to contain historic properties.

Properties that are listed in the National Register of Historic Places (NRHP) or have been determined eligible for listing in the NRHP are indicated on the reports you have received. The following codes on the reports you received are:

NR – National Register listed. The properties may be individually listed or may be within the boundaries of a National Register District.

CEF – Certified Eligible to the National Register findings are usually made during the federal review process, these properties have been evaluated as being eligible for listing in the National Register.

SEF – Staff eligible findings to the National Register are properties that have been determined eligible by SHPO staff.
DOE – Determination of Eligibility is made by the National Park Service and typically refers to properties deemed eligible but the owner objects to the listing.

CNEF – Certified Not Eligible to the National Register. SHPO has begun to record properties that have been evaluated as **not eligible** for listing in the National Register. If the box on the form has a check the property has been determined to be **not eligible.**

Properties without **NR, CEF, SEF, DOE, or CNEF** designations in the reports you received may not have been evaluated and therefore no assumption to their eligibility can be made.

If you require a comprehensive assessment of a project's potential to impact archaeological sites or historic architectural properties, you may need to hire a qualified archaeologist and/or historian. If you need assistance with a project review, please contact Kelly Gragg-Johnson in Review and Compliance @ 651-259-3455 or by email at kelly.graggjohnson@mnhs.org.

The Minnesota SHPO Survey Manuals and Database Metadata can be found at
http://www.mnhs.org/shpo/survey/inventories.htm
SHPO research hours are 8:30 AM – 4:00 PM Tuesday-Friday.

The Office is closed on Mondays.

On Thursday, September 28, 2017 at 11:54:05 AM UTC-5, Michele Ross wrote:

I am preparing a scoping EAW for an AUAR in the City of Dayton, MN in Hennepin County and am requesting a cultural resources review for the site to inform the impact analysis. The proposed North Dayton Development project would entail the development of approximately 560 acres within the City of Dayton, MN. The land in question is generally located north of North Diamond Lake Road, south of Dayton River Road, east of the Daytona Golf Club, and west of Oxbow Lane and the adjacent farmstead. The site currently consists primarily of open farm fields, homesteads, wooded areas and wetlands. Complete development of the site would result in multi-phased development consisting primarily of single family residential surrounding a core of mixed-use development. The development density is expected to average approximately 3 units per acre, with 1,500 to 1,700 single-family residential homes and approximately 50 acres of mixed-use development. Parcels are : 08-120-22-12-0001; 08-120-22-13-0001; 08-120-22-11-0006; 08-120-22-11-0004; 08-120-22-14-0002; 08-120-22-14-0001; 08-120-22-41-0001; 08-120-22-42-0001; 09-120-22-23-0003; 09-120-22-32-0001; 09-120-22-32-0002; 09-120-22-21-0005; 09-120-22-24-0001; 09-120-22-31-0001; 09-120-22-12-0004; 0-9120-22-13-0001 and I've also attached a map. Furthermore the site is located in Sections 8 and 9, Range 22 of Township 120. Thank you!

Michele Ross
Associate Planner
C 612.607.3542 **E** MRoss@sambatek.com



Engineering | Surveying | Planning | Environmental

CONFIDENTIALITY NOTICE: This e-mail and the documents accompanying this e-mail contain confidential information. The information is solely for the use of the intended recipient(s) named above. If you are not the intended recipient, please notify us immediately by phone and delete it from your system.

Archaeological Site Locations

Site Number	Site Name	Twp.	Range	Sec.	Quarter Sections	Acres	Phase	Site Description	Tradition	Context	Reports	NR	CEF	DOE
County:	**Hennepin**													
21HE0326	Dayton A	120	22	9	NE-NW-NE	3	1	LS						
21HE0327	Dayton B	120	22	9	SE-NE-SW	0.1	1	SA						
21HE0328	Dayton D	120	22	9	NE-SE-SE	9	1	LS						

APPENDIX

D

TRAFFIC STUDY

Appendix “D” contains the Traffic Study.

Spack CONSULTING
ENGINEERING TRAFFIC FORWARD

Traffic Impact Study

NORTH DAYTON DEVELOPMENT
DAYTON, MINNESOTA

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

By: _____
Bryant Ficek, P.E.
License No. 42802

Date: 06/26/2018

Executive Summary

Background:

A 560-acre single family residential development is proposed on the south side of Dayton River Road around the area of Vicksburg Lane and River Hills Parkway in Dayton, Minnesota. The purpose of this study is to determine the traffic impacts associated with the build-out of the proposed development on the study roads and intersections where significant impact is anticipated.

Results:

The principal findings of this study for the 2025 analysis year are:

- The proposed North Dayton Site development is expected to generate similar traffic compared to the 2030 Future Land Use plan, with 4,882 trips compared to approximately 4,820 trips during an average weekday (assuming 1/3 of the total residential units are developed).
- The peak hour trip generation is also similar between the two different land use options.
- The TH 169 and CSAH 81 corridors are currently at or over the planning-level capacities for their types of facilities and volumes are expected to continue to increase into the future.
- Due to background growth, other area developments, and the proposed North Dayton site, corridor volumes on 141st Avenue near Brockton Lane are close to its nearing-capacity planning level.
- Similarly, the intersections of Dayton River Road/TH 169, N Diamond Lake Road/Brockton Lane operate with failing delays by the 2025 No-Build scenarios while Dayton River Road/Pineview Lane operates with failing delays or queuing by 2025 Build scenario.

Additional analysis was completed for the year 2040 with the following findings:

- The proposed North Dayton Site development is expected to generate significantly less traffic compared to the 2030 Future Land Use plan, 16,820 trips compared to approximately 20,822 trips during an average weekday.
- The peak hour trip generation has a similar comparison with the proposed North Dayton plan generating about 15% less traffic than would be expected under the 2030 Land Use plan.
- Additional roadway upgrades are expected by 2040 including the I-94 interchange connecting I-94, CSAH 81, French Lake Road, Brockton Lane, and Zanzibar Lane.
- The TH 169 and CSAH 81 corridors will continue to operate above capacity as volumes from general growth, specific development in the area, and this proposed North Dayton development contribute to higher volumes.
- Dayton River Road, Brockton Lane, and 141st Avenue begin to see volumes close to or just above the nearing congestion range under the 2040 Build scenarios.
- Dayton River Road/TH 169 operates with failing LOS delays under the expanded configuration by the 2040 No-Build Scenario. Further expansion may not be feasibly due to adjacent developments and the roadways proximity to the northern river crossing.
- S Diamond Lake Road/Pineview Lane, Dayton River Road/S Diamond Lake Road, Dayton River Road/Brockton Lane, and 129th Avenue/Pineview Lane experience failing operations by the 2040 No-Build scenario.
- N Diamond Lake Road/Brockton Lane, Dayton River Road/Pineview Lane, Dayton River Road/N Diamond Lake Road, and N Diamond Lake Road/Zanzibar Lane experience failing operations by the 2040 Build scenarios.

Recommendations:

Due to general background growth and adjacent specific developments, the following mitigation is recommended with or without the proposed North Dayton development for the year 2025:

- Continue to explore options for corridor improvements on the TH 169 and CSAH 81 corridor with other agencies.
- Re-stripe the Dayton River Road approach to TH 169 to provide dual left turn lanes, a left turn/through lane, and a right turn lane. Additional pavement on northbound TH 169 will be needed.
- Update signal timing at all signalized intersections at least every three to five years.
- Construct a single-lane roundabout with reserved right-of-way for future right turn lanes or a traffic signal with dedicated turn lanes at the N Diamond Lake Road/Brockton Lane intersection.

Accounting for additional traffic from the proposed development, the following mitigation will also be necessary to accommodate the full projected 2025 volumes:

- Construct a single-lane roundabout with reserved right-of-way for future right turn lanes or a traffic signal with dedicated turn lanes at the Dayton River Road/Pineview Lane intersection.

For intersections where a roundabout or a traffic signal is proposed, a detail Intersection Control Evaluation will be necessary. This document will evaluate the two control options and document the decision for which option is ultimately constructed. For the purposed of this document, roundabouts are the preferred option.

Beyond year 2025, the long-range time frame and uncertainty of potential developments, roadway network, and travel patterns result in multiple assumptions for this analysis. Due to this inherent uncertainty, year 2040 recommendations should not be constructed today. Instead, right-of-way should be preserved for these needs when required based on actual traffic growth.

The following modifications to the study roads and intersections, assuming the planned roadway network is implemented, are recommended for the year 2040 to address potential issues due to general background growth and other specific development traffic with or without the proposed North Dayton site:

- Continue to work on long-term solutions with other agencies to accommodate future congestion on the TH 169 and CSAH 81 corridors.
- Construct a multi-lane roundabout at the Dayton River Road/South Diamond Lake Road intersection, with two-lane Dayton River Road approaches or a traffic signal with dedicated turn lanes.
- Construct single-lane roundabouts or traffic signals with dedicated turn lanes at the intersections of 129th Avenue/Pineview Lane, Dayton River Road/Brockton Lane, and South Diamond Lake Road/Pineview Lane.
- Continue to update signal timing at all signalized intersections at least every three to five years.

With the North Dayton proposed development traffic contributing to the study area volumes, the following additional 2040 mitigation is recommended:

- Provide dedicated right turn lanes for the Dayton River Road/Pineview Lane intersection single-lane roundabout using the reserved right-of-way if a roundabout was constructed as part of the 2025 mitigation.
- Construct a single-lane roundabout or traffic signal with dedicated turn lanes at the N Diamond Lake Road/Zanzibar Lane intersection.
- Construct multi-lane roundabout at the Dayton River Road/N Diamond Lake Road intersection, with two-lane Dayton River Road approaches or a traffic signal with dedicated turn lanes.
- Provide dedicated right turn lanes for the N Diamond Lake Road/Brockton Lane intersection single-lane roundabout using the reserved right-of-way if a roundabout was constructed as part of the 2025 mitigation.

As before, for intersections where a roundabout or a traffic signal is proposed, a detail Intersection Control Evaluation will be necessary. This document will evaluate the two control options and document the decision for which option is ultimately constructed. For the purposed of this document, roundabouts are the preferred option.

In addition to these roadway improvements, the following items are also recommended based upon the traffic analysis for the proposed development:

- Reserve space, if necessary, for the future trail network in this area.
- Consider internal sidewalks/trails to connect to a future trail network and between the residential/commercial components of the proposed Developer's plan.
- Consider potential bicycle parking areas and other amenities (repair stations) on-site for when the future trail network is developed.
- Follow the requirements of the MnMUTCD for signing and striping.
- Work with the City, as necessary, in their continued dialogue with Metro Transit and Hennepin County on the potential expansion of the transit system.

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1. Introduction

a. Proposed Development

A 560-acre primarily single family residential development is proposed on the south side of Dayton River Road around the area of Vicksburg Lane and River Hills Parkway in Dayton, Minnesota. Following are key attributes of the proposed development:

i. Access to the site will be provided along Vicksburg Lane, Zanzibar Lane's future northern extension, a future north-south road between Dayton River Road and N Diamond Lake Road east of Vicksburg Lane, Lawndale Lane, and an additional north-south roadway proposed between Lawndale Lane and Vicksburg Lane per the concept development plan in the Appendix.
ii. The site's 2030 Future Land Use plan includes a mix of single-family residential homes, rowhomes or other multifamily units, and mixed-use commercial. This land use has a higher density than proposed by the developer.
iii. The proposed development's preferred land use plan decreases the number of rowhomes or other multifamily units and the commercial component.
iv. The development is expected to be one third (1/3) occupied by 2025 and fully built and occupied by 2040.

b. Purpose of Study

The purpose of this study is to determine the traffic impacts associated with the build out of the proposed development. The traffic impacts are studied on the roads and intersections where significant impact is anticipated and improvements are recommended where mitigation is needed. For those not familiar with the general concepts and terms associated with traffic engineering, *The Language of Traffic Engineering* guide is included in the Appendix.

c. Study Objectives

The objectives of this study are:

i. Document how the study intersections and roadways currently operate.
ii. Forecast the amount of traffic expected to be generated by the proposed development under each land use scenarios:
    a. Using the land uses designated in the 2030 Comprehensive Plan.
    b. Using the preferred build alternative proposed by the developer.
iii. Determine how the study intersections and roadways will operate in the future year 2025 (short-term) with and without the proposed development scenarios.
iv. Determine how the study intersections and roadways will operate in the future year 2040 (long-term) with and without the proposed development scenarios accounting for potential upgrades of the future roadway network.
v. Recommend appropriate mitigation if poor operations are identified.

The roadways corridors studied in this document, including those surrounding the proposed site, are:

- Dayton River Road
- South Diamond Lake Road
- North Diamond Lake Road
- US Trunk Highway (TH) 169
- Pineview Lane
- River Hills Parkway
- Vicksburg Lane
- Lawndale Lane
- Brockton Lane
- Zanzibar Lane
- Minnesota TH 101
- 141st Avenue
- 129th Avenue
- Hennepin County State Aid Highway (CSAH) 81

For the purposes of this traffic study, the study intersections near to the proposed development and where the greatest impact is expected were chosen for review and include:

- Dayton River Road/TH 169
- Dayton River Road/South Diamond Lake Road
- Dayton River Road/Pineview Lane
- Dayton River Road/North Diamond Lake Road
- Dayton River Road/River Hills Parkway
- Dayton River Road/Vicksburg Lane
- Dayton River Road/Lawndale Lane
- Dayton River Road/Brockton Lane
- South Diamond Lake Road/Pineview Lane
- North Diamond Lake Road/Zanzibar Lane
- North Diamond Lake Road/Lawndale Lane
- North Diamond Lake Road/Brockton Lane
- 141st Avenue/TH 101
- 129th Avenue/Pineview Lane
- Brockton Lane/CSAH 81
- Future Site Access Roads

It should be noted traffic expected from the proposed development will have minor impacts on other corridors and intersections beyond those studied here.

Furthermore, this study does not account for the existing roadway conditions such as pavement quality or appropriate drainage.

2. Existing Conditions

a. Corridor Characteristics

As mentioned, the proposed site is located on the south side of Dayton River Road surrounding Vicksburg Lane as seen in the concept plan in the Appendix. Table 1 shows the characteristics of the key roadway corridors around this site and within the study area.

Table 1 – Study Corridor Characteristics

Name	Designation[1]	Classification[2]	Speed Limit	Lanes	Fixed Route Transit[3]	Peds/ Bicycles
Dayton River Road	Hennepin CSAH 12	A Minor Connector	30 - 50 mph	2 Undivided	1 10-30 min	Trail on East & West Ends
South Diamond Lake Road	Local	B Minor Arterial	35 mph	2 Undivided	None	Trail
North Diamond Lake Road	Hennepin CSAH 144	A Minor Expander	50 mph	2 Undivided	None	None
TH 169	US TH 169	Principal Arterial	35 mph	4 Partially Divided	1 10-30 min	Sidewalks
Pineview Lane	Local	A Minor Connector	40 mph	2 Undivided	None	None
River Hills Parkway	Local	Local[4]	30 mph	2 Undivided	None	Sidewalk
Vicksburg Lane	Local	Future A Minor Connector	40 mph	2 Undivided	None	None
Lawndale Lane	Local	Collector	40 mph	2 Undivided	None	None
Brockton Lane	Hennepin CSAH 13	A Minor Reliever	50 - 55 mph	2 Undivided	None	None
Zanzibar Lane	Dayton MSAS 104	A Minor Connector	40 mph	2 Undivided	None	None
TH 101	Minnesota TH 101	Principal Arterial	55 - 65 mph	4 Divided	None	None
141st Avenue	Hennepin CSAH 144	A Minor Expander	40 - 50 mph	2 Undivided – 4 Divided	None	Trail near TH 101
129th Avenue	Hennepin CSAH 121	A Minor Connector	55 mph	2 Undivided	None	None
CSAH 81	Hennepin CSAH 81	A Minor Reliever	55 mph	2 Undivided	None	None

[1] TH = Trunk Highway, CSAH = County State Aid Highway, MSA = Municipal State Aid Route.
[2] Source: Dayton, MN 2030 Comprehensive Plan
[3] Number of routes around the proposed site followed by the frequency of transit service during the peak periods.
[4] Based on driveway accesses to roadway

b. Traffic Volumes

Intersection video was collected at the existing study intersections under normal weekday conditions in February 2018. Using these videos, 48-hour turning movement counts were obtained at the study intersections. The data from the two days was averaged to provide the base traffic for a "typical weekday". Due to current construction activities at the time of data collection, year 2016 counts at the Dayton River Road/TH 169 and Brockton Lane/CSAH 81 intersections were obtained for use in this study. Due to other recent studies within the last year, year 2017 counts at the South Diamond Lake Road/Pineview Lane and 129th Avenue/Pineview Lane intersections were obtained for use in this study.

The average a.m. and p.m. peak hours were found to be from 7:00 to 8:00 a.m. and 4:15 to 5:15 p.m. The "typical day" counts from these two peak hours were used at the study intersections for analysis. The turning movement count data from the counts are contained in fifteen-minute intervals in the Appendix.

Based on the "typical day" turning movement volumes, the current daily traffic volumes on each study corridor are shown in the Appendix.

3. Forecasted Traffic

a. Site Traffic Forecasting

A trip generation analysis was performed for the development site based on the rates and methods published in the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition*. The ITE manual compiles studies from across the country to provide a national average traffic generation for various land uses.

The resultant new trips generated by the proposed development are shown in Table 2 and Table 3. Table 2 shows the trip generation based on the 2030 Future Land Use plan, as specified in the City of Dayton's Comprehensive Plan. Table 3 shows the trip generation based on the preferred developer land use which includes single family homes, attached multifamily homes, and commercial developments.

Furthermore, it is assumed that for the year 2025 one third (1/3) of the development will be build and occupied with full development and occupation occurring by 2040 under both land use options. The 2025 partial development does not include the commercial components. A detailed trip generation table showing the exact breakdowns for both scenarios is provided in the Appendix.

As shown, the two land use plans are similar for the year 2025 development. Under full development in 2040, the proposed North Dayton site is expected to generate significantly less traffic compared to the 2030 Future Land Use plan. Based on these results only the developer preferred land use was analyzed as it represents the highest traffic generator case for the surrounding area.

Table 2 – 2030 Future Land Use Designation - New Trip Generation

Land Use Code	Description & Size	Daily		AM Peak Hour		PM Peak Hour	
		In	Out	In	Out	In	Out
210 - ITE	Single Family (318 units) (2025 1/3 build)	1,501	1,501	59	176	198	116
220 - ITE	Multifamily Housing (248 units) (2025 1/3 build)	909	909	26	88	88	51
820 - ITE	Commercial (0 KSF) (2025 not built yet)	0	0	0	0	0	0
TOTALS (2025 - 1/3 Build)		**2,410**	**2,410**	**85**	**264**	**286**	**167**
210 - ITE	Single Family (954 units) (2040 Full build)	4,503	4,503	176	529	595	349
220 - ITE	Multifamily Housing (745 units) (2040 Full build)	2,727	2,727	79	264	263	154
820 - ITE	Commercial (168.6 KSF) (2040 Full build)	3,181	3,181	98	60	308	334
TOTALS (2040 - Full build)		**10,411**	**10,411**	**353**	**853**	**1,166**	**837**

Table 3 – Preferred Land Use Designation – New Trip Generation

Land Use Code	Description & Size	Daily		AM Peak Hour		PM Peak Hour	
		In	Out	In	Out	In	Out
210 - ITE	Single Family (448 units) (2025 1/3 build)	2,115	2,115	83	249	279	164
220 - ITE	Multifamily Housing (89 units) (2025 1/3 build)	326	326	9	32	31	18
820 - ITE	Commercial (0 KSF) (not built yet)	0	0	0	0	0	0
TOTALS (2025 - 1/3 Build)		**2,441**	**2,441**	**92**	**281**	**310**	**182**
210 - ITE	Single Family (1,342 units) (2040 Full build)	6,334	6,334	248	745	837	492
220 - ITE	Multifamily Housing (267 units) (2040 Full build)	977	977	28	95	94	55
820 - ITE	Commercial (58.2 KSF) (2040 Full build)	1,099	1,099	34	21	106	115
TOTALS (2040 - Full build)		**8,410**	**8,410**	**310**	**861**	**1,037**	**662**

As the Preferred Land Use Designation is expected to generate slightly less traffic than the current 2030 Future Land Use Designation, only the Preferred Land Use is carried forward though the full forecasts and analyses. The 2030 Future Land Use with higher traffic could have additional impacts to the roadway system. However, since it is not a proposed plan, there is no reason to determine those added impacts.

A trip distribution pattern was developed for the generated traffic going to and from the proposed development. This pattern is based on the existing traffic volumes, site access, competing land uses, and access to the regional transportation system and was used in the 2025 future models. The general trip distribution pattern for this study is:

i. 20% of the generated traffic to/from the west on 141 Avenue, TH 81, and Interstate 94.
ii. 29% of the generated traffic to/from the north on TH 101, Dayton River Road, and TH 169.
iii. 28% of the generated traffic to/from the east/southeast on TH 81, TH 169, and Dayton River Road.
iv. 23% percent of the generated traffic to/from the south on Brockton Lane and Interstate 94.

Traffic generated by the site development was assigned to the area roadways per this distribution pattern. A detailed presentation of the trip distribution can be seen in the Appendix.

A second trip distribution was created assuming upgraded roadway configurations for the year 2040 which is discussed in 2040 Planned Roadway Network.

b. 2025 Non-Site Traffic Forecasting

Traffic forecasts were developed for the year 2025 No-Build Scenarios based on development staging plans from the City of Dayton. Using these plans the developments were sorted into several geographic areas and a trip generation analysis was done on each area. These trip generation tables can be seen in the Appendix. The generated trips for each of these areas was routed through the study area based on the 2025 trip distribution pattern, while factoring in the specific location for each area.

The majority of expected growth in the immediate area of Dayton is covered by the specific development staging plans detailed above. Beyond this specific growth, additional development in the surrounding region is expected to increase traffic through the study intersections. To account for this additional traffic growth, a generic background growth factor was added to the study intersections. Historic counts, the City's comprehensive plan traffic projections, and the MnDOT State Aid projection growth factor for Hennepin County were examined to determine the non-specific growth rate. These rates were adjusted down to reflect that a significant portion of this growth is reflected in the traffic for the specific developments.

Based on this information, and after discussion with the City, a two percent annual traffic increase was applied to all movements not directly entering or exiting any developments. These specific development movements were not increased as the trip generations completed for the development already accounted for the increase in vehicles expected along the development access roadways. An increase of ½-percent was added to the residential neighborhoods to the north of Dayton River Road where lack of available land and fully built residential parcels will result in lower increases in traffic growth. The ½-percent growth rate per year, through 2025, accounts for development of the few remaining parcels of land as well as a small increase in trips (no cut-through or commuter traffic in this area expected). These growth rates were applied to volume calculations.

Finally, after a review of additional studies near the project area, a lump sum increase in traffic was added to Brockton Lane/CSAH 81 traveling to and from the southern Rogers area. This traffic accounts for the expected developments just outside of our project model, but which are still expected to interact at Brockton Lane/CSAH 81 study intersection, the southern-most intersection in the traffic model.

c. 2040 Planned Roadway Network

Multiple changes to the roadway network in the study area are planned by the year 2040. These changes include a new interchange with Interstate 94 near the existing Holly Lane, an extension of French Lake Road to Brockton Lane, and re-routing and extension of 113th Avenue and TH 81 to Zanzibar Lane. Appendix F shows these planned roadway changes.

For the purposes of this study, these roadway changes were implemented for the 2040 analyses. Due to these changes, the trip distribution was adjusted to reflect new driving patterns that will certainly occur. These patterns include an increase in traffic from the south along Interstate 94 and a decrease in traffic along TH 169, TH 81, and Dayton River Road as vehicles shift to Interstate 94 from these routes. The trip distribution for the 2040 scenarios is:

i. 20% of the generated traffic to/from the west on 141 Avenue, TH 81, and Interstate 94.
ii. 27% of the generated traffic to/from the north on TH 101, Dayton River Road, and TH 169.
iii. 21% of the generated traffic to/from the east/southeast on TH 81, TH 169, and Dayton River Road.
iv. 32% percent of the generated traffic to/from the south on Brockton Lane and Interstate 94.

Traffic generated by the site development was assigned to the area roadways per this distribution pattern for the 2040 Build scenarios. The full detailed trip distribution percentages can be seen in the Appendix.

d. 2040 Non-Site Traffic Forecasting

Similar to the 2025 No-Build Scenarios, traffic forecasts were developed for 2040 based on the development plans from the City of Dayton. These new developments are located on the southwest corner of Dayton and do not cause significant impact to the traffic model roadways due to their geographic location and relation to major roadways. Based on this, the new trips were manually distributed to the sites through the roadway network. The Trip generation for the 2040 No-Build scenarios can be seen in the Appendix.

As with the 2025 scenario, growth in the surrounding region is expected beyond that specified for the City of Dayton. Therefore, the two percent annual growth rate was continued through the year 2040. The ½-percent growth rate used for the residential areas north of Dayton River Road were assumed to be fully built by this time and no additional growth was added.

Due to the planned changes to the roadway network in the area by 2040, additional modifications were made to the existing volumes in the study network. These adjustments were based upon a comparison of the existing and forecasted volumes from the December 2015 *Brockton Lane Area Transportation Study* as well as other previous traffic studies and considering likely travel patterns to the regional transportation system.

e. Total Traffic

Traffic forecasts were developed for the year 2025 and 2040 Build Scenarios by adding the traffic generated by the proposed development to the No-Build volumes. The resultant Build peak hour forecasts are shown in the Appendix under the capacity analysis section for each scenario.

4. Existing and 2025 Analyses

a. *Existing and 2025 Corridor Vehicular Analysis*

While many factors contribute to a road feeling congested, the two biggest factors are volume, how many vehicles are using the road, and capacity, how many vehicles the road can accommodate a day. Transportation professionals use these pieces of information to create a ratio of volume to capacity. For example, a road with a volume to capacity ratio of 1.0, where the traffic demand is nearly equal to the traffic supply, will feel congested to motorists.

Below is a rough guide of the daily traffic volumes different types of roads can accommodate based on Exhibits 16-16 and 12-39 of the *Highway Capacity Manual, 6th Edition*. If the Average Daily Traffic (ADT) volume on a roadway is below the threshold, then it is considered un-congested. If the daily volume falls inside the range, the road is almost congested, and if the daily volume is over the threshold the road is congested.

- 2-Lane (one in each direction with left turn lanes at busy intersections and coordinated signals), undivided street, are considered congested with a volume between 8,900 to 18,300 vehicles per day.
- 4-Lane, undivided street (two in each direction with left turn lanes at busy intersections and coordinated signals), – 18,600 to 36,800 vehicles per day.
- 6-Lane, divided street (three in each direction with left turn lanes at busy intersections and coordinated signals), – 29,100 to 55,300 vehicles per day.

The above capacities represent physical capacity in ideal roadway conditions. Research from UC Berkley, for example, indicates quality of life along a residential street is negatively impacted when the ADT exceeds 1,000 vehicles per day. Therefore, the 1,000 vehicle per day threshold is used for the capacity along neighborhood two lane roads even though its physical capacity is approximately ten times larger.

To provide an initial planning level screening, Chart 1 provides volume to capacity ratios of the study corridors during each of the study years to determine if any of the roadway corridors are candidates for additional through lanes.

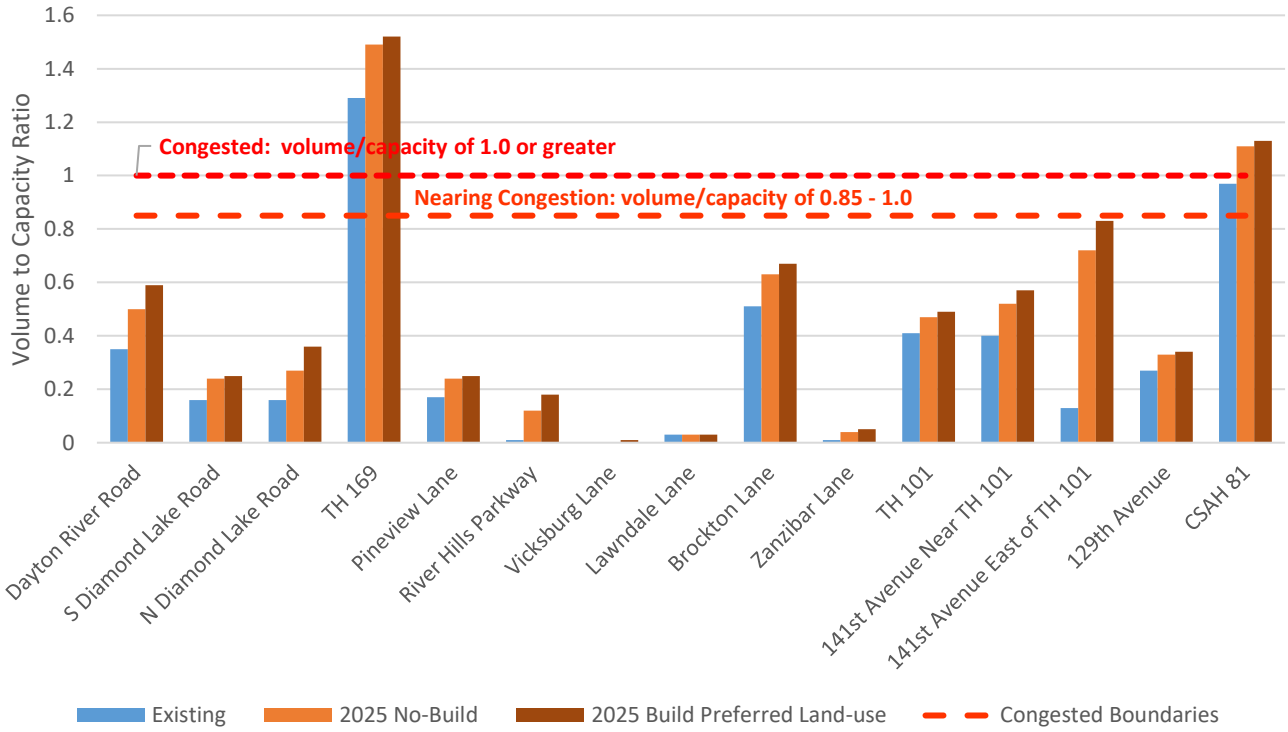


Chart 1 – Study Corridor Volume to Capacity

As Chart 1 shows, all roadways are under their 85% planning level volumes through the 2025 build scenario with the exception of TH 169 and CSAH 81. These two roadways are projected to fall above the planning-level capacity by 2025 with TH 169 currently operating above a volume/capacity ratio of 1.0 and CSAH 81 experiencing volumes within the nearing congestion level. Both corridors are known for having higher than preferred volume to capacity ratios and will require mitigation to improve overall vehicle flow.

The TH 169 and CSAH 81 corridors are recognized by MnDOT, Hennepin County, and several cities as becoming increasingly congested in the future. Neither MnDOT nor Hennepin County have current plans for expansion due to funding constraints. However, various improvements to adjacent collector roads and at-grade intersections will continue to be necessary to maintain acceptable corridor operations. The City of Dayton is recommended to continue to work with these and other agencies to identify spot improvements and long-term upgrades for safe and acceptable operations into the future.

