City of Ramsey
Agenda
Regular City Council
Monday, August 6, 2018
7:00 pm
Council Chambers, 7550 Sunwood Drive NW

1. Call to Order

2. Presentation

3. Citizen Input

4. Consent Agenda

1. Approve the Following Meeting Minutes:
1. City Council Work Session dated 7/24/2018
2. City Council Regular dated 7/24/2018

2. Approve Licenses

3. Approve Request to Declare Surplus Property

4. Adopt Resolution # 18-163 Approving Cash Disbursements Made and Authorizing Payment of Accounts Payable Invoicing Received During the Period of July 20, 2018 through August 1, 2018

5. Adopt Resolution #18-164 Authorizing Final Payment to North Valley, Inc for Improvement Project 16-98, Central Park Parking Lot.

6. Adopt Resolution #18-165 to Hire a Permit Technician Filling the Vacant Position

7. Adopt Resolution 18-161 Hiring a Seasonal Public Works Maintenance Worker

8. Report from Public Works Committee
The Public Works Committee held its regular meeting on July 17, 2018 and discussed the following cases:
1. Consider Speed Limit Reduction on Quicksilver Street: Ratify the recommendation of the Public Works Committee to leave the segment of Quicksilver Street between 167th Avenue and Elmcrest Park unposted as to the speed limit, to direct staff to place the speed trailer along this street segment when the trailer is available, and to direct staff to reach out to the soccer association with a reminder to watch for speeds.

5. Approve Agenda

6. Public Hearing

1. Public Hearing: Approve On-Sale, Patio, and Sunday Liquor License for Pleasant Valley Sunrise Group LLC dba Aurelio's Pizza.

7. Council Business

1. Adopt Resolution #18-166 Clarifying Lawful, Non-Conforming Use on the Property Identified as PID #22-32-25-23-0002

2. Approve Letter of Support for Anoka County Grant Application for Roundabout at Armstrong Boulevard and Alpine Drive

3. Receive Update on Highway 47 Plan

4. Adopt Resolution #18-167 Approving Response to Draft Anoka County 2040 Comprehensive Plan Update

5. Adopt Resolution #18-168 Approving Response to Draft Hennepin County 2040 Comprehensive Plan Update

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

7. Adopt Resolution #18-170 Approving Assessment Agreement with Affinity at Ramsey, LLC

8. Adopt Resolution #18-171 Approving Consent to Assignment of Rights Under TIF Agreement

8. Mayor/Council/Staff Input

9. Adjournment

CC Regular Session **4. 1.**

Meeting Date: 08/06/2018

By: Jo Thieling, Administrative Services

Information

Title

Approve the Following Meeting Minutes:

1. City Council Work Session dated 7/24/2018
2. City Council Regular dated 7/24/2018

Purpose/Background:

Purpose: The purpose of this case is for Council review and approval of meeting minutes.

Background: Attached are the meeting minutes referenced above.

Action:

Motion to approve the following Council meeting minutes:

1. City Council Work Session dated 7/24/2018
2. City Council Regular dated 7/24/2018

Attachments

CCWS Mts

CC Reg Mts

Form Review

Form Started By: Jo Thieling Started On: 08/02/2018 12:49 PM

Final Approval Date: 08/02/2018

CITY COUNCIL WORK SESSION
CITY OF RAMSEY
ANOKA COUNTY
STATE OF MINNESOTA

The Ramsey City Council conducted a City Council Work Session on Tuesday, July 24, 2018, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present: Acting Mayor John LeTourneau
Councilmember Jill Johns
Councilmember Mark Kuzma
Councilmember Chris Riley
Councilmember Melody Shryock

Also Present: Community Development Director Timothy Gladhill
Parks and Assistant Public Works Superintendent Mark Riverblood
Planning Intern PeggySue Imihy
City Planner Chloe McGuire Brigl

1. CALL TO ORDER

Acting Mayor LeTourneau called the City Council Work Session to order at 5:33 p.m.

2. TOPICS FOR DISCUSSION

2.01: Provide Direction on Streetscape Plan/Manual

City Planner McGuire Brigl reviewed the staff report.

Community Development Director Gladhill noted that one of the options would be a lower cost option as some of the existing signs could be rehabilitated with the new design.

Councilmember Kuzma stated that The COR sign seems disconnected. He stated that perhaps the lower sign state "welcome to The COR" rather than "The COR at Ramsey".

Community Development Director Gladhill noted that would be an easy change to make.

Acting Mayor LeTourneau stated that he wants residents to identify with being in Ramsey and may potentially be interested in wayfinding signs. He stated that he does not think it is important to call out specific nodes or neighborhoods with signage. He stated that he does not believe that The COR benefits at all from signage. He suggested that the Ramsey portion of the sign remain, and the bottom part of the sign be made dynamic to allow promotion of different events rather than having The COR sign.

Councilmember Kuzma agreed, stating that he does not like The COR signage and thinks people find it confusing.

Councilmember Shryock stated that she prefers the concrete base over the wood or metal options. She asked if the signage would be spotlighted.

Community Development Director Gladhill stated that there could be halo lighting in some of the options or spotlighting could also be done.

Councilmember Shryock stated that her idea of streetscaping included more elements than just signage and therefore was disappointed with the case. She stated that her idea of streetscaping would include lighting, plantings, benches and would provide consistency throughout the community. She stated that this plan should also tie into the parks. She suggested a few additional locations where signage could be helpful that were not included in the suggestions. She stated that she would prefer to either have a complete streetscape plan or retitle this as a signage plan.

Acting Mayor LeTourneau asked if this is a component of a larger plan that will eventually create a manual type document including all those elements.

Community Development Director Gladhill noted that the intention is to build upon the plan and build a methodical approach using the resources that the City has. He noted that this would simply be the basics and create a standard pallet that can be added upon over time.

Parks and Assistant Public Works Superintendent Riverblood stated that he would be appreciative with direction from the Council for the parks signage. He stated that the signs and monuments can migrate to a more standardized branding. He noted that there are outdated signs and monuments within the parks that need updating but it would be helpful to have direction on the branding.

Councilmember Kuzma stated that he believed that the Council had already created standards for signage and asked why that is not being used.

Community Development Director Gladhill noted that there were standards for The COR signage but some of the materials had become too expensive.

Councilmember Kuzma stated that he does not prefer the wood sign design.

Councilmember Riley stated that he likes the metal options and would like to consider maintenance and lifespan of the signs and materials. He stated that it is important for the signs to be lit, especially with lesser daylight in the winter months. He stated that he would like to see consistent sign designs within the park as well.

Councilmember Shryock stated that in regard to the metal signs, it can become hard to read, using the example of the Central Park sign. She stated that there should be high contrast for readability.

Acting Mayor LeTourneau stated that there seems to be consensus of the Council with the metal/concrete signage and asked for input regarding parks.

Parks and Assistant Public Works Superintendent Riverblood replied that he would be in agreement with the metal/concrete signage for the parks as that would be more resistant to vandalism as well. He stated that in regard to the Central Park sign, there is additional space to allow for lighting.

Councilmember Johns asked and received confirmation that the parks signage would be updated with the new design when replacement is needed and not simply to update the sign.

Councilmember Shryock stated that she would like to see this plan retitled as the signage portion of the streetscape plan.

Community Development Director Gladhill confirmed the consensus of the Council with the middle option included in signage concept one. He noted that staff will also obtain quotes for the Highway 10 signage taking out The COR portion and replacing that with a dynamic portion.

Councilmember Johns asked if the horizontal option would be used in all locations.

Councilmember Shryock stated that it was her understanding that the smaller nodes would use the pillar style signs.

Community Development Director Gladhill confirmed the desire of the Council for a horizontal option and vertical option.

Councilmember Riley stated that included in the plan was smaller neighborhood signs and was unsure why those would be used. He stated that it was his understanding that the intent was to label key entrances to the City and not signs in neighborhoods.

Councilmember Johns confirmed that she would prefer to focus on the entrance to the community signs.

Acting Mayor LeTourneau stated that this could start with the larger entrance signs and then different projects could develop over time. He stated that the choice at this time was simply on design.

Councilmember Shryock stated that it was her understanding that the map was more of a future idea and perhaps to be included in the overall streetscape plan.

Community Development Director Gladhill noted that the plan will aim more towards the main entrances to the community.

Parks and Assistant Public Works Superintendent Riverblood asked if the planning team should obtain quotes for the emerging design for the Bunker/47 sign and Rivers Bend sign together.

Community Development Director Gladhill confirmed that he could do that. He stated that construction documents may be helpful to ensure that there is an accurate representation from the bidders.

Councilmember Kuzma asked the funding source for the signs.

Community Development Director Gladhill stated that the Bunker/47 sign has funding from the settlement when the previous sign was destroyed. He stated that the funds will not fully fund the project and stated that once the cost is better known, the funding source could be determined.

Councilmember Johns stated that this cannot just be a sign, there has to be plantings and shrubs and other landscaping elements.

2.02: Review and Discuss Proposed Changes to the Home Occupation Ordinance

Planning Intern Imihy reviewed the staff report.

Councilmember Johns stated that there have been several situations where problems have arisen and a lot of those revolve around outdoor storage. She stated that she views home occupation as starting a business and getting things going until you can get into a commercial location and therefore would only see the need for perhaps one additional employee. She stated that if there are two or three employees, that causes additional traffic and changes the character of the neighborhood.

Councilmember Riley agreed that home occupation is a startup and when you are adding employees, that is when you need to look for commercial space. He stated that the City does have commercial space available when those home occupations need to transition. He agreed that outdoor storage should be prohibited as the location would be a home first. He agreed that allowing one employee would provide flexibility.

Councilmember Kuzma stated that he feels that this would be too restrictive. He stated that he understands that outdoor storage can be a problem and asked where the line would be drawn, comparing a homeowner that has an RV or camper to a business owner. He stated that he would have a problem telling someone what they can have in their yard. He stated that he would be sensitive to the small business person telling them that they cannot have two employees and would have trouble supporting the changes.

Planning Intern Imihy replied that the outdoor storage would not apply to the person's boat or jetski but would target materials specific to home occupation such as landscaping materials or equipment.

Councilmember Riley agreed that you would expect to find campers and boats in a residential neighborhood and would not expect to find business materials.

Councilmember Shryock stated that she would like some flexibility, perhaps requiring screening for outdoor storage rather than prohibiting it. She stated that the City has always taken the stance

that they are not going to proactively monitor certain items and would respond to complaints, using the example of someone having two employees. She noted that perhaps one employee comes on Tuesdays and one on Thursdays.

Planning Intern Imihy replied that one commercial vehicle would be allowed, but the outdoor storage prohibition would simply limit to one bobcat rather than three bobcats. She stated that these changes would simply provide staff with better information and enforcement ability in the cases where problems arise.

Acting Mayor LeTourneau stated that these changes would create guidelines for home occupation businesses to operate within and remind them that the primary use is residential.

Councilmember Shryock asked if changes to the ordinance would be the best method for restriction or whether additional review should be done in another manner.

Acting Mayor LeTourneau stated that these guidelines would be in place to help emerging business owners determine what they would need to have in place in order to open a business in their home. He stated that Ramsey is growing and changing and the guidelines are simply being updated.

Councilmember Shryock asked how an exception would be given to properties with larger acreage.

Planning Intern Imihy replied that additional conditions or flexibility can be given through a Conditional Use Permit.

Community Development Director Gladhill noted that the issues that the City continues to have are with contractors with multiple vehicles and a large amount of outdoor storage for the business. He stated that staff will use the feedback of the Council to tweak the draft.

Councilmember Kuzma stated that there are home occupation businesses in the northern portion of the City that is more rural and asked how that would fit in.

Community Development Director Gladhill stated that the largest amount of complaints come from the more rural areas. He stated that there are some landscaping businesses that generate a lot of complaints.

Councilmember Johns stated that in her opinion the ordinance should be more restrictive, and the CUP should be provided as an option to allow additional flexibility. She stated that even when you have multiple acres, there are impacts to the character of the neighborhood when someone has a lot of commercial vehicles or outdoor storage of business materials. She stated that she does not view this as being unfriendly to business but being supportive of the community as a whole.

Councilmember Shryock stated that she would agree with someone having the ability to apply for a CUP to be more flexible.

Councilmember Kuzma stated that he still struggles with property rights, as it should be the choice of the property owner as to whether they would like to have bobcats or a boat.