River Hills Parkway is also worth mentioning as a unique situation. Based on the provided preliminary access sketches, River Hills Parkway will act as an additional access to the North Dayton site with a future east/west connection being added to the middle of the roadway. This will provide access to future western developments and eventual connect to Lawndale Lane. This layout results in an increase in through vehicles along River Hills Parkway due to north-westbound vehicles

destined for the North Dayton development. As River Hills Parkway is a two-lane roadway the daily volume capacity is up to 18,300 vehicles per day. However, as the road is a residential roadway a livability threshold of 1,000 vehicles can also be considered. This means that the roadway has sufficient capacity for the projected 2025 build volumes and issues are not expected due to traffic volumes. However, volumes may be higher than preferred by residents. Once additional accesses are added to the North Dayton site along N Diamond Lake Road, such as the northern Zanzibar Lane extension, these volumes are expected to decrease.

An additional planning level review of 70th Street and River Road north of the development and east of TH 101 was completed to determine if the existing two-lane configuration with by-pass lanes is sufficient for the expected 2025 volumes. With less than five percent of expected trip generation originating from this area, only minor increases in traffic are expected due to developments within Dayton. Based on MnDOT's most recent AADT counts, River Road carries roughly 5,300 vehicles a day with 70th Street carrying less than 1,000 vehicles per day. Based on the determined trip generation and a two percent per year traffic increase, both roadways are well below their planning level capacities even if all the generated traffic entering Dayton River Road from the north was condensed on either of the roadways.

b. Existing and 2025 Intersection Vehicular Analysis

Individual intersections can perform poorly during peak periods while the overall roadway corridor is operating with an uncongested daily volume to capacity ratio lower than 1.0. Therefore, capacity analyses are performed for the study intersections to determine if they need improvements such as turn lanes or an upgrade in traffic control.

The existing and forecasted turning movement volumes along with the existing intersection configurations and traffic control were used to develop the average delay per intersection in each study scenario. The delay calculations were done in accordance with the *Highway Capacity Manual, 6th Edition* using the Vistro software package. The full calculations for each study scenario, including Level of Service (LOS) grades and queue lengths, are included in the Appendix. Also, included in the Appendix is a guide explaining the Level of Service grade concept.

Chart 2 (a.m. peak hour) and Chart 3 (p.m. peak hour) show the average peak hour delay per traffic signal-controlled intersection for each study scenario. The LOS D/E boundary of 55 seconds of delay per vehicle is considered the threshold between acceptable and unacceptable traffic signal operation in Minnesota.

The initial signal timing for the existing conditions was provided by the County and MnDOT. Based on ITE's recommendation of updating traffic signal timing plans every three to five years, the signal timing plans used in the 2025 analysis models were optimized to best accommodate the forecasted traffic volumes.

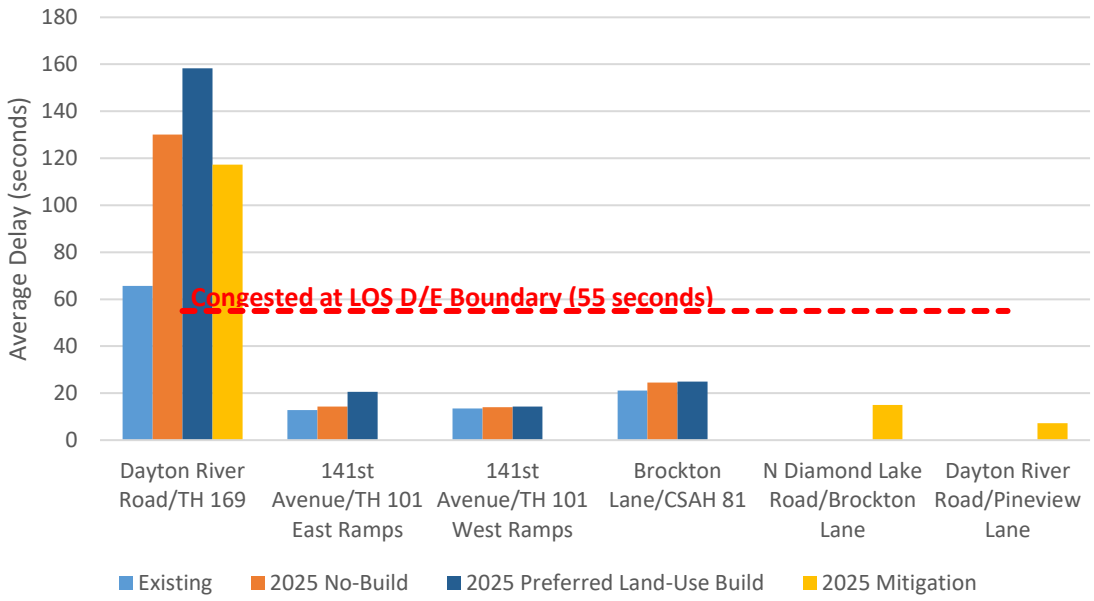


Chart 2 – A.M. Peak Hour Delays: Signal Controlled Intersections

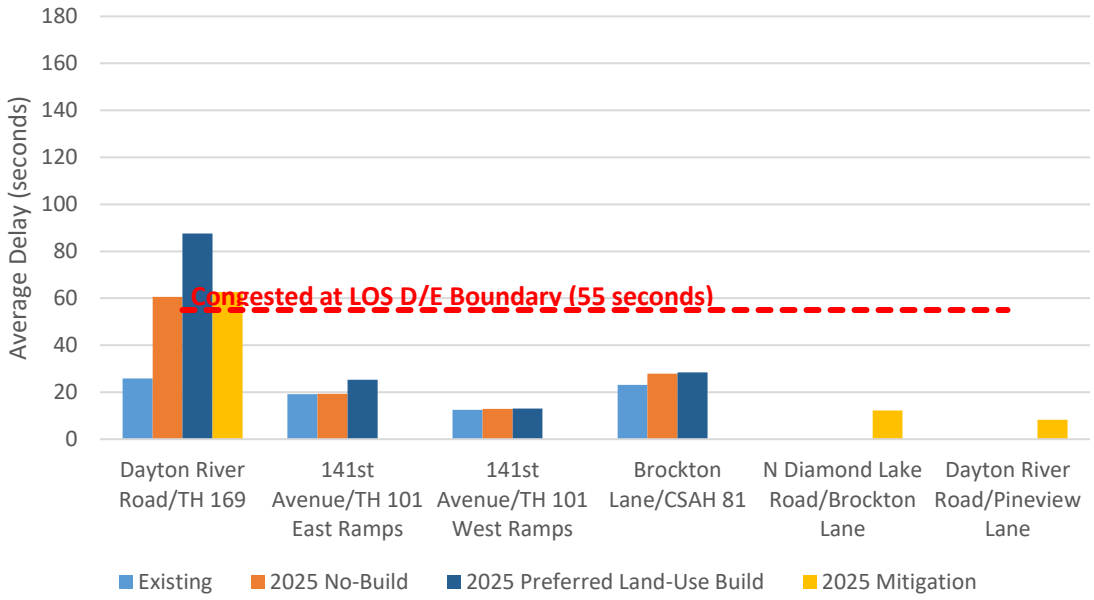


Chart 3 – P.M. Peak Hour Delays: Signal Controlled Intersections

As Chart 2 and Chart 3 show, the Dayton River Road/TH 169 experiences higher than preferred delays, even with the current improvements, currently operating at a LOS E and LOS C during the a.m. peak hour and p.m. peak hour, respectively. The a.m. peak hour begins to fail under the 2025 No-Build scenario. The addition of the North Dayton site increases these already failing delays.

Chart 4 (a.m. peak hour) and Chart 5 (p.m. peak hour) show the average peak hour delay per all-way stop sign and roundabout controlled intersections for each study

scenario. The LOS D/E boundary of 35 seconds of delay per vehicle is considered the threshold between acceptable and unacceptable all-way stop sign and roundabout controlled intersection operation in Minnesota. The *Highway Capacity Manual* sets the threshold lower at all-way stop signs and roundabouts then at traffic signal-controlled intersections based on motorists having more patience at a traffic signal and accepting longer delays.

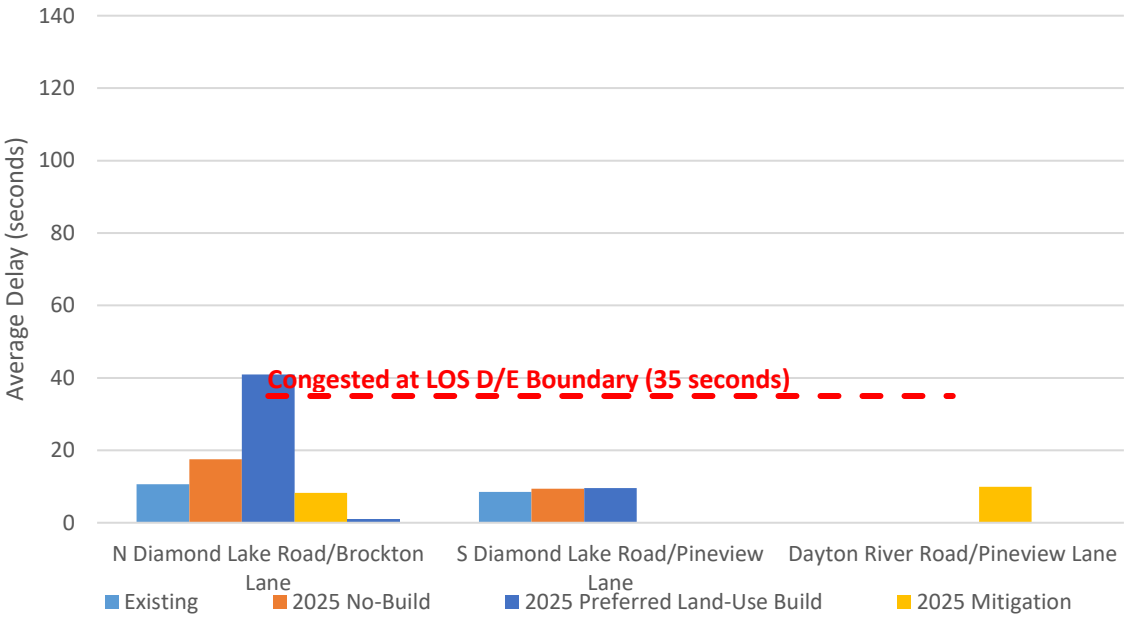


Chart 4 – A.M. Peak Hour Delays: All-Way Stop Sign/Roundabout Controlled Intersections

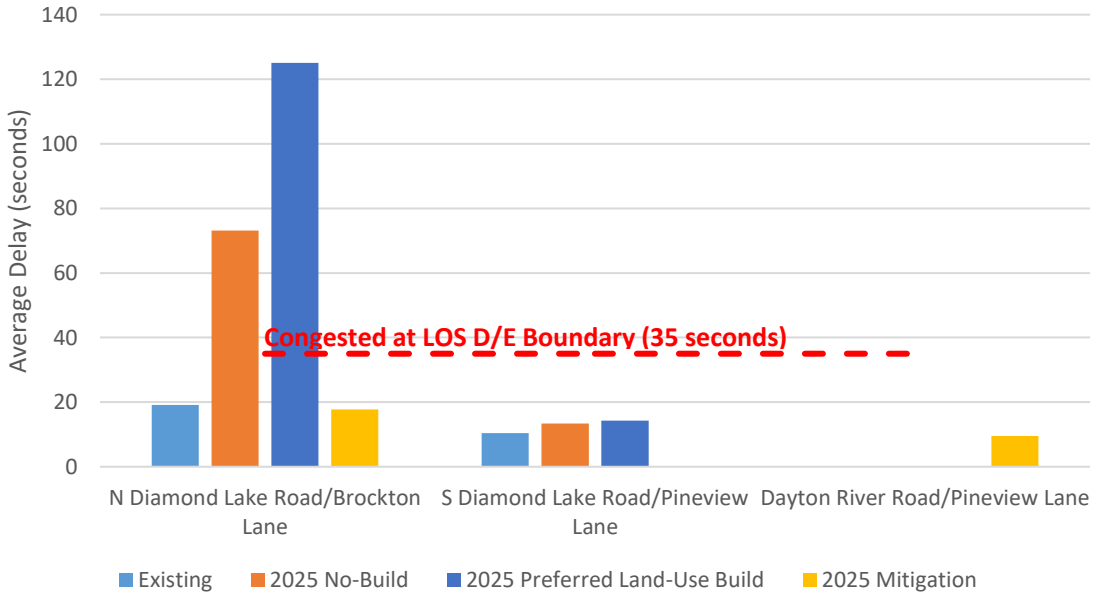


Chart 5 – P.M. Peak Hour Delays: All-Way Stop Sign/Roundabout Controlled Intersections

As Chart 4 and Chart 5 show, the N Diamond Lake Road/Brockton Road intersection begins to have excessive delays in the 2025 p.m. No-Build scenario, with a LOS F. The a.m. peak hour operation remains below the LOS D/E boundary up to the developer preferred land-use, where operations jump to a LOS E. These delays are due to an increase in through volumes on N Diamond Lake Road which can no longer be handled with the all-way stop controlled layout. Diamond Lake/Road/Pineview Lane operates acceptable through all 2025 peak periods and scenarios.

Chart 6 (a.m. peak hour) and Chart 7 (p.m. peak hour) show the 95th percentile queue lengths on the busiest stop sign controlled approach at intersections with side street stop sign control. Average delays are not calculated for intersections with side street stop sign control because the vast majority of vehicles going through the intersection are on the main roadway and have zero delay, which leads to low overall average delays. At side street stop sign controlled approaches to busy roadways, the average delay for all the vehicles on the approach often exceeds 60 seconds. This can be the case for a few vehicles waiting at the stop sign where improvements would not be justified for the low traffic volume.

Instead of reporting average approach delays like the previous charts, Charts 6 and Chart 7 show the 95th percentile queue as the measure of effectiveness at intersections with side street stop sign control. Based on our experience, improvements are not warranted at these types of intersections until the 95th percentile queue at a stop sign is in the five to ten vehicle range.

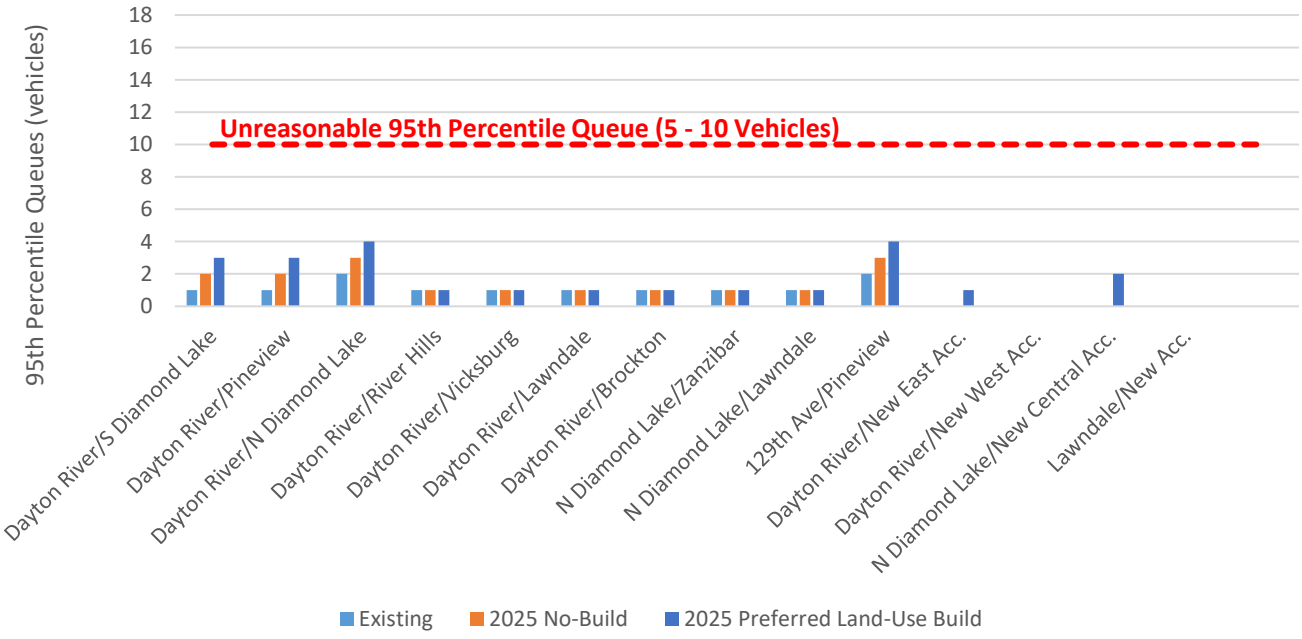


Chart 6 – A.M. Peak Hour Queues: Side Street Stop Sign Controlled Intersections

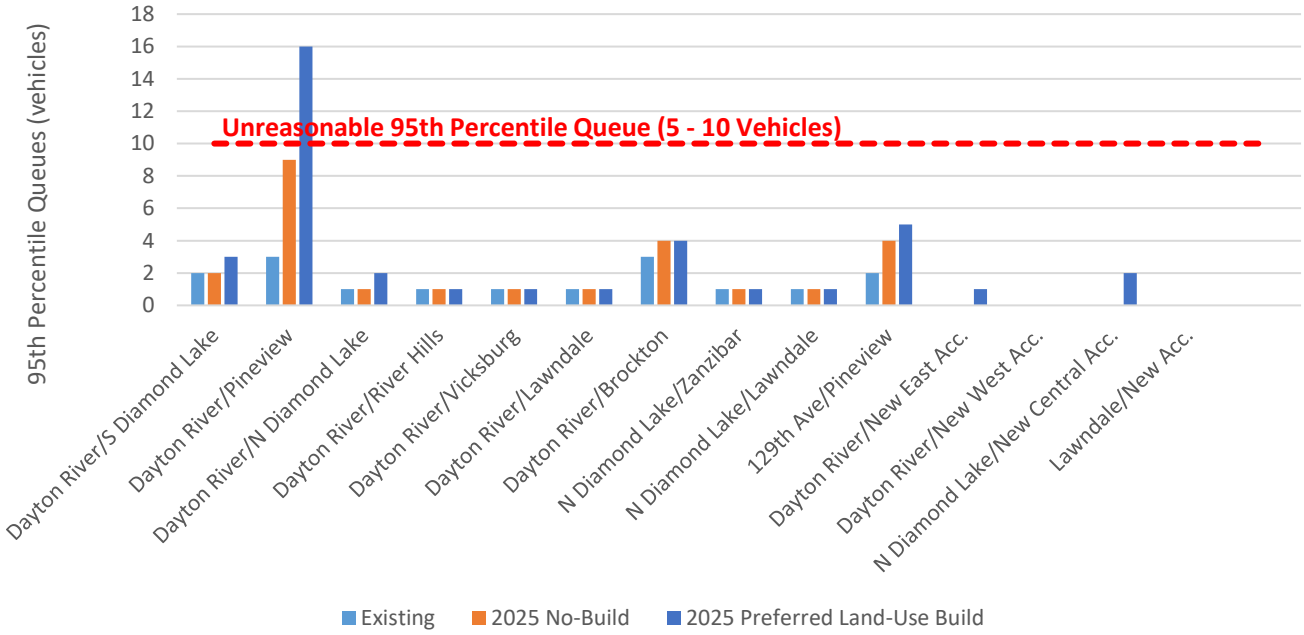


Chart 7 – P.M. Peak Hour Queues: Side Street Stop Sign Controlled Intersections

All side street stop-controlled intersections are projected to operating acceptable through all 2025 scenarios except for Dayton River Road/Pineview Lane. This intersection begins to break down in the p.m. peak hour due to the increased volumes along Dayton River Road. The northbound left turn movement is not able to complete a safe maneuver onto Dayton River Road due to these volumes and begins to show higher than preferred queuing in the 2025 No-Build scenario with a nine-car queue. The addition of the North Dayton development increases this queue to above ten vehicles under either land-use development scenario.

c. 2025 Vehicular Mitigation Analysis

Per the above analyses, most of the study intersections and corridors will operate acceptably throughout the study scenarios. However, the following intersections and corridors are identified as having sub-standard operation as discussed earlier:

i. TH 169
ii. CSAH 81
iii. Dayton River Road/TH 169
iv. N Diamond Lake Road/Brockton Lane
v. Dayton River Road/Pineview Lane

Alternatives were explored to provide appropriate mitigation at these locations, improving the vehicle operations. The highest vehicle demand scenario, the 2025 developer preferred scenario, was analyzed with the mitigation to determine the effectiveness. Generally, the least expensive alternative providing acceptable operations is recommended (i.e. stop signs over a traffic signal if stop signs will be

sufficient). Based on these analyses, the following improvements are recommended to provide acceptable operations with reasonable queuing:

Corridors:

The TH 169 and CSAH 81 were discussed earlier, noting that many agencies have recognized the existing congestion and expected continued congestion due to increases in traffic from regional development. The City of Dayton is recommended to continue working with other agencies to identify spot improvements and long-term upgrades for safe and acceptable operations into the future.

Intersection:

Dayton River Road/TH 169: The addition of a second dedicated eastbound left turn lane, resulting in two dedicated eastbound left turn lanes and one shared through-left turn lane, from Dayton Road onto TH 169, decreases delays at the intersection. While not bringing operations back into an acceptable range, the delays are significantly reduced with this improvement. Additional pavement between this intersection and the river crossing bridge will be needed for the three left turns to merge before the two northbound lanes over the bridge. Chart 2 and Chart 3 show the a.m. and p.m. mitigated delays are reduced.

As noted, additional improvements will likely be necessary for the corridor with or without this proposed development.

N Diamond Lake Road/Brockton Lane: As previously mentioned, N Diamond Lake Road/Brockton Lane begins to operate at LOS F during the 2025 No-Build p.m. peak period due to the increase in vehicles along N Diamond Lake Road. However, the a.m. peak hour operates within the acceptable limits up the to 2025 developer preferred land use. These results suggest that a traffic signal would cause un-needed stoppages in traffic flow outside the p.m. peak hour and may decrease overall efficiency of the intersection over a full day. For these reasons a single-lane roundabout is recommended for the intersection. As Chart 4 and Chart 5 shows, the LOS is improved to a LOS A in the a.m. peak hour and LOS C in the p.m. peak hour. Also, outside of the peak periods, vehicles will not need to stop at the intersection and wait for a green light with little or no conflicting traffic as the roundabout does not have the lost-time that a traffic signal would.

While a roundabout is preferred, a traffic signal is an acceptable option. With dedicated turn lanes, a traffic signal would operate at an overall LOS B or better during the peak periods. As both Brockton Lane and N Diamond Lake Road are County Roads, separated left and right turn lanes may be required, though not needed for capacity reasons.

Dayton River Road/Pineview Lane: Due to the increased mainline volume on Dayton River Road, the northbound left turning traffic experiences significant delays and queuing as shown in Chart 7. Much like N Diamond Lake Road/Brockton Lane the intersection is projected to operate acceptably during the a.m. peak period and all other non-peak periods. Again, these results are mitigated by a single-lane roundabout. The roundabout does cause an increase in queue during the a.m. peak hour from three to six vehicles, as shown in Chart 6. However, the p.m. peak hour queues drop to six vehicles from more than 14 in the 2025 build scenarios. Additionally, as shown in Chart 4 and Chart 5, the roundabout operates with delays within the LOS A boundary.

While a roundabout is preferred, a traffic signal is an acceptable option. With dedicated turn lanes, a traffic signal would operate at an overall LOS A during the peak periods. Separated left and right turn lanes may be required, though not needed for capacity reasons, along Dayton River Road as it is a County Road.

The 2040 a.m. and p.m. peak hour scenarios were then analyzed assuming the 2025 mitigation mentioned above was implemented and added to the modified roadway network as described in the 2040 Planned Roadway Network section from earlier.

A figure in the Appendix shows the recommended intersection mitigation.

5. 2040 Analyses

a. 2040 Corridor Vehicular Analysis

The 2040 corridor volumes are shown against the 2025 scenario volumes in Chart 8, below. The recommended corridor upgrades along TH 169 (six lanes divided) and CSAH 81 (four lanes divided) were used for this analysis.

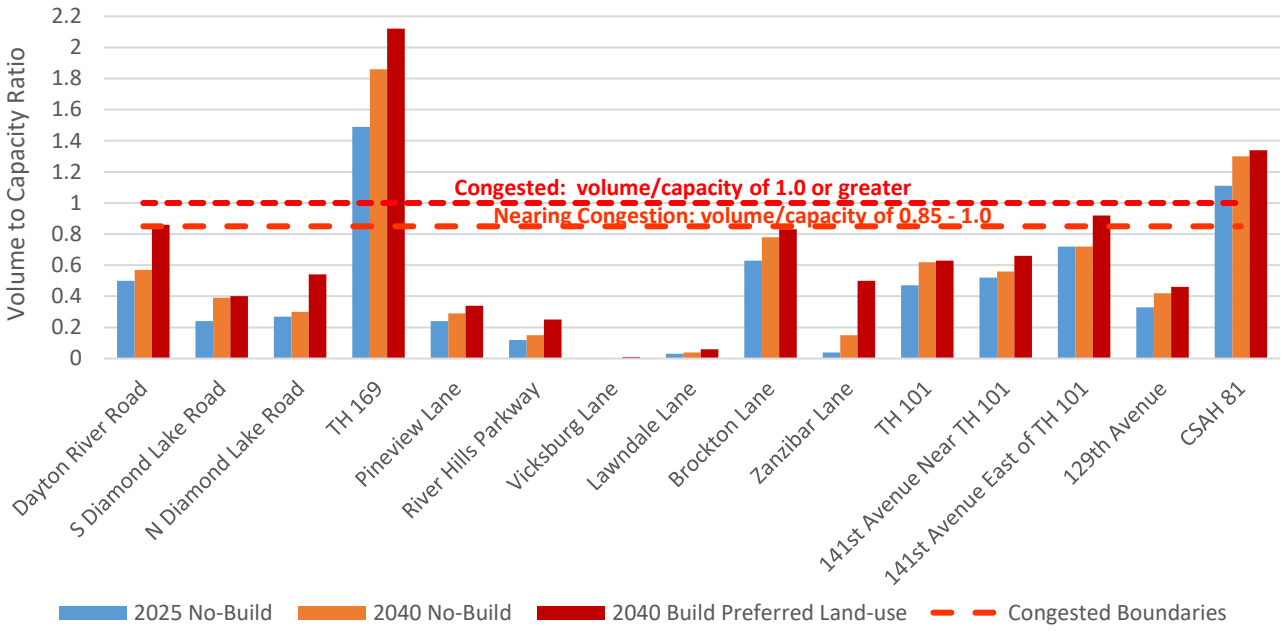


Chart 8 – 2040 Study Corridor Volume to Capacity

As Chart 8 shows all roadways, with the exception of TH 169 and CSAH 81, remain below their congested boundary for all 2040 scenarios. Dayton River Road, Brockton Lane, and 141st Avenue, east of TH 101, start to operate with volumes at or close to the nearing congested range. However, all other roadway remaining well within their planning level capacity ranges.

As previously discussed, the TH 169 and CSAH 81 corridors will need agency coordination for improvements to realize acceptable operations according to the planning-level capacity thresholds. Dayton River Road, Brockton Lane, and 141st Avenue will need continued monitoring to determine when future improvements may be necessary. Further discussion of the corridors needs will be discussed in the following mitigation section.

70th Street and River Road north of the development and east of TH 101 were reviewed again under 2040 conditions to ensure capacities are sufficient through the 2040 build scenario. Based on the determined trip generation and a two percent per year traffic increase projected to 2040 both roadways are well below their planning level capacities with River Road projecting less than 9,000 vehicles a day

if all the generated traffic entering Dayton River Road from the north was condensed onto its roadway. 70th street would have less vehicles than River Road with an ADT of less than 3,000 vehicles per day.

b. 2040 Intersection Vehicular Analysis

Chart 9 (a.m. peak hour) and Chart 10 (p.m. peak hour) show the average peak hour delay per traffic signal-controlled intersection for each study scenario compared to the 2025 mitigated results. Again, The LOS D/E boundary of 55 seconds of delay per vehicle is considered the threshold between acceptable and unacceptable traffic signal operation in Minnesota.

For this analysis, the TH 169/Dayton River Road intersection is not analyzed. Due to increased volumes, the existing and 2025 mitigated geometry will not adequately accommodate the 2040 volumes, with or without this proposed development.

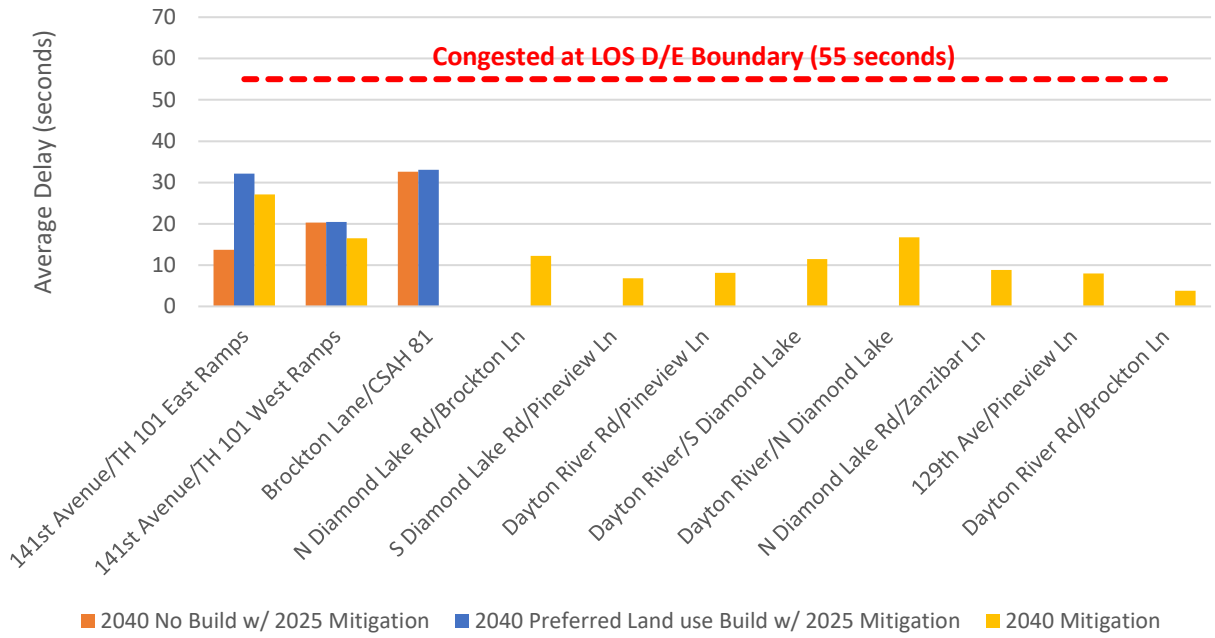


Chart 9 – A.M. Peak Hour Delays: Signal Controlled Intersections

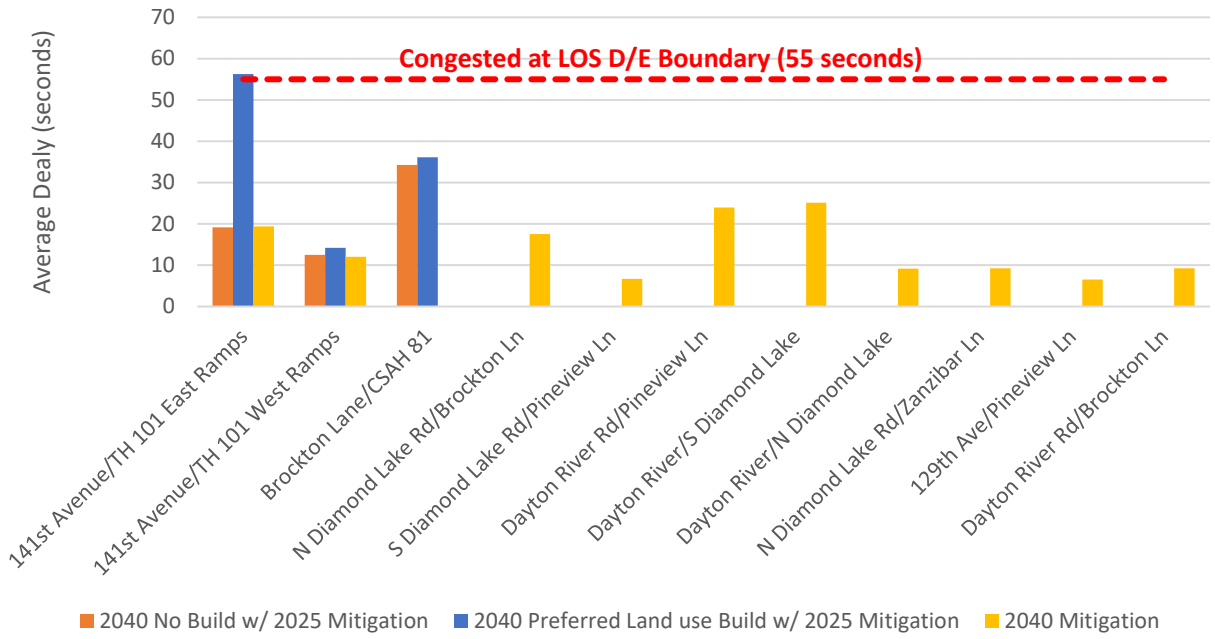


Chart 10 – P.M. Peak Hour Delays: Signal Controlled Intersections

Retiming of the Diverging Diamond Interchange at 141st Avenue/TH 101 should occur to achieve better traffic flow through the intersection. The increased westbound volumes will require more green time to proceed through the intersection. The interchange has sufficient capacity for the volumes and upgrading of signal timing every three to five years, as required by state law, will suffice at the intersection with the projected volumes. Brockton Lane/CSAH 81 continues to operate acceptably in the 2040 scenarios as traffic volumes become more spread out due to the addition of the future I-94 interchange and Zanzibar Lane extension.

Chart 11 (a.m. peak hour) and Chart 12 (p.m. peak hour) show the 2040 average peak hour delay per all-way stop sign and roundabout controlled intersection for each study scenario against the 2025 mitigated scenario.

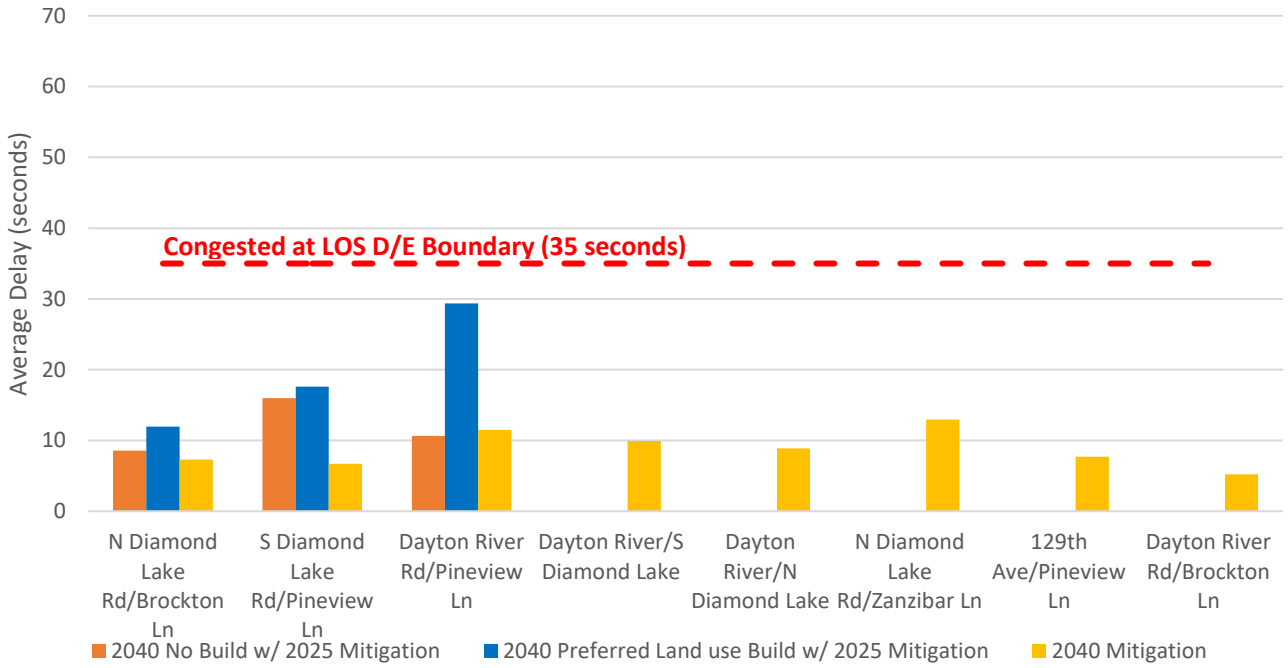


Chart 11 – A.M. Peak Hour Delays: All-Way Stop Sign/Roundabout Controlled Intersections

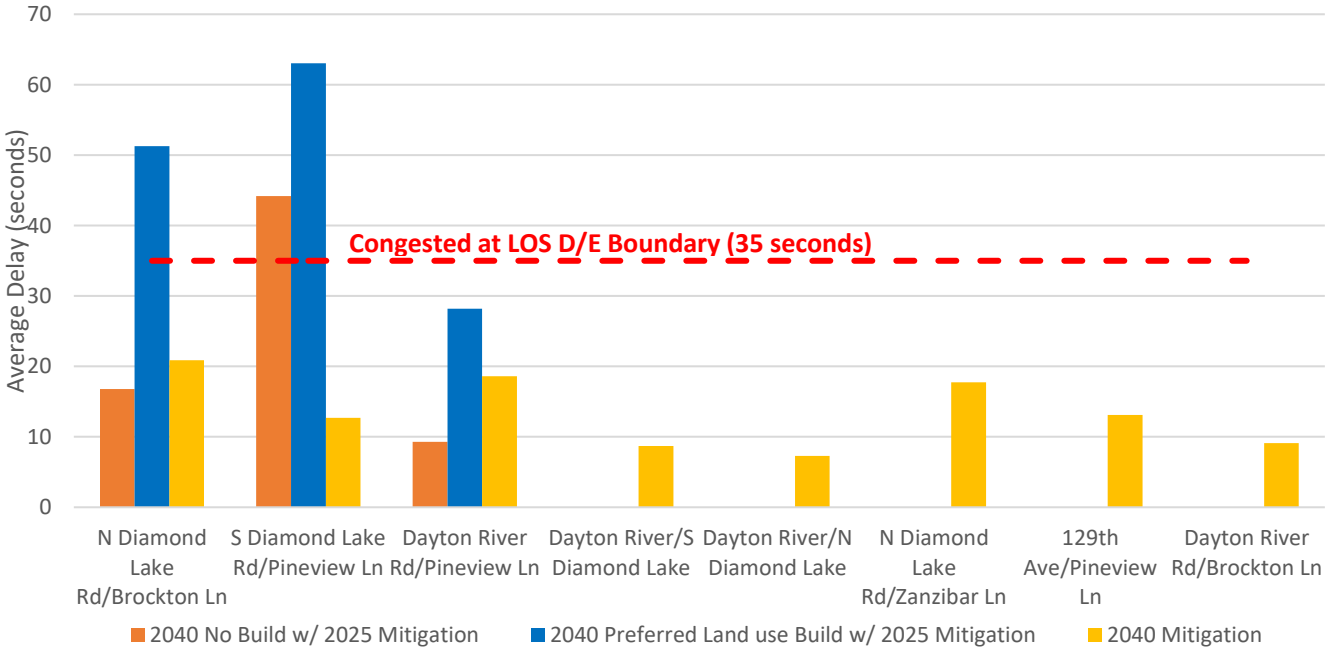


Chart 12 – P.M. Peak Hour Delays: All-Way Stop Sign/Roundabout Controlled Intersections

As Chart 11 and Chart 12 show, the N Diamond Lake Road/Brockton Road roundabout begins to operate at LOS E with the addition of the North Dayton development while S Diamond Lake Road/Pineview Lane all-way stop intersection

operates at a LOS E in the 2040 No-Build scenario and LOS F in the 2040 Build scenario. As these delays only occur in the PM peak hour, signalization is not preferred as it may adversely affect the remaining 23 hours of the day. Therefore, additional expansion of the N Diamond Lake Road roundabout will be needed by 2040 and reconstruction of the S Diamond Lake Road/Pineview Lane intersection to a roundabout should also be pursued by 2040. Additional discussion of the specific mitigation will follow.

The five additional intersections in Chart 11 and Chart 12 are two-way stop control intersections that begin to break down in the 2040 scenarios, as shown in Chart 13 and Chart 14 below. As roundabouts are the most appropriate mitigation for the intersections, their mitigated results are shown in the all-way Stop/Roundabout charts.

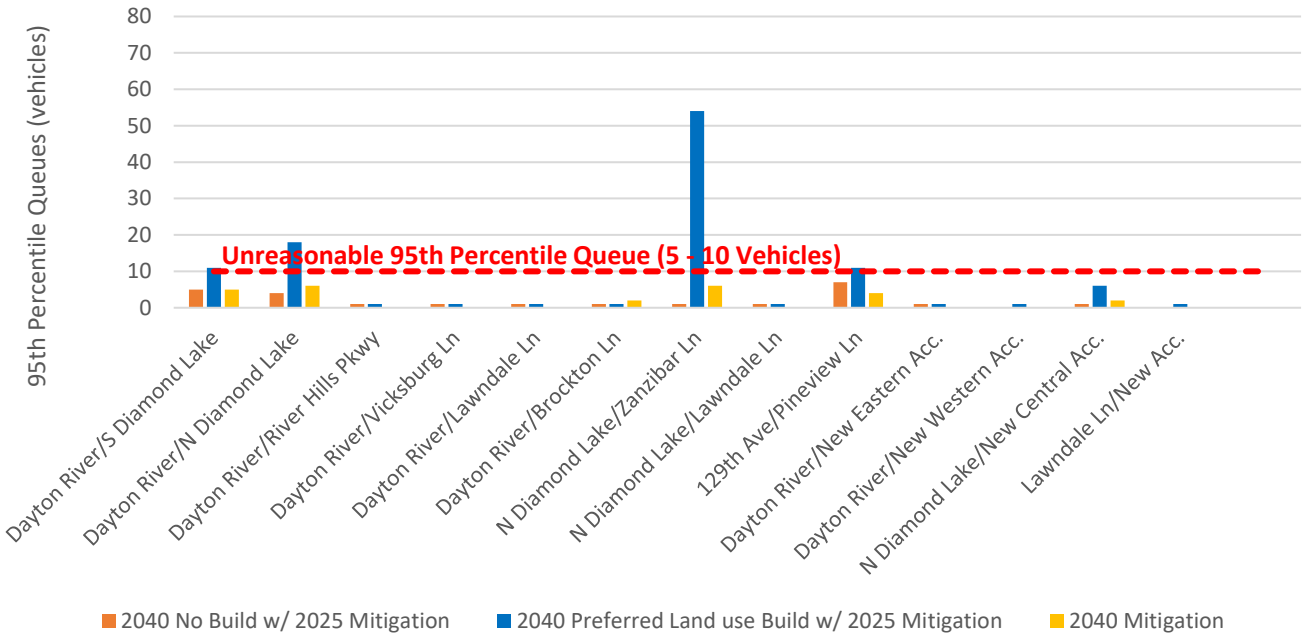


Chart 13 – A.M. Peak Hour Queues: Side Street Stop Sign Controlled Intersections

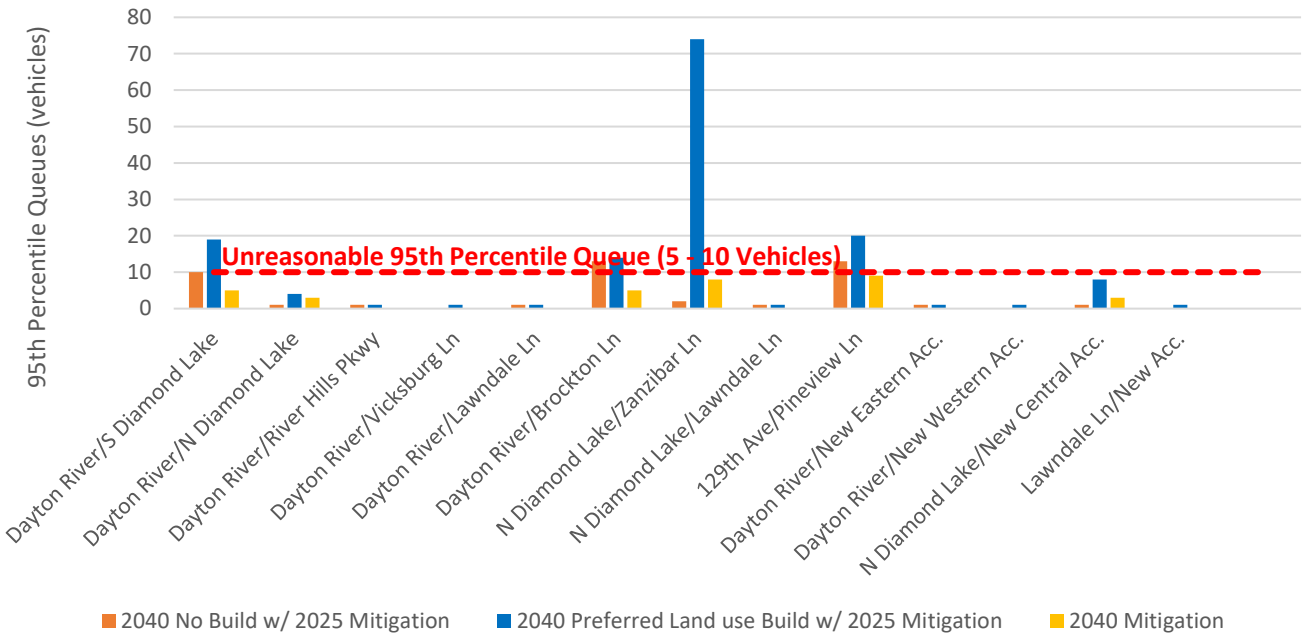


Chart 14 – P.M. Peak Hour Queues: Side Street Stop Sign Controlled Intersections

As Chart 13 and Chart 14 show, five of the side street stop-controlled intersections begin to break down in the 2040 scenarios. These intersections are:

i. Dayton River Road/S Diamond Lake Road
ii. Dayton River Road/S Diamond Lake Road
iii. N Diamond Lake Road/Zanzibar Lane
iv. 129th/Pineview Lane
v. Dayton River Road/Brockton Lane

Due to increased mainline volumes, these intersections begin to have trouble with cross street turning movements and mainline left turn movements. Again, as volumes are relatively low outside of the peak hour periods, signalized traffic control is not recommended as it will result in un-necessary stoppages of traffic outside of peak periods. Based on these results roundabouts were selected for mitigation as they facilitate sufficient flow and will not cause the mainline to stop during low volume periods. A more detailed discussion on the specific roundabout layouts will follow in the mitigation section and the resulting intersection delays with roundabout control can be seen in Chart 11 and Chart 12.

c. 2040 Vehicular Mitigation Analysis

Per the above analyses, an increase in insufficient intersection and corridor operation occur in the 2040 scenarios. Based on these results the following mitigation is recommended:

Intersection:

N Diamond Lake Road/Brockton Lane: The single-lane roundabout required for 2025 begins to break down in the 2040 p.m. build scenarios due to increased turning traffic on Brockton Lane and increased through volumes on N Diamond Lake Road. By adding dedicated right turn lanes to each approach leg the overall intersection delay is improved to a LOS C with the northbound approach experiencing a LOS D. These delays are only expected in the p.m. peak period as the a.m. peak period operates with all movements at LOS A.

Roundabouts are generally recommended to be constructed with the smallest number of approach lanes initially. Therefore, the single-lane roundabout should be constructed for the 2025 conditions, reserving right-of-way for the right turn lanes (the 2040 mitigation) at a later date.

If the signalized intersection, with separated turn lanes, was implemented with the 2025 mitigation, retiming of the signal will support the projected volumes with a overall LOS B or better.

Dayton River Road/Pineview Lane: The single-lane roundabout at Dayton River Road/Pineview Lane begins to experience significant delays for the mainline movements due to an increase in traffic along Dayton River Road. These delays occur for eastbound traffic in the a.m. peak hour and westbound traffic in the p.m. peak hour. By adding dedicated right turn lanes to each approach leg, the overall intersection delay is reduced and operates at a LOS C during the p.m. peak hour. Chart 11 and Chart 12 show the corresponding LOS under the mitigated layout.

Roundabouts are generally recommended to be constructed with the smallest number of approach lanes initially. Therefore, the single-lane roundabout should be constructed for the 2025 conditions, reserving right-of-way for the right turn lanes (the 2040 mitigation) at a later date.

If the traffic signal was implemented, expansion of the Pineview Lane approaches is required. For the northbound approach separate left and right turn lanes are required, while the southbound approach can operate with a dedicated right and shared through/left lane. These lanes could potentially be provided initially eliminating the need for future construction.

S Diamond Lake Road/Pineview Lane: The All Way stop at South Diamond Lake Road/Pineview Lane begins to experience failing delays during the 2040

No-Build scenario during the p.m. peak hour. As these delays are only present during the p.m. peak period, a single-lane roundabout is recommended for mitigation and results in p.m. peak build period operation of LOS B.

A four-phase traffic signal with single approach lanes is sufficient to handle the volumes as well and results with LOS A operations. However, turn lanes may be required or desired beyond capacity reasons.

Dayton River Road/N Diamond Lake Road and Dayton River Road/S Diamond Lake Road: The side street stop control at these intersections begin to experience unreasonable queueing by the 2040 build scenarios. Much like Dayton River Road/Pineview Lane, these delays are due to the increased mainline volumes creating lack of gaps for cross street movements. Multi-lane roundabouts are recommended at these intersections with shared through-right and through-left layouts along Dayton River Road. This layout provides sufficient capacity for the increased Dayton River Road volumes while still allowing cross street vehicle progression. Chart 11 and Chart 12 show the corresponding LOS under the roundabout mitigation.

Traffic signals can be installed to accommodate the 2040 volumes if sufficient approach lanes are provided. Dedicated left turn and right turn lanes are required for Dayton River Road approaches with the potential need for an additional through lane for the S Diamond Lake Road intersection (not the full corridor) and dual northbound left turn lanes for the N Diamond Lake Road intersection. S Diamond Lake Road can operate as a single lane westbound and shared left turn/through lane with dedicated right turn lane for eastbound traffic. The N Diamond Lake Road approach will need dedicated left turn and right turn lanes while the opposing approach of 142nd Avenue only needs a single lane for capacity purposes. Additional dedicated turn lanes for several approaches may be required beyond capacity reasons. Chart 9 and Chart 10 show the signalized mitigation results.

Dayton River Road/Brockton Lane, N Diamond Lake Road/Zanzibar Lane, and 129th Avenue/Pineview Lane: The side street stop control at these intersections begin to experience unreasonable queueing during the 2040 No-Build scenario for 129th Avenue/Pineview and Dayton River Road/Brockton Lane and during the 2040 build scenario at N Diamond Lake Road/Zanzibar. Single-lane roundabouts provide sufficient traffic flow and reduce delays to LOS C or better at all the intersections under the preferred developer land use. Chart 11 and Chart 12 present the mitigated delays for these intersections.

If signalized intersections are preferred, the following can be implemented:

i. Dayton River Road/Brockton Lane – Three phase signal with dedicated turn lanes on all approaches.
ii. N Diamond Lake Road/Zanzibar Lane – Four phase signal with dedicated turn lanes on N Diamond Lake Road while the Zanzibar Lane approaches

can be accommodated with a shared left turn/through lane and dedicated right turn lane.

iii. 129th Avenue/Pineview Lane – Three phase signal with dedicated turn lanes on the 129th Avenue approaches.

Although not necessary for capacity reasons, additional dedicated turn lanes beyond those detailed here may be required or desired.

The above mitigation recommendations provide sufficient traffic flow and LOS for the projected 2040 volumes. Due to the extended forecast of these volumes, and the amount of variability in city growth and development that may occur, the 2040 mitigation should not be implemented in the short term. However, purchasing of sufficient right-of-way to install the mitigation when need is recommended.

A figure in the Appendix shows the recommended intersection mitigation.

6. Conclusions and Recommendations

The traffic impacts of the proposed development, and background city developments, were thoroughly studied and the principal findings for the 2025 analysis are:

- The proposed North Dayton Site development is expected to generate similar traffic compared to the 2030 Future Land Use plan, with 4,882 trips compared to approximately 4,820 trips during an average weekday (assuming 1/3 of the total residential units are developed).
- During an average weekday, the a.m. peak hour trip generation is about 373 trips for the proposed North Dayton Site compared to 349 trips for the 2030 Future Land Use plan. The p.m. peak hour trip generation comparison is 492 trips and 453 trips for the proposed North Dayton Site and 2030 Future Land Use plan, respectively.
- The TH 169 and CSAH 81 corridors are currently at or over the planning-level capacities for their types of facilities and volumes are expected to continue to increase into the future.
- Due to background growth, other area developments, and the proposed North Dayton site, corridor volumes on 141st Avenue near Brockton Lane are close to its nearing-capacity planning level.
- Similarly, the intersections of Dayton River Road/TH 169, N Diamond Lake Road/Brockton Lane operate with failing delays by the 2025 No-Build scenarios while Dayton River Road/Pineview Lane operates with failing delays or queuing by 2025 Build scenario.

Additional analysis was completed for the year 2040 with the following findings:

- The proposed North Dayton Site development is expected to generate significantly less traffic compared to the 2030 Future Land Use plan, 16,820 trips compared to approximately 20,822 trips during an average weekday.
- The peak hour trip generation has a similar comparison with the proposed North Dayton plan generating about 15% less traffic than would be expected under the 2030 Land Use plan.
- Additional roadway upgrades are expected by 2040 including the I-94 interchange connecting I-94, CSAH 81, French Lake Road, Brockton Lane, and Zanzibar Lane.
- The TH 169 and CSAH 81 corridors will continue to operate above capacity as volumes from general growth, specific development in the area, and this proposed North Dayton development contribute to higher volumes.
- Dayton River Road, Brockton Lane, and 141st Avenue begin to see volumes close to or just above the nearing congestion range under the 2040 Build scenarios.
- Dayton River Road/TH 169 operates with failing LOS delays under the expanded configuration by the 2040 No-Build Scenario. Further expansion may not be feasibly due to adjacent developments and the roadways proximity to the northern river crossing.

- S Diamond Lake Road/Pineview Lane, Dayton River Road/S Diamond Lake Road, Dayton River Road/Brockton Lane, and 129th Avenue/Pineview Lane experience failing operations by the 2040 No-Build scenario.
- N Diamond Lake Road/Brockton Lane, Dayton River Road/Pineview Lane, Dayton River Road/N Diamond Lake Road, and N Diamond Lake Road/Zanzibar Lane experience failing operations by the 2040 Build scenarios.

Due to general background growth and adjacent specific developments, the following mitigation is recommended with or without the proposed North Dayton development for the year 2025:

- Continue to explore options for corridor improvements on the TH 169 and CSAH 81 corridor with other agencies.
- Re-stripe the Dayton River Road approach to TH 169 to provide dual left turn lanes, a left turn/through lane, and a right turn lane. Additional pavement on northbound TH 169 between the Dayton River Road and river bridge will be necessary to accommodate this change.
- Update signal timing at all signalized intersections at least every three to five years.
- Construct a single-lane roundabout at the N Diamond Lake Road/Brockton Lane intersection. Reserve right-of-way at this intersection for future dedicated right turn lanes. A traffic signal with dedicated turn lanes could also provide the necessary capacity at the intersection, although a roundabout is preferred due to improved safety and better off-peak operations.

Accounting for additional traffic from the proposed development, the following mitigation will also be necessary to accommodate the full projected 2025 volumes:

- Construct a single-lane roundabout at the Dayton River Road/Pineview Lane intersection. Reserve right-of-way at this intersection for future dedicated right turn lanes. A traffic signal with dedicated turn lanes could also provide the necessary capacity at the intersection, although a roundabout is preferred due to improved safety and better off-peak operations.

For intersections where a roundabout or a traffic signal is proposed, a detail Intersection Control Evaluation will be necessary. This document will evaluate the two control options and document the decision for which option is ultimately constructed. For the purposed of this document, roundabouts are the preferred option.

Beyond year 2025, the long-range time frame and uncertainty of potential developments, roadway network, and travel patterns result in multiple assumptions for this analysis. Due to this inherent uncertainty, year 2040 recommendations should not be constructed today. Instead, right-of-way should be preserved for these needs when required based on actual traffic growth.

The following modifications to the study roads and intersections, assuming the planned roadway network is implemented, are recommended for the year 2040 to address

potential issues due to general background growth and other specific development traffic with or without the proposed North Dayton site:

- Continue to work on long-term solutions with other agencies to accommodate future congestion on the TH 169 and CSAH 81 corridors.
- Construct a multi-lane roundabout at the Dayton River Road/South Diamond Lake Road intersection, with two-lane Dayton River Road approaches. A traffic signal with dedicated turn lanes could also provide the necessary capacity at the intersection, although a roundabout is preferred due to improved safety and better off-peak operations.
- Construct single-lane roundabouts at the intersections of 129th Avenue/Pineview Lane, Dayton River Road/Brockton Lane, and South Diamond Lake Road/Pineview Lane. Traffic signals with dedicated turn lanes could also provide the necessary capacity at the intersection, although roundabouts are preferred due to improved safety and better off-peak operations.
- Continue to update signal timing at all signalized intersections at least every three to five years.

With the North Dayton proposed development traffic contributing to the study area volumes, the following additional 2040 mitigation is recommended:

- Provide dedicated right turn lanes for the Dayton River Road/Pineview Lane intersection single-lane roundabout using the reserved right-of-way if a roundabout was constructed as part of the 2025 mitigation.
- Construct a single-lane roundabout at the N Diamond Lake Road/Zanzibar Lane intersection. A traffic signal with dedicated turn lanes could also provide the necessary capacity at the intersection, although a roundabout is preferred due to improved safety and better off-peak operations.
- Construct multi-lane roundabout at the Dayton River Road/N Diamond Lake Road intersection, with two-lane Dayton River Road approaches. A traffic signal with dedicated turn lanes could also provide the necessary capacity at the intersection, although a roundabout is preferred due to improved safety and better off-peak operations.
- Provide dedicated right turn lanes for the N Diamond Lake Road/Brockton Lane intersection single-lane roundabout using the reserved right-of-way if a roundabout was constructed as part of the 2025 mitigation.

As before, for intersections where a roundabout or a traffic signal is proposed, a detail Intersection Control Evaluation will be necessary. This document will evaluate the two control options and document the decision for which option is ultimately constructed. For the purposed of this document, roundabouts are the preferred option.

In addition to these roadway improvements, the following items are also recommended based upon the traffic analysis for the proposed development:

- Reserve space, if necessary, for the future trail network in this area as planned by the City of Dayton.

- Consider internal sidewalks/trails to connect to a future trail network and between the residential/commercial components of the proposed Developer's plan.
- Consider potential bicycle parking areas and other amenities (repair stations) on-site for when the future trail network is developed.
- Follow the requirements of the MnMUTCD for signing and striping.
- Work with the City, as necessary, in their continued dialogue with Metro Transit and Hennepin County on the potential expansion of the transit system.