2.03: Review and Discuss Proposed Neighborhood Business District

Planning Intern Imihy reviewed the staff report.

Community Development Director Gladhill provided another possible location where this could be applied.

Councilmember Riley stated that he likes the idea, but his concern would be the permitted and non-permitted uses. He stated that although he is not sure that he disagrees, he is unsure that the list needs to be that specific.

Community Development Director Gladhill stated that in the example used in the case, the neighborhood was very concerned with possible uses and therefore the list was based off public engagement. He stated that the intent is to have a different character and therefore would be more restrictive than the B-1 zoning district.

Councilmember Riley stated that it appears that many items could be added to the list that the City would not want to have.

Community Development Director Gladhill noted that staff based the list off the permitted and non-permitted uses within other zoning codes.

Councilmember Johns stated that this would be a new type of zoning district that would be added and asked if that would impact the updating of the Comprehensive Plan.

Community Development Director Gladhill stated that this would not impact the updating that the City is currently completing and would be consistent with the long-range planning process.

Councilmember Kuzma asked if a catch all phrase could be used for non-permitted uses.

Community Development Director Gladhill stated that language would not be allowed in legal application.

Councilmember Shryock stated that she believes that this fits well with the Comprehensive Plan process. She stated that it would be better to identify these areas so that property owners are aware of the use. She stated that application should be done thoughtfully and in areas where it makes sense.

3. TOPICS FOR FUTURE DISCUSSION

3.01: Review Future Topics/ Calendar

Councilmember Riley asked for additional details on a home occupation application that was previously withdrawn and whether there is anything further needed from the Council.

Community Development Director Gladhill provided an update to the Council. He stated that a notice of violation has been sent to the property owner and there is nothing further for the City Council to do at this time. He stated that another update will be given to the Council in August.

Councilmember Shryock stated that during the road financing discussions she was told that staff would attempt to find the PowerPoint presentation that was given to the Council for her to review. She stated that she has not received that information and asked if staff could follow-up on that.

4. MAYOR / COUNCIL / STAFF INPUT

None.

5. ADJOURNMENT

The Work Session of the City Council was adjourned at 6:47 p.m.

Respectfully submitted,

_____
Kurtis G. Ulrich
City Administrator

ATTEST:

_____
Jo Ann M. Thieling
City Clerk

Drafted by Amanda Staple
TimeSaver Off Site Secretarial, Inc.

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CITY COUNCIL
CITY OF RAMSEY
ANOKA COUNTY
STATE OF MINNESOTA

The Ramsey City Council conducted a regular meeting on Tuesday, July 24, 2018, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present: Acting Mayor John LeTourneau
Councilmember Jill Johns
Councilmember Mark Kuzma
Councilmember Chris Riley
Councilmember Melody Shryock

Members Absent: None

Also Present: Community Development Director Timothy Gladhill
Police Chief Jeff Katers
Parks and Assistant Public Works Superintendent Mark Riverblood
Human Resources Manager Colleen Lasher

1. CALL TO ORDER

Acting Mayor LeTourneau called the regular meeting of the Ramsey City Council to order at 7:00 p.m., followed by the Pledge of Allegiance led by Acting Mayor LeTourneau.

2. PRESENTATION

None.

3. CITIZEN INPUT

None.

4. CONSENT AGENDA

Motion by Councilmember Johns, seconded by Councilmember Shryock, to approve the following items on the Consent Agenda:

4.01: Receive June 2018 Financial Reports – General Fund and Enterprise Funds
4.02: Note the Following Boards and Commissions Meeting Minutes:

- Park and Recreation Commission Meeting Minutes dated April 12, 2018
- Planning Commission Meeting Minutes dated June 7, 2018
- Economic Development Authority Meeting Minutes dated June 14, 2018
- Environmental Policy Board Meeting Minutes dated June 18, 2018

4.03: Approve the following Meeting Minutes:
1) City Council Work Session dated July 10, 2018
2) City Council Regular dated July 10, 2018

4.04: Approve Licenses

4.05: Adopt Resolution #18-146 Approving Cash Disbursements Made and Authorizing Payment of Accounts Payable Invoicing Received During the Period of July 3, 2018 through July 19, 2018

4.06: Adopt Resolution #18-152 Appointing Assistant Finance Director Angela McEntire as Alternate Director to the Local Government Information Systems (LOGIS) Board

4.07: Adopt Resolution #18-147 Authorizing Partial Payment to North Valley, Inc. for Improvement Project #18-00, Stanhope Terrace Street Reconstruction

4.08: Adopt Resolution #18-148 Authorizing Partial Payment to North Valley, Inc. for Improvement Project #17-02, Rivers Bend Street Reconstruction

4.09: Adopt Resolution #18-149 Authorizing Partial Payment to Douglas-Kerr Underground, LLC for Improvement Project #16-20, Riverdale Drive Extension Improvements

4.10: Adopt Resolution #18-150 Authorizing Partial Payment to Douglas-Kerr Underground, LLC for Improvement Project #17-10, Puma Street Utility Improvements

4.11: Adopt Resolution #18-151 Authorizing Partial Payment to MN Boardwalk, LLC for IP #18-08, Trott Brook Boardwalk

4.12: Adopt Resolution #18-154 Accepting Additional Drainage and Utility Easements in Cole Addition (Project No. 17-132); Case of North Fish Realty

4.13: Adopt Resolution #18-155 Authorizing Partial Payment to North Valley, Inc. for 2018 Street Overlay Improvements, Improvement Project #18-03

4.14: Adopt Resolution #18-144 Hiring Seasonal Public Works Maintenance Workers

4.15: Adopt Resolution #18-145 Filling the Vacant Public Works Streets Maintenance Worker Position

4.16: Adopt Resolution #18-153 Filling the Vacant Economic Development Manager Position

Motion carried. Voting Yes: Acting Mayor LeTourneau, Councilmembers Johns, Shryock, Kuzma, and Riley. Voting No: None.

5. APPROVE AGENDA

Acting Mayor LeTourneau noted that Item 7.02 has been pulled from the agenda.

Motion by Councilmember Kuzma, seconded by Councilmember Johns, to approve the agenda as amended.

Motion carried. Voting Yes: Acting Mayor LeTourneau, Councilmembers Kuzma, Johns, Riley, and Shryock. Voting No: None.

6. PUBLIC HEARING

None.

7. COUNCIL BUSINESS

7.01: Consider Approving Purchase Agreement for 6710 Highway 10 NW; Case of PDKP Properties, LLC

Community Development Director Gladhill reviewed the staff report and recommendation of the EDA to approve the Purchase Agreement. He noted that the Purchase Agreement is consistent with the City's policies for selling City-owned land and the proposed sales price is within the acceptable price range. He noted that the proposed use is an acceptable use that will add to the City's tax base and be a benefit to the Highway 10 business corridor.

Councilmember Riley stated that the EDA discussed this proposal on multiple occasions and the group is excited about the business joining the community in a marque location along the Highway 10 corridor and returning the property to the tax roll. He stated that the proposed price is within the acceptable deal range.

Motion by Councilmember Riley, seconded by Councilmember Johns, to approve the Purchase Agreement with PDKP Properties, LLC for the purchase of property (PID #34-32-25-13-005) also known as 6710 Highway 10 NW, Ramsey, MN.

Further discussion: Councilmember Kuzma agreed that this is a great opportunity to get the property back on the tax roll and welcomed the business to the community.

Motion carried. Voting Yes: Acting Mayor LeTourneau, Councilmembers Riley, Johns, Kuzma, and Shryock. Voting No: None.

~~**7.02: Consider Actions Related to Request to Authorize Motor Vehicle Sales at 14300 Sunfish Lake Boulevard NW (Project No. 122); Case of John Buzick**~~

- ~~**Introduce or Deny Ordinance #18-14 Approving Amendment to the E-1 Employment District to Allow Motor Vehicle Sales**~~
- ~~**Adopt Resolution to Approve or Deny a Conditional Use Permit to Allow Motor Vehicle Sales on the Subject Property**~~

7.03: Consider Adopting Resolution #18-158 Approving Restaurant Subsidy Program

Community Development Director Gladhill reviewed the staff report and recommendation of the EDA to approve the three draft documents as part of the Restaurant Subsidy Program.

Councilmember Shryock stated that she is excited about these opportunities. She stated that the expanded welcome services would be a great benefit to new businesses and utilizes staff and current services at a low cost to the City.

Councilmember Riley stated that the City is trying everything that it can to bring in business. He stated that the water availability charge would be the City portion of the charges and is setup as a forgivable loan and therefore is not a large cash outlay.

Acting Mayor LeTourneau echoed comments that this is an excellent program and a way for the City to play another part in trying to bring restaurants to the community. He stated that as the community continues to grow and begins to appear on the radar of businesses, these tools could help attract a business.

Motion by Councilmember Shryock, seconded by Councilmember Riley, to Adopt Resolution #18-158 Approving Updated Restaurant Subsidy Program.

Motion carried. Voting Yes: Acting Mayor LeTourneau, Councilmembers Shryock, Riley, Johns, and Kuzma. Voting No: None.

8. MAYOR, COUNCIL AND STAFF INPUT

Community Development Director Gladhill announced upcoming meetings and events.

Councilmember Kuzma noted the Summer Concert Series events.

Councilmember Johns asked for an update on the Highway 47 corridor planning effort this week.

Community Development Director Gladhill stated that this Thursday evening there will be an open house to discuss the land use and image of the Highway 47 corridor. He stated that there is another open house on Friday during the daytime hours.

9. ADJOURNMENT

Motion by Councilmember Johns, seconded by Councilmember Shryock, to adjourn the meeting.

Motion carried.

The regular meeting of the City Council adjourned at 7:22 p.m.

Respectfully submitted,

_____
Kurtis G. Ulrich
City Administrator

ATTEST:

_____
Jo Ann M. Thieling
City Clerk

Drafted by Amanda Staple
TimeSaver Off Site Secretarial, Inc.

CC Regular Session **4. 2.**

Meeting Date: 08/06/2018

By: JoAnn Shaw, Community Development

Information

Title

Approve Licenses

Purpose/Background:

The purpose of this case is to approve various license requests for 2018.

Background: Certain businesses in the City of Ramsey are required to apply for a license in addition to the Business Registration Certificate (BRC). Other businesses that may require a license, but are not required to have a BRC, may also be included in this approval. Those new license requests and/or renewals are attached for Council approval.

Recommendation:

Staff recommends approval of license applications contingent upon compeletion of background checks.

Action:

Motion to approve the attached license applications contingent upon completion of background checks.

Attachments

Licenses

Form Review

Inbox	Reviewed By	Date
Kurt Ulrich	Kurt Ulrich	08/02/2018 01:45 PM
Form Started By: JoAnn Shaw		Started On: 07/24/2018 12:48 PM
Final Approval Date: 08/02/2018		

Report Name: License Report - License Types
Council Dates: 8/6/2018 to 8/6/2018
Status: Active, Inactive
License Type(s): 3.2 Beer Off-Sale, 3.2 Beer On-Sale Temporary, Liquor 2 A.M. Closing, Liquor Off-Sale, Liquor On-Sale, Liquor On-Sale Sunday, Temporary Intoxicating, Wine On-Sale, Amusement Center, Amusement Devices/Billiard Tables, Business License-1st Year, Business License-Renewal, Garbage Haulers, Pawnbroker, Rental, Second Hand Goods Dealer, Special Events, Temporary Amusement/Carnival/Circus, Therapeutic Massage Establishment, Therapeutic Massage Therapist, Tobacco, Transient Merchant/Peddler/Solicitor

City of Ramsey
License Report - License Types

Company	Location	Complex	Exp. Date	Council Date	Statu
Rental					
James S Voisin	7027 Riverdale Dr NW		8/6/2021	8/6/2018	A
				Rental License Count:	**1**
Therapeutic Massage Therapist					
Michele A Reid	14141 Iodine St NW		12/31/2018	8/6/2018	A
				Therapeutic Massage Therapist License Count:	**1**
Transient Merchant/Peddler/Solic					
Legacy Restoration LLC			12/31/2018	8/6/2018	A
FML Solutions Inc.			10/6/2018	8/6/2018	A
G I Joes Food Truck LLC			10/6/2018	8/6/2018	A
				Transient Merchant/Peddler/Solicitor License Count:	**3**
				Total Licenses:	**5**

CC Regular Session **4. 3.**

Meeting Date: 08/06/2018
Submitted For: Dan Bray, Administrative Services
By: Jo Thieling, Administrative Services

Information

Title
Approve Request to Declare Surplus Property

Purpose/Background:
Staff is requesting Council declare the following property surplus and authorize sale of same:

#637 – 2002 Chevrolet Silverado 2500
VIN # 1GCHK24132E265769
Mileage 173,881

#652 – 2006 Chevrolet Silverado 3500
VIN # 1GBHK39246E110309
Mileage 122,990

#653 – 2006 Ford F250
VIN # 1FTSX21556EC75045
Mileage 72,478

#352 – 2005 Ford Taurus
VIN # 1FAFP53215A179186
Mileage 77,746

All vehicles have been replaced as part of the 2018 budget and there is no need for any of these to be retained for use by other departments.