Appendix

A. Figures

B. The Language of Traffic Engineering

C. Traffic Counts (Available Upon Request)

D. Trip Generation Tables

E. Trip Distribution

F. 2040 Roadway Upgrades

G. Level of Service (LOS)

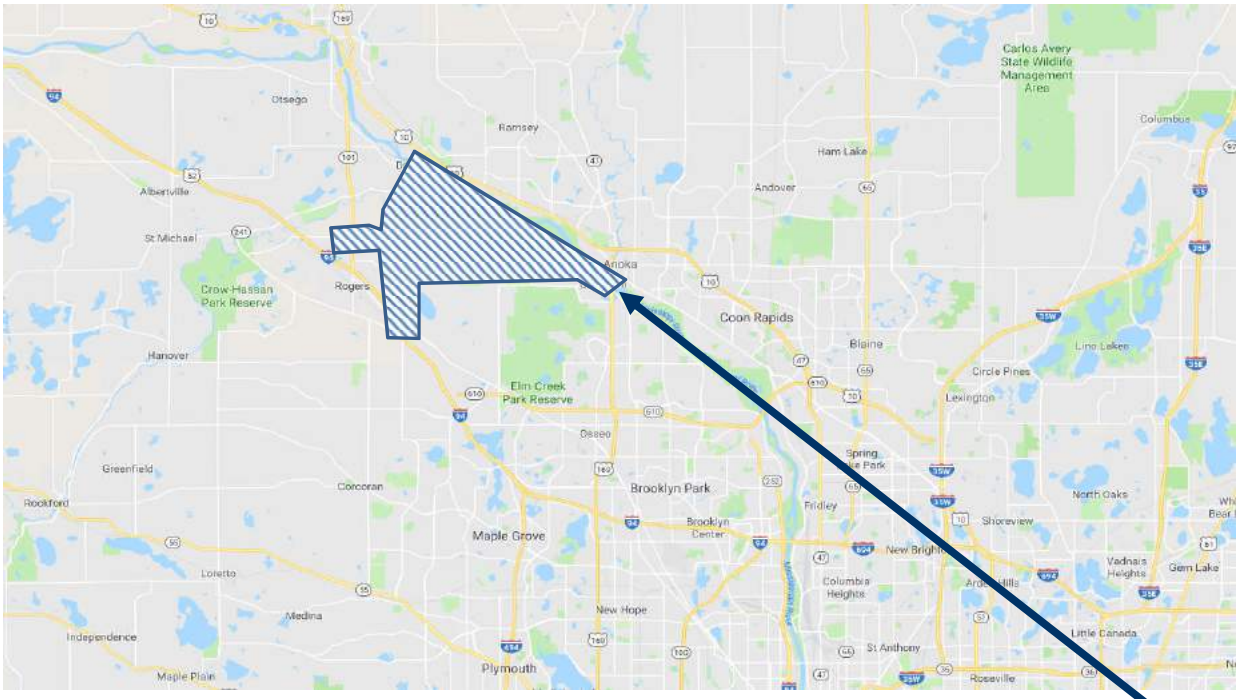
H. Capacity Analysis Backup (Available Upon Request)

- AM Existing
- PM Existing
- 2025 AM No-Build
- 2025 PM No-Build
- 2025 Developer Preferred Land-Use AM Build
- 2025 Developer Preferred Land-Use PM Build
- Roundabout Mitigated 2025 Developer Preferred Land-Use AM Build
- Roundabout Mitigated 2025 Developer Preferred Land-Use PM Build
- Signalized Mitigated 2025 Developer Preferred Land-Use AM Build
- Signalized Mitigated 2025 Developer Preferred Land-Use PM Build
- 2040 AM No-Build with 2025 Mitigation
- 2040 PM No-Build with 2025 Mitigation
- 2040 Preferred Land-Use AM Build with 2025 Mitigation
- 2040 Preferred Land-Use PM Build with 2025 Mitigation
- Mitigated 2040 Preferred Land-Use AM Build
- Mitigated 2040 Preferred Land-Use PM Build
- Signalized 2040 Preferred Land-Use AM Build
- Signalized 2040 Preferred Land-Use PM Build

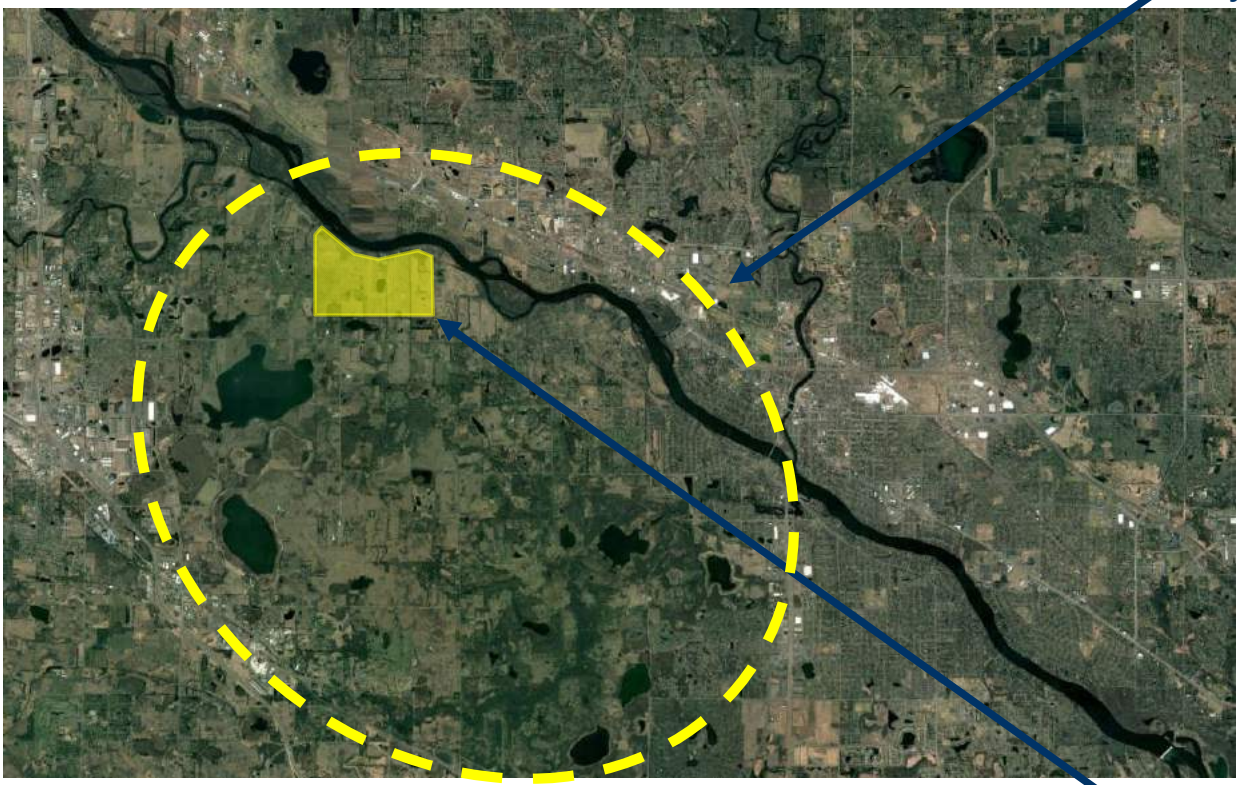
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Figure 1
Location Maps

North
No Scale



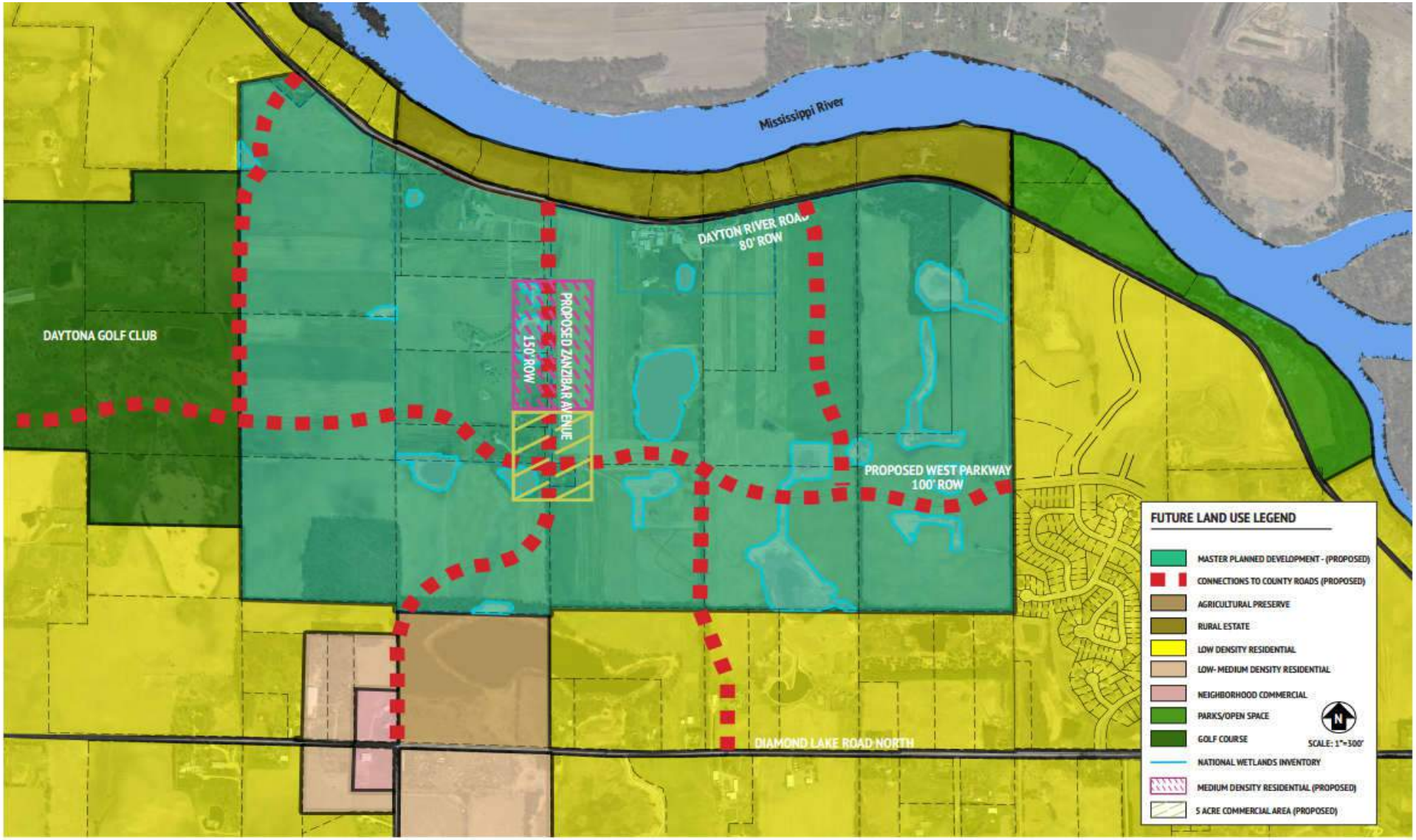
Study Area



Proposed Site

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Figure 2
Concept Plan

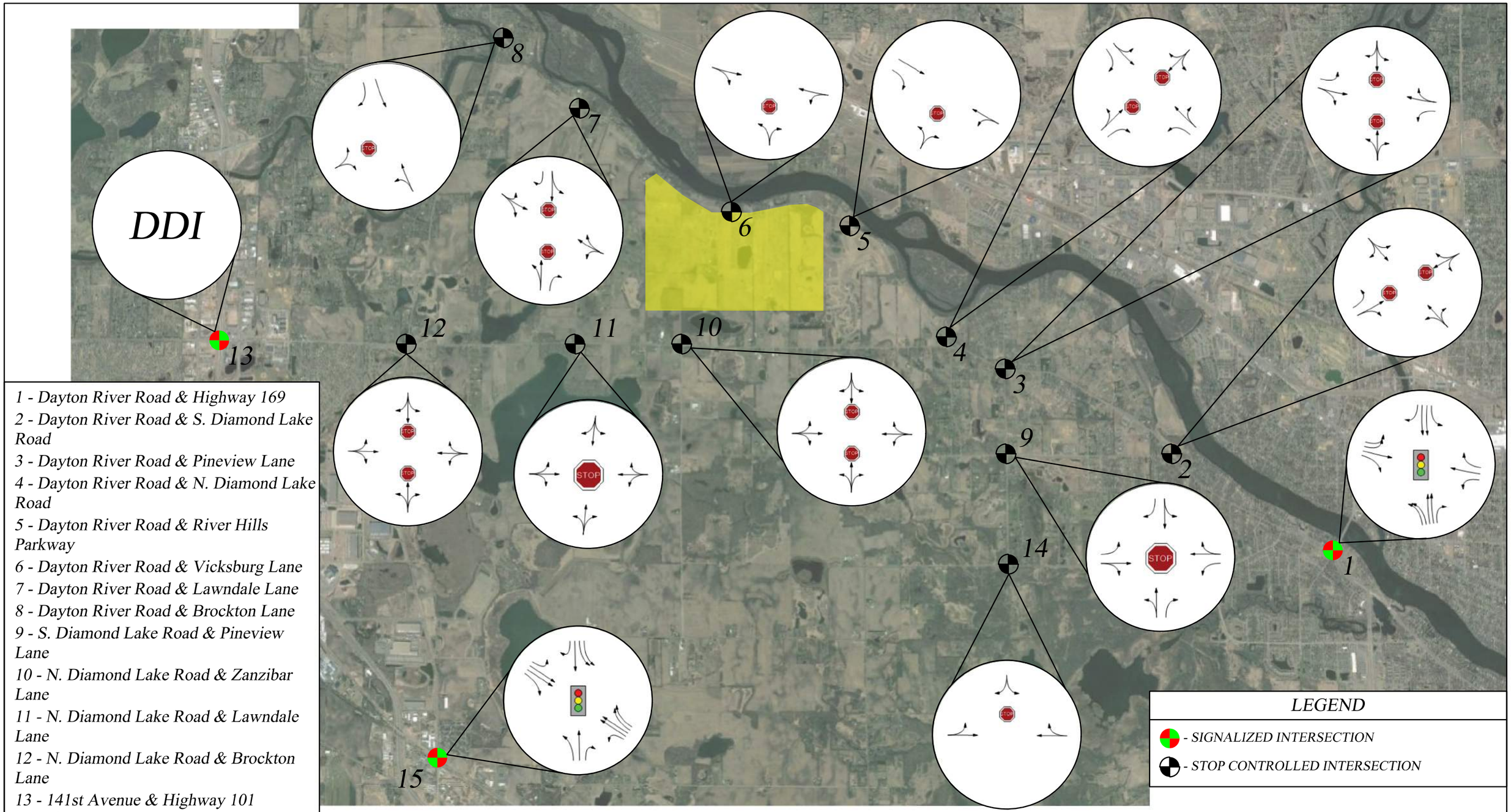


north dayton development
GONYEA COMPANY / RAMSAY PROPERTIES , LLC

DRAFT 2040 FUTURE LAND USE
(PROPOSED)

09.27.17

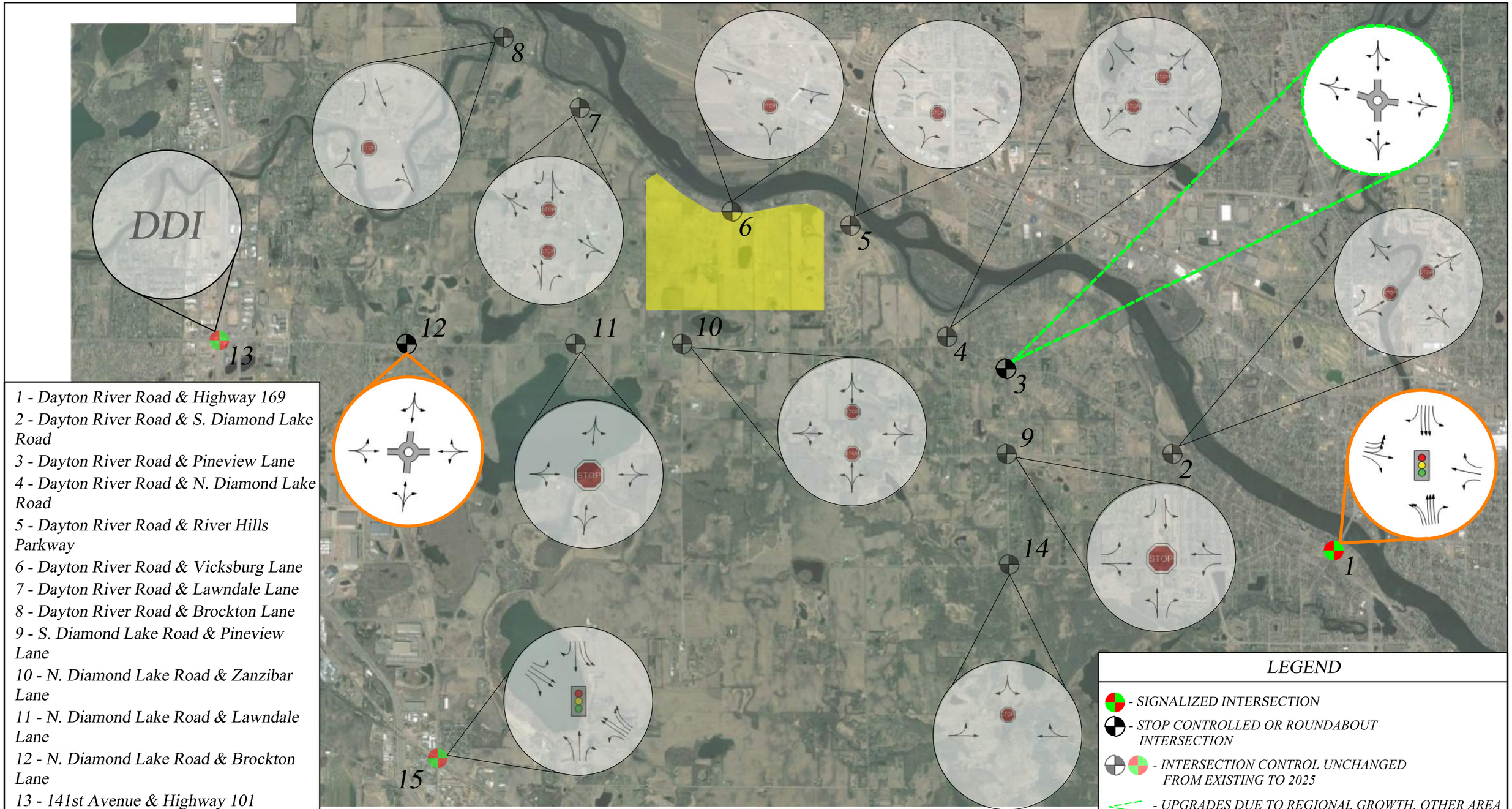
Sambatek



1 - Dayton River Road & Highway 169
2 - Dayton River Road & S. Diamond Lake Road
3 - Dayton River Road & Pineview Lane
4 - Dayton River Road & N. Diamond Lake Road
5 - Dayton River Road & River Hills Parkway
6 - Dayton River Road & Vicksburg Lane
7 - Dayton River Road & Lawndale Lane
8 - Dayton River Road & Brockton Lane
9 - S. Diamond Lake Road & Pineview Lane
10 - N. Diamond Lake Road & Zanzibar Lane
11 - N. Diamond Lake Road & Lawndale Lane
12 - N. Diamond Lake Road & Brockton Lane
13 - 141st Avenue & Highway 101 Interchange
14 - 129th Avenue & Pineview Lane
15 - Brockton Lane & County Road 81

Figure 3: Existing Intersection Layouts
Northern Dayton Development

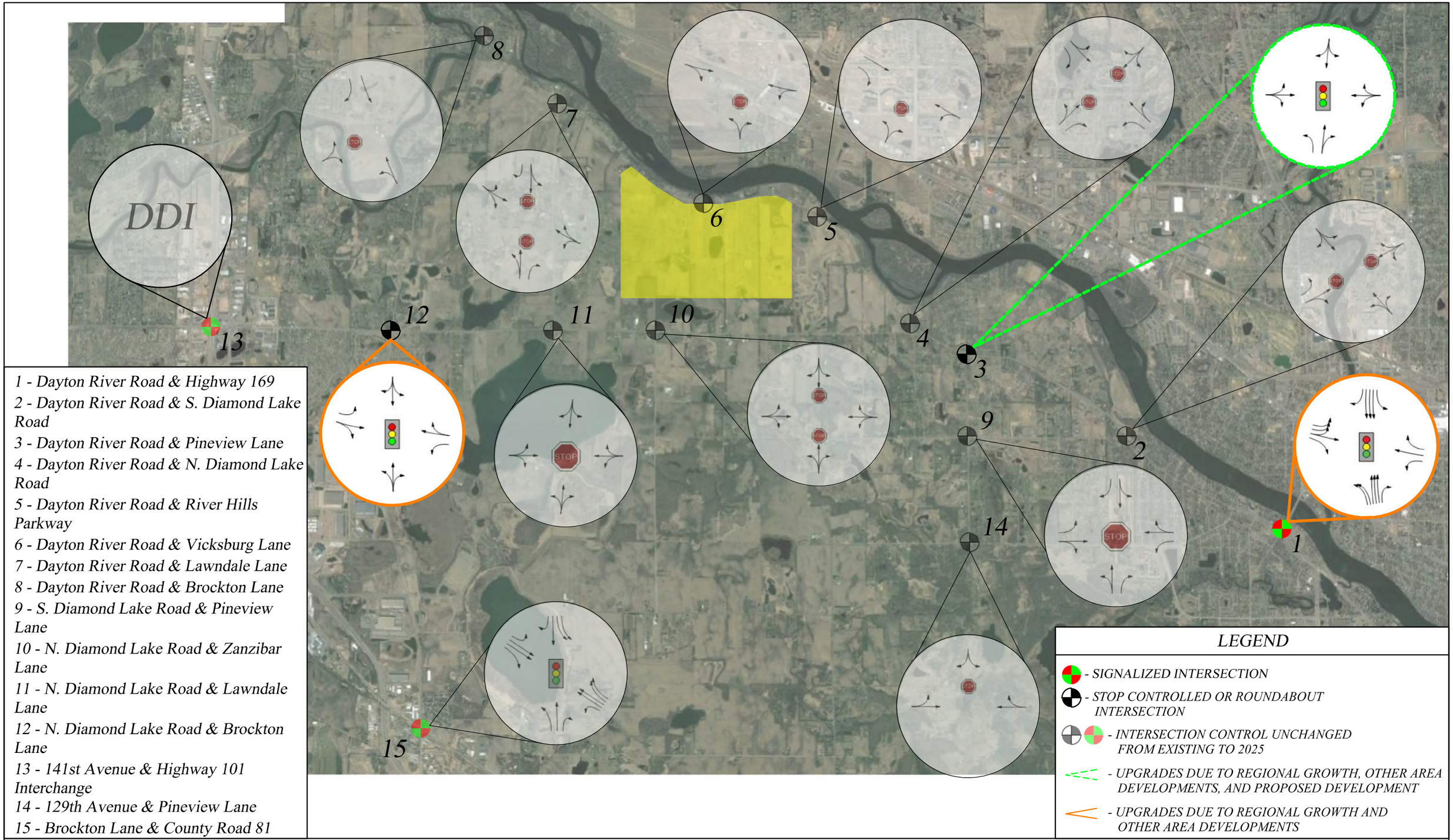
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1 - Dayton River Road & Highway 169
2 - Dayton River Road & S. Diamond Lake Road
3 - Dayton River Road & Pineview Lane
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8 - Dayton River Road & Brockton Lane
9 - S. Diamond Lake Road & Pineview Lane
10 - N. Diamond Lake Road & Zanzibar Lane
11 - N. Diamond Lake Road & Lawndale Lane
12 - N. Diamond Lake Road & Brockton Lane
13 - 141st Avenue & Highway 101 Interchange
14 - 129th Avenue & Pineview Lane
15 - Brockton Lane & County Road 81

Figure 4A: 2025 Intersection Layouts
Northern Dayton Development

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1 - Dayton River Road & Highway 169
2 - Dayton River Road & S. Diamond Lake Road
3 - Dayton River Road & Pineview Lane
4 - Dayton River Road & N. Diamond Lake Road
5 - Dayton River Road & River Hills Parkway
6 - Dayton River Road & Vicksburg Lane
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11 - N. Diamond Lake Road & Lawndale Lane
12 - N. Diamond Lake Road & Brockton Lane
13 - 141st Avenue & Highway 101 Interchange
14 - 129th Avenue & Pineview Lane
15 - Brockton Lane & County Road 81

Figure 4B: 2025 Intersection Layouts
Northern Dayton Development

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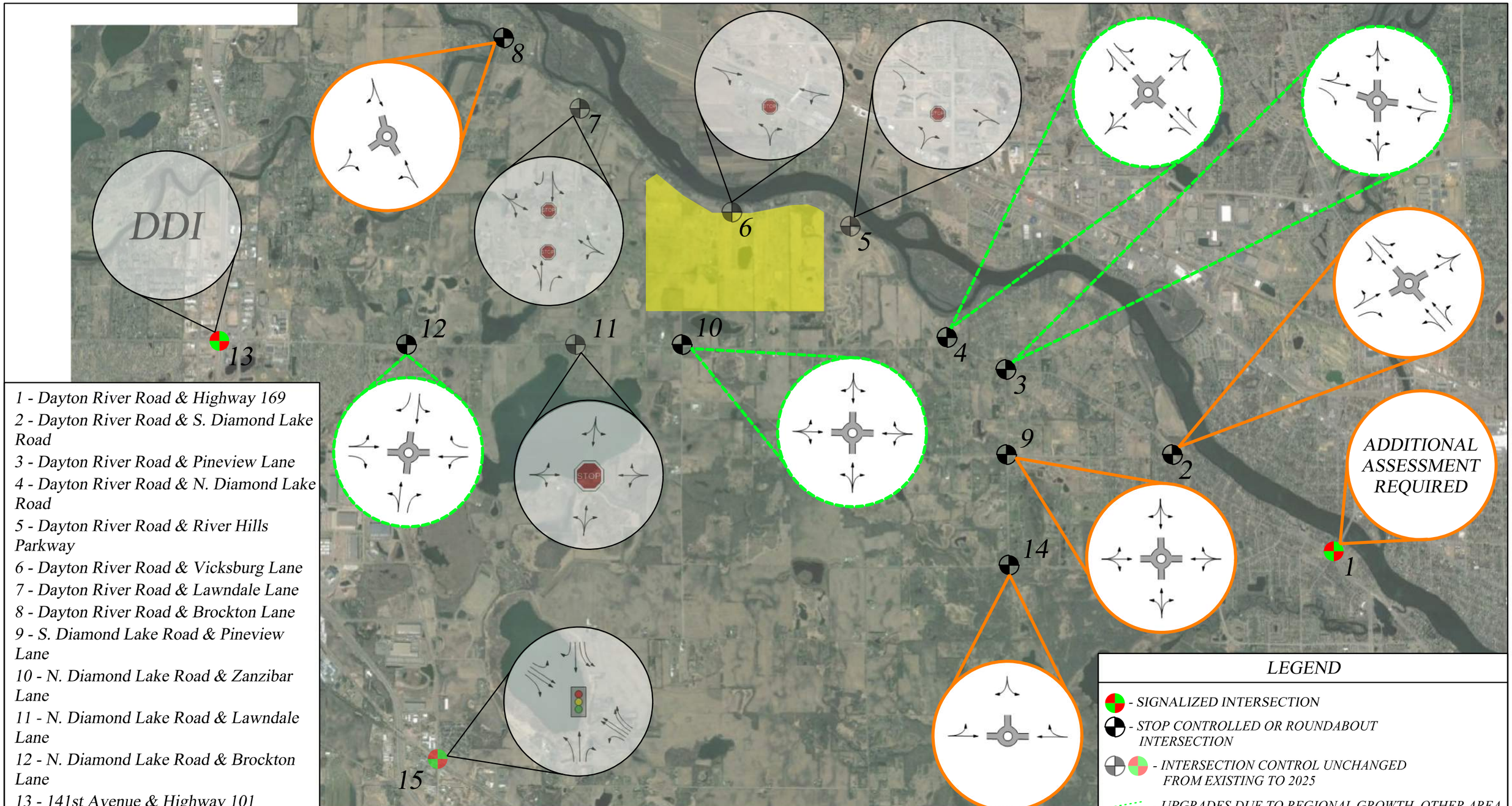
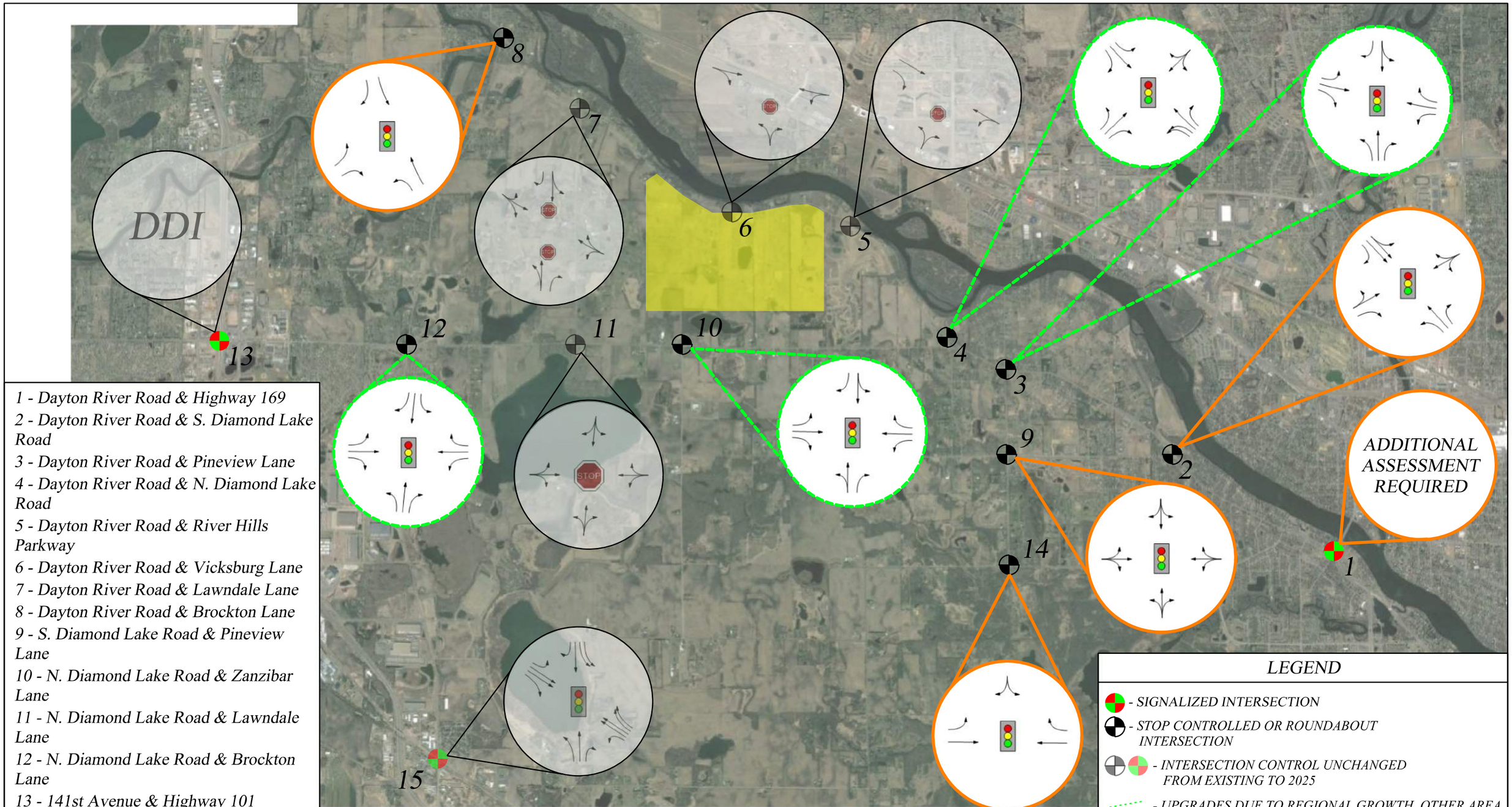


Figure 5A: 2040 Intersection Layouts
Northern Dayton Development



1 - Dayton River Road & Highway 169
2 - Dayton River Road & S. Diamond Lake Road
3 - Dayton River Road & Pineview Lane
4 - Dayton River Road & N. Diamond Lake Road
5 - Dayton River Road & River Hills Parkway
6 - Dayton River Road & Vicksburg Lane
7 - Dayton River Road & Lawndale Lane
8 - Dayton River Road & Brockton Lane
9 - S. Diamond Lake Road & Pineview Lane
10 - N. Diamond Lake Road & Zanzibar Lane
11 - N. Diamond Lake Road & Lawndale Lane
12 - N. Diamond Lake Road & Brockton Lane
13 - 141st Avenue & Highway 101 Interchange
14 - 129th Avenue & Pineview Lane
15 - Brockton Lane & County Road 81

LEGEND

- SIGNALIZED INTERSECTION
- STOP CONTROLLED OR ROUNDABOUT INTERSECTION
- INTERSECTION CONTROL UNCHANGED FROM EXISTING TO 2025
- UPGRADES DUE TO REGIONAL GROWTH, OTHER AREA DEVELOPMENTS, AND PROPOSED DEVELOPMENT
- UPGRADES DUE TO REGIONAL GROWTH AND OTHER AREA DEVELOPMENTS

Figure 5B: 2040 Intersection Layouts
Northern Dayton Development

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The Language of Traffic Engineering

Traffic Engineering, and Traffic Engineers, often use technical terms or jargon that may be confusing or tough to understand even within the context of a sentence. Key terms and acronyms that can generally be found in all types of traffic studies are defined in this document.