Recommendation:
Staff recommends Council declare the above named items as surplus and authorize sale/auction of same.

Action:
Motion to declare the following items as surplus and authorize sale/auction of same:

#637 – 2002 Chevrolet Silverado 2500
VIN # 1GCHK24132E265769
Mileage 173,881

#652 – 2006 Chevrolet Silverado 3500
VIN # 1GBHK39246E110309
Mileage 122,990

#653 – 2006 Ford F250
VIN # 1FTSX21556EC75045
Mileage 72,478

#352 – 2005 Ford Taurus
VIN # 1FAFP53215A179186
Mileage 77,746

Attachments

No file(s) attached.

Form Review

Inbox	Reviewed By	Date
Kurt Ulrich	Kurt Ulrich	08/02/2018 02:05 PM
Form Started By: Jo Thieling		Started On: 08/02/2018 09:22 AM
Final Approval Date: 08/02/2018		

CC Regular Session **4. 4.**

Meeting Date: 08/06/2018

By: Jackie Lipski, Finance

Information

Title

Adopt Resolution # 18-163 Approving Cash Disbursements Made and Authorizing Payment of Accounts Payable Invoicing Received During the Period of July 20, 2018 through August 1, 2018

Action:

Motion to Adopt Resolution # 18-163 Approving Cash Disbursements Made and Authorizing Payment of Accounts Payable Invoicing Received During the Period of July 20, 2018 through August 1, 2018.

Attachments

Resolution 8/6/2018

Bills List 08/06/2018

Form Review

Inbox	Reviewed By	Date
Diana Lund	Diana Lund	08/01/2018 10:16 AM
Jackie Lipski (Originator)	Jackie Lipski	08/01/2018 10:21 AM
Diana Lund	Diana Lund	08/01/2018 10:24 AM
Kurt Ulrich	Kurt Ulrich	08/02/2018 02:02 PM
Form Started By: Jackie Lipski		Started On: 08/01/2018 10:08 AM
Final Approval Date: 08/02/2018		

Councilmember introduced the following resolution and moved for its adoption:

RESOLUTION #18-163

RESOLUTION APPROVING CASH DISBURSEMENTS MADE AND AUTHORIZING PAYMENT OF ACCOUNTS PAYABLE INVOICING RECEIVED DURING THE PERIOD OF JULY 20, 2018 THROUGH AUGUST 1, 2018.

WHEREAS, the City of Ramsey Finance Department has made cash disbursements and received accounts payable invoicing during the period of July 20, 2018, through August 1, 2018, in the amount of $825,257.05 and

WHEREAS, the City Council of the City of Ramsey is required to authorize payment for all disbursement transactions.

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

1) That the Ramsey City Council hereby approves the cash disbursements made and authorizes payment of the accounts payable invoices as detailed in the attached Bills List for the period July 20, 2018, through August 1, 2018, in the amount of $ 825,257.05.

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 6th day of August 2018.

_____
Mayor

ATTEST:

_____
City Clerk

RAMSEY CITY COUNCIL MEETING

8/6/2018

BILLS LIST

DISBURSEMENTS TO BE APPROVED THIS MEETING:

DISBURSEMENT TYPE:	SUBMITTED FOR APPROVAL
Purchase Journal:	
Prepaids 7/20/18-8/01/18	300,479.50
Accounts Payable 7/20/18-8/01/18	253,786.54
Payroll 7/27/18	187,275.46
Pay Estimates- Projects	47,423.05
Debt Service	36,292.50
TOTAL SUBMITTED FOR APPROVAL THIS MEETING	**$ 825,257.05**

		APPROVED PREV. MTG	2018 Y.T.D.
DISBURSEMENTS PREVIOUSLY APPROVED AND PAID:			
	NET PAYROLL TOTAL	$ 155,334.43	$ 2,410,076.55
-	CORRECTION TO PAYROLL		
	PREPAIDS	188,152.74	4,230,599.40
-	PREPAID ADJUSTMENTS		
	WIRE TRANSFERS FOR DEBT SERVICE		885,606.91
-	CORRECTION TO D.S.		
	ACCOUNTS PAYABLE INVOICING - PREVIOUS MEETING:		
-	BILLS LIST SUBMITTED	151,436.34	4,072,901.93
	ADD (DELETE) BILLS LIST SUBMITTED PAY ESTIMATE(S)	828,919.15	1,815,138.04
-	CHECKS VOIDED	0.00	0.00
TOTAL CASH DISBURSEMENTS PREVIOUSLY APPROVED		**$ 1,323,842.66**	**$ 13,414,322.83**

CITY OF RAMSEY

Council Check Register by GL

Council Check Register and Summary

7/19/2018 -- 12/31/2018

Check #	Date	Amount	Supplier / Explanation	PO #	Doc No	Inv No	Account No	Subledger	Account Description
106329	7/19/2018		100031 ANOKA COUNTY						
		2,783.05	REAL 28-32-25-22-0057		92471	071918	9214.6315		MISCELLANEOUS PROFE
		2,783.05							
106330	7/19/2018		100948 ANOKA COUNTY LICENSE CENTER						
		21.75	TITLE SQUAD 383		92472	071818	0211.6249		MISCELLANEOUS OPER/
		21.75							
106331	7/19/2018		100948 ANOKA COUNTY LICENSE CENTER						
		21.75	TITLE SQUAD 384		92473	071918	0211.6249		MISCELLANEOUS OPER/
		21.75							
106332	7/19/2018		100659 BRAY, DAN						
		77.80	REIMBURSE- WALMART PURCH.		92474	071818	0194.6249		MISCELLANEOUS OPER/
		77.80							
106333	7/19/2018		110734 CITY OF RAMSEY						
		162.00	# 725870		92475	071818	9601.4651		WATER REVENUE
		162.00							
106334	7/19/2018		115574 HEALTHPARTNERS						
		42,499.50	AUG 2018 HEALTH INS		92476	82556924	9101.2176		LIFE/HEALTH-EMPLOYEE
		42,499.50							
106335	7/19/2018		116169 LIFE INSURANCE CO OF NORTH AMERICA						
		74.40	LIFE INS JULY 2018		92477	AI960634 JULY 18	9101.2170		DENTAL/DISABILITY/LIFE
		8.52	LIFE INS JULY 2018		92477	AI960634 JULY 18	9101.2170		DENTAL/DISABILITY/LIFE
		82.92							
106336	7/19/2018		100276 MCFOA						
		160.00	SCHMITZ,SCHMIDT,LASHER,THIELIN		92478	071918	0130.6451		MEMBERSHIP DUES
		160.00							
106337	7/19/2018		100291 MET COUNCIL SAC						
		42,245.00	SAC CHARGES JUNE 2018		92479	071718	9602.2083		SAC CHARGES
		422.45-	SAC CHARGES JUNE 2018		92479	071718	9602.4356		SEWER AVAILABILITY CH
		41,822.55							
106338	7/19/2018		109213 MOLDENHAUER, DREW						
		27.60	REIMBURSE- TRAINING		92480	071618	0211.6331		TRAVEL & LODGING
		27.60							
106339	7/19/2018		115232 NORTHERN TECHNOLOGIES LLC						
		1,370.00	APRIL/MAY 18 RIVERSTONE		92481	26618	9804.6315	00115626	MISCELLANEOUS PROFE
		316.50	APRIL/MAY 18 BROOKFIELD		92482	26616	9804.6315	00115201	MISCELLANEOUS PROFE
		1,686.50							
106340	7/19/2018		107244 NORTHLAND TRUST SERVICES INC						
		36,292.50	BOND INTEREST		92483	061118	9345.6611		BOND INTEREST
		36,292.50							
106341	7/19/2018		113726 ORNAT, SHEAVON						
		155.00	REFUND DAMAGE/KEY DEPOSIT		92484	071818	9804.1160		KEY & DAMAGE DEPOSIT
		155.00							

Check #	Date	Amount	Supplier / Explanation	PO #	Doc No	Inv No	Account No	Subledger	Account Description
106341	7/19/2018		113726 ORNAT, SHEAVON						Continued.
106342	7/19/2018		100678 PETTY CASH						
		12.82	ADMIN PHOTOS		92485	071918	0130.6249		MISCELLANEOUS OPERA
		22.00	AUDIO ADAPTERS		92485	071918	0192.6249		MISCELLANEOUS OPERA
		11.99	TABS/TITLE		92485	071918	0311.6550		MOTOR VEHICLES
		24.00	TABS/TITLE		92485	071918	0452.6550		MOTOR VEHICLES
		16.00	TABS-MOVING TRAILER		92485	071918	0452.6550		MOTOR VEHICLES
		86.81							
106343	7/19/2018		100391 POSTMASTER						
		1,715.84	RE: RECYCLE EVENT MAILER		92488	071618	9604.6249		MISCELLANEOUS OPERA
		1,715.84							
106344	7/19/2018		116268 SMITH, KIMBERLY						
		100.00	REF BIKE LOCKER DEP		92486	071918	9804.1160		KEY & DAMAGE DEPOSIT
		100.00							
106345	7/19/2018		105706 TINKLENBERG GROUP INC						
		3,300.00	RETAINER 1 OF 12 JULY 18		92487	071918	9400.6315		MISCELLANEOUS PROFE
		3,300.00							
106346	7/19/2018		109886 WEBB, RICH						
		27.55	REIMBURSE- TRAINING		92489	071618	0211.6331		TRAVEL & LODGING
		27.55							
106406	7/26/2018		100948 ANOKA COUNTY LICENSE CENTER						
		65.25	3 TITLE TRANSFERS		92579	072618	0243.4609		OTHER MISCELLANEOUS
		65.25							
106407	7/26/2018		111377 ANOKA MUNICIPAL UTILITY						
		38.53	BUNKER LK BLVD/DYSPOSIUM		92575	22-612000-01 JULY 18	0260.6371		ELECTRIC UTILITIES
		125.89	CTY RD 116/HWY 47 SIGNAL		92576	22-613120-01 JULY 18	0260.6371		ELECTRIC UTILITIES
		37.80	14034 DYSPOSIUM ST LT		92577	22-610280-00 JULY 18	9603.6371		ELECTRIC UTILITIES
		56.80	RAMSEY ST LT		92578	22-990005.01 JULY 18	9603.6371		ELECTRIC UTILITIES
		259.02							
106408	7/26/2018		116114 AVESIS THIRD PARTY ADMINISTRATORS						
		152.59	VISION INS AUG 2018		92603	2063306	9101.2170		DENTAL/DISABILITY/LIFE
		152.59							
106409	7/26/2018		116476 BANCALARI, QUINN AND ANNIE						
		171.58	UB REFUND 14181 MAGNESIUM ST		92581	070318	9601.4651		WATER REVENUE
		171.58							
106410	7/26/2018		100647 BOLTON AND MENK INC						
		16,616.50	RAMSEY/HIWAY 10 CORRIDOR		92582	0219605	9410.6315		MISCELLANEOUS PROFE
		16,616.50							
106411	7/26/2018		100297 CENTERPOINT ENERGY						
		27.33	6701 HIWAY 10		92583	6011580-5 JULY 18	9410.6373	00041012	GAS

Check #	Date	Amount	Supplier / Explanation	PO #	Doc No	Inv No	Account No	Subledger	Account Description
									Continued.
106411	7/26/2018		100297 CENTERPOINT ENERGY						
		28.98	14515 E TOWN CENTER DR		92584	8782239-1 JULY 18	9601.6373		GAS
		1,136.51	7550 SUNWOOD DR		92585	6702493-5 JULY 18	0194.6373		GAS
		1,192.82							
106412	7/26/2018		116475 COLIC, RAMIZA AND HARIS						
		133.37	UB REFUND 5327 142ND LN		92586	070318	9601.4651		WATER REVENUE
		133.37							
106413	7/26/2018		100116 CONNEXUS ENERGY						
		5.24	SUNFISH STATION SITE		92587	444931-270863 JUL 18	9603.6371		ELECTRIC UTILITIES
		714.53	16300 ST FRANCIS- IRRIG		92588	444931-267449 JUL 18	0452.6371		ELECTRIC UTILITIES
		719.77							
106414	7/26/2018		116479 DANIELS, JUSTIN						
		100.00	REFUND DAMAGE DEPOSIT		92589	072318	9804.1160		KEY & DAMAGE DEPOSIT
		100.00							
106415	7/26/2018		106583 DELTA DENTAL PLAN OF MINNESOTA						
		3,125.40	DENTAL INS AUG 2018		92590	7352127	9101.2170		DENTAL/DISABILITY/LIFE
		3,125.40							
106416	7/26/2018		113745 DEPARTMENT OF THE TREASURY						
		144.00	2017 PCORI FEES		92594	072418	9101.6315		MISCELLANEOUS PROFE
		144.00							
106417	7/26/2018		100158 ECM PUBLISHERS INC						
		59.13	HOP HEARING		92591	609996	0191.6352		GENERAL NOTICE & PUB
		59.13							
106418	7/26/2018		110760 FIRE SAFETY USA, INC						
		1,050.88	PUMP REPAIR/MISC		92592	112482	0220.6281		SMALL TOOLS & MINOR E
		595.00	HALAX STRAP		92593	108252	0220.6281		SMALL TOOLS & MINOR E
		1,645.88							
106419	7/26/2018		115314 LOSCHEIDER, SHARON						
		155.00	REFUND DAMAGE/KEY DEPOSIT		92595	072318	9804.1160		KEY & DAMAGE DEPOSIT
		155.00							
106420	7/26/2018		113737 RATWIK ROSZAK AND MALONEY PA						
		3,588.34	RETAINER JUNE 2018		92596	62529	0161.6304		LEGAL FEES
		2,420.62	JUNE 18 SERVICE		92597	62528	0161.6304		LEGAL FEES
		869.50	JUNE 18 SERVICE		92597	62528	9804.6304	00115626	LEGAL FEES
		277.50	JUNE 18 SERVICE		92597	62528	9804.6304	00116093	LEGAL FEES
		7,155.96							
106421	7/26/2018		116473 VENNGAGE INC						
		173.48	INFOGRAPHICS 8/18-8/19		92598	5FAA8B3-0002	0130.6249		MISCELLANEOUS OPERA
		19.00	JULY 2- AUGUST 2-2018		92599	5FAA8B3-0001	0130.6249		MISCELLANEOUS OPERA
		192.48							
106422	7/26/2018		100510 VERIZON WIRELESS						

Check #	Date	Amount	Supplier / Explanation	PO #	Doc No	Inv No	Account No	Subledger	Account Description
									Continued.
106422	7/26/2018		100510 VERIZON WIRELESS						
		102.84	JUNE-JULY 18 SERVICE		92600	9810101576	0280.6415		OTHER EQUIPMENT REN
		350.10	JUNE-JULY 18 SERVICE		92600	9810101576	0211.6415		OTHER EQUIPMENT REN
		1,411.95	JUNE-JULY 18 SERVICE		92600	9810101576	0211.6323		CELLULAR PHONES
		55.78	JUNE- JULY 2018 SERVICE		92601	9810592839	0130.6323		CELLULAR PHONES
		308.11	JUNE-JULY 2018 SERVICE		92602	9810688169	0220.6323		CELLULAR PHONES
		2,228.78							
106423	7/30/2018		100257 LAW ENFORCEMENT LABOR SRV INC						
		563.50			92434	0712181312352	9101.2177		UNION DUES
		612.50			92610	0726181245372	9101.2177		UNION DUES
		1,176.00							
106424	7/30/2018		100298 MN AFSCME COUNCIL 5						
		502.08			92435	0712181312353	9101.2177		UNION DUES
		576.13			92611	0726181245373	9101.2177		UNION DUES
		1,078.21							
90473101	7/30/2018		100398 PUBLIC EMPLOYEES RETIREMENT ASSN						
		50.00			92529	0724181108131	9101.2174		PERA-EMPLOYEE
		50.00			92530	0724181108132	9101.2183		PERA-EMPLOYER
		19,186.82			92612	0726181245374	9101.2174		PERA-EMPLOYEE
		25,725.64			92613	0726181245375	9101.2183		PERA-EMPLOYER
		45,012.46							
94547811	7/30/2018		101306 IRS						
		196.94			92491	0723181228502	9101.2171		FEDERAL WITHHOLDING
		1,289.00			92492	0723181228503	9101.2173		FICA & MEDICARE-EMPL(
		1,289.00			92493	0723181228504	9101.2182		FICA & MEDICARE-EMPL(
		393.75			92532	0724181108134	9101.2171		FEDERAL WITHHOLDING
		226.86			92533	0724181108135	9101.2173		FICA & MEDICARE-EMPL(
		226.86			92534	0724181108136	9101.2182		FICA & MEDICARE-EMPL(
		23,210.68			92615	0726181245377	9101.2171		FEDERAL WITHHOLDING
		13,126.72			92616	0726181245378	9101.2173		FICA & MEDICARE-EMPL(
		13,126.72			92617	0726181245379	9101.2182		FICA & MEDICARE-EMPL(
		53,086.53							
97248832	7/30/2018		100601 MN DEPT OF REV WH						
		301.14			92490	0723181228501	9101.2172		STATE WITHHOLDING
		82.54			92531	0724181108133	9101.2172		STATE WITHHOLDING
		11,114.56			92614	0726181245376	9101.2172		STATE WITHHOLDING
		11,498.24							
98072718	7/30/2018		115568 ALERUS FINANCIAL NA						
		1,924.18			92609	07261812453714	9101.2176		LIFE/HEALTH-EMPLOYEE
		1,924.18							
99072718	7/30/2018		107962 TOTAL ADMINISTRATIVE SERVICE CORP						
		2,390.20			92605	07261812453710	9101.2176		LIFE/HEALTH-EMPLOYEE
		2,390.20							
99630194	7/30/2018		114790 GREAT WEST LIFE AND ANNUITY INS CO						
		8,999.00			92607	07261812453712	9101.2175		DEFERRED COMPENSAT
		8,999.00							
99631065	7/30/2018		114790 GREAT WEST LIFE AND ANNUITY INS CO						

Check #	Date	Amount	Supplier / Explanation	PO #	Doc No	Inv No	Account No	Subledger	Account Description
									Continued.
99631065	**7/30/2018**		**114790 GREAT WEST LIFE AND ANNUITY INS CO**						
		5,424.49			92608	07261812453713	9101.2176		LIFE/HEALTH-EMPLOYEE
		5,424.49							
99654890	**7/30/2018**		**100223 ICMA RETIREMENT TRUST 457**						
		2,191.99			92604	0726181245371	9101.2175		DEFERRED COMPENSAT
		2,191.99							
99724718	**7/30/2018**		**114486 SUN LIFE ASSURANCE COMPANY OF CANADA**						
		791.21			92430	07121813123511	9101.2176		LIFE/HEALTH-EMPLOYEE
		749.35			92606	07261812453711	9101.2176		LIFE/HEALTH-EMPLOYEE
		99.00	COBRA Life		92606	07261812453711	9101.2176		LIFE/HEALTH-EMPLOYEE
		917.99	LTD		92606	07261812453711	9101.2170		DENTAL/DISABILITY/LIFE
		2,557.55							
		300,479.50	Grand Total						

Payment Instrument Totals

Checks	167,394.86
EFT Payments	133,084.64
Total Payments	300,479.50

Bank Account	00002224	CASH IN BANK
Version	LOGIS004V	
Originator	JLIPSKI	
Payment Instrument		Check Payment
Pay Through Date	12/31/2018	

Payee Number	Name / Mailing Address	Stub Message	Document Ty	Number	Itm	Co	Due Date	Invoice Number	Payment Amount
100011	ACE SALES	EDA GOLF-WIRELESS CHRG PADS	PV	92696	001	09230	7/19/2018	2715	2,406.50
	ACE SALES 17555 UNICORN STREET NW RAMSEY MN 55303					Summary Total			2,406.50
						Payment Amount			2,406.50
110402	ADVANCE AUTO PARTS	JUNE 2018 PURCHASES	PV	92535	001	09101	6/30/2018	063018	108.81
	ADVANCE AUTO PARTS	JUNE 2018 PURCHASES	PV	92535	002	09101	6/30/2018	063018	1,817.88
	AAP FINANCIAL SERVICES P O BOX 742063 ATLANTA GA 30374-2063					Summary Total			1,926.69
						Payment Amount			1,926.69
100035	ANOKA COUNTY CENTRAL COMMUNICATIONS	APRIL- JUNE 18 ACCESS FEE	PV	92536	001	09101	7/17/2018	2018103	900.00
	ANOKA COUNTY CENTRAL COMMUNICATIONS 325 EAST MAIN STREET ANOKA MN 55303					Summary Total			900.00
						Payment Amount			900.00
100041	ANOKA COUNTY HIGHWAY DEPARTMENT	PERMIT-HAPPY DAYS 5K BIKE TOUR	PV	92495	001	09297	7/20/2018	072018	50.00
	ANOKA COUNTY HIGHWAY DEPARTMENT 1440 BUNKER LAKE BLVD NW ANDOVER MN 55304					Summary Total			50.00
						Payment Amount			50.00
100043	ANOKA COUNTY PROPERTY RECORDS TAXATION	FILING FEES	PV	92494	001	09804	7/2/2018	534 7/2/2018	92.00
	ANOKA COUNTY PROPERTY RECORDS TAXATION	FILING FEES	PV	92494	002	09804	7/2/2018	534 7/2/2018	46.00
	2100 - 3RD AVENUE ANOKA MN 55303					Summary Total			138.00
						Payment Amount			138.00
107587	ANOKA COUNTY TREASURY DEPARTMENT	AUG 18 BROADBAND	PV	92619	001	09101	7/20/2018	B180720M	604.50
	ANOKA COUNTY TREASURY DEPARTMENT					Summary Total			604.50

Bank Account	00002224	CASH IN BANK
Version	LOGIS004V	
Originator	JLIPSKI	
Payment Instrument		Check Payment
Pay Through Date	12/31/2018	

Payee Number	Name / Mailing Address	Stub Message	Document Ty	Number	Itm	Co	Due Date	Invoice Number	Payment Amount
	2100 THIRD AVENUE ANOKA MN 55303								
				Payment Amount					604.50
100052	ANOKA POLICE DEPARTMENT	JUNE 18 ANIMAL CONTAINMENT	PV	92620	001	09101	7/20/2018	072018	575.00
	ANOKA POLICE DEPARTMENT 275 HARRISON STREET ANOKA MN 55303			Summary Total					575.00
				Payment Amount					575.00
100063	ASPEN MILLS	CARGO PANTS- K. LETENDRE	PV	92621	001	09101	7/26/2018	220659	56.95
	ASPEN MILLS			Summary Total					56.95
	8201 C CENTRAL AVE NE	J. BONINE-PANTS/SHIRTS	PV	92622	001	09101	7/20/2018	220337	416.70
	SPRING LAKE PARK MN 55432			Summary Total					416.70
		J. DIXON KEVLAR GLOVE	PV	92623	001	09101	7/26/2018	220660	39.95
				Summary Total					39.95
				Payment Amount					513.60
100647	BOLTON AND MENK INC	RAMSEY/ HIWAY 10 CORRIDOR IM	PV	92664	001	09410	7/19/2018	0220243	34,742.03
	BOLTON AND MENK INC 1960 PREMIER DRIVE MANKATO MN 56001-5900			Summary Total					34,742.03
				Payment Amount					34,742.03
103641	BOYER TRUCKS ROGERS	VALVE FOR 669	PV	92496	001	09101	7/17/2018	50644R	18.81
	BOYER TRUCKS	VALVE FOR 669	PV	92496	002	09101	7/17/2018	50644R	18.81
	2601 NE BROADWAY			Summary Total					37.62
	MINNEAPOLIS MN 55413	WORK ON 662	PV	92688	001	09101	7/25/2018	478612	872.15
		WORK ON 662	PV	92688	002	09101	7/25/2018	478612	1,189.95
				Summary Total					2,062.10
		WORK ON 662	PV	92689	001	09101	7/30/2018	478765	333.86
		WORK ON 662	PV	92689	002	09101	7/30/2018	478765	451.80
				Summary Total					785.66
				Payment Amount					2,885.38