Types of Studies

Access Management – The practice of government agencies limiting the amount of intersections (both public roadway crossings and private driveways) along a roadway corridor based on the function of the roadway to improve safety and mobility while streamlining access.

Corridor Study – A transportation review and analysis of the existing and future traffic operations of a roadway segment. Varies in length from a couple blocks to a few miles and typically covers all modes of travel.

Intersection Control Evaluation (ICE) Report – A document that examines and determines the most appropriate type of control (stop sign, signal, roundabout, or other) at one or more intersections.

Safety Study – An examination of crash records to identify potential trends, issues, and problem intersections/ corridors. Usually includes potential mitigation options expected to decrease crash rates in the future.

Speed Study – A review of existing travel speeds and the corridor characteristics to determine if speeding is an issue, the appropriate speed to post as the limit, and/or areas to provide reduced speed warnings.

Traffic Impact Study (TIS) – A document that addresses the expected traffic impacts of a development and, if necessary, mitigation options that will reduce or eliminate negative impacts. Also referred to as a Traffic Impact Analysis.

Transportation Plan – A document developed by a government agency to take inventory of their transportation network, identify concerns or issues and lay out the path for improvement of the system.

Travel Demand Management Plan (TDMP) – A plan that documents the existing infrastructure around a site, including transit and non-motorized vehicle options, and develops measures to be implemented to encourage those alternative modes of travel.

Warrant Evaluation – Review of traffic volumes and other characteristics at an intersection against thresholds to determine if a traffic signal or other traffic control option is needed/warranted.



Source: ETH Zurich

Traffic Engineering is a branch of civil engineering that focuses on the safe and efficient movement of people and vehicles. It is part science and part art, requiring not only technical skills for analysis but an understanding of motivations in choosing travel routes.

Key Organizations

AASHTO – American Association of State Highway and Transportation Officials. A nonprofit, nonpartisan association representing transportation departments with a primary goal of fostering the development, operation, and maintenance of an integrated national transportation system.

DOT – Department of Transportation. Government organizations within federal and state agencies dedicated to serving the transportation needs of the community and typically responsible for study, design, operation, and maintenance of all facets of transportation.

FHWA – Federal Highway Administration. An agency within the US Department of Transportation that supports State and local governments in the design, construction, and maintenance of the highway system.

ITE – Institute of Transportation Engineers. An international educational and scientific association of transportation professionals who are responsible for meeting mobility and safety needs.

Appendix B - Language of Traffic Engineering

Results

85th Percentile Speed – Speed at which 85 percent of drivers are traveling at or below. Speed limits are typically set at the 85th percentile speed.

95th Percentile Queue – The distance, generally measured in feet or number of vehicles, which will be exceeded in a lane, typically at an intersection, only five percent of the time. Usually used to help determine intersection turn lane lengths.

Control Delay – The total amount of time a motorist takes to get through a road segment or intersection minus the time it would take without stopping due to traffic controls (like stop signs or traffic signals). Control delay includes decelerating and accelerating back to full driving speed.

Functional Classification – the grouping of streets and highways into categories according to their characteristics and emphasis on mobility or access. Generally, categories include arterials (emphasizing mobility and fast travel), local roads (emphasizing access to adjoining properties), and collector roads (emphasizing a balance between the two and usually connecting arterials to local roads).

Intersection Delay – The average amount of time, usually expressed in seconds, experienced by any vehicle traveling through an intersection.

Level of Service (LOS) – Qualitative measure of traffic operations related to the amount of average delay experienced. Expressed in letter grades with LOS A representing the best operations with little to no delay and LOS F representing the worst operations with excessive delays and congestion.

Measures of Effectiveness – Performance measures that define how well traffic is moving along a corridor or thru an intersection. The common MOEs are travel time, corridor speed, delay, and queues.

Mitigation – Measures intended to reduce the impact of a development or improve an identified traffic issue by either improving capacity (like adding lanes) or reducing demand (like encouraging carpooling).

Queue – Length of line of cars waiting at an intersection or at a bottleneck in a corridor, typically measured for each individual lane of traffic in feet or number of vehicles.

Volume to Capacity (v/c) ratio – the number of vehicles through an intersection or roadway segment in a specific amount of time divided by the expected capacity of the road. Less than 1.0 indicates available capacity and above 1.0 indicates more vehicles than can be accommodated. Typically, a v/c ratio above 0.85 suggests operational issues.

Trip Generation – The amount of vehicle traffic generated by a land use. One trip is equal to one vehicle traveling from an origin to a destination (traveling to and from work equals two trips).

Warrants – Criteria based on volumes and other Measures of Effectiveness for determining when all way stop signs, roundabouts, traffic signals, or other type of control should be installed.

Important Manuals/Guides

HCM – Highway Capacity Manual (released by the Transportation Research Board, or TRB). The guide for engineers and planners to assess traffic and environmental effects of highway projects. This manual presents the foundation of traffic analysis procedures in the US.

MUTCD – Manual of Uniform Traffic Control Devices. A document that sets minimum standards and provides guidance to ensure uniformity of traffic control devices (such as messages, location, size, shapes, and colors) across the nation. All roads are subject to its jurisdiction.

HSM – Highway Safety Manual (released by AASHTO). A guide that presents a variety of methods for quantitatively estimating crash frequency or severity.

Resources

MUTCD, 2009 Edition, published by FHWA

Highway Capacity Manual, HCM2010

Highway Safety Manual, HSM

About This Brief

Spack Consulting prepared this brief as part of our company's vision to significantly improve the practice of traffic engineering and transportation planning. Transportation professionals from around the world have assisted us in developing this document. We are providing this brief under the Creative Commons Attribution License. Feel free to use-modify-share this guide, but please give us some credit in your document. To request our whole series of Design Briefs and to be included on our distribution list for new materials, please email mspack@spackconsulting.com. And please reach out if you have any comments or questions related to this Design Brief.

Spack CONSULTING
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Table D1A
2030 Future Land Use

Weekday Daily Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	DAILY RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	954.0	9.44	50%	50%	4,503	4,503
Multifamily Housing (Low-Rise)	220	Units	745.0	7.32	50%	50%	2,727	2,727
Commercial	820	KSF	168.6	37.75	50%	50%	3,181	3,181
Total							**10,411**	**10,411**

AM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	954.0	0.74	25%	75%	176	529
Multifamily Housing (Low-Rise)	220	Units	745.0	0.46	23%	77%	79	264
Commercial	820	KSF	168.6	0.94	62%	38%	98	60
Total							**353**	**853**

PM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	954.0	0.99	63%	37%	595	349
Multifamily Housing (Low-Rise)	220	Units	745.0	0.56	63%	37%	263	154
Commercial	820	KSF	168.6	3.81	48%	52%	308	334
Total							**1,166**	**837**

NOTES:

1. **All trip generation rates based on "Trip Generation", Institute of Transportation Engineers, 9th Edition unless otherwise noted.**
2. **A.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 7 and 9 a.m.).**
3. **P.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 4 and 6 p.m.).**

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Table D1B
2030 Future Land Use Partial Build

Weekday Daily Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	DAILY RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	318.0	9.44	50%	50%	1,501	1,501
Multifamily Housing (Low-Rise)	220	Units	248.3	7.32	50%	50%	909	909
Commercial	820	KSF	0.0	37.75	50%	50%	0	0
Total							**2,410**	**2,410**

AM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	318.0	0.74	25%	75%	59	176
Multifamily Housing (Low-Rise)	220	Units	248.3	0.46	23%	77%	26	88
Commercial	820	KSF	0.0	0.94	62%	38%	0	0
Total							**85**	**264**

PM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	318.0	0.99	63%	37%	198	116
Multifamily Housing (Low-Rise)	220	Units	248.3	0.56	63%	37%	88	51
Commercial	820	KSF	0.0	3.81	48%	52%	0	0
Total							**286**	**167**

NOTES:

1. **All trip generation rates based on "Trip Generation", Institute of Transportation Engineers, 9th Edition unless otherwise noted.**
2. **A.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 7 and 9 a.m.).**
3. **P.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 4 and 6 p.m.).**

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ENGINEERING TRAFFIC FORWARD

Table D2A
Preferred Land Use Full Build Trip

Weekday Daily Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	DAILY RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	1342.0	9.44	50%	50%	6,334	6,334
Multifamily Housing (Low-Rise)	220	Units	267.0	7.32	50%	50%	977	977
Commercial	820	KSF	58.2	37.75	50%	50%	1,099	1,099
Total							**8,410**	**8,410**

AM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	1342.0	0.74	25%	75%	248	745
Multifamily Housing (Low-Rise)	220	Units	267.0	0.46	23%	77%	28	95
Commercial	820	KSF	58.2	0.94	62%	38%	34	21
Total							**310**	**861**

PM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	1342.0	0.99	63%	37%	837	492
Multifamily Housing (Low-Rise)	220	Units	267.0	0.56	63%	37%	94	55
Commercial	820	KSF	58.2	3.81	48%	52%	106	115
Total							**1,037**	**662**

NOTES:

1. **All trip generation rates based on "Trip Generation", Institute of Transportation Engineers, 9th Edition unless otherwise noted.**
2. **A.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 7 and 9 a.m.).**
3. **P.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 4 and 6 p.m.).**

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Table D2B
Preferred Land Use Partial Build

Weekday Daily Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	DAILY RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	448.0	9.44	50%	50%	2,115	2,115
Multifamily Housing (Low-Rise)	220	Units	89.0	7.32	50%	50%	326	326
Commercial	820	KSF	0.0	37.75	50%	50%	0	0
Total							**2,441**	**2,441**

AM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	448.0	0.74	25%	75%	83	249
Multifamily Housing (Low-Rise)	220	Units	89.0	0.46	23%	77%	9	32
Commercial	820	KSF	0.0	0.94	62%	38%	0	0
Total							**92**	**281**

PM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	448.0	0.99	63%	37%	279	164
Multifamily Housing (Low-Rise)	220	Units	89.0	0.56	63%	37%	31	18
Commercial	820	KSF	0.0	3.81	48%	52%	0	0
Total							**310**	**182**

NOTES:

1. **All trip generation rates based on "Trip Generation", Institute of Transportation Engineers, 9th Edition unless otherwise noted.**
2. **A.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 7 and 9 a.m.).**
3. **P.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 4 and 6 p.m.).**

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Table D3A
2025 Additional NE Developments

Weekday Daily Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	DAILY RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	391.0	9.44	50%	50%	1,846	1,846
Total							**1,846**	**1,846**

AM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	391.0	0.74	25%	75%	72	217
Total							**72**	**217**

PM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	391.0	0.99	63%	37%	244	143
Total							**244**	**143**

NOTES:

1. **All trip generation rates based on "Trip Generation", Institute of Transportation Engineers, 9th Edition unless otherwise noted.**
2. **A.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 7 and 9 a.m.).**
3. **P.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 4 and 6 p.m.).**

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Table D3B
2025 Additional Adjacent Developments

Weekday Daily Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	DAILY RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	423.0	9.44	50%	50%	1,997	1,997
Total							**1,997**	**1,997**

AM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	423.0	0.74	25%	75%	78	235
Total							**78**	**235**

PM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	NEW TRIPS	
							ENTER	EXIT
Single Family	210	Units	423.0	0.99	63%	37%	264	155
Total							**264**	**155**

NOTES:

1. **All trip generation rates based on "Trip Generation", Institute of Transportation Engineers, 9th Edition unless otherwise noted.**
2. **A.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 7 and 9 a.m.).**
3. **P.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 4 and 6 p.m.).**

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Table D4A
2040 Additional SW Developments

Weekday Daily Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	DAILY RATE	ENTER PERCENT	EXIT PERCENT	PASSBY/INTERNAL PERCENT	PASSBY TRIPS	NEW TRIPS ENTER	NEW TRIPS EXIT
French Lake Industrial Park	110	KSF	2700.0	4.96	50%	50%	20%	2,678	5,357	5,357
SW Area Business	710	KSF	545.0	9.74	50%	50%	20%	1,062	2,123	2,123
French Lake	From French Lake Study								2,456	2,456
Gove	210	Units	60.0	9.44	50%	50%	0%	0	283	283
Total								**2,678**	**10,219**	**10,219**

AM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	PASSBY PERCENT	PASSBY TRIPS	NEW TRIPS ENTER	NEW TRIPS EXIT
French Lake Industrial Park	110	KSF	2700.0	0.70	88%	12%	20%	378	1,331	181
SW Area Business	710	KSF	545.0	1.16	86%	14%	20%	126	435	71
	From French Lake Study								400	87
Gove	210	Units	60.0	0.74	25%	75%	0%	0	11	33
Total								**378**	**2,177**	**372**

PM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	PASSBY PERCENT	PASSBY TRIPS	NEW TRIPS ENTER	NEW TRIPS EXIT
French Lake Industrial Park	110	KSF	2700.0	0.63	13%	87%	20%	340	177	1,184
SW Area Business	710	KSF	545.0	1.15	16%	84%	20%	125	80	421
		From French Lake Study							111	388
Gove	210	Units	60.0	0.99	63%	37%	0%	0	37	22
Total								**340**	**405**	**2,015**

NOTES:

1. **All trip generation rates based on "Trip Generation", Institute of Transportation Engineers, 9th Edition unless otherwise noted.**
2. **A.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 7 and 9 a.m.).**
3. **P.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 4 and 6 p.m.).**

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Table D4B
2040 Additional S Developmnts

Weekday Daily Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	DAILY RATE	ENTER PERCENT	EXIT PERCENT	PASSBY/INTERNAL PERCENT	PASSBY TRIPS	NEW TRIPS ENTER	NEW TRIPS EXIT
Pulte, Rush Creek, Sundance, Brayburn	210	Units	1086.0	9.44	50%	50%	0%	0	5,126	5,126
Total								**0**	**5,126**	**5,126**

AM Peak Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	PASSBY PERCENT	PASSBY TRIPS	NEW TRIPS ENTER	NEW TRIPS EXIT
Pulte, Rush Creek, Sundance, Brayburn	210	Units	1086.0	0.74	25%	75%	0%	0	201	603
Total								**0**	**201**	**603**

PM Peak Volumes

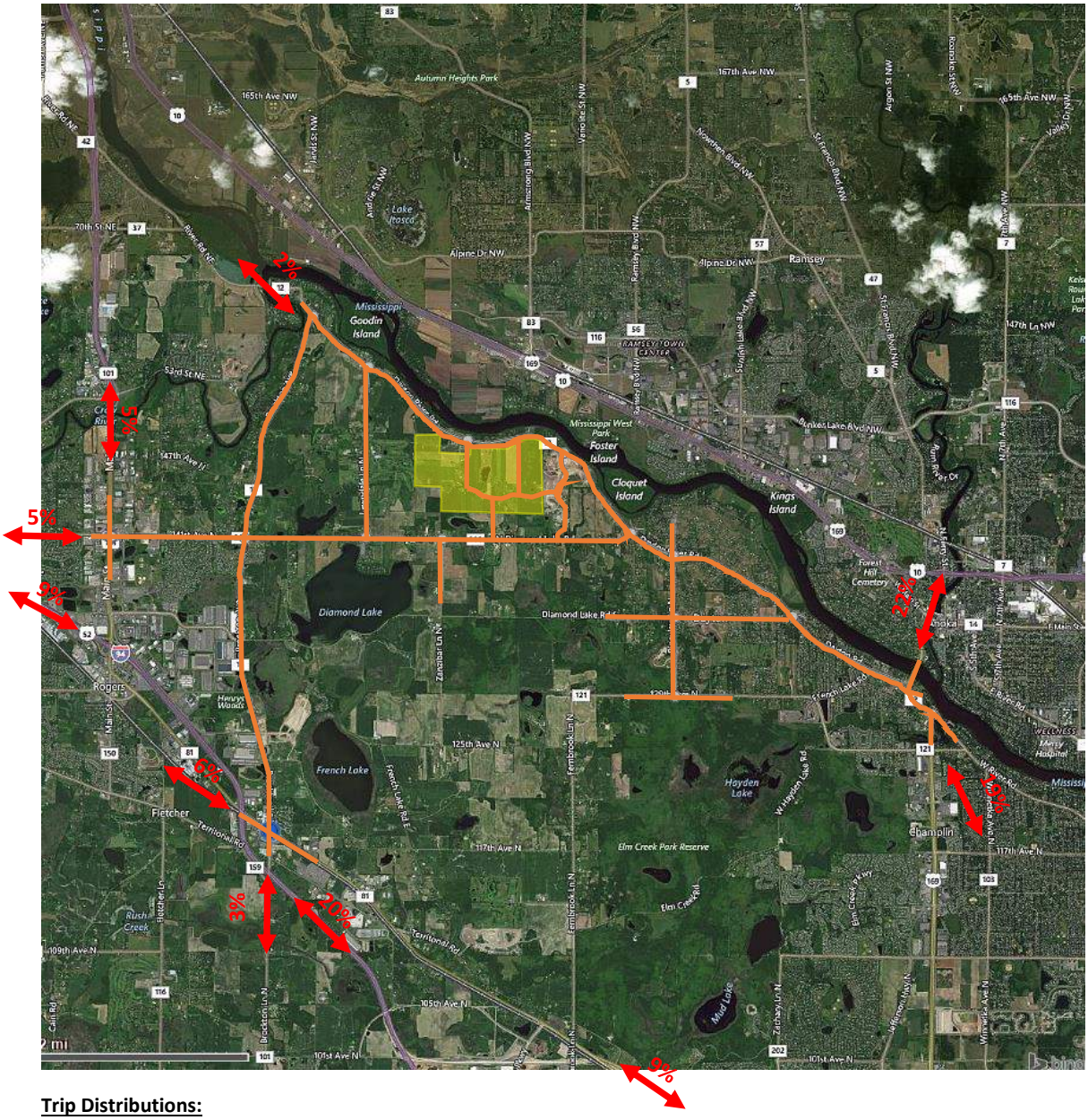
LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	PASSBY PERCENT	PASSBY TRIPS	NEW TRIPS ENTER	NEW TRIPS EXIT
Pulte, Rush Creek, Sundance, Brayburn	210	Units	1086.0	0.99	63%	37%	0%	0	677	398
Total								**0**	**677**	**398**

NOTES:

1. **All trip generation rates based on "Trip Generation", Institute of Transportation Engineers, 9th Edition unless otherwise noted.**
2. **A.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 7 and 9 a.m.).**
3. **P.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 4 and 6 p.m.).**

Appendix E - Trip Distribution Tables

FIGURE 1E: 2025 Development Distribution

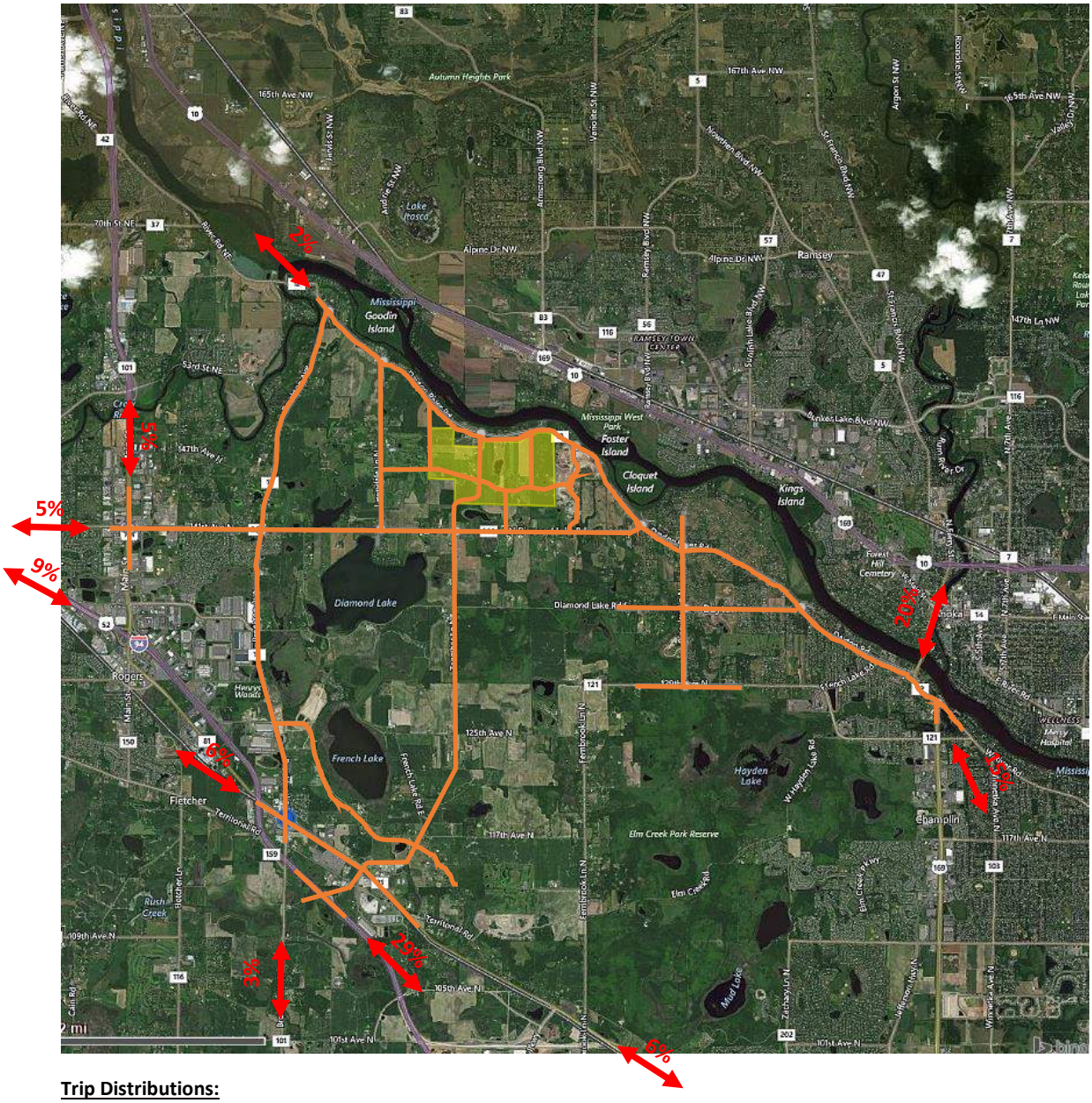


Trip Distributions:

To/ From the North on Dayton River Road – 2%
To/From the North on Hwy 169 – 22%
To/From the South on Hwy 169 and Dayton River Road – 19%
To/From the South on TH 81 – 9%
To/From the South on Hwy 94 – 20%
To/From the South on Brockton Lane – 3%
To/From the North on TH 81 – 6%
To/From the North on Hwy 94 – 9%
To/From the West on 141st Avenue – 5%
To/From the North on TH 101 – 5%

Appendix E - Trip Distribution Tables

FIGURE 2E: 2040 Development Distribution

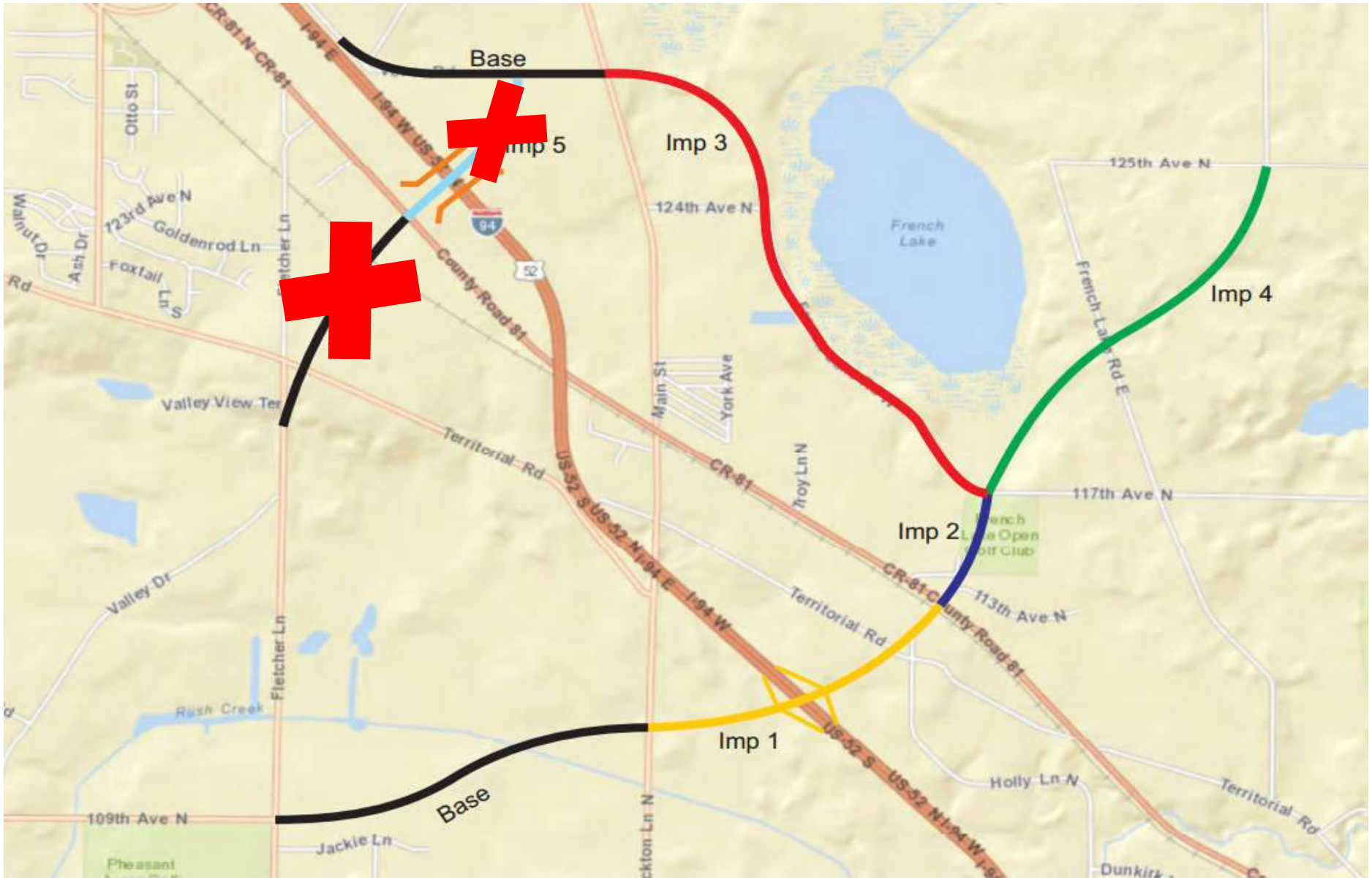


Trip Distributions:

To/ From the North on Dayton River Road – 2%
To/From the North on Hwy 169 – 20%
To/From the South on Hwy 169 and Dayton River Road – 15%
To/From the South on TH 81 – 6%
To/From the South on Hwy 94 – 29%
To/From the South on Brockton Lane – 3%
To/From the North on TH 81 – 6%
To/From the North on Hwy 94 – 9%
To/From the West on 141st Avenue – 5%
To/From the North on TH 101 – 5%

Spack CONSULTING
ENGINEERING TRAFFIC FORWARD

Figure 1F
2040 Roadway Upgrades



Level of Service (LOS)

Level of Service (LOS) is a qualitative description, similar to typical school grades, that traffic engineers use to communicate how good or bad traffic operations are on a corridor, intersection, or interchange.

Common Factors

Traffic can be a hard thing to quantify as everyone has a different tolerance for congestion. What seems excessively long to one person may seem good enough for another. These differences are readily apparent when comparing small towns or rural areas, where five cars an hour can be the norm, to big cities or downtowns, where less than hundred cars an hour, even in the middle of night, is rare.

To combat this issue and provide a consistent measuring tool for traffic studies, a "Level of Service" rating was developed. Level of Service ratings are based on the roadway or intersection characteristics and the amount of traffic. Just like grade school, LOS A represents the best traffic operations, where traffic flows freely. LOS F, on the other hand, represents failing operations, where the road or intersection is congested and running beyond maximum capacity. LOS E is typically considered "at capacity" which means the amount of traffic is right at the level the roadway or intersection can adequately accommodate. Using Level of Service letter grades provides an easy way to convey road operations to the general public and has been adopted across the United States.

Common Factors Impacting Level of Service

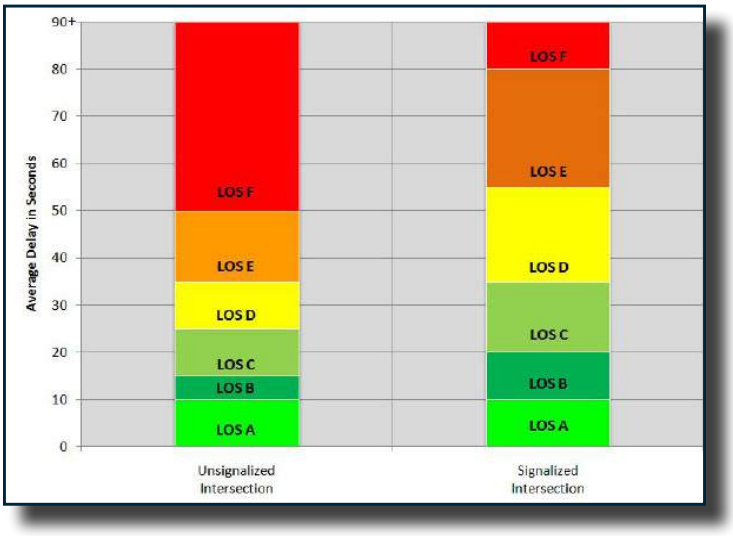
- **Number of Lanes.**
- **Traffic Volumes.**
- **Intersection Control (stop sign, signal, roundabout, interchange.)**
- **Amount of access on a corridor.**
- **Percentage of turning traffic.**
- **Traffic signal cycle length (green time devoted to each approach) and phasing (one green for all approach movements or separate green arrows.)**
- **Percentage of heavy trucks.**
- **Roadway Grades.**
- **Distribution of traffic within a peak hour as well as over the course of a day.**
- **Pedestrian activity.**
- **Bicycle activity.**

Level of Service criteria have been developed for multiple types of traffic operations including:

- Intersections
- Urban Corridors
- Freeways
- Transit Service
- Bicycle Operations
- Pedestrian Operations

The most common LOS criteria used is for car operations at intersections; both signalized and unsignalized. For an intersection Level of Service analysis, average delay for cars travelling through the intersection is used to determine the appropriate grade. A high delay results in a poor LOS rating and equates to poor operations. Similarly, low delay results in a good LOS rating and equates to good or great operations.

LOS can be determined for the intersection as a whole, or for individual movements. It is common during peak periods in major population areas for an intersection to have an acceptable overall LOS rating, but fail to achieve a good grade for individual movements.