Bank Account	00002224	CASH IN BANK
Version	LOGIS004V	
Originator	JLIPSKI	
Payment Instrument		Check Payment
Pay Through Date	12/31/2018	

Payee Number	Name / Mailing Address	Stub Message	Ty	Document Number	Itm	Co	Due Date	Invoice Number	Payment Amount
114529	BRUCE JACOBSON LANDSCAPE ARCHITECT	RAMSEY COR	PV	92624	001	09101	7/1/2018	169-0121-5	4,682.00
	BRUCE JACOBSON LANDSCAPE ARCHITECT 4204 PILLSBURY AVENUE S MINNEAPOLIS MN 55409			Summary Total					4,682.00
				Payment Amount					4,682.00
116439	CANTEEN VENDING	COFFEE	PV	92625	001	09101	7/24/2018	24548	145.39
	CANTEEN VENDING 2492 DOSWELL AVENUE ST PAUL MN 55108			Summary Total					145.39
				Payment Amount					145.39
110536	CBIZ FINANCIAL SOLUTIONS INC	2018 2ND QTR REBA FEES	PV	92550	001	09101	6/30/2018	2576	50.92
	CBIZ FINANCIAL SOLUTIONS INC P O BOX 643792 CINCINNATI OH 45264-3792			Summary Total					50.92
				Payment Amount					50.92
116197	CINTAS CORPORATION	FIRE- MATS	PV	92497	001	09101	7/11/2018	4007524870	13.20
	CINTAS CORPORATION			Summary Total					13.20
	CINTAS LOC #4K P O BOX 650838 DALLAS TX 75265-0838	UNIFORM CLEANING	PV	92498	001	09101	7/11/2018	4007524921	27.20
		UNIFORM CLEANING	PV	92498	002	09101	7/11/2018	4007524921	27.20
		UNIFORM CLEANING	PV	92498	003	09101	7/11/2018	4007524921	23.00
		UNIFORM CLEANING	PV	92498	004	09101	7/11/2018	4007524921	4.00
				Summary Total					81.40
		UNIFORM CLEANING	PV	92537	001	09101	7/18/2018	4007734704	23.00
		UNIFORM CLEANING	PV	92537	002	09101	7/18/2018	4007734704	4.00
		UNIFORM CLEANING	PV	92537	003	09101	7/18/2018	4007734704	31.37
		UNIFORM CLEANING	PV	92537	004	09101	7/18/2018	4007734704	31.37
				Summary Total					89.74
		UNIFORM CLEANING	PV	92690	001	09101	7/25/2018	4007960822	23.00
		UNIFORM CLEANING	PV	92690	002	09101	7/25/2018	4007960822	4.00
		UNIFORM CLEANING	PV	92690	003	09101	7/25/2018	4007960822	27.20
		UNIFORM CLEANING	PV	92690	004	09101	7/25/2018	4007960822	27.20
				Summary Total					81.40
				Payment Amount					265.74

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Payee Number	Payee Name / Mailing Address	Stub Message	Document Ty	Number	Itm	Co	Due Date	Invoice Number	Payment Amount
110734	CITY OF RAMSEY	6701 HWY 10 2ND QTR 18	PV	92626	001	09410	7/25/2018	719019 2ND QTR 18	113.14
							Summary Total		113.14
	CITY OF RAMSEY P O BOX 251100	16303 QUICKSILVER ST NW	PV	92665	001	09101	7/25/2018	724874 2ND QTR 18	127.91
	ST PAUL MN 55125-6100						Summary Total		127.91
		14700 TOWN CENTER DR NW	PV	92666	001	09101	7/25/2018	724470 2ND QTR 18	556.20
							Summary Total		556.20
		6860 RIVERDALE DR NW	PV	92667	001	09101	7/25/2018	723960 2ND QTR 18	113.14
							Summary Total		113.14
		14779 ZEOLITE ST NW	PV	92668	001	09101	7/25/2018	722164 2ND QTR 18	2,017.38
							Summary Total		2,017.38
		14700 ERKIUM ST NW	PV	92669	001	09101	7/25/2018	726294 2ND QTR 18	40.91
							Summary Total		40.91
		16303 QUICKSILVER IRRIG	PV	92670	001	09101	7/25/2018	724931 2ND QTR 18	107.05
							Summary Total		107.05
		7401 E RAMSEY PKWY	PV	92671	001	09101	7/25/2018	724628 2ND QTR 18	113.14
							Summary Total		113.14
		7550 SUNWOOD DR	PV	92672	001	09101	7/25/2018	444931294 2ND QTR 18	1,316.72
							Summary Total		1,316.72
		7650 SUNWOOD DR NW	PV	92673	001	09240	7/25/2018	444931372 2ND QTR 18	113.14
							Summary Total		113.14
							Payment Amount		4,618.73
115896	CIVICPLUS INC	WEBSITE FEES	PV	92627	001	09101	8/10/2018	173667	6,750.00
	ICON ENTERPRISES, INC 302 S 4TH ST SUITE 500 MANHATTAN KS 66502						Summary Total		6,750.00
							Payment Amount		6,750.00
100111	COMMERCIAL ASPHALT COMPANY	ASPHALT	PV	92538	001	09101	7/15/2018	180715	380.94
	COMMERCIAL ASPHALT COMPANY P O BOX 1480 MAPLE GROVE MN 55311-6480						Summary Total		380.94
							Payment Amount		

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Payee Number	Payee Name / Mailing Address	Stub Message	Document Ty	Document Number	Itm	Co	Due Date	Invoice Number	Payment Amount
									380.94
100116	CONNEXUS ENERGY	MISC CITY ACCOUNTS	PV	92628	001	09230	7/20/2018	759126-303107 JUL 18	72.62
	CONNEXUS ENERGY	MISC CITY ACCOUNTS	PV	92628	002	09230	7/20/2018	759126-303107 JUL 18	1,213.12
	PO BOX 1808	MISC CITY ACCOUNTS	PV	92628	003	09230	7/20/2018	759126-303107 JUL 18	30.96
	MINNEAPOLIS MN 55480-1808	MISC CITY ACCOUNTS	PV	92628	004	09230	7/20/2018	759126-303107 JUL 18	1,150.10
		MISC CITY ACCOUNTS	PV	92628	005	09230	7/20/2018	759126-303107 JUL 18	13,534.69
		MISC CITY ACCOUNTS	PV	92628	006	09230	7/20/2018	759126-303107 JUL 18	2,957.78
		MISC CITY ACCOUNTS	PV	92628	007	09230	7/20/2018	759126-303107 JUL 18	198.06
				Summary Total					19,157.33
		SIRENS	PV	92629	001	09101	7/20/2018	759126-303095 JUL 18	85.00
				Summary Total					85.00
		STREET LIGHTS	PV	92630	001	09603	7/20/2018	759126-303101 JUL 18	9,672.59
				Summary Total					9,672.59
		WTR TWR/WELLS/ LIFT STATIONS	PV	92683	001	09601	7/20/2018	759126-303102 JUL 18	16,483.89
		WTR TWR/WELLS/ LIFT STATIONS	PV	92683	002	09601	7/20/2018	759126-303102 JUL 18	850.11
				Summary Total					17,334.00
		TRAFFIC LIGHTS	PV	92691	001	09101	7/20/2018	759126-303100 JULY 18	906.74
				Summary Total					906.74
		MISC PW ACCOUNTS	PV	92692	001	09101	7/20/2018	759126-303106 JULY 18	741.30
		MISC PW ACCOUNTS	PV	92692	002	09101	7/20/2018	759126-303106 JULY 18	247.10
		MISC PW ACCOUNTS	PV	92692	003	09101	7/20/2018	759126-303106 JULY 18	247.10
		MISC PW ACCOUNTS	PV	92692	004	09101	7/20/2018	759126-303106 JULY 18	247.10
		MISC PW ACCOUNTS	PV	92692	005	09101	7/20/2018	759126-303106 JULY 18	2,758.15
				Summary Total					4,240.75
				Payment Amount					51,396.41

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100167	CORNERSTONE FORD	LAMP ASY	PV	92631	001	09101	7/23/2018	15232553 1 G	9.23
						Summary Total			9.23
	CORNERSTONE FORD 17219 HIGHWAY 10 NW PO BOX 304 ELK RIVER MN 55330								
						Payment Amount			9.23
100125	COUNTRYSIDE PRINTING INC	SEPTIC PUMPING FORMS	PV	92632	001	09101	7/10/2018	35357	288.00
						Summary Total			288.00
	COUNTRYSIDE PRINTING 6250 BUNKER LAKE BLVD NW	BUS CARDS- M. MAXEY	PV	92633	001	09230	7/20/2018	35377	59.00
						Summary Total			59.00
	SUITE 113 RAMSEY MN 55303	PD BUSINESS CARDS	PV	92634	001	09101	7/20/2018	35376	108.00
						Summary Total			108.00
		SUMMER RECYCLE POSTCARDS	PV	92674	001	09604	7/13/2018	35363	871.20
						Summary Total			871.20
						Payment Amount			1,326.20
111818	DEANO'S COLLISION SPECIALISTS INC	WORK ON 384	PV	92539	001	09101	7/19/2018	50862	762.67
						Summary Total			762.67
	DEANO'S COLLISION SPECIALISTS INC 11063 173RD AVENUE	NEW SQ BUILD 383	PV	92635	001	09101	7/25/2018	50929	762.67
	ELK RIVER MN 55330						Summary Total		762.67
						Payment Amount			1,525.34
113306	DEFINITIVE TECHNOLOGY SOLUTIONS INC	CONTRACT JULY- AUG 18	PV	92636	001	09101	7/22/2018	INV167639	642.97
						Summary Total			642.97
	DEFINITIVE TECHNOLOGY SOLUTIONS INC 9401 JAMES AVENUE SOUTH SUITE 120 BLOOMINGTON MN 55431								
						Payment Amount			642.97
100144	DEHN OIL COMPANY	DIESEL FUEL	PV	92499	001	09101	7/10/2018	64427	2,308.00
						Summary Total			2,308.00
	DEHN OIL COMPANY 6735 141ST AVENUE NW								

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	RAMSEY MN 55303								
				Payment Amount					2,308.00
101185	DO ALL PRINTING COM INC	ART PROGRAMS	PV	92500	001	09101	7/13/2018	40015	67.50
	DO ALL PRINTING COM INC			Summary Total					67.50
	6360 HIGHWAY 10 NW	NITE TO UNITE-DOOR HANGERS	PV	92501	001	09101	7/9/2018	39985	245.04
	RAMSEY MN 55303			Summary Total					245.04
		HAPPY DAYS YARD SIGNS	PV	92637	001	09297	7/23/2018	40140	212.40
				Summary Total					212.40
				Payment Amount					524.94
100158	ECM PUBLISHERS INC	2017 ANNUAL SUMMARY REPORT	PV	92502	001	09101	7/6/2018	613695	252.63
	ECM PUBLISHERS INC			Summary Total					252.63
	4095 COON RAPIDS BLVD	LLAMA STREET	PV	92638	001	09804	7/20/2018	617023	75.25
	COON RAPIDS MN 55433			Summary Total					75.25
		JUNIPER RIDGE PH	PV	92639	001	09804	7/20/2018	617022	75.25
				Summary Total					75.25
		NEISS PH	PV	92640	001	09804	7/20/2018	617024	64.50
				Summary Total					64.50
		RUAN PH	PV	92641	001	09804	7/20/2018	617025	64.50
				Summary Total					64.50
				Payment Amount					532.13
106624	EHLERS AND ASSOCIATES, INC	RE: AFFINTY DEV AGREEMENT	PV	92503	001	09214	7/10/2018	77490	360.00
	EHLERS & ASSOCIATES, INC			Summary Total					360.00
	3060 CENTRE POINTE DRIVE								
	ROSEVILLE MN 55113-1105								
				Payment Amount					360.00
116059	ELECTRO SIGNS AND DESIGN LLC	CITY OF RAMSEY/NORTHFORK	PV	92504	001	09101	7/11/2018	1324	3,017.50
	ELECTRO SIGNS AND DESIGN INC			Summary Total					3,017.50
	1680 99TH LANE NE SUITE C								
	BLAINE MN 55449								

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				Payment Amount					3,017.50
104267	ELITE SANITATION	PARK TOILETS-RENTAL	PV	92540	001	09101	7/16/2018	25009	552.00
	ELITE SANITATION PO BOX 526 ELK RIVER MN 55330			Summary Total					552.00
				Payment Amount					552.00
107099	FASTENAL	MISC PARTS	PV	92541	001	09101	7/17/2018	MNTC8166800	5.78
	FASTENAL COMPANY			Summary Total					5.78
	P O BOX 1286	MISC PARTS	PV	92542	001	09101	7/18/2018	MNTC8166831	119.78
	WINONA MN 55987	MISC PARTS	PV	92542	002	09101	7/18/2018	MNTC8166831	25.30
				Summary Total					145.08
				Payment Amount					150.86
100143	FERGUSON WATERWORKS # 2516	MAN HOLE HOOKS	PV	92543	001	09602	7/17/2018	0292351	54.68
	FERGUSON WATERWORKS 2516			Summary Total					54.68
	P O BOX 802817	MISC METER SUPPLIES	PV	92544	001	09601	7/18/2018	0292318	7,075.91
	CHICAGO IL 60680-2817			Summary Total					7,075.91
		MISC WATER METER SUPPLIES	PV	92545	001	09601	7/18/2018	0292326	960.00
				Summary Total					960.00
		MAPPING /MOBILITY 1 YR	PV	92546	001	09601	7/16/2018	0290108	670.00
				Summary Total					670.00
				Payment Amount					8,760.59
116084	FORD OF HIBBING	2018 FORD TAURUS 383	PV	92505	001	09101	7/12/2018	9990991	26,078.45
	FORD OF HIBBING 2627 13TH AVENUE E HIBBING MN 55746			Summary Total					26,078.45
				Payment Amount					26,078.45
113711	FOSTER TRUCKING AND EXCAVATING	DELIVERY OF WOOD CHIPS	PV	92506	001	09101	7/11/2018	3718	1,200.00
	FOSTER TRUCKING AND EXCAVATING 1561 BUNKER LAKE BLVD NE HAM LAKE MN 55304			Summary Total					1,200.00

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				Payment Amount					1,200.00
100186	FRANKENSIGNS INC	NAMEPLATES	PV	92547	001	09101	7/9/2018	272149	108.00
	FRANKENSIGNS 9133 DAVENPORT STREET NE P O BOX 490301 BLAINE MN 55449			Summary Total					108.00
				Payment Amount					108.00
100650	GRAINGER	AIRPOT LEVER	PV	92548	001	09101	7/10/2018	9841563886	131.04
	GRAINGER INC DEPT. 806511127 PALATINE IL 60038-0001			Summary Total					131.04
		BALLAST LAMPS	PV	92642	001	09101	7/23/2018	9853741057	45.00
				Summary Total					45.00
				Payment Amount					176.04
109910	GREAT NORTHERN LANDSCAPE INC	REPAIR 14714 WACO STREET	PV	92507	001	09435	7/9/2018	12646	297.30
	GREAT NORTHERN LANDSCAPE INC 19720 IGUANA STREET NW ELK RIVER MN 55330			Summary Total					297.30
		RE: UTE STREET	PV	92508	001	09435	7/2/2018	12605	195.00
				Summary Total					195.00
				Payment Amount					492.30
100211	HAWKINS INC	CHEMICALS	PV	92549	001	09601	7/16/2018	071618	5,264.51
	HAWKINS INC P O BOX 860263 MINNEAPOLIS MN 55486-0263			Summary Total					5,264.51
				Payment Amount					5,264.51
112564	HEALTH PARTNERS GROUP HEALTH-WORKSITE	EAP JUNE 2018	PV	92554	001	09101	7/16/2018	W815028	73.00
	HEALTH PARTNERS GROUP HEALTH-WORKSITE MAIL STOP # 21109A P O BOX 64059 ST PAUL MN 55164-0059			Summary Total					73.00
				Payment Amount					73.00
114164	INITIAL DEFENSE PROTECTION SERVICES LLC	4-CPR/AED	PV	92551	001	09101	7/19/2018	18-10	222.00

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	INITIAL DEFENSE PROTECTION SERVICES LLC 13055 RIVERDALE DR NW SUITE 500 BOX 255 RAMSEY MN 55303			Summary Total					222.00
				Payment Amount					222.00
112475	INNOVATIVE OFFICE SOLUTIONS	OFFICE SUPPLIES	PV	92509	001	09101	7/12/2018	IN2116781	51.38
	INNOVATIVE OFFICE SOLUTIONS AB # 1004 P O BOX 249004 APPLE VALLEY MN 55124-9017			Summary Total					51.38
				Payment Amount					51.38
106324	INSPECTRON INC	JUNE 2018 SERVICES	PV	92510	001	09101	7/9/2018	070918	8,075.00
	INSPECTRON INC CODE COMPLIANCE INSPECTIONS 15120 CHIPPENDALE AVE SUITE 202 ROSEMOUNT MN 55068			Summary Total					8,075.00
				Payment Amount					8,075.00
101247	INTERSTATE BATTERIES COON RAPIDS	BATTERY- WORKOUT BIKE	PV	92511	001	09101	7/12/2018	1901202004103	12.00
	INTERSTATE BATTERIES COON RAPIDS			Summary Total					12.00
	335 78TH STREET EAST	LITHIUM BATTERIES	PV	92643	001	09101	7/27/2018	1901202004141	29.80
	BLOOMINGTON MN 55420			Summary Total					29.80
				Payment Amount					41.80
107539	LANDSCAPE ARCHITECTURE INC	PEARSON PARK NATURE PLAY	PV	92644	001	09804	7/25/2018	072518	2,000.00
	LANDSCAPE ARCHITECTURE INC 2350 BAYLESS PLACE ST PAUL MN 55114			Summary Total					2,000.00
				Payment Amount					2,000.00
100256	LANO EQUIPMENT INC	BLADE BOLT	PV	92512	001	09101	7/11/2018	02-573723	48.30
	LANO EQUIPMENT INC			Summary Total					48.30
	6140 HIGHWAY 10 NW	KUBOTA CAB	PV	92645	001	09101	7/24/2018	02-576611	250.00
	ANOKA MN 55303			Summary Total					250.00

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				Payment Amount					298.30
100266	LOGIS	ADOBE/MICROSOFT RENEWAL	PV	92552	001	09101	6/30/2018	45580	1,529.19
	LOCAL GOVERNMENT INFORMATION SYSTEMS ASS			Summary Total					1,529.19
	5750 DULUTH STREET	NETWORK SERVICES THRU 6/30/18	PV	92553	001	09101	6/30/2018	45543	270.00
	GOLDEN VALLEY MN 55422-4036			Summary Total					270.00
		JUNE 18 BILLING	PV	92555	001	09101	6/30/2018	45479	13,085.00
				Summary Total					13,085.00
		ENTRUST TOKENS	PV	92556	001	09101	6/30/2018	45598	45.00
				Summary Total					45.00
		SERVICE RELAYS	PV	92557	001	09101	6/30/2018	45607	220.00
				Summary Total					220.00
				Payment Amount					15,149.19
100283	MENARDS COON RAPIDS	FLAGS/STAKES/U POSTS	PV	92558	001	09101	7/12/2018	79776	31.08
	MENARDS COON RAPIDS			Summary Total					31.08
	3045 MAIN STREET	PVC COUPLINGS	PV	92559	001	09101	7/17/2018	80142	17.84
	COON RAPIDS MN 55433			Summary Total					17.84
				Payment Amount					48.92
100284	MENARDS ELK RIVER	MISC SUPPLIES	PV	92513	001	09601	7/11/2018	63783	31.59
	MENARDS ELK RIVER			Summary Total					31.59
	19521 EVANS STREET NW	MISC SUPPLIES	PV	92684	001	09601	7/18/2018	64330	102.87
	ELK RIVER MN 55330-1077			Summary Total					102.87
		MISC SUPPLIES	PV	92685	001	09601	7/19/2018	64402	41.03
				Summary Total					41.03
		MISC SUPPLIES	PV	92686	001	09601	7/25/2018	64886	133.66
				Summary Total					133.66
				Payment Amount					309.15
108208	METRO PRODUCTS INC	MISC SUPPLIES	PV	92514	001	09101	7/11/2018	136136	66.37
	METRO PRODUCTS INC			Summary Total					66.37
	7401 CENTRAL AVENUE NE	MISC PARTS	PV	92515	001	09101	7/19/2018	136326	9.80
	FRIDLEY MN 55432	MISC PARTS	PV	92515	002	09101	7/19/2018	136326	30.00
				Summary Total					39.80
				Payment Amount					

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									106.17
100293	MIDC ENTERPRISES	MISC PARTS	PV	92646	001	09101	7/13/2018	I0042427	987.53
	MIDC ENTERPRISES 1450 WEST COUNTY ROAD C ROSEVILLE MN 55113			Summary Total					987.53
				Payment Amount					987.53
106555	MINNEAPOLIS, CITY OF	JUNE 18 BILLABLE TRANSACTIONS	PV	92648	001	09101	7/20/2018	400451002168	99.00
	MINNEAPOLIS FINANCE DEPT P O BOX 77038 MINNEAPOLIS MN 55480-7738			Summary Total					99.00
				Payment Amount					99.00
103859	MPCA	RE ALLOY RECOVERY CO	PV	92647	001	09230	7/23/2018	10000061391	1,000.00
	MN POLLUTION CONTROL AGENCY P O BOX 64893 ST PAUL MN 55164-0893			Summary Total					1,000.00
				Payment Amount					1,000.00
100341	MTI DISTRIBUTING INC	PROXIMITY SENSOR	PV	92560	001	09101	7/18/2018	1178458-00	78.05
	MTI DISTRIBUTING INC SDS 12-1900 P O BOX 86 MINNEAPOLIS MN 55486-1900			Summary Total					78.05
				Payment Amount					78.05
115375	MUTT MITT	MUTT MITTS	PV	92516	001	09101	7/10/2018	231471	310.71
	MUTT MITT 12316 WORLD TRADE DRIVE SUITE 102 SAN DIEGO CA 92128			Summary Total					310.71
				Payment Amount					310.71
100345	NAPA AUTO PARTS ELK RIVER	CORE DEP RETURN	PD	92517	001	09601	7/5/2018	969014	144.00-
	NAPA AUTO PARTS ELK RIVER 17137 YALE STREET NW P O BOX 1041			Summary Total					144.00-
		BATTERY PUMP HOUSE 3	PV	92518	001	09601	7/5/2018	968970	543.72
				Summary Total					543.72

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	ELK RIVER MN 55330								
				Payment Amount					399.72
115167	NET TRANSCRIPTS INC	JUNE 18 TRANSCRIPTION	PV	92649	001	09101	6/30/2018	0019335	592.48
	NET TRANSCRIPTS INC 3707 N. 7TH STREET SUITE 320 PHOENIX AZ 85014			Summary Total					592.48
				Payment Amount					592.48
100988	NORTHERN SAFETY TECHNOLOGY	MISC SAFETY LIGHTS	PV	92564	001	09601	7/11/2018	46185	2,009.00
	NORTHERN SAFETY TECHNOLOGY 5708 UPPER 147TH STREET W SUITE 107 APPLE VALLEY MN 55124			Summary Total					2,009.00
				Payment Amount					2,009.00
100363	NORTHERN SANITARY SUPPLY CO	MISC SUPPLIES	PV	92561	001	09101	7/17/2018	191767	261.70
	NORTHERN SANITARY SUPPLY CO 341 COON RAPIDS BLVD MINNEAPOLIS MN 55433			Summary Total					261.70
				Payment Amount					261.70
115232	NORTHERN TECHNOLOGIES LLC	CENTER ST GRADING MAY/JUNE 18	PV	92519	001	09214	6/16/2018	27182	3,700.00
	NORTHERN TECHNOLOGIES LLC 3522 4TH AVENUE S			Summary Total					3,700.00
		ZEOLITE ST GRADE MAY/JUNE 18	PV	92520	001	09214	6/16/2018	27180	3,200.00
	FARGO ND 58103			Summary Total					3,200.00
		YOLITE ST JUNE/JULY 18	PV	92650	001	09214	7/7/2018	27463	563.00
				Summary Total					563.00
		RIVERDALE EXT JUNE/JULY 18	PV	92651	001	09402	7/7/2018	27465	891.50
				Summary Total					891.50
		COR INFILTRATION	PV	92652	001	09605	7/7/2018	27621	1,250.00
				Summary Total					1,250.00
				Payment Amount					9,604.50