Appendix F - Level of Service



LOS A



LOS C



LOS D = Acceptable



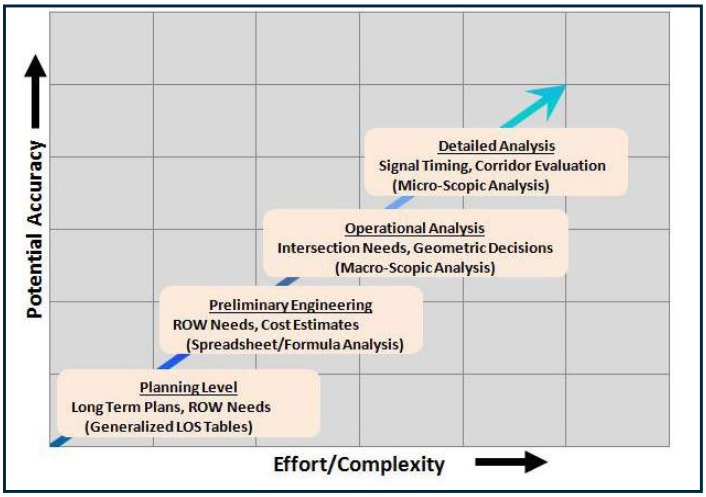
LOS F = Unacceptable

Source: City of San Jose, CA.

Although a Level of Service rating of A represents the best traffic operations, it is not always the most desirable. Providing LOS A for all corridors and all operations at all times would require a significant amount of land to be devoted to the road infrastructure, which makes it extremely costly to build and maintain. During non-peak times, like overnight, much of that infrastructure would sit unused.

On the opposite side of the spectrum, a Level of Service rating of E and F represent traffic operations close to breaking down, or that already have. These ratings mean high delays, long queues, and slow speeds, not to mention driver frustration. Instead of trying to achieve one or the other, government agencies try to strike a balance between providing acceptable operations, neither falling nor flowing too freely. Because of this, LOS D is typically considered the lowest LOS acceptable by government agencies and is reflective of a balanced approach between cost and benefit.

There are many tools and guidelines used to determine a roads Level of Service rating. Simple tools like generalized roadway capacities allow for planning-level efforts. While inexpensive and quick to complete, they are not as accurate as other options. More complicated tools, such as micro-simulations, provide more accurate results, but cost more and take more time. It is important to understand the trade-offs between the analysis types as well as the purpose of the study.



Source: Florida Deptarment of Transportation

Resources

- Highway Capacity Manual, fifth edition
- Nation Cooperative Highway Research Program Report 616; Multimodal Level of Service Analysis for Urban Streets
- http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_616.pdf
- Florida Department of Transportation Quality/Level of Service Handbook
- http://www.dot.state.fl.us/planning/systems/programs/sm/los/pdfs/2009FDOTQLOS_Handbook.pdf

About This Brief

Spack Consulting prepared this brief as part of our company's vision to significantly improve the practice of traffic engineering and transportation planning. Transportation professionals from around the world have assisted us in developing this document. We are providing this brief under the Creative Commons Attribution License. Feel free to use-modify-share this guide, but please give us some credit in your document. To request our whole series of Design Briefs and to be included on our distribution list for new materials, please email mspack@spackconsulting.com. And please reach out if you have any comments or questions related to this Design Brief.

APPENDIX

E

OFFICIAL PUBLIC COMMENTS

Appendix “E” contains all official public comments received during the official comment periods.

Scoping EAW Document Official Comment Submittals

Memorandum

DATE: January 9, 2018

SUBJECT: Response to Official Comments – Draft Scoping EAW for a Proposed AUAR

The Draft Scoping Environmental Assessment Worksheet (Scoping EAW) Document for a Proposed AUAR for the North Dayton Development was distributed for public comments on Monday, November 13th, 2017, and multiple comments were received by the 30-Day Public Comment Period deadline of Wednesday, December 13th, 2017. This memorandum documents all of the comments received along with the various ways each comment will be addressed by the AUAR.

MINNESOTA DEPARTMENT OF THE ARMY CORPS OF ENGINEERS COMMENTS

1) The purpose of this letter is to inform you that based on available information a Department of the Army (DA) permit will likely be required for your proposed activity.

Response: *All applicable permitting requirements will be included in the AUAR. To this end, wetlands within the development site will be delineated, and determinations will be made as to which agency (or agencies) have jurisdiction. A DA permit may be required for potential wetland impacts.*

2) If the proposal involves activity in navigable waters of the United States, it may be subject to the Corps of Engineers' jurisdiction under Section 10 of the Rivers and Harbors Act of 1899 (Section 10). Section 10 prohibits the construction, excavation, or deposition of materials in, over, or under navigable waters of the United States, or any work that would affect the course, location, condition, or capacity of those waters, unless the work has been authorized by a Department of the Army permit.

Response: *All applicable permitting requirements will be included in the AUAR. Navigable waters will be identified to determine if Section 10 applies. A DA permit may be required for potential impacts. At the present time, no activity is anticipated within navigable waters of the United States and we anticipate Section 10 will not be applicable.*

3) If the proposal involves discharge of dredged or fill material into waters of the United States, it may be subject to the Corps of Engineers' jurisdiction under Section 404 of the Clean Water Act (CWA Section 404). Waters of the United States include navigable waters, their tributaries, and adjacent wetlands (33 CFR § 328.3). CWA Section 301(a) prohibits discharges of dredged or fill material into waters of the United States, unless the work has been authorized by a Department of the Army permit under Section 404. Information about the Corps permitting process can be obtained online at http://www.mvp.usace.army.mil/regulatory

Response: *The project will be designed to minimize impacts to wetlands. Construction activities will disturb soils and there will be potential for erosion and sedimentation. Best management practices (BMPs) will be implemented to reduce the potential for sediments reaching wetlands and the Mississippi River. The AUAR will describe all potential impacts to wetlands and include mitigation measures including applicable BMPs.*

4) The Corps' evaluation of a Section 10 and/or a Section 404 permit application involves multiple analyses, including (1) evaluating the proposal's impacts in accordance with the National Environmental Policy Act (NEPA) (33 CFR part 325), (2) determining whether the proposal is contrary to the public interest (33 CFR § 320.4), and (3) in the case of a Section 404 permit, determining whether the proposal complies with the Section 404(b)(1) Guidelines (Guidelines) (40 CFR part 230).

Response: *The AUAR will include an assessment of the potential for impacts to wetlands and the Mississippi River. The noted analysis will be performed if navigable waters are impacted.*

5) If the proposal requires a Section 404 permit application, the Guidelines specifically require that "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences" (40 CFR § 230.10(a)). Time and money spent on the proposal prior to applying for a Section 404 permit cannot be factored into the Corps' decision whether there is a less damaging practicable alternative to the proposal.

Response: *Comment noted.*

6) If an application for a Corps permit has not yet been submitted, the project proposer may request a pre-application consultation meeting with the Corps to obtain information regarding the data, studies or other information that will be necessary for the permit evaluation process. A pre-application consultation meeting is strongly recommended if the proposal has substantial impacts to waters of the United States, or if it is a large or controversial project.

Response: *Comment noted.*

MINNESOTA DEPARTMENT OF NATURAL RESOURCES COMMENTS

1) As requested, the Minnesota Natural Heritage Information System has been queried to determine if any rare species or other significant natural features are known to occur within an approximate one-mile radius of the proposed project. Based on this query, rare features have been documented within the search area. Please note that the proposed project has the potential to negatively affect the following rare features in the following comments.

Response: *The results of the NHIS will be included in the AUAR.*

2) Ecologically Significant Areas:

The proposed project overlaps with the North Metro Mississippi River Important Bird Area (IBA). Important Birds Areas, identified by Audubon Minnesota in partnership with the DNR, are part of an international conservation effort aimed at conserving critical bird habitats. They are voluntary and non- regulatory, but the designation does demonstrate the biological value of this surrounding area. The Mississippi Flyway is extremely important for all migratory birds. While the IBA boundaries and the proposed project boundary include disturbed land, the proposed development has the potential to further impact the Mississippi River and the IBA through the loss of wetlands and mature trees and through additional runoff due to increased impervious cover.

Response: *Impacts of the proposed project will be assessed in the AUAR. Site design will seek to minimize impacts to wetlands and significant wooded areas where feasible, and the boundaries of the Mississippi River Important Bird Area (IBA) will be identified.*

3) State-listed Species:

- The proposed project boundary is near an area of statewide importance to Blanding's turtles (*Emydoidea blandingii*), a state-listed threatened species, and this rare turtle may be encountered on site. Blanding's turtles use wetlands as well as upland areas up to and over a mile distant from wetlands. Uplands are used for nesting, basking, periods of dormancy, and traveling between wetlands. Factors believed to contribute to the decline of this species include collisions with vehicles, wetland drainage and degradation, and the development of upland habitat. Any added fatality can be detrimental to populations of Blanding's turtles, as these turtles have a low reproduction rate that depends upon a high survival rate to maintain population levels.

  This project has the potential to impact this rare turtle through direct fatalities or habitat disturbance/destruction due to dewatering, excavation, fill, or other construction activities associated with the project. Actions to avoid or minimize disturbance to this state-protected turtle may include, but are not limited to, the following recommendations:

- Avoid or minimize impacts to wetlands,
- To avoid any incidental takings, avoid filling or dewatering wetlands during the winter,
- Implement stringent sediment and erosion control methods,
- Use wildlife-friendly erosion control methods (see links below),
- Monitor for turtles during construction and report any sightings to the DNR,
- Refer to the first list of recommendations in the enclosed Blanding's Turtle Fact Sheet. If greater protection for turtles is desired, the second list of recommendations can be implemented as well. The fact sheet contains specific recommendations regarding roads, utilities, and landscaping that will pertain to this project.
- For specific recommendations pertaining to roads, please refer to Curb Design and Small Animals, Preventing Entanglement, & Reducing Wildlife Vehicle Collisions in Chapter One of the Minnesota Department of Transportation's Best Practices Manual: (http://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/gp_2004_0001_manual.html).

The attached flyer that is inserted to this response memo along with the official letter from DNR should be given to all contractors working in the area. If Blanding's turtles are encountered on site, please remember that state law and rules prohibit the destruction of threatened or endangered species, except under certain prescribed conditions. If turtles are in imminent danger they must be moved by hand out of harm's way, otherwise they are to be left undisturbed.

- The black sandshell (*Ligumia recta*), a state-listed mussel of special concern, has been documented in the Mississippi River in the vicinity of the proposed project. Mussels are particularly vulnerable to deterioration in water quality, especially increased siltation. As such, it is important that effective erosion prevention and sediment control practices be implemented and maintained near the river during construction and incorporated into any stormwater management plan.

Response: *The potential for impacts to state-listed threatened species and state-listed species of special concern will be assessed in the AUAR. All applicable mitigation measures will be included in the Mitigation Plan provided in the AUAR including but not limited to: 1) minimization of wetland impacts; 2) installation of mountable curb throughout the project; 3) implementation of protection measures during construction (i.e. what is to be done if a state-listed species is encountered); and 4) requiring erosion control measures to limit sedimentation.*

4) Federally Protected Species:

- The northern long-eared bat (Myotis septentrionalis), federally listed as threatened and state-listed as special concern, can be found throughout Minnesota. During the winter this species hibernates in caves and mines, and during the active season (approximately April-October) it roosts underneath bark, in cavities, or in crevices of both live and dead trees. Pup rearing is during June and July. Activities that may impact this species include, but are not limited to, wind farm operation, any disturbance to hibernacula, and destruction/degradation of habitat (including tree removal).

The U.S. Fish and Wildlife Service (USFWS) has published a final 4(d) rule that identifies prohibited take. To determine whether you need to contact the USFWS, please refer to the USFWS Key to the Northern Long-Eared Bat 4(d) Rule (see links below). Please note that the NHIS does not contain any known occurrences of northern long-eared bat roosts or hibernacula within an approximate one-mile radius of the proposed project.

Response: *Potential impacts to federally listed threatened and state-listed species of special concern will be assessed in the AUAR. The project will coordinate with the U.S. Fish and Wildlife Service to confirm there are no known occurrences of northern long-eared bat roosts or hibernacula within an approximate one-mile radius of the proposed project. If occurrences are identified, mitigation measures will be outlined in the AUAR, and/or tree removal in such areas will need to occur within permitted timeframes.*

5) Environmental Review and Permitting:

- The Alternative Urban Areawide Review (AUAR) should address whether the proposed project has the potential to adversely affect the above rare features and, if so, it should identify specific measures that will be taken to avoid or minimize disturbance.
- Please include a copy of this letter in any state or local license or permit application. To the extent applicable, measures to avoid or minimize disturbance to the above rare features should be included as restrictions or conditions in any required permits or licenses.

Response: *The AUAR will assess impacts of the proposed project on rare features and will identify mitigation measures.*

6) Landcover:

The cover types table on page 5 shows that the AUAR boundary contains 51 acres of wooded/forest land. We suggest that trees and larger wooded areas be retained as much as possible. Aerial imagery and Minnesota landcover maps shows two larger wooded areas within the project boundary (one in the northeast of the project area surrounding public water wetland 27-104 and one in the southwest of the project area north/northwest of

public water wetland 27-124), in addition to several smaller wooded areas. Preserving these wooded areas as parks/community green space should be considered. In addition to providing environmental benefits such as wildlife habitat and clean air and water, wooded areas within communities offer many benefits to residents including recreation and health benefits, as well as increased property values. The book Conserving Wooded Areas in Developing Communities: Best Management Practices in Minnesota is a great reference for community planners and developers to use when considering development that contains wooded areas, with information on benefits of wooded areas and trees, as well as best management practices to conserve wooded areas at the subdivision and lot levels.

Response: *The project will strive to avoid impacts to significant wooded areas and will comply with local ordinances.*

7) Public waters:

Public water wetlands are DNR Public Waters. Public Water Wetland, 27-104, is located within the proposed boundary and should be included on the list of DNR Public Waters present on site. As noted, Public Water Wetland 27-124 is also listed as a natural environment lake. Any development occurring near this waterbody will require a 150 foot setback and be subject to different zoning standards, per the City of Dayton's adopted shoreland zoning ordinance (City of Dayton Code of Ordinances Chapter 1000 Section 1001.8).

Response: *The project will comply with all applicable setbacks and ordinances.*

8) Fish, wildlife, and rare features:

The Natural Heritage review has been completed and a letter was sent on December 6, 2017 (attached). The letter provides information on rare features that may be negatively affected by the project along with suggestions on mitigation measures. Rare species identified in the letter include: Blanding's turtles (Emydoidea blandingii), a state-listed threatened species; black sandshell (Ligumia recta), a state-listed mussel of special concern (documented in the Mississippi River); and the northern long-eared bat (Myotis septentrionalis), federally listed as threatened and state-listed as special concern (found throughout Minnesota). In addition, the North Metro Mississippi River Important Bird Area (IBA) overlaps the proposed project area. As noted on page 16 of the scoping EAW, the sensitive features identified in the Natural Heritage letter should be detailed in the AUAR and mitigation plans should be laid out to protect these resources.

Cumulative potential effects on these features should also be addressed.

Response: *Impacts to rare species and habitat will be assessed in the AUAR and applicable mitigation measures will be included.*

HENNEPIN COUNTY COMMENTS

1) Thanks for the "heads up". We did receive your previous transmittal on November 3rd. Jason Gottfried and David Jaeger will be assisting in assembling our formal comments once the Scoping EAW is published.

Based on the magnitude of the potential development, we expect that significant impacts will be identified, and hopefully reasonable mitigation measures can ultimately be identified. Some items we will likely comment on later:

- We believe the list of intersections to be evaluated needs to include CSAH-13 (Brockton Lane) / CSAH-81 and CSAH-12 (Dayton River Road) / TH-169.
- The future traffic analysis should focus on a 20-year time period after build-out.
- Background traffic growth should be assumed at an average of 2% per year consistent with current trends.

Response: *These comments will be considered in the assessment of traffic impacts that will be discussed in the AUAR.*

METROPOLITAN COUNCIL COMMENTS

1) Item 6 - Project Description:

Environmental Quality Board guidance states that the AUAR document must review at least one development scenario based on and consistent with the City's comprehensive plan update (CPU) in effect when the AUAR is officially ordered, which we assume is the 2030 CPU.

Additionally, at least one proposed development scenario should be consistent with the City's draft 2040 CPU, should its land use guidance for this area be different from the 2030 CPU, to minimize the need for a comprehensive plan amendment (CPA) following the environmental review process.

The SEAW indicates the City's 2030 Comprehensive Plan's future planned land uses are being re-guided through the City's official planning process for the 2040 CPU. The project description indicates that approximately 1,500 to 1,700 single-family residential homes and approximately 28 acres of mixed-use development are anticipated in the project area (see Figure 4). Mixed use is only briefly mentioned in this context. Please provide additional context for this area and its mix of uses in the AUAR. Also, please note the referenced Figure 4 did not appear to be in the SEAW.

Response: *One scenario consistent with the 2030 Comprehensive Plan and one scenario consistent with the 2040 Comprehensive Plan Update will be assessed in the AUAR along with the no build scenario.*

2) Item 8 – Permits:

Please include in the permit section that amendment to the 2030 CPU or incorporation into the 2040 CPU is needed. Beginning July I, 2018, we will no longer accept amendments to 2030 comprehensive plans. Linked here is the Council's guidelines on 2030 comprehensive plan amendment review through 2018 https://metrocouncil.org/Communities/Publications-And- Resources/Comp-Plan-Amendment-Review-Through-2018.aspx.

Response: *The project will be incorporated into the 2040 Comprehensive Plan Update which will be described in the AUAR.*

3) Item 9 - Land Use:

The SEAW discusses the City of Dayton Land Use Map (Figure 7) and indicates that the future planned land uses in the AUAR area are commercial, low-medium density residential, low-density residential, and agricultural preserve and that the northern part of the site is located in the Mississippi River Corridor Critical Area. However, please note that Figure 7 is the City's Existing Land Use Map versus 2030 CPU Future Land Use (Approved 2030 CPU Future Land Use: https://metrocouncil.org/Council-Meetings/Committees/Community-Development-Committee/20l4/0ctober-6,-2014/2014-241.aspx). Also, please note that the 2030 CPU future land uses for the AUAR area include mixed use rather than commercial.

As noted in the SEAW, the eastern edge of the site includes land is guided Agricultural Preserves. Please confirm in the AUAR if this area is still currently enrolled.

The Appendix includes Figure 8 "Proposed Land Use," which shows the entire development area as "Master Plan Land Use," but should be updated to show future land use categories consistent with the City's comprehensive plan (i.e. Mixed Use, Low-Density Residential).

- Regional Parks and Trails:

  The AUAR area is adjacent to the West Mississippi River Regional Trail Search Corridor, which will be planned, developed, and operated by Three Rivers Park District and governed by the 2040 Regional Parks Policy Plan. Per the Dayton Park and Open Space Plan, the City will work to connect surrounding communities to greenways and trails. The SEAW states the development of the site will take these local planning efforts into consideration and establish the identified connections.

- Housing:

  The City's share of the region's need for affordable housing for the 2021-2030 decade is 333 units. The size and sewer serviced capacity of this area suggests that some higher density housing could be wo1th considering as a part of the overall project; perhaps in a mixed use capacity or as a buffer between the commercial areas and the single family housing Areas. Creating some opportunities for housing at densities of at least 8 units per acre would also contribute to Dayton's ability to address their affordable housing share for the next decade and could provide more housing options within the North Dayton area.

- Traffic Analysis Zones (TAZ):

  TAZ forecasts are not discussed, but this would be helpful information. A draft set of TAZ forecasts for 2040 has been prepared by Metropolitan Council and is available for local governments to review.

  The North Dayton development is a part of TAZ #803. The TAZ is mainly farmland, and currently forecasted by Metropolitan Council to gain +318 households during 2010-2040. The North Dayton SEAW discusses 1,500 to 1,700 new units. The TAZ #803 forecast should be revised higher as part of the City's upcoming 2040 CPU.

Response: *These comments will be incorporated and assessed in the AUAR.*

4) Item 11 – Wastewater:

The southwest portion of the project area is beyond the current 2020 staging in the 2030 CPU. Prior to the installation of any sanitary sewer improvements within this portion of the project area, the City will need to re-guide the staging from 2030 expansion area to existing 2020 through the submittal of a comprehensive plan amendment or through incorporation in the 2040 CPU.

Response: *Wastewater impacts will be assessed in the AUAR, and a discussion of the staging will be included.*

5) Item 13 - Fish, wildlife, plant communities, and sensitive ecological resources:

The SEAW indicates that there are currently approximately 51 acres of isolated woodland areas remain within the proposed 560-acre AUAR area. The wooded area located in the south west corner of the AUAR area that is approximately 12 acres in size, which also contains several wetland areas, is identified in the City's 2005 Natural Resource Inventory as a map le-basswood forest remnant. We encourage the City and project proposer to plan to preserve and incorporate as open space this wooded parcel, the continued wooded habitat around the wetland immediately to the south east of the 1 2-ac re parcel, and the wooded parcels along the northern boundary of the AUAR area that incorporate the ravines draining the area toward the Mississippi River (as

discussed in SEAW Item 9.a.i. on page 8). They will add value to the ultimate development in the area, as visual amenities, wildlife corridors, and erosion protection within the steep ravines leading toward the River.

Response: *Project design will minimize impacts to wooded and wetland areas.*

MINNESOTA POLLUTION CONTROL AGENCY COMMENTS

1) Item 7 - Cover Types:

The table of cover types in this section is lacking entries in the "After" column so it is not possible to determine the changes in cover types as a result of the Project. The MPCA recommends column A be completed in the AUAR.

Response: *Changes in cover type acreages will be provided in the AUAR.*

2) Item 11 – Water Resources:

- The process to avoid, minimize, and mitigate wetlands is required and specific in-water best management practices must be included in the AUAR.
- Also, if a U.S. Army Corps of Engineers 404/MPCA 401 Certification are required, an antidegradation assessment, (Minn. R. 7050.0250 to 7050.0335) may now be needed for the Project. For questions regarding 401 Certification, please contact Bill Wilde at 651-757-2825.
- The SEAW focuses primarily on post development stormwater controls to be utilized by the project and does not address the temporary stormwater sediment controls as specified in Item 11. ii. required to prevent impacts to area surface waters during construction. Questions regarding Construction Stormwater Permit requirements should be directed to Roberta Getman at 507-206-2629.

  The following should be included in the AUAR based on the site description and as required in MPCA's National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) General Construction Stormwater permit (CSW Permit):

  a) Ensure down gradient sediment controls are specifically designed for the steep slopes at the Project site to provide adequate runoff protection during construction.

  b) Minimize the duration of exposed soils by phasing construction of the Project.

c) Because the Mississippi River is classified as a special water, soils will need to be stabilized within seven days of temporarily or permanently ceasing soil disturbing activity on any portion of the Project site. In addition, an undisturbed 100-foot buffer zone must be maintained between the river and the Project unless an encroachment is necessary to complete the Project and the area will be restored.

d) The wetlands located at the site cannot be utilized for stormwater management or treatment unless they have gone through the mitigation process.

e) The CSW Permit requires that one inch of stormwater runoff from new impervious surfaces is retained on the Project site via infiltration or other volume reduction method and not discharged to a surface water unless prohibited due to a high seasonal water table or bedrock.

f) Assuming 50 or more acres will be disturbed as a result of the Project, the Stormwater Pollution Prevention Plan must be submitted to the MPCA for review at least 30 days prior to applying for permit coverage even if only a smaller portion of the Project site will be constructed at one time.

- Please include Diamond Lake under Water Resources, part (a.,i.) (pg. 11). Diamond Lake (27-0125) is on the MPCA 303d Impaired Waters List and is impaired by nutrients. This lake appears to be within one mile of the Project site.

Response: *These items will be included and assessed in the AUAR.*

NATIONAL PARK SERVICE COMMENTS

1) The northern portion of the proposed project would lie within the boundary of the Mississippi National River and Recreation Area (NRRA). Congress established the Mississippi NRRA in 1988 to preserve, protect, and enhance the significant values of the Mississippi River Corridor in the Twin Cities metropolitan area.

Response: *The location of the NRRA will be noted in the AUAR.*

2) Under Item 9a the document states only that "the northern portion of the site is located within the Mississippi River Corridor Critical Area Program district CA-SR…" The Mississippi River Corridor Critical Area (MRCCA) shares the same boundary as the Mississippi NRRA. The Minnesota Department of Natural Resources (DNR) administers the MRCCA program allowing for cooperative management of the Mississippi NRRA with local governments including the City of Dayton. A notation should be made that this area is also part of the Mississippi NRRA.

Response: *This correction will be made in the AUAR.*

3) Additionally, under Item 9a the claim is made that "the Mississippi River and adjacent river corridor lands are designated and classified as 'Wild & Scenic River' and 'Critical Area'..." In 2012, the Minnesota State Legislature revised the Mississippi River Wild and Scenic River (WSR) boundaries to remove any land in the cities of Dayton and Ramsey. This action was taken to reduce the number of shoreland-related regulations pertinent in these areas, because the Mississippi River in these cities is also regulated under the MRCCA rules as well as standard shoreland rules. The reference to the WSR designation should be removed from the document while retaining the MRCCA reference.

Response: *This correction will be made in the AUAR.*

4) It should be noted that there is a Primary Conservation Area (PCA) located on the northern edge of the study area (see attached map). PCA's are afforded protections under the MRCCA rules that went into effect in January 2017. PCA's are to be set aside as open space in whole or part as applicable in large developments such as the one proposed here. This is meant to provide opportunities to protect or restore valuable resources in the Mississippi River Corridor.

Subdivision and land development standards, including percentages and acreages for PCA protection in large developments can be found in Minnesota Rules, part 6106.0170.

Response: *The location of the PCA will be noted in the AUAR.*

5) Lastly, given the proximity of the site to the Great River Road and Mississippi River Trail on Dayton River Road efforts should be made to make pedestrian and bike connections between the site and the Mississippi River. This would increase access and recreational opportunities in the Mississippi NRRA and surrounding community.

Response: *The project will incorporate pedestrian and bicycle connections as feasible.*

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
180 FIFTH STREET EAST, SUITE 700
ST. PAUL, MN 55101-1678

11/01/2017

REPLY TO ATTENTION OF
REGULATORY BRANCH

Regulatory File No. MVP-2017-03815-SMD

THIS IS NOT A PERMIT

Michele Ross
Sambatek
12800 Whitewater Drive, Suite 300
Minnetonka, MN 55343

To Whom It May Concern:

We have received your submittal described below. You may contact the Project Manager with questions regarding the evaluation process. The Project Manager may request additional information necessary to evaluate your submittal.

File Number: MVP-2017-03815-SMD

Applicant: Dayton Development Partnership, LLC c/o Jake Walesch

Project Name: Dayton Development Partnership, LLC / North Dayton Development

Received Date: 10/31/2017

Project Manager: Michael Davis
(651) 290-5268
Stephen.M.Davis@usace.army.mil

Additional information about the St. Paul District Regulatory Program, including the new Clean Water Rule, can be found on our web site at http://www.mvp.usace.army.mil/missions/regulatory.

Please note that initiating work in waters of the United States prior to receiving Department of the Army authorization could constitute a violation of Federal law. If you have any questions, please contact the Project Manager.

Thank you.

U.S. Army Corps of Engineers
St. Paul District
Regulatory Branch

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
180 FIFTH STREET EAST, SUITE 700
ST. PAUL, MN 55101-1678

REPLY TO ATTENTION OF
REGULATORY BRANCH

NOV 0 9 2017

Regulatory File No. MVP-2017-03815-SMD

Sambatek
c/o Michele Ross
12800 Whitewater Drive, Suite 300
Minnetonka, MN 55343

Dear Ms. Ross:

We have received the document entitled, "North Dayton Development," received on October 31, 2017. The purpose of this letter is to inform you that based on available information a Department of the Army (DA) permit will likely be required for your proposed activity. This letter also provides general information regarding the U.S. Army Corps of Engineers (Corps) regulatory program.

If the proposal involves activity in navigable waters of the United States, it may be subject to the Corps of Engineers' jurisdiction under Section 10 of the Rivers and Harbors Act of 1899 (Section 10). Section 10 prohibits the construction, excavation, or deposition of materials in, over, or under navigable waters of the United States, or any work that would affect the course, location, condition, or capacity of those waters, unless the work has been authorized by a Department of the Army permit.

If the proposal involves discharge of dredged or fill material into waters of the United States, it may be subject to the Corps of Engineers' jurisdiction under Section 404 of the Clean Water Act (CWA Section 404). Waters of the United States include navigable waters, their tributaries, and adjacent wetlands (33 CFR § 328.3). CWA Section 301(a) prohibits discharges of dredged or fill material into waters of the United States, unless the work has been authorized by a Department of the Army permit under Section 404. Information about the Corps permitting process can be obtained online at http://www.mvp.usace.army.mil/regulatory.

The Corps' evaluation of a Section 10 and/or a Section 404 permit application involves multiple analyses, including (1) evaluating the proposal's impacts in accordance with the National Environmental Policy Act (NEPA) (33 CFR part 325), (2) determining whether the proposal is contrary to the public interest (33 CFR § 320.4), and (3) in the case of a Section 404 permit, determining whether the proposal complies with the Section 404(b)(1) Guidelines (Guidelines) (40 CFR part 230).

If the proposal requires a Section 404 permit application, the Guidelines specifically require that "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences" (40 CFR § 230.10(a)). Time and money spent on the proposal prior to applying for a Section 404 permit cannot be factored into the Corps' decision whether there is a less damaging practicable alternative to the proposal.

Regulatory Branch (File No. MVP-2017-03815-SMD)

If an application for a Corps permit has not yet been submitted, the project proposer may request a pre-application consultation meeting with the Corps to obtain information regarding the data, studies or other information that will be necessary for the permit evaluation process. A pre-application consultation meeting is strongly recommended if the proposal has substantial impacts to waters of the United States, or if it is a large or controversial project.

If you have any questions, please contact me in our St. Paul office at (651) 290-5268 or Stephen.m.davis@usace.army.mil. In any correspondence or inquiries, please refer to the Regulatory file number shown above.

Sincerely,

Michael Davis
Project Manager

Minnesota Department of Natural Resources
Division of Ecological & Water Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

December 6, 2017 **Correspondence # ERDB 20180177**

Ms. Michele Ross
Sambatek, Inc.
12800 Whitewater Drive, Suite 300
Minnetonka, MN 55343

RE: Natural Heritage Review of the proposed North Dayton Development; T120N R22W, Sections 5, 8, & 9; Hennepin County

Dear Ms. Ross,

As requested, the Minnesota Natural Heritage Information System has been queried to determine if any rare species or other significant natural features are known to occur within an approximate one-mile radius of the proposed project. Based on this query, rare features have been documented within the search area. Please note that the proposed project has the potential to negatively affect the following rare features:

Ecologically Significant Areas

- The proposed project overlaps with the North Metro Mississippi River Important Bird Area (IBA). Important Birds Areas, identified by Audubon Minnesota in partnership with the DNR, are part of an international conservation effort aimed at conserving critical bird habitats. They are voluntary and non-regulatory, but the designation does demonstrate the biological value of this surrounding area. The Mississippi Flyway is extremely important for all migratory birds. While the IBA boundaries and the proposed project boundary include disturbed land, the proposed development has the potential to further impact the Mississippi River and the IBA through the loss of wetlands and mature trees and through additional runoff due to increased impervious cover.

State-listed Species

- The proposed project boundary is near an area of statewide importance to Blanding's turtles (*Emydoidea blandingii*), a state-listed threatened species, and this rare turtle may be encountered on site. Blanding's turtles use wetlands as well as upland areas up to and over a mile distant from wetlands. Uplands are used for nesting, basking, periods of dormancy, and traveling between wetlands. Factors believed to contribute to the decline of this species include collisions with vehicles, wetland drainage and degradation, and the development of upland habitat. Any added fatality can be detrimental to populations of Blanding's turtles, as these turtles have a low reproduction rate that depends upon a high survival rate to maintain population levels.

This project has the potential to impact this rare turtle through direct fatalities or habitat disturbance/destruction due to dewatering, excavation, fill, or other construction activities associated with the project. Actions to avoid or minimize disturbance to this state-protected turtle may include, but are not limited to, the following recommendations:

- Avoid or minimize impacts to wetlands,
- To avoid any incidental takings, avoid filling or dewatering wetlands during the winter,
- Implement stringent sediment and erosion control methods,
- Use wildlife-friendly erosion control methods (see links below),
- Monitor for turtles during construction and report any sightings to the DNR,
- Refer to the first list of recommendations in the enclosed Blanding's Turtle Fact Sheet. If greater protection for turtles is desired, the second list of recommendations can be implemented as well. The fact sheet contains specific recommendations regarding roads, utilities, and landscaping that will pertain to this project.
- For specific recommendations pertaining to roads, please refer to Curb Design and Small Animals, Preventing Entanglement, & Reducing Wildlife Vehicle Collisions in Chapter One of the Minnesota Department of Transportation's Best Practices Manual (http://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/gp_2004_0001_manual.html).

The attached flyer should be given to all contractors working in the area. If Blanding's turtles are encountered on site, please remember that state law and rules prohibit the destruction of threatened or endangered species, except under certain prescribed conditions. If turtles are in imminent danger they must be moved by hand out of harm's way, otherwise they are to be left undisturbed.

- The black sandshell (*Ligumia recta*), a state-listed mussel of special concern, has been documented in the Mississippi River in the vicinity of the proposed project. Mussels are particularly vulnerable to deterioration in water quality, especially increased siltation. As such, it is important that effective erosion prevention and sediment control practices be implemented and maintained near the river during construction and incorporated into any stormwater management plan.

Federally Protected Species

- The northern long-eared bat (*Myotis septentrionalis*), federally listed as threatened and state-listed as special concern, can be found throughout Minnesota. During the winter this species hibernates in caves and mines, and during the active season (approximately April-October) it roosts underneath bark, in cavities, or in crevices of both live and dead trees. Pup rearing is during June and July. Activities that may impact this species include, but are not limited to, wind farm operation, any disturbance to hibernacula, and destruction/degradation of habitat (including tree removal).

  The U.S. Fish and Wildlife Service (USFWS) has published a final 4(d) rule that identifies prohibited take. To determine whether you need to contact the USFWS, please refer to the USFWS Key to the Northern Long-Eared Bat 4(d) Rule (see links below). Please note that the NHIS does not contain any known occurrences of northern long-eared bat roosts or hibernacula within an approximate one-mile radius of the proposed project.

Environmental Review and Permitting

- The Alternative Urban Areawide Review (AUAR) should address whether the proposed project has the potential to adversely affect the above rare features and, if so, it should identify specific measures that will be taken to avoid or minimize disturbance.

- Please include a copy of this letter in any state or local license or permit application. **To the extent applicable, measures to avoid or minimize disturbance to the above rare features should be included as restrictions or conditions in any required permits or licenses.**

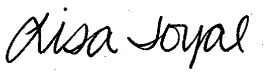
The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. **If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.**

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location (noted above) and the project description provided on the NHIS Data Request Form. Please contact me if project details change or for an updated review if construction has not occurred within one year.

The Natural Heritage Review does not constitute review or approval by the Department of Natural Resources as a whole. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. If you have not done so already, please contact your DNR Regional Environmental Assessment Ecologist to determine whether there are other natural resource concerns associated with the proposed project (contact information available at http://www.dnr.state.mn.us/eco/ereview/erp_regioncontacts.html). Please be aware that additional site assessments or review may be required.

Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources. An invoice will be mailed to you under separate cover.

Sincerely,



Lisa Joyal
Endangered Species Review Coordinator
lisa.joyal@state.mn.us

enc. Blanding's Turtle Fact Sheet and Flyer

cc: Becky Horton

Links: DNR Rare Species Guide
www.dnr.state.mn.us/rsg/index.html
Provides information on the biology, habitat use, and conservation measures of rare species

Wildlife Friendly Erosion Control
http://files.dnr.state.mn.us/eco/nongame/wildlife-friendly-erosion-control.pdf
https://www.coastal.ca.gov/nps/Wildlife-Friendly_Products.pdf
Erosion Control Suppliers
http://files.dnr.state.mn.us/assistance/backyard/gardens/native_plant/suppliers_erosioncontrol.pdf

USFWS Key to the Northern Long-Eared Bat 4(d) Rule for Non-Federal Activities
http://www.fws.gov/midwest/endangered/mammals/nleb/KeyFinal4dNLEB.html
USFWS Key to the Northern Long-Eared Bat 4(d) Rule for Federal Actions
http://www.fws.gov/midwest/endangered/mammals/nleb/KeyFinal4dNLEBFedProjects.html
USFWS Northern Long-eared Bat Website
http://www.fws.gov/midwest/endangered/mammals/nleb/index.html
USFWS Northern Long-eared Bat Fact Sheet
http://www.fws.gov/midwest/endangered/mammals/nleb/nlebFactSheet.html

DEPARTMENT OF NATURAL RESOURCES

Minnesota Department of Natural Resources
Ecological and Water Resource
1200 Warner Road
St. Paul, MN 55106

December 13, 2017 Transmitted Electronically

Tina Goodroad
12260 South Diamond Lake Road
Dayton, MN 55327

Re: North Dayton Development Scoping EAW

Dear Tina Goodroad,

The Minnesota Department of Natural Resources (DNR) has reviewed the scoping Environmental Assessment Worksheet (EAW) for the proposed North Dayton Alternative Urban Areawide Review (AUAR). We offer the following comments as you prepare the AUAR.

Landcover. The cover types table on page 5 shows that the AUAR boundary contains 51 acres of wooded/forest land. We suggest that trees and larger wooded areas be retained as much as possible. Aerial imagery and Minnesota landcover maps shows two larger wooded areas within the project boundary (one in the northeast of the project area surrounding public water wetland 27-104 and one in the southwest of the project area north/northwest of public water wetland 27-124), in addition to several smaller wooded areas. Preserving these wooded areas as parks/community green space should be considered. In addition to providing environmental benefits such as wildlife habitat and clean air and water, wooded areas within communities offer many benefits to residents including recreation and health benefits, as well as increased property values. The book Conserving Wooded Areas in Developing Communities: Best Management Practices in Minnesota is a great reference for community planners and developers to use when considering development that contains wooded areas, with information on benefits of wooded areas and trees, as well as best management practices to conserve wooded areas at the subdivision and lot levels.

Public waters. Public water wetlands are DNR Public Waters. Public Water Wetland, 27-104, is located within the proposed boundary and should be included on the list of DNR Public Waters present on site. As noted, Public Water Wetland 27-124 is also listed as a natural environment lake. Any development occurring near this waterbody will require a 150 foot setback and be subject to different zoning standards, per the City of Dayton's adopted shoreland zoning ordinance (City of Dayton Code of Ordinances Chapter 1000 Section 1001.8).

Fish, wildlife, and rare features. The Natural Heritage review has been completed and a letter was sent on December 6, 2017 (attached). The letter provides information on rare features that may be negatively affected by the project along with suggestions on mitigation measures. Rare species identified in the letter include: Blanding's turtles (Emydoidea blandingii), a state-listed threatened species; black sandshell (Ligumia recta), a state-listed mussel of special concern (documented in the Mississippi River); and the northern long-eared bat (Myotis septentrionalis), federally listed as threatened and state-listed as special concern (found throughout Minnesota). In addition, the North Metro Mississippi River Important Bird Area (IBA) overlaps the proposed project area. As noted on page 16 of the scoping EAW, the sensitive features identified in the Natural Heritage letter should be detailed in the AUAR and mitigation plans should be laid out to protect these resources. Cumulative potential effects on these features should also be addressed.

Thank you for the consideration of our comments as you prepare the AUAR.

Sincerely,

/s/ Rebecca Horton
Region Environmental Assessment Ecologist

CC: Lisa Joyal, Jason Spiegel, Michelle Martin

Website link:

Conserving Wooded Areas in Developing Communities: Best Management Practices in Minnesota
http://www.dnr.state.mn.us/forestry/urban/bmps.html

Environmental Review Fact Sheet Series

Endangered, Threatened, and Special Concern Species of Minnesota

Blanding's Turtle

(*Emydoidea blandingii*)

Minnesota Status:	Threatened	State Rank[1]:	S2
Federal Status:	none	Global Rank[1]:	G4

HABITAT USE

Blanding's turtles need both wetland and upland habitats to complete their life cycle. The types of wetlands used include ponds, marshes, shrub swamps, bogs, and ditches and streams with slow-moving water. In Minnesota, Blanding's turtles are primarily marsh and pond inhabitants. Calm, shallow water bodies (Type 1-3 wetlands) with mud bottoms and abundant aquatic vegetation (e.g., cattails, water lilies) are preferred, and extensive marshes bordering rivers provide excellent habitat. Small temporary wetlands (those that dry up in the late summer or fall) are frequently used in spring and summer -- these fishless pools are amphibian and invertebrate breeding habitat, which provides an important food source for Blanding's turtles. Also, the warmer water of these shallower areas probably aids in the development of eggs within the female turtle. Nesting occurs in open (grassy or brushy) sandy uplands, often some distance from water bodies. Frequently, nesting occurs in traditional nesting grounds on undeveloped land. Blanding's turtles have also been known to nest successfully on residential property (especially in low density housing situations), and to utilize disturbed areas such as farm fields, gardens, under power lines, and road shoulders (especially of dirt roads). Although Blanding's turtles may travel through woodlots during their seasonal movements, shady areas (including forests and lawns with shade trees) are not used for nesting. Wetlands with deeper water are needed in times of drought, and during the winter. Blanding's turtles overwinter in the muddy bottoms of deeper marshes and ponds, or other water bodies where they are protected from freezing.

LIFE HISTORY

Individuals emerge from overwintering and begin basking in late March or early April on warm, sunny days. The increase in body temperature which occurs during basking is necessary for egg development within the female turtle. Nesting in Minnesota typically occurs during June, and females are most active in late afternoon and at dusk. Nesting can occur as much as a mile from wetlands. The nest is dug by the female in an open sandy area and 6-15 eggs are laid. The female turtle returns to the marsh within 24 hours of laying eggs. After a development period of approximately two months, hatchlings leave the nest from mid-August through early-October. Nesting females and hatchlings are often at risk of being killed while crossing roads between wetlands and nesting areas. In addition to movements associated with nesting, all ages and both sexes move between wetlands from April through November. These movements peak in June and July and again in September and October as turtles move to and from overwintering sites. In late autumn (typically November), Blanding's turtles bury themselves in the substrate (the mud at the bottom) of deeper wetlands to overwinter.

IMPACTS / THREATS / CAUSES OF DECLINE

- loss of wetland habitat through drainage or flooding (converting wetlands into ponds or lakes)
- loss of upland habitat through development or conversion to agriculture
- human disturbance, including collection for the pet trade* and road kills during seasonal movements
- increase in predator populations (skunks, raccoons, etc.) which prey on nests and young

*It is illegal to possess this threatened species.

RECOMMENDATIONS FOR AVOIDING AND MINIMIZING IMPACTS

These recommendations apply to typical construction projects and general land use within Blanding's turtle habitat, and are provided to help local governments, developers, contractors, and homeowners minimize or avoid detrimental impacts to Blanding's turtle populations. **List 1** describes minimum measures which we recommend to prevent harm to Blanding's turtles during construction or other work within Blanding's turtle habitat. **List 2** contains recommendations which offer even greater protection for Blanding's turtles populations; this list should be used *in addition to the first list* in areas which are known to be of state-wide importance to Blanding's turtles (contact the DNR's Natural Heritage and Nongame Research Program if you wish to determine if your project or home is in one of these areas), or in any other area where greater protection for Blanding's turtles is desired.

List 1. Recommendations for all areas inhabited by Blanding's turtles.	**List 2. *Additional* recommendations for areas known to be of state-wide importance to Blanding's turtles.**
GENERAL	
A flyer with an illustration of a Blanding's turtle should be given to all contractors working in the area. Homeowners should also be informed of the presence of Blanding's turtles in the area.	Turtle crossing signs can be installed adjacent to road-crossing areas used by Blanding's turtles to increase public awareness and reduce road kills.
Turtles which are in imminent danger should be moved, by hand, out of harms way. Turtles which are not in imminent danger should be left undisturbed.	Workers in the area should be aware that Blanding's turtles nest in June, generally after 4pm, and should be advised to minimize disturbance if turtles are seen.
If a Blanding's turtle nests in your yard, do not disturb the nest.	If you would like to provide more protection for a Blanding's turtle nest on your property, see "Protecting Blanding's Turtle Nests" on page 3 of this fact sheet.
Silt fencing should be set up to keep turtles out of construction areas. It is critical that silt fencing be removed after the area has been revegetated.	Construction in potential nesting areas should be limited to the period between September 15 and June 1 (this is the time when activity of adults and hatchlings in upland areas is at a minimum).
WETLANDS	
Small, vegetated temporary wetlands (Types 2 & 3) should not be dredged, deepened, filled, or converted to storm water retention basins (these wetlands provide important habitat during spring and summer).	Shallow portions of wetlands should not be disturbed during prime basking time (mid morning to mid- afternoon in May and June). A wide buffer should be left along the shore to minimize human activity near wetlands (basking Blanding's turtles are more easily disturbed than other turtle species).
Wetlands should be protected from pollution; use of fertilizers and pesticides should be avoided, and run-off from lawns and streets should be controlled. Erosion should be prevented to keep sediment from reaching wetlands and lakes.	Wetlands should be protected from road, lawn, and other chemical run-off by a vegetated buffer strip at least 50' wide. This area should be left unmowed and in a natural condition.
ROADS	
Roads should be kept to minimum standards on widths and lanes (this reduces road kills by slowing traffic and reducing the distance turtles need to cross).	Tunnels should be considered in areas with concentrations of turtle crossings (more than 10 turtles per year per 100 meters of road), and in areas of lower density if the level of road use would make a safe crossing impossible for turtles. Contact your DNR Regional Nongame Specialist for further information on wildlife tunnels.
Roads should be ditched, not curbed or below grade. If curbs must be used, 4 inch high curbs at a 3:1 slope are preferred (Blanding's turtles have great difficulty climbing traditional curbs; curbs and below grade roads trap turtles on the road and can cause road kills).	Roads should be ditched, not curbed or below grade.

ROADS cont.	
Culverts between wetland areas, or between wetland areas and nesting areas, should be 36 inches or greater in diameter, and elliptical or flat-bottomed.	Road placement should avoid separating wetlands from adjacent upland nesting sites, or these roads should be fenced to prevent turtles from attempting to cross them (contact your DNR Nongame Specialist for details).
Wetland crossings should be bridged, or include raised roadways with culverts which are 36 in or greater in diameter and flat-bottomed or elliptical (raised roadways discourage turtles from leaving the wetland to bask on roads).	Road placement should avoid bisecting wetlands, or these roads should be fenced to prevent turtles from attempting to cross them (contact your DNR Nongame Specialist for details). This is especially important for roads with more than 2 lanes.
Culverts under roads crossing streams should be oversized (at least twice as wide as the normal width of open water) and flat-bottomed or elliptical.	Roads crossing streams should be bridged.
UTILITIES	
Utility access and maintenance roads should be kept to a minimum (this reduces road-kill potential).	
Because trenches can trap turtles, trenches should be checked for turtles prior to being backfilled and the sites should be returned to original grade.	
LANDSCAPING AND VEGETATION MANAGEMENT	
Terrain should be left with as much natural contour as possible.	As much natural landscape as possible should be preserved (installation of sod or wood chips, paving, and planting of trees within nesting habitat can make that habitat unusable to nesting Blanding's turtles).
Graded areas should be revegetated with native grasses and forbs (some non-natives form dense patches through which it is difficult for turtles to travel).	Open space should include some areas at higher elevations for nesting. These areas should be retained in native vegetation, and should be connected to wetlands by a wide corridor of native vegetation.
Vegetation management in infrequently mowed areas -- such as in ditches, along utility access roads, and under power lines -- should be done mechanically (chemicals should not be used). Work should occur fall through spring (after October 1st and before June 1st).	Ditches and utility access roads should not be mowed or managed through use of chemicals. If vegetation management is required, it should be done mechanically, as infrequently as possible, and fall through spring (mowing can kill turtles present during mowing, and makes it easier for predators to locate turtles crossing roads).

Protecting Blanding's Turtle Nests: Most predation on turtle nests occurs within 48 hours after the eggs are laid. After this time, the scent is gone from the nest and it is more difficult for predators to locate the nest. Nests more than a week old probably do not need additional protection, unless they are in a particularly vulnerable spot, such as a yard where pets may disturb the nest. Turtle nests can be protected from predators and other disturbance by covering them with a piece of wire fencing (such as chicken wire), secured to the ground with stakes or rocks. The piece of fencing should measure at least 2 ft. x 2 ft., and should be of medium sized mesh (openings should be about 2 in. x 2 in.). It is ***very important*** that the fencing be **removed before August 1st** so the young turtles can escape from the nest when they hatch!

REFERENCES

[1]Association for Biodiversity Information. "Heritage Status: Global, National, and Subnational Conservation Status Ranks." NatureServe. Version 1.3 (9 April 2001). http://www.natureserve.org/ranking.htm (15 April 2001).

Coffin, B., and L. Pfannmuller. 1988. Minnesota's Endangered Flora and Fauna. University of Minnesota Press, Minneapolis, 473 pp.

REFERENCES (cont.)

Moriarty, J. J., and M. Linck. 1994. Suggested guidelines for projects occurring in Blanding's turtle habitat. Unpublished report to the Minnesota DNR. 8 pp.

Oldfield, B., and J. J. Moriarty. 1994. Amphibians and Reptiles Native to Minnesota. University of Minnesota Press, Minneapolis, 237 pp.

Sajwaj, T. D., and J. W. Lang. 2000. Thermal ecology of Blanding's turtle in central Minnesota. Chelonian Conservation and Biology 3(4):626-636.

CAUTION







BLANDING'S TURTLES

MAY BE ENCOUNTERED IN THIS AREA

The unique and rare Blanding's turtle has been found in this area. Blanding's turtles are state-listed as Threatened and are protected under Minnesota Statute 84.095, Protection of Threatened and Endangered Species. Please be careful of turtles on roads and in construction sites. For additional information on turtles, or to report a Blanding's turtle sighting, contact the DNR Nongame Specialist nearest you: Bemidji (218-308-2641); Grand Rapids (218-327-4518); New Ulm (507-359-6033); Rochester (507-206-2820); or St. Paul (651-259-5772).

DESCRIPTION: The Blanding's turtle is a medium to large turtle (5 to 10 inches) with a black or dark blue, dome-shaped shell with muted yellow spots and bars. The bottom of the shell is hinged across the front third, enabling the turtle to pull the front edge of the lower shell firmly against the top shell to provide additional protection when threatened. The head, legs, and tail are dark brown or blue-gray with small dots of light brown or yellow. A distinctive field mark is the bright yellow chin and neck.

BLANDING'S TURTLES DO NOT MAKE GOOD PETS
IT IS ILLEGAL TO KEEP THIS THREATENED SPECIES IN CAPTIVITY

SUMMARY OF RECOMMENDATIONS FOR AVOIDING AND MINIMIZING IMPACTS TO BLANDING'S TURTLE POPULATIONS

(see Blanding's Turtle Fact Sheet for full recommendations)

- This flyer should be given to all contractors working in the area. Homeowners should also be informed of the presence of Blanding's turtles in the area.
- Turtles that are in imminent danger should be moved, by hand, out of harm's way. Turtles that are not in imminent danger should be left undisturbed to continue their travel among wetlands and/or nest sites.
- If a Blanding's turtle nests in your yard, do not disturb the nest and do not allow pets near the nest.
- Silt fencing should be set up to keep turtles out of construction areas. It is critical that silt fencing be removed after the area has been revegetated.
- Small, vegetated temporary wetlands should not be dredged, deepened, or filled.
- All wetlands should be protected from pollution; use of fertilizers and pesticides should be avoided, and run-off from lawns and streets should be controlled. Erosion should be prevented to keep sediment from reaching wetlands and lakes.
- Roads should be kept to minimum standards on widths and lanes.
- Roads should be ditched, not curbed or below grade. If curbs must be used, 4" high curbs at a 3:1 slope are preferred.
- Culverts under roads crossing wetland areas, between wetland areas, or between wetland and nesting areas should be at least 36 in. diameter and flat-bottomed or elliptical.
- Culverts under roads crossing streams should be oversized (at least twice as wide as the normal width of open water) and flat-bottomed or elliptical.
- Utility access and maintenance roads should be kept to a minimum.
- Because trenches can trap turtles, trenches should be checked for turtles prior to being backfilled and the sites should be returned to original grade.
- Terrain should be left with as much natural contour as possible.
- Graded areas should be revegetated with native grasses and forbs.
- Vegetation management in infrequently mowed areas -- such as in ditches, along utility access roads, and under power lines -- should be done mechanically (chemicals should not be used). Work should occur fall through spring (after October 1st and before June 1st).

Compiled by the Minnesota Department of Natural Resources Division of Ecological and Water Resources, Updated August 2012
Endangered Species Review Coordinator, 500 Lafayette Rd., Box 25, St. Paul, MN 55155 / 651-259-5109

Farveh Makhssous

From: Robert H. Byers <Robert.Byers@hennepin.us>
Sent: Monday, November 06, 2017 8:58 AM
To: Michele Ross
Cc: Jason D Gottfried; David J Jaeger
Subject: RE: North Dayton Scoping EAW

Michele:

Thanks for the "heads up".

We did receive your previous transmittal on November 3rd.

Jason Gottfried and David Jaeger will be assisting in assembling our formal comments once the Scoping EAW is published.

Based on the magnitude of the potential development, we expect that significant impacts will be identified, and hopefully reasonable mitigation measures can ultimately be identified.

Some items we will likely comment on later:

- We believe the list of intersections to be evaluated needs to include CSAH-13 (Brockton Lane) / CSAH-81 and CSAH-12 (Dayton River Road) / TH-169.
- The future traffic analysis should focus on a 20-year time period after build-out.
- Background traffic growth should be assumed at an average of 2% per year consistent with current trends.

Thanks again!

- Bob

Bob Byers, P.E.
Hennepin County Transportation Planning
1600 Prairie Drive
Medina, MN 55340-5421
(612) 596-0354

From: Michele Ross [mailto:MRoss@sambatek.com]
Sent: Monday, November 6, 2017 8:03 AM
To: Robert H. Byers <Robert.Byers@hennepin.us>
Subject: [External] North Dayton Scoping EAW

Bob,
A Scoping Environmental Assessment Worksheet for the North Dayton Development project will be published in the EQB Monitor on November 13, 2017 with comments due on December 13, 2017. The proposed North Dayton Development project would entail the development of approximately 560 acres within the City of Dayton, MN. The land in question is generally located north of North Diamond Lake Road, south of Dayton River Road, east of the Daytona Golf Club, and west of Oxbow Lane and the adjacent farmstead. The site currently consists primarily of open farm fields, homesteads, wooded areas and wetlands. Complete development of the site would result in multi-phased development consisting primarily of single family residential surrounding a core of mixed-use development. The development density is

expected to average approximately 3 units per acre, with 1,500 to 1,700 single-family residential homes and approximately 28 acres of mixed-use development. By State statute, this level of development requires a mandatory environmental review, so an Alternative Urban Areawide Review will be prepared based upon the findings resulting from this EAW scoping document.

We are requesting your feedback on environmental issues of concern for this site and alternatives that could be considered by the RGU for additional study. Please contact me with questions. Thank you!

Michele Ross
Associate Planner
MRoss@sambatek.com
Sambatek
trusted advisors since 1966
Engineering | Surveying | Planning | Environmental

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December 13, 2017

Tina Goodroad
Administrator/Planning and Development Director
City of Dayton
12260 South Diamond Lake Road
Dayton, MN 55327

RE: City of Dayton Scoping Environmental Assessment Worksheet (SEAW) – North Dayton Development
Metropolitan Council Review No. 21813-1
Metropolitan Council District 1

Dear Tina:

The Metropolitan Council received the North Dayton Development Project Scoping Environmental Assessment Worksheet (SEAW) on October 31, 2017. The proposed project would entail the development of approximately 560 acres. Complete development of the site would result in multi-phased development consisting primarily of single-family residential surrounding a core of mixed-use development. The development density is expected to average approximately 3 units per acre, with 1,500 to 1,700 single-family residential homes and approximately 28 acres of mixed-use development. An Alternative Urban Areawide Review (AUAR) will be prepared based upon the findings from this SEAW. The project is planned to begin in 2019. The project area (AUAR area) is generally located north of North Diamond Lake Road, south of Dayton River Road, and east of the Dayton Golf Course.

Council staff reviewed the SEAW to determine its adequacy and accuracy in addressing regional concerns, and its potential for significant environmental impact. The following comments are offered concerning specific items that should be incorporated into the AUAR document.

Item 6 – Project Description
Environmental Quality Board guidance states that the AUAR document must review at least one development scenario based on and consistent with the City's comprehensive plan update (CPU) in effect when the AUAR is officially ordered, which we assume is the 2030 CPU.

Additionally, at least one proposed development scenario should be consistent with the City's draft 2040 CPU, should its land use guidance for this area be different from the 2030 CPU, to minimize the need for a comprehensive plan amendment (CPA) following the environmental review process.

The SEAW indicates the City's 2030 Comprehensive Plan's future planned land uses are being re-guided through the City's official planning process for the 2040 CPU. The project description indicates that approximately 1,500 to 1,700 single-family residential homes and approximately 28 acres of mixed-use development are anticipated in the project area (see Figure 4). Mixed use is only briefly mentioned in this context. Please provide additional context for this area and its mix of uses in the AUAR. Also, please note the referenced Figure 4 did not appear to be in the SEAW.

Item 8 – Permits
Please include in the permit section that amendment to the 2030 CPU or incorporation into the 2040 CPU is needed. Beginning July 1, 2018, we will no longer accept amendments to 2030 comprehensive plans. Linked here is the Council's guidelines on 2030 comprehensive plan amendment review through 2018 https://metrocouncil.org/Communities/Publications-And-Resources/Comp-Plan-Amendment-Review-Through-2018.aspx.

Item 9 – Land Use
The SEAW discusses the City of Dayton Land Use Map (Figure 7) and indicates that the future planned land uses in the AUAR area are commercial, low-medium density residential, low-density residential, and agricultural preserve and that the northern part of the site is located in the Mississippi River Corridor Critical Area. However, please note that Figure 7 is the City's Existing Land Use Map versus 2030 CPU Future Land Use (Approved 2030 CPU Future Land Use: https://metrocouncil.org/Council-Meetings/Committees/Community-Development-Committee/2014/October-6,-2014/2014-241.aspx). Also, please note that the 2030 CPU future land uses for the AUAR area include mixed use rather than commercial.

As noted in the SEAW, the eastern edge of the site includes land is guided Agricultural Preserves. Please confirm in the AUAR if this area is still currently enrolled.

The Appendix includes Figure 8 "Proposed Land Use," which shows the entire development area as "Master Plan Land Use," but should be updated to show future land use categories consistent with the City's comprehensive plan (i.e. Mixed Use, Low-Density Residential).

Regional Parks and Trails
The AUAR area is adjacent to the West Mississippi River Regional Trail Search Corridor, which will be planned, developed, and operated by Three Rivers Park District and governed by the *2040 Regional Parks Policy Plan*. Per the Dayton Park and Open Space Plan, the City will work to connect surrounding communities to greenways and trails. The SEAW states the development of the site will take these local planning efforts into consideration and establish the identified connections.

Housing
The City's share of the region's need for affordable housing for the 2021-2030 decade is 333 units. The size and sewer serviced capacity of this area suggests that some higher density housing *could* be worth considering as a part of the overall project; perhaps in a mixed use capacity or as a buffer between the commercial areas and the single family housing areas. Creating some opportunities for housing at densities of at least 8 units per acre would also contribute to Dayton's ability to address their affordable housing share for the next decade and could provide more housing options within the North Dayton area.

Traffic Analysis Zones (TAZ)
TAZ forecasts are not discussed, but this would be helpful information. A draft set of TAZ forecasts for 2040 has been prepared by Metropolitan Council and is available for local governments to review.

The North Dayton development is a part of TAZ #803. The TAZ is mainly farmland, and currently forecasted by Metropolitan Council to gain +318 households during 2010-2040. The North Dayton SEAW discusses 1,500 to 1,700 new units. The TAZ #803 forecast should be revised higher as part of the City's upcoming 2040 CPU.

Item 11 - Wastewater
The southwest portion of the project area is beyond the current 2020 staging in the 2030 CPU. Prior to the installation of any sanitary sewer improvements within this portion of the project area, the City will need to re-guide the staging from 2030 expansion area to existing 2020 through the submittal of a comprehensive plan amendment or through incorporation in the 2040 CPU.

Item 13 – Fish, wildlife, plant communities, and sensitive ecological resources
The SEAW indicates that there are currently approximately 51 acres of isolated woodland areas remaining within the proposed 560-acre AUAR area. The wooded area located in the southwest corner of the AUAR area that is approximately 12 acres in size, which also contains several wetland areas, is identified in the City's 2005 Natural Resource Inventory as a maple-basswood forest remnant. We encourage the City and project proposer to plan to preserve and incorporate as open space this wooded parcel, the continued wooded habitat around the wetland immediately to the southeast of the 12-acre parcel, and the wooded parcels along the northern boundary of the AUAR area that incorporate the ravines draining the area toward the Mississippi River (as discussed in SEAW *Item 9.a.i.* on page 8). They will add value to the ultimate development in the area, as visual amenities, wildlife corridors, and erosion protection within the steep ravines leading toward the River.

This concludes the Council's review of the SEAW. The Council will take no formal action on the SEAW. If you have any questions or need further information, please contact Freya Thamman, Principal Reviewer, at 651-602-1750.

Sincerely,

LisaBeth Barajas, Manager
Local Planning Assistance

CC: Steve O'Brien, MHFA
Tod Sherman, Development Reviews Coordinator, MnDOT - Metro Division
Katie Rodriguez, Metropolitan Council District 1
Freya Thamman, Principal Reviewer/ Sector Representative
Raya Esmaeili, Reviews Coordinator

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December 12, 2017

Tina Goodroad
City of Dayton
12260 South Diamond Lake Road
Dayton, MN 55327

Re: North Dayton Development Scoping Environmental Assessment Worksheet

Dear Tina Goodroad:

Thank you for the opportunity to review and comment on the Scoping Environmental Assessment Worksheet (SEAW) for the North Dayton Development project (Project) in Dayton, Hennepin County, Minnesota. The Project consists of development of 560 acres of mixed use development and the SEAW is prepared to inform the Alternative Urban Areawide Review (AUAR). Regarding matters for which the Minnesota Pollution Control Agency (MPCA) has regulatory responsibility or other interests, the MPCA staff has the following comments for your consideration.