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115071	NORTHLAND OCCUPATIONAL HEALTH	S SULLIVAN PRE EMPLOY	PV	92562	001	09101	7/16/2018	1950	25.00
	NORTHLAND OCCUPATIONAL HEALTH				Summary Total				25.00
	7533 SUNWOOD DRIVE NW SUITE 212	L PHELPS PRE EMPLOY	PV	92563	001	09101	7/20/2018	1965	50.00
	RAMSEY MN 55303				Summary Total				50.00
		PRE EMPLOY J. VANNESS	PV	92653	001	09101	7/26/2018	1979	50.00
					Summary Total				50.00
					Payment Amount				125.00
110547	NORTHWEST LIGHTING SYSTEMS CO.	OPEN FIXTURE	PV	92565	001	09240	7/16/2018	107965	153.12
	NORTHWEST LIGHTING SYSTEMS CO. 746 CRAIG AVENUE TRACY MN 56175				Summary Total				153.12
					Payment Amount				153.12
116472	OSI ENVIRONMENTAL INC	ABSORBENT CLAY	PV	92566	001	09101	7/30/2018	2073291	185.00
	OSI ENVIRONMENTAL INC 1000 LUND BLVD ANOKA MN 55303				Summary Total				185.00
					Payment Amount				185.00
100393	PRAIRIE RESTORATIONS INC	MONARCH TRAIL PROJECT	PV	92521	001	09270	6/27/2018	12527	4,663.00
	PRAIRIE RESTORATIONS INC				Summary Total				4,663.00
	31646 128TH STREET	ALPINE SLOPES/MEDIANS	PV	92567	001	09101	7/10/2018	12859	289.49
	PRINCETON MN 55371				Summary Total				289.49
		RAMSEY CENTRAL PARK	PV	92568	001	09101	7/12/2018	12941	262.50
					Summary Total				262.50
		RAMSEY RIVERS BEND	PV	92569	001	09101	7/9/2018	12831	700.00
					Summary Total				700.00
		SUNFISH LAKE PARK	PV	92570	001	09101	7/9/2018	12796	375.00
					Summary Total				375.00
		SUNFISH LK PARK	PV	92571	001	09101	7/12/2018	12923	384.00

Bank Account	00002224	CASH IN BANK
Version	LOGIS004V	
Originator	JLIPSKI	
Payment Instrument		Check Payment
Pay Through Date	12/31/2018	

Payee Number	Name / Mailing Address	Stub Message	Document Ty	Number	Itm	Co	Due Date	Invoice Number	Payment Amount
				Summary Total					384.00
		THE DRAW PARK	PV	92572	001	09605	7/12/2018	12926	455.00
				Summary Total					455.00
				Payment Amount					7,128.99
107978	PREMIER COMMERCIAL PROPERTIES INC	TREAT WEEDS/ FILL POT HOLE	PV	92675	001	09410	7/25/2018	5969	87.00
	PREMIER COMMERCIAL PROPERTIES INC 299 COON RAPIDS BLVD NW #200 COON RAPIDS MN 55433								
				Summary Total					87.00
				Payment Amount					87.00
115671	RCM EQUIPMENT COMPANY LLC	EMULSION RENTAL	PV	92522	001	09101	7/9/2018	3666	8,620.00
	RCM EQUIPMENT COMPANY LLC 12090 MARGO AVE SO SUITE B HASTINGS MN 55033								
				Summary Total					8,620.00
				Payment Amount					8,620.00
114163	RCM SPECIALTIES INC	EMULSION TICKET 147	PV	92693	001	09101	7/20/2018	6671	5,242.95
	RCM SPECIALTIES INC 12090 MARGO AVENUE SOUTH SUITE B HASTINGS MN 55033								
				Summary Total					5,242.95
				Payment Amount					5,242.95
114535	RED LEAF INC	DESIGN 20TH LOGO	PV	92523	001	09297	7/13/2018	4955	750.00
	RED LEAF INC 3957 YOSEMITE AVENUE S MINNEAPOLIS MN 55416								
				Summary Total					750.00
				Payment Amount					750.00
100422	REGISTERED ABSTRACTERS INC	RE 14680 HERMATITE ST NW	PV	92676	001	09101	6/13/2018	A18-06027	75.00
	REGISTERED ABSTRACTERS INC 2115 NORTH THIRD AVENUE ANOKA MN 55303								
				Summary Total					75.00
				Payment Amount					75.00
110330	RESHETAR SYSTEM INC	16640	PV	92654	001	09101	7/23/2018	18-25021	1,690.00

Bank Account	00002224	CASH IN BANK
Version	LOGIS004V	
Originator	JLIPSKI	
Payment Instrument		Check Payment
Pay Through Date	12/31/2018	

Payee Number	Name / Mailing Address	Stub Message	Document Ty	Number	Itm	Co	Due Date	Invoice Number	Payment Amount
		QUICKSILVER-ABATEMENT							
	RESHETAR SYSTEM INC 730 BUNKER LAKE BLVD ANOKA MN 55303			Summary Total					1,690.00
				Payment Amount					1,690.00
106617	ROTARY CLUB OF RAMSEY	K. ULRICH 3RD QTR 2018 DUES	PV	92677	001	09101	7/16/2018	90 3RD QTR 2018	150.00
	ROTARY CLUB OF RAMSEY 7550 SUNWOOD DRIVE NW RAMSEY MN 55303			Summary Total					150.00
				Payment Amount					150.00
115381	RUMRIVER ART CENTER	ART FAIR EXPENSES	PV	92524	001	09101	7/17/2018	1208791	51.60
	RUMRIVER ART CENTER 2665 4TH AVENUE SUITE 102 ANOKA MN 55303			Summary Total					51.60
				Payment Amount					51.60
115825	S AND L ENTERPRISES	2018 SAFETY CAMP	PV	92525	001	09290	7/3/2018	1023	225.00
	S AND L ENTERPRISES 14050 ST FRANCIS BLVD RAMSEY MN 55303			Summary Total					225.00
				Payment Amount					225.00
100431	SAFETY KLEEN CORPORATION	RECYCLE OIL	PV	92526	001	09101	7/1/2018	CN07184450	110.97
	SAFETY KLEEN CORPORATION PO BOX 382066 PITTSBURGH PA 15250-8066			Summary Total					110.97
				Payment Amount					110.97
111128	SHERBURNE COUNTY SHERIFFS OFFICE	7-23-18 RANGE USE	PV	92655	001	09101	7/23/2018	0201807 RPD	60.00
	SHERBURNE COUNTY SHERIFFS OFFICE 13880 BUSINESS CENTER DRIVE NW ELK RIVER MN 55330			Summary Total					60.00
				Payment Amount					60.00

CITY OF RAMSEY
Create Payment Control Groups

Bank Account	00002224	CASH IN BANK
Version	LOGIS004V	
Originator	JLIPSKI	
Payment Instrument		Check Payment
Pay Through Date	12/31/2018	

Payee Number	Payee Name / Mailing Address	Stub Message	Document Ty	Document Number	Itm	Co	Due Date	Invoice Number	Payment Amount
114269	SPEEDCUTTERS OUTDOOR MAINTENANCE LLC	JULY- ALPINE FIRE STATION	PV	92573	001	09101	7/24/2018	10784	460.64
				Summary Total					460.64
	SPEEDCUTTERS OUTDOOR MAINTENANCE LLC 18523 OLSON STREET NW ELK RIVER MN 55330								
				Payment Amount					460.64
100469	STREICHER'S POLICE EQUIPMENT	BALLISTIC HELMET	PV	92656	001	09101	7/24/2018	I1323648	357.50
				Summary Total					357.50
	STREICHER'S POLICE EQUIPMENT 10911 WEST HWY 55	MAG HOLDER/ BOOTS-HINNENKAMP	PV	92657	001	09101	7/23/2018	I1323623	183.98
				Summary Total					183.98
	MINNEAPOLIS MN 55441	GARDNER- BOOTS	PV	92658	001	09101	7/16/2018	I1322684	149.99
				Summary Total					149.99
		TAC GEAR- FULLER/BROTKOWSKI	PV	92659	001	09101	7/23/2018	W119103	116.44
				Summary Total					116.44
				Payment Amount					807.91
100485	TIMESAVER OFF SITE SECRETARIAL INC	JULY MEETINGS	PV	92678	001	09101	7/13/2018	M23963	469.00
				Summary Total					469.00
	TIMESAVER OFF SITE SECRETARIAL INC 5291 RIVER OAK DRIVE SAVAGE MN 55378								
				Payment Amount					469.00
112079	TOKLE INSPECTIONS INC	JUNE 2018 SERVICE	PV	92527	001	09101	7/10/2018	071018	5,631.75
				Summary Total					5,631.75
	TOKLE INSPECTIONS INC 1748 123RD AVENUE NW COON RAPIDS MN 55448								
				Payment Amount					5,631.75
100529	WENDELL'S INC	BADGES	PV	92574	001	09101	7/18/2018	2312499	15.69
	WENDELL'S INC	BADGES	PV	92574	002	09101	7/18/2018	2312499	5.22
				Summary Total					20.91
	6601 BUNKER LAKE BLVD PO BOX 458 RAMSEY MN 55303-0458								

Bank Account	00002224 CASH IN BANK
Version	LOGIS004V
Originator	JLIPSKI
Payment Instrument	Check Payment
Pay Through Date	12/31/2018

Payee Number	Payee Name / Mailing Address	Stub Message	Document Ty	Number	Itm	Co	Due Date	Invoice Number	Payment Amount
				Payment Amount					20.91
113539	WINSUPPLY TWIN CITIES MN CO.	WALL WATER CLOSET/MISC	PV	92662	001	09101	7/16/2018	112452 00	108.56
	WINSUPPLY TWIN CITIES MN CO. 13930 RADIUM STREET NW RAMSEY MN 55303			Summary Total					108.56
				Payment Amount					108.56
100539	WRIGHT TIRE SERVICE INC	4 TIRES FOR 402 : 1 FOR 690	PV	92528	001	09101	7/12/2018	60693	23.60
	WRIGHT TIRE SERVICE INC	4 TIRES FOR 402 : 1 FOR 690	PV	92528	002	09101	7/12/2018	60693	527.48
	710 WEST MAIN STREET ANOKA MN 55303			Summary Total					551.08
		SPARE TIRE 679	PV	92661	001	09101	7/24/2018	61092	225.64
				Summary Total					225.64
		1 TIRE 389	PV	92694	001	09101	7/30/2018	237168	55.94
				Summary Total					55.94
				Payment Amount					832.66
112515	WSB AND ASSOCIATES INC	2040 COMP PLAN	PV	92679	001	09101	7/25/2018	0-001973-160-21	238.00
	WSB AND ASSOCIATES INC 701 XENIA AVENUE SOUTH SUITE 300 MINNEAPOLIS MN 55416			Summary Total					238.00
		2018 GENERAL PLANNING	PV	92680	001	09101	7/25/2018	R-011112-000-6	5,002.00
				Summary Total					5,002.00
		PHASE I ESA SITE 55	PV	92681	001	09230	7/25/2018	R-012026-000-1	2,467.00
				Summary Total					2,467.00
		ROAD FUNDING ANALYSIS	PV	92682	001	09101	7/25/2018	R-011762-000-3	621.00
				Summary Total					621.00
		COR AUAR UPDATE JUNE 18	PV	92687	001	09214	7/18/2018	R-011954-000-3	2,503.50
				Summary Total					2,503.50
				Payment Amount					10,831.50
100543	ZIEGLER INC	WORK ON GENERATOR	PV	92695	001	09240	7/21/2018	SW050300622	2,190.49
	ZIEGLER INC SDS 12-0436			Summary Total					2,190.49

R04570

CITY OF RAMSEY

Create Payment Control Groups

Bank Account	00002224	CASH IN BANK
Version	LOGIS004V	
Originator	JLIPSKI	
Payment Instrument		Check Payment
Pay Through Date	12/31/2018	