Cover Types (Item 7)

The table of cover types in this section is lacking entries in the "After" column so it is not possible to determine the changes in cover types as a result of the Project. The MPCA recommends column A be completed in the AUAR.

Water Resources (Item 11)

- The process to avoid, minimize, and mitigate wetlands is required and specific in-water best management practices must be included in the AUAR.

- Also, if a U.S. Army Corps of Engineers 404/MPCA 401 Certification are required, an antidegradation assessment, (Minn. R. 7050.0250 to 7050.0335) may now be needed for the Project. For questions regarding 401 Certification, please contact Bill Wilde at 651-757-2825.

- The SEAW focuses primarily on post development stormwater controls to be utilized by the project and does not address the temporary stormwater sediment controls as specified in Item 11. ii. required to prevent impacts to area surface waters during construction. Questions regarding Construction Stormwater Permit requirements should be directed to Roberta Getman at 507-206-2629.

  The following should be included in the AUAR based on the site description and as required in MPCA's National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) General Construction Stormwater permit (CSW Permit):

  1. Ensure down gradient sediment controls are specifically designed for the steep slopes at the Project site to provide adequate runoff protection during construction.
  2. Minimize the duration of exposed soils by phasing construction of the Project.

3. Because the Mississippi River is classified as a special water, soils will need to be stabilized within seven days of temporarily or permanently ceasing soil disturbing activity on any portion of the Project site. In addition, an undisturbed 100-foot buffer zone must be maintained between the river and the Project unless an encroachment is necessary to complete the Project and the area will be restored.
4. The wetlands located at the site cannot be utilized for stormwater management or treatment unless they have gone through the mitigation process.
5. The CSW Permit requires that one inch of stormwater runoff from new impervious surfaces is retained on the Project site via infiltration or other volume reduction method and not discharged to a surface water unless prohibited due to a high seasonal water table or bedrock.
6. Assuming 50 or more acres will be disturbed as a result of the Project, the Stormwater Pollution Prevention Plan must be submitted to the MPCA for review at least 30 days prior to applying for permit coverage even if only a smaller portion of the Project site will be constructed at one time.

- Please include Diamond Lake under Water Resources, part (a.,i.) (pg. 11). Diamond Lake (27-0125) is on the MPCA 303d Impaired Waters List and is impaired by nutrients. This lake appears to be within one mile of the Project site.

We appreciate the opportunity to review this Project. Please provide your specific responses to our comments and notice of decision on the need for an Environmental Impact Statement. Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the Project for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the Project proposer to secure any required permits and to comply with any requisite permit conditions. If you have any questions concerning our review of this SEAW, please contact me by email at Karen.kromar@state.mn.us or by telephone at 651-757-2508.

Sincerely,

Karen Kromar

Karen Kromar
Environmental Consultant
Environmental Review Unit
Resource Management and Assistance Division

KK:bt

cc: Dan Card, MPCA, St. Paul
Bill Wilde, MPCA, St. Paul
Rachel Olmanson, MPCA, St. Paul
Roberta Getman, MPCA, Rochester
Teresa McDill, MPCA, St. Paul

United States Department of the Interior

NATIONAL PARK SERVICE
Mississippi National River and Recreation Area
111 E. Kellogg Blvd., Ste 105
St. Paul, Minnesota 55101-1256

IN REPLY REFER TO:
L3303

December 12, 2017

Tina Goodroad
City of Dayton
12260 South Diamond Lake Road
Dayton, MN 55327

RE: Scoping EAW for North Dayton Development

Dear Ms. Goodroad:

The National Park Service (NPS) is pleased to provide comments on the Scoping EAW for the North Dayton Development. The northern portion of the proposed project would lie within the boundary of the Mississippi National River and Recreation Area (NRRA). Congress established the Mississippi NRRA in 1988 to preserve, protect, and enhance the significant values of the Mississippi River Corridor in the Twin Cities metropolitan area.

Under Item 9a the document states only that "the northern portion of the site is located within the Mississippi River Corridor Critical Area Program district CA-SR…" The Mississippi River Corridor Critical Area (MRCCA) shares the same boundary as the Mississippi NRRA. The Minnesota Department of Natural Resources (DNR) administers the MRCCA program allowing for cooperative management of the Mississippi NRRA with local governments including the City of Dayton. A notation should be made that this area is also part of the Mississippi NRRA.

Additionally, under Item 9a the claim is made that "the Mississippi River and adjacent river corridor lands are designated and classified as 'Wild & Scenic River' and 'Critical Area'…" In 2012, the Minnesota State Legislature revised the Mississippi River Wild and Scenic River (WSR) boundaries to remove any land in the cities of Dayton and Ramsey. This action was taken to reduce the number of shoreland-related regulations pertinent in these areas, because the Mississippi River in these cities is also regulated under the MRCCA rules as well as standard shoreland rules. The reference to the WSR designation should be removed from the document while retaining the MRCCA reference.

It should be noted that there is a Primary Conservation Area (PCA) located on the northern edge of the study area (see attached map). PCA's are afforded protections under the MRCCA rules that went into effect in January 2017. PCA's are to be set aside as open space in whole or part as applicable in large developments such as the one proposed here. This is meant to provide opportunities to protect or restore valuable resources in the Mississippi River Corridor.

Subdivision and land development standards, including percentages and acreages for PCA protection in large developments can be found in Minnesota Rules, part 6106.0170.

Lastly, given the proximity of the site to the Great River Road and Mississippi River Trail on Dayton River Road efforts should be made to make pedestrian and bike connections between the site and the Mississippi River. This would increase access and recreational opportunities in the Mississippi NRRA and surrounding community.

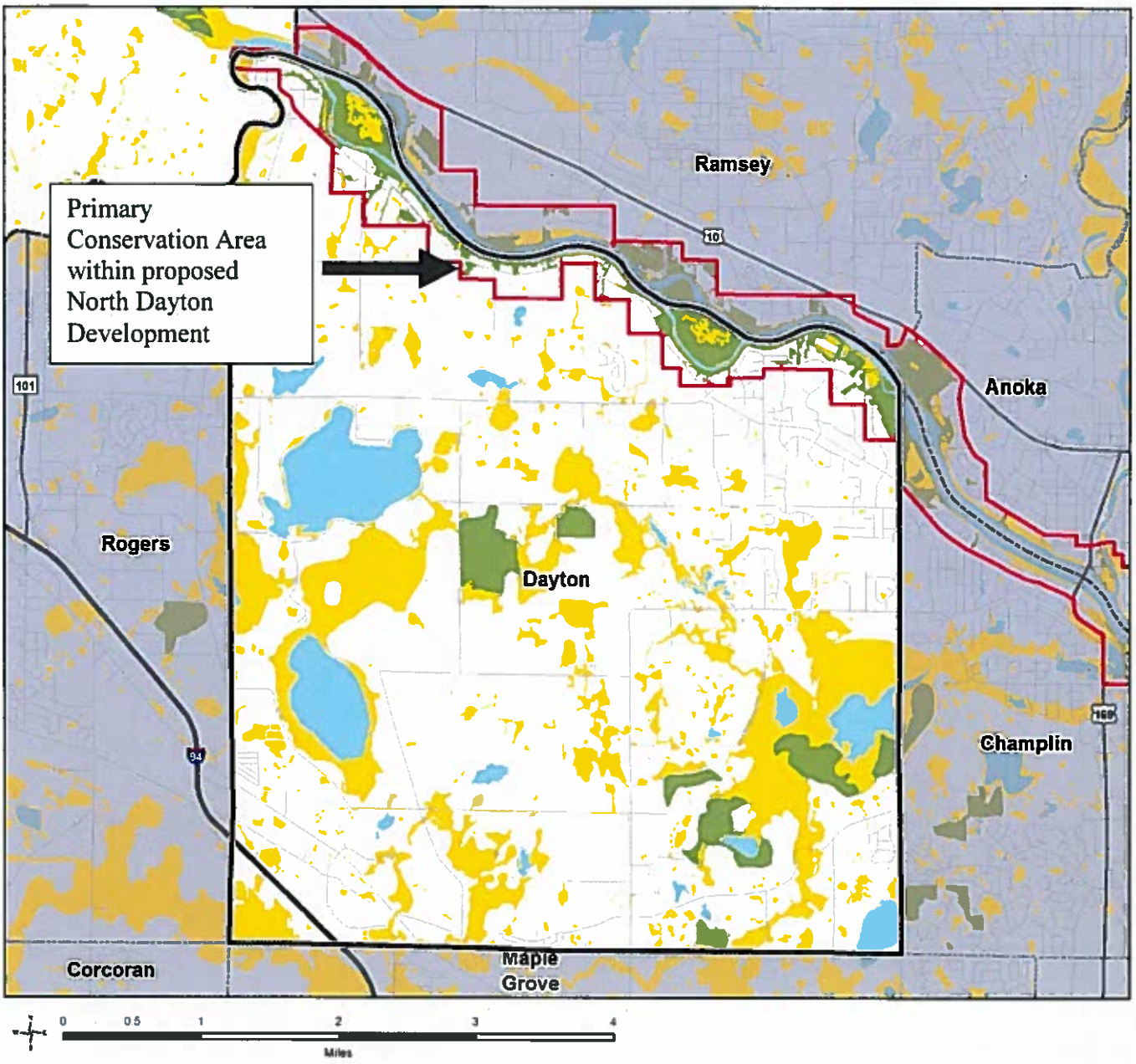
If you any questions regarding these comments please contact me at alan_robbins_fenger@nps.gov or by calling 651-293-8438.

Sincerely,

Alan Robbins-Fenger
Acting Superintendent

Attachment:
Map of MRCCA – Vegetation Restoration Priorities, Dayton

Mississippi River Corridor Critical Area - Vegetation Restoration Priorities
City of Dayton, Hennepin County



- MRCCA Boundary
- DNR Native Plant Communities & Significant Existing Vegetative Stands
- Vegetation Restoration Priorities (Bluff and shore impact zones, floodplains and wetlands not already covered by native plant communities and significant existing vegetative stands)
- County Boundaries
- City and Township Boundaries
- NCompass Street Centerlines

City of RAMSEY

7550 Sunwood Drive NW • Ramsey, MN 55303
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www.cityoframsey.com

August 7, 2018

City of Dayton
Attn: Tina Goodroad
12260 South Diamond Lake Road
Dayton, MN 55327

Re: North Dayton Development AUAR

Dear Ms. Goodroad,

Thank you for the opportunity to review and comment on the North Dayton Development AUAR. The City of Ramsey has no formal objection to the AUAR; however, we do have several comments that we wanted to forward to you for consideration/inclusion.

The project area that this AUAR encompasses is directly south of the corridor the City of Ramsey has identified for a future bridge crossing. Ramsey wants to ensure that there is continued dialogue and cooperative efforts between the two communities to formalize a future bridge crossing corridor. It appears that Zanzibar Avenue could serve as that corridor. Section #18 (Transportation) could be expanded to include acknowledgement of reserving space for a corridor to facilitate a future bridge crossing, which would also give residents of Dayton a more direct connection to transit (Northstar Commuter Rail).

Portions of the project area are included in the MRCCA. The new MRRCA standards address visual impacts from the river and views from other communities. While it appears that the actual development area is not directly adjacent to the Mississippi River, we ask that you be cognizant of these new standards as this development project unfolds over the course of the next 10-15 years.

Again, we appreciate the opportunity to review and provide comment on the AUAR. We wish you luck with this development project and hope that, at some future point, there will be bridge connecting North Dayton Development with The COR in Ramsey.

Sincerely,

Chris Anderson
City Planner

DRAFT

Regular Planning Commission **8. 1.**

Meeting Date: 08/02/2018

By: JoAnn Shaw, Community Development

Information

Title:

Zoning Bulletins

Purpose/Background:

Enclosed are zoning bulletins for your review.

Notification:

Observations/Alternatives:

Funding Source:

Recommendation:

Action:

Attachments

Zoning Bulletins

Form Review

Inbox	Reviewed By	Date
Tim Gladhill	Tim Gladhill	07/27/2018 12:50 PM
Form Started By: JoAnn Shaw		Started On: 07/24/2018 12:33 PM
Final Approval Date: 07/27/2018		

QUINLAN™ June 15, 2018 | Volume 12 | Issue 12

Zoning Bulletin

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Eminent Domain—City ordinance rezones landowners' property

Landowners claim rezone constitutes an unconstitutional regulatory taking

Citation: *Thun v. City of Bonney Lake, 416 P.3d 743 (Wash. Ct. App. Div. 2 2018)*

WASHINGTON (05/01/18)—This case addressed the issue of whether a city ordinance that rezoned landowners' property from com-

Contributors

Corey E. Burnham-Howard

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mercial to residential and conservation was an unconstitutional regulatory taking.

The Background/Facts: Karl J. and Virginia S. Thun, Thomas J. Povolka, William and Louise Leslie Revocable Trust, and Virginia Leslie Revocable Trust (collectively, "Thun") owned approximately 36 acres of property in the City of Bonney Lake (the "City"). A majority of Thun's property was located on a steep hillside that sloped into the Puyallup River Valley. The slopes varied from 20% to 40% or greater and "posed a high landslide risk."

Prior to 2005, Thun's property was zoned C-2 (commercial), which permitted a maximum of 20 residential units per acre. In 2005, the City adopted Ordinance 1160 (the "Ordinance"), which rezoned more than 30 of Thun's 36 acres from C-2 to RC-5 (residential/conservation). RC-5 zoning authorized only one residential unit per five acres. In adopting the Ordinance, the City noted that its purposes were to: (1) comply with Washington's Growth Management Act ("GMA"), which requires cities to adopt developmental regulations that "provide open space between urban growth areas and that protect critical areas, including areas susceptible to erosion or sliding," (RCW 36.70A.160); (2) "manage areas that are steep and prone to geologic instability"; (3) "protect tree cover on areas that cannot be densely developed due to steepness"; and (4) "protect the magnificent [visual] entry to [the City.]"

Eventually, Thun filed suit against the City, arguing that the Ordinance's rezone of Thun's property constituted an unconstitutional regulatory taking. After a proposed condominium complex on Thun's property was denied under the rezone, Thun estimated that the City's rezone reduced the value of his property from $6 per square foot, or $2.50 in certain areas, to $0.35 per square foot.

The City argued that Thun had "failed to meet the threshold requirement of a regulatory takings claim." In an as-applied takings claim, such as that made by Thun, the claimant must meet a threshold requirement of showing that the regulation (i.e., here, the Ordinance) "went beyond preventing a public harm to producing an affirmative public benefit." The City argued that Thun was unable to make that showing.

The trial court agreed with the City. Finding there were no material issues of fact in dispute, and deciding the matter on the law alone, the court granted the City's motion for summary judgment, dismissing Thun's claim. The court found that the Ordinance's rezone sought "to prevent a harm by safeguarding the public interest in health, safety, and the environment, and [did] not impose on [Thun] a requirement to provide an affirmative health benefit."

Thun appealed.

DECISION: Judgment of Superior Court affirmed.

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The Court of Appeals of Washington, Division 2, agreed with the trial court and with the City, holding that Thun's regulatory takings claim failed because Thun failed to meet the threshold requirement of a regulatory takings claim.

The court explained that regulatory takings claims could be challenged as unconstitutional regulatory takings under article I, section 16 of the Washington Constitution. Article I, section 16 provides that "[n]o private property shall be taken or damaged for public or private use without just compensation having been first made." The court further explained that there are two types of unconstitutional regulatory takings challenges to land use regulations: facial and "as applied" challenges. "Facial takings challenges allege that the application of the challenged regulation to any property constitutes a taking because it destroys a fundamental attribute of property ownership." "As applied takings challenges allege that the challenged regulation constitutes an unconstitutional regulatory taking as applied to a specific parcel of property."

Here, Thun raised an as applied takings challenge. As the City had argued, in bringing an as applied takings claim, the claimant must make a threshold showing that "the challenged regulation goes beyond preventing a real public harm that is directly caused by the prohibited use of the property to producing an affirmative public benefit." The court explained that "one landowner should not be forced to bear the economic burden to confer a benefit upon the public, the cost of which rightfully should be spread over the entire community." However, the court said that landowners do not have the right to use their property in a manner that injures the community. Thus, "[i]f the challenged regulation merely safeguards the public interest in health, safety, the environment, or fiscal integrity, there is no taking . . . ."

Here, the court found that the evidence in the case made "clear that the predominant goal of the Ordinance was to prevent a real public harm that is directly caused by the prohibited uses of Thun's property." "By restricting high density developments on the steep slopes of Thun's property, the City [was] able to protect the public from the safety and environmental concern that landslides and erosion present."

Thun had argued that the Ordinance required Thun to provide an affirmative public benefit by preserving the entry to the City—which had nothing to do with safeguarding the public interest in health, safety, the environment, or fiscal integrity. But the court found that although the public may benefit from the preservation of the City's "magnificent entry," that fact did "not reduce or remove the effect of the Ordinance of safeguarding the public from harm." Moreover, the court noted that Thun was still permitted to develop his property, just not in a manner that would be injurious to the community.

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Having found that Thun failed to meet the threshold requirement of showing that the Ordinance went beyond preventing a real public harm to producing an affirmative benefit, the court concluded that Thun failed to establish a regulatory takings claim and that his claim was therefore properly dismissed.

See also: *Sintra, Inc. v. City of Seattle, 119 Wash. 2d 1, 829 P.2d 765 (1992) (holding ordinance went beyond preventing public harm, and unfairly allocated burden for public benefit on individual property owners).*

Case Note:

The City had also argued that Thun's regulatory takings claim was not ripe for review because Thun had not received a final governmental decision regarding the permitted uses of his property. The court determined that it could waive the final governmental decision requirement of prudential ripeness.

Billboard/Repair of damaged structure—Advertising company rebuilds nonconforming billboard structure after its blown over in windstorm

County says reconstructed billboard required local authorization, but advertising company claims reconstruction is exempt from local regulation

Citation: *Lamar Advertising Company v. County of Los Angeles, 22 Cal. App. 5th 1294, 232 Cal. Rptr. 3d 394 (2d Dist. 2018)*

CALIFORNIA (05/08/18)—This case addressed the issue of whether a billboard owner was entitled under California statutory law and/or local permitting exceptions to reconstruct a nonconforming billboard structure without local regulation after it was blown over in a windstorm.

The Background/Facts: Lamar Advertising Company ("Lamar") owned a billboard that was located alongside a freeway in Los Angeles

County (the "County"). With a permit issued by the County, the billboard had been erected in 1967 by Lamar's predecessor. Lamar later acquired ownership of the billboard.

In 1995, the County adopted an ordinance banning billboards in the area where Lamar's billboard was located. Under that ordinance, Lamar's billboard become a "non-conforming" structure with a five-year amortization period after which Lamar had to either remove the billboard or secure a permit from the County allowing the billboard to remain.

The five-year amortization period passed, and Lamar neither removed the billboard or secured a permit for the billboard. The County did not seek to remove the billboard.

In November 2008, a windstorm blew over the billboard and one of its support poles to which an electrical box was attached. Lamar subsequently installed a new and smaller advertising face, new lateral supports, a new electrical box and wiring, and a new catwalk.

In April 2009, the County Department of Regional Planning (the "Department") issued a notice of violation to the owner of the property on which Lamar's billboard was located. The notice stated that the billboard was in violation of local zoning ordinances. In June 2009, the Department ordered the removal of the billboard.

Lamar appealed the Department's order. It argued that it was entitled to rebuild the billboard under California statutory law. California's Outdoor Advertising Act (the "OAA") (Bus. & Prof. Code, § 5200 et seq.) regulates advertising displays (i.e., billboards) adjacent to interstate or primary highways in California. Section 5230 of the OAA authorizes local agencies to impose restrictions on billboards that are equal to or greater than those imposed by the State Act if imposed in compliance with section 5412. Section 5412 provides that, "no advertising display which was lawfully erected anywhere within this state shall be compelled to be removed, nor shall its customary maintenance or use be limited . . . without payment of compensation . . . ." Thus, under section 5412, once a billboard is erected, the owner may undertake "customary maintenance" without interference from local authorities unless the owner is compensated for any loss. "Customary maintenance" is defined in Regulation 2270 as "any activity performed" on an advertising display "for the purpose of actively maintaining the Display in its existing approved physical configuration and size dimensions at the specific location" approved on the CalTrans permit.

Lamar maintained that its reconstruction of the billboard was "customary maintenance" under OAA section 2270, and therefore OAA section 5412 prohibited the County from regulating the rebuilding of its billboard without compensation. In other words, Lamar argued that section 5412 prohibited the County from "limiting" the repairs to its billboard through the permitting process.

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The County argued that because the entire advertising display fell over in the windstorm, the billboard was completely destroyed and its re-erection was a "placement." The OAA expressly recognizes local authorities' power to regulate the "placement" of a billboard (see §§ 5229, 5231). OAA section 5231 allows local authorities to require a permit for placement of a billboard. OAA section 5225 defines "placement" as not only erecting but "maintaining" billboards.

Lamar also argued that a County ordinance—LACC section 22.56.1510—exempted Lamar's reconstruction from the permitting process. LACC section 22.56.150 provides that a non-conforming structure that is "damaged or partially destroyed" may be restored to the condition it was immediately prior to the damage or destruction, provided certain conditions are met.

The trial court held that: (1) The re-erection of the billboard was not "customary maintenance" such that the OAA exempted the work from local and state regulation, but was rather a "placement" subject to local permitting requirements; and (2) Substantial evidence supported a finding that the billboard was completely destroyed, not "partially destroyed or damaged" and thus could not be repaired without a permit under LACC section 22.56.1510.

Lamar timely appealed.

DECISION: Judgment of Superior Court affirmed.

The Court of Appeal, Second District, Division 8, California also rejected Lamar's arguments, and held that Lamar wasn't entitled—under OAA section 2270 or LACC section 22.56.1510—to rebuild without local regulation its windblown billboard.

Agreeing with the trial court, the appellate court first held that Lamar's reconstruction of the billboard did not constitute "customary maintenance" allowed without local interference under OAA section 2270, and thus was not exempt from local regulation. The court noted that section 2270's definition of "customary maintenance" mandated that customary maintenance not alter the billboard's "existing approved physical configuration and size dimensions." Here, however, the court found that Lamar altered the size dimensions of the billboard and added several new components to the physical configuration. Accordingly, the court concluded that Lamar's re-erection of the billboard was not exempt from local regulation under OAA section 2270, but rather amounted to a "placement" subject to County permitting requirements (OAA section 5231).

Also agreeing with the trial court, and disagreeing with Lamar, the appellate court concluded that LACC section 22.56.1510—which allowed for restoration of "damaged or partially destroyed" structures—did not entitle Lamar to reconstruction of the billboard. The court so concluded upon finding that Lamar's billboard had been "completely

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'destroyed,' not just 'damaged' or 'partially destroyed' " because the entire advertising surface had blown off of the support posts and was replaced in its entirety.

See also: *Viacom Outdoor, Inc. v. City of Arcata, 140 Cal. App. 4th 230, 44 Cal. Rptr. 3d 300 (1st Dist. 2006).*

Case Note:

Lamar had also cited OAA section 2271, which provides that a billboard is "destroyed and not eligible for customary maintenance" when it remains unrepaired for more than 60 days after notice of its damage. Lamar argued that its billboard was not "destroyed" because it was repaired within 60 days, and therefore the reconstruction was not a "placement," but only customary maintenance. The court rejected this argument, finding OAA section 2271 created a limited exception to an owner's right to conduct customary maintenance and defined when an owner would forfeit the right of customary maintenance and the loss of a CalTrans permit. It did not, found the court, define the term "destroyed" for all purposes, and did not address the County's requirement that Lamar apply for a permit prior to rebuilding the billboard.

Injunction—Resident constructs garage that encroaches on zoning setback area and county right-of-way abutting a road

County seeks permanent injunction, requiring resident to remove garage

Citation: *County of Boone v. Reynolds, 2018 WL 1597632 (Mo. Ct. App. W.D. 2018), reh'g and/or transfer denied, (May 1, 2018)*

MISSOURI (04/03/18)—This case addressed the issue of whether a County was entitled to a permanent injunction, requiring a resident to remove a newly constructed garage.

The Background/Facts: Sometime before June 21, 2013, Seth Reynolds ("Reynolds") began construction on a detached garage near his home in Boone County (the "County"). The garage measured forty-by-forty feet and sat approximately eighteen-to-twenty feet off of the edge of a County paved road. Reynolds first started the garage construction without first obtaining a building permit. However, after installing

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the footings and piers of the garage, Reynolds was notified of the need for a building permit. Reynolds applied for and received a building permit on June 21, 2013.

Four days later, Uriah Mach ("Mach"), a land-use planner for the County, informed Reynolds via an email that Reynolds's garage was located too close to the road and would need a variance for the setback violations. Reynolds did not respond, and Mach then sent two related letters about Reynolds' violations and need to take action. Reynolds failed to respond to the County's notifications, and instead proceeded with the completion of construction of the garage.

Sometime in 2015, Reynolds finally applied to the County Board of Adjustment (the "Board") for a variance for the setback violations. The Board declined Reynolds' request.

Thereafter, Reynolds refused to bring his property into compliance with the right-of-way and zoning regulations, and the County then filed a petition for permanent injunction against him. The County sought a permanent injunction, "mandating that [Reynolds] comply with [the County] zoning regulations, and that he remove the accessory building [ie., garage], [a] fence, and [a] satellite dish from . . . the right of way area . . . the setback area . . . [and] the area in front of the main building."

The trial court found that Reynolds had "unlawfully constructed and maintains on his property an unlawful accessory building abutting [the road], together with a fence and a satellite television receiver dish between that building and [the road], all in violation of [County] Ordinances and which all unlawfully encroach on the 25-foot setback area established by the [County] Zoning Regulations and upon the [County's] right of way abutting [the road] in front of that property." The court entered a permanent injunction, requiring Reynolds to "remove in its entirety that building, that fence, and that satellite receiver dish from the [County] setback area and [County road] Right of Way within 60 days of the date of th[e] Judgment and . . . permanently restrained and enjoined [Reynolds] from building or maintaining any structures in that setback area or in that right of way in the future."

Reynolds appealed. Reynolds argued that the County was not entitled to a permanent injunction against him because the County failed to prove the two elements needed for a permanent injunction: (1) irreparable harm; and (2) lack of adequate remedy at law. Reynolds contended that there was no finding of harm to either the public safety or health. He also maintained that the existence of potential criminal penalties (i.e., the imposition of a fine for zoning violations) constituted an adequate remedy at law for the County. Reynolds further argued that the balancing of equities should have resulted in a ruling in his favor. Essentially, he argued that because the County was not using the right-of-

way at the time, it did not suffer any harm from the encroachment of his property upon it, while he would suffer great harm (in cost) if forced to tear it down.

DECISION: Judgment of Circuit Court affirmed.

The Missouri Court of Appeals, Western District, upheld the permanent injunction issued against Reynolds.

In so holding, the court rejected all of Reynolds' arguments.

With regard to Reynolds' argument that the County failed to show the elements necessary for a permanent injunction, the court explained that "[w]hile the threat of irreparable harm and lack of an adequate remedy at law must usually be specifically shown for injunctive relief to be granted, '[w]here a trespass is recurring and would involve a multiplicity of suits an injunction will lie to restrain it.' " In other words, under Missouri law, "irreparable harm need not be shown in the case of a repeated or continuing trespass." Here, the court found that "Reynolds's garage, satellite dish, and privacy fence plainly interfered with County's property interest in the right-of-way surrounding [the road,] and that interference was of a permanent and continuous nature." Thus, the court concluded that the County was not required to show any further harm, and rejected Reynolds' claim to the contrary.

The court similarly rejected Reynolds' claim that the existence of potential criminal penalties constituted an adequate remedy at law. The court said that under Missouri law, the right to an injunction to "prevent irreparable injury to property is not divested by the fact that the act to be enjoined may also be a violation of the criminal law. . . ."

Rejecting Reynolds' additional argument that the balancing of equities did not favor an injunction against him, the court noted that Reynolds' expenditure of money in construction of the garage was done with knowledge of his zoning violations. The court also explained that accepting Reynolds' position—that an injunction requiring removal of his garage was unwarranted because harm to him in removing the garage outweighed harm to the County that was not using the right-of-way on which his garage encroached—would result in a "patently unlawful appropriation of public land by private individuals."

See also: *Kugler v. Ryan, 682 S.W.2d 47 (Mo. Ct. App. E.D. 1984).*

See also: *Kansas City Gunning Advertising Co. v. Kansas City, 240 Mo. 659, 144 S.W. 1099 (1912).*

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Zoning News from Around the Nation

CALIFORNIA

The state Senate is considering Senate Bill 828, which would "set more aggressive targets for local governments" with regard to periodically-set goals for low-income and market-rate housing.

Source: *The Mercury News; www.mercurynews.com*

CONNECTICUT

The state House of Representatives voted in April to approve an affordable-housing bill that would require "two dozen Connecticut communities to end their prohibition on multi-family housing." Currently, "only 20 of Connecticut's 169 cities and towns allow multi-family housing, which is defined as three or more units, as a right under their zoning regulations, two dozen bar it and the rest allow housing of three or more units by special permit." The bill requires zoning regulations to "provide for a variety of housing development opportunities to meet local and regional needs." The bill heads to the state Senate for consideration.

Source: *The CT Mirror; https://ctmirror.org*

ILLINOIS

The state House of Representatives unanimously passed a bill—HB4711, which reportedly "codifies appellate court precedence" to exempt from any legal zoning complaint between neighbors, the local unit of government that enacted the relevant zoning code. The bill now heads to the state Senate for consideration.

Source: *DuPage Policy Journal; https://dupagepolicyjournal.com*

MARYLAND

The Montgomery County Council has approved standards for installing small cell antennas in commercial and industrial areas. Under the new standards, new small cell antennas can be installed on existing utility poles and streetlights in mixed-use, commercial and industrial zones. The new standards also lessen setback requirements and lower the height limit for buildings where antennas can be installed in those zoning districts. Reportedly, "county officials remain concerned future state or federal regulations could preempt the new zoning regulations."

Source: *Bethesda Magazine; www.bethesdamagazine.com*

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MASSACHUSETTS

With sales of retail marijuana to be legal on July 1, 2018, the City of Northampton is considering a proposed law that would cap the number of retail marijuana stores in the city.

Source: *Mass Live; www.masslive.com*

PENNSYLVANIA

Philadelphia's City Council is considering a bill that would mandate that residential construction developers provide more parking with new residential construction. The bill would "double the number of parking spaces developers are required to provide in many zoning districts." More specifically, the bill would require housing developments built in most multi-family zoning districts to provide six parking spaces (seven in industrial-residential mixed use zones) for every 10 units of housing. Current law only requires three spaces for 10 residences.

Source: *Philadelphia Business Journal; www.bizjournals.com*

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