Payee Number	Payee Name / Mailing Address	Stub Message	Document Ty	Document Number	Document Itm	Document Co	Due Date	Invoice Number	Payment Amount
	PO BOX 86								
	MINNEAPOLIS MN 55486-0436								

Payment Amount	2,190.49
Total Amount to be Processed	253,786.54
Total Number of Payments to be Processed	81

R04570

CITY OF RAMSEY
Create Payment Control Groups

Bank Account	00002224	CASH IN BANK
Version	LOGIS004V	
Originator	JLIPSKI	
Payment Instrument		Check Payment
Pay Through Date	12/31/2018	

Payee Number	Payee Name / Mailing Address	Stub Message	Document Ty	Document Number	Document Itm	Document Co	Due Date	Invoice Number	Payment Amount
101234	NORTH VALLEY, INC	FINAL PAY EST CENTRAL PARK LOT	PV	92618	001	09805	7/27/2018	072718	47,423.05

NORTH VALLEY, INC
20015 IGUANA STREET NW
NOWTHEN MN 55330

Summary Total	47,423.05
Payment Amount	47,423.05
Total Amount to be Processed	47,423.05
Total Number of Payments to be Processed	1

NORTHLAND TRUST SERVICES
150 S. Fifth Street, Suite 3300
Minneapolis, MN 55402
Phone 612-851-4931
Fax 612-851-4933

*** EFFECTIVE FEBRUARY 11, 2018 OUR ADDRESS HAS CHANGED ***
(SEE ABOVE)

INVOICE

CITY OF RAMSEY
ATTN: FINANCE OFFICER
7550 SUNWOOD DRIVE NW
RAMSEY MN 55303-5137

06/11/2018
RAMS11A

RE: CITY OF RAMSEY, MINNESOTA
$4,365,000 GENERAL OBLIGATION BONDS,
SERIES 2011A

9345 . 6611
301 292.50

Debt Service: 08/01/2018

Principal:	0.00
Interest:	36,292.50
Total Principal & Interest:	36,292.50
Less Cash on Hand (Escrow Funds)	(0.00)
Paying Agent Annual Fee	0.00
Total Amount Due:	**36,292.50**

CHECK PAYMENTS due: 07-25-18

Make Checks payable to:
NORTHLAND TRUST SERVICES INC.

WIRE PAYMENTS due: 07-27-18

Wells Fargo Bank, San Francisco, CA
ABA: 121-000-248
ACCT: 143-6412710 Northland Trust Services
REF: Issuer name & series number

***MN SCHOOL DISTRICTS should wire funds 3 days prior to debt service date according to State Credit Enhancement requirements.**

Thank you for your business!

If you have questions please contact:

Rhonda Magee
PH:612-851-4931
rmagee@northlandtrust.com

Scott Miles
PH: 612-851-5914
smiles@northlandtrust.com

CC Regular Session **4. 5.**

Meeting Date: 08/06/2018

Submitted For: Bruce Westby, Engineering/Public Works

By: Marsha Weidner, Engineering/Public Works

Information

Title

Adopt Resolution #18-164 Authorizing Final Payment to North Valley, Inc for Improvement Project 16-98, Central Park Parking Lot.

Purpose/Background:

Resolution and Pay Request Attached.

Notification:

Issuing final payment will be contingent on receipt of the following items from North Valley, Inc.:

1. IC 134 (Contractor's Withholding Affidavit showing compliance with the provisions of Minnesota Statute 290.92 requiring withholding state income tax)
2. Waiver of Mechanic's Lien Rights (Affidavits that all claims against North Valley, Inc. by reasons of the contract have been fully paid or satisfactorily secured)
3. Consent of Surety to Final Payment (Certification from the contractor's surety)

Following receipt of these items, final payment will be issued.

Recommendation:

The Senior Engineering Technician has inspected the completed work and recommends final payment to North Valley, Inc. for Improvement Project 16-98, Central Park Parking Lot in the amount of $47,423.05.

Final payment for this project exceeds the contract amount by $26,786.02. This is primarily due to two pay item quantities over-running the contract quantities, those being common topsoil borrow and erosion control blanket. During construction, adjustments needed to be made to site grading in a couple of areas to better facilitate drainage and to flatten out the area between the north curb line and the ball fields so fans can better observe games from a much more level area.

Action:

Motion to adopt Resolution #18-164 authorizing final payment to North Valley, Inc for Improvement Project 16-98, Central Park Parking Lot in the amount of $47,423.05.

Attachments

Final Pay Resolution

Final Pay Request

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	08/02/2018 12:42 PM
Kurt Ulrich	Kurt Ulrich	08/02/2018 01:50 PM
Form Started By: Marsha Weidner		Started On: 07/30/2018 09:04 AM
Final Approval Date: 08/02/2018		

Councilmember introduced the following resolution and moved for its adoption:

RESOLUTION #18-164

RESOLUTION AUTHORIZING FINAL PAY TO NORTH VALLEY, INC FOR CITY IMPROVEMENT PROJECT #16-98, CENTRAL PARK PARKING LOT

WHEREAS, pursuant to a resolution of the City Council adopted September 13, 2016, final plans and specifications were approved and advertisements for bids were authorized for said improvements; and

WHEREAS, pursuant to a resolution of the City Council adopted October 11, 2016 the bid of North Valley, Inc. in the amount of $238,992.56 for the total bid is the lowest responsible bidder; and

WHEREAS, as of August 6, 2018 $218,355.53 has been paid to date; and

WHEREAS, the Senior Engineering Technician has inspected the completed work and recommends final payment to North Valley, Inc. in the amount of $47,423.05.

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 hereby authorizes final payment to North Valley, Inc. for Improvement Project 16-98 Central Park Parking Lot Improvements in the amount of $47,423.05.

2) That the City Council hereby accepts the project and authorizes the Mayor or City Administrator to sign the release form for this payment.

3) That the total amount of this payment is not included in resolutions approving payment of bills for the date of August 6, 2018.

4) That the City of Ramsey Finance Department will be provided a signed copy of this resolution

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 6th day of August 2018.

Acting Mayor

ATTEST:

City Clerk

18-164

Pay Estimate Summary Sheet
IP # 16-98 Central Park Parking Lot

City of Ramsey

FINAL PAY ESTIMATE

Estimate no **2**

TOTAL CONTRACT	$	238,992.56
	$	-
TOTAL CONTRACT	$	238,992.56
STORED MATERIALS		
TOTAL, COMPLETED WORK TO DATE	$	265,778.58
TOTAL WORK COMPLETED PLUS STORED MATERIALS	$	265,778.58
	$	-
NET AMOUNT DUE TO CONTRACTOR TO DATE	$	265,778.58
TOTAL AMOUNT PAID ON PREVIOUS ESTIMATES	$	218,355.53
PAY CONTRACTOR PER ESTIMATE NO. 2	$	47,423.05

OK over per Bruce

OK AM 7/17

Certificate for Final Payment

I hereby certify that, to the best of my knowledge and belief, all items, quantities and prices of work and material shown on the this Estimate are correct and that all work has been performed in full accordance with the terms and conditions of the Contract for this project between owner and the undersigned Contractor, and as amended by any authorized changes and the foregoing is a true and correct statement of the amount for the Final Estimate, the provisions of M.S. 290.92 have been complied with and that all claims against me by reason of the contract have been paid or satisfactorily secured.

Contractor: North Valley, Inc.

By _____ President
Name Title

Date 7/16/18

CHECKED AND APPROVED AS TO QUANTITIES AND AMOUNT:
ENGINEER: CITY OF RAMSEY

By _____ Civil Engineer IV
Leonard Linton, PE

Date 7/13/18

APPROVED FOR PAYMENT:
OWNER: City of Ramsey

By _____ City Engineer 7/13/18
Name Title Date

IP # 16-98 Central Park Parking Lot
PAY ESTIMATE

PAY ESTIMATE NO. **2**

BASE BID	$ 238,992.56	$ 35,930.65	$ 265,778.58
TOTAL BID	$ 238,992.56	$ 35,930.65	$ 265,778.58

ITEM NO.	MNDOT NO.	ITEM DESCRIPTION	UNIT	CONTRACT AMOUNT ESTIMATED QUANTITY	UNIT PRICE	EXTENSION	PAY THIS PERIOD QUANTITY	EXTENSION	PAID TO DATE QUANTITY	EXTENSION
1	2021.501	MOBILIZATION	LS	1	$ 3,215.00	$ 3,215.00	0	$ -	1	$ 3,215.00
2	2101.502	CLEARING	TREE	10	$ 455.46	$ 4,554.60	3	$ 1,366.38	13	$ 5,920.98
3	2101.507	GRUBBING	TREE	10	$ 455.46	$ 4,554.60	3	$ 1,366.38	13	$ 5,920.98
4	2104.501	REMOVE SEWER PIPE - STORM	LF	30	$ 37.51	$ 1,125.30	0	$ -	30	$ 1,125.30
5	2104.505	REMOVE BITUMINOUS PAVEMENT	SY	207	$ 3.05	$ 631.35	0	$ -	150	$ 457.50
6	2104.513	SAWING BITUMINOUS PAVEMENT - FULL DEPTH	LF	44	$ 3.75	$ 165.00	48	$ 180.00	92	$ 345.00
7	2105.501	COMMON EXCAVATION (EV)	CY	383	$ 20.27	$ 7,763.41	0	$ -	400	$ 8,108.00
8	2105.511	CHANNEL AND POND EXCAVATION (EV)	CY	1322	$ 17.15	$ 22,672.30	0	$ -	1300	$ 22,295.00
9	2105.522	SELECT GRANULAR BORROW (CV)	CY	100	$ 18.66	$ 1,866.00	0	$ -	0	$ -
10	2105.601	UTILITY DEWATERING	LS	1	$ 1.07	$ 1.07	0	$ -	0	$ -
11	2105.604	GEOTEXTILE FABRIC TYPE IV	SY	70	$ 3.22	$ 225.40	0	$ -	50	$ 161.00
12	2211.503	AGGREGATE BASE CLASS 5 MODIFIED (CV)	CY	645	$ 39.41	$ 25,419.45	19	$ 748.79	659	$ 25,971.19
13	2232.501	MILL BITUMINOUS PAVEMENT	SY	5	$ 32.15	$ 160.75	0	$ -	5	$ 160.75
14	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL	197	$ 3.73	$ 734.81	0	$ -	190	$ 708.70
15	2360.501	TYPE SP 9.5 WEARING COURSE MIXTURE (SPWEA340B) (1.5")	TON	279	$ 72.80	$ 20,311.20	0	$ -	349.29	$ 25,428.31
16	2360.501	TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB240B) (2.5") BITUMINOUS TRA	TON	149	$ 77.00	$ 11,473.00	0	$ -	154.89	$ 11,926.53
17	2360.502	TYPE 12.5 NON-WEARING COURSE MIXTURE (SPNWB330B) (2")	TON	466	$ 63.25	$ 29,474.50	0	$ -	377.99	$ 23,907.87
18	2411.507	CONCRETE INLET PAD	EA	2	$ 375.09	$ 750.18	0	$ -	2	$ 750.18
19	2451.607	ROCK BEDDING (CV)	CY	5	$ 49.30	$ 246.50	0	$ -	4	$ 197.20
20	2501.515	12" CS PIPE APRON	EA	2	$ 176.83	$ 353.66	0	$ -	2	$ 353.66
21	2501.515	15" RC PIPE APRON	EA	1	$ 562.62	$ 562.62	0	$ -	1	$ 562.62
22	2501.515	18" RC PIPE APRON	EA	1	$ 643.00	$ 643.00	0	$ -	1	$ 643.00
23	2501.602	TRASH GUARD FOR 12" CS PIPE APRON	EA	2	$ 128.60	$ 257.20	0	$ -	2	$ 257.20
24	2501.602	TRASH GUARD FOR 15" RC PIPE APRON	EA	1	$ 482.25	$ 482.25	0	$ -	1	$ 482.25
25	2501.602	TRASH GUARD FOR 18" RC PIPE APRON	EA	1	$ 535.83	$ 535.83	0	$ -	1	$ 535.83
26	2501.602	INLET STRUCTURE SPECIAL (RAIN GUARDIAN)	EA	2	$ 1,071.67	$ 2,143.34	0	$ -	2	$ 2,143.34
27	2503.541	15" RC PIPE SEWER, DESIGN 3006 CLASS III	LF	148	$ 28.77	$ 4,257.96	0	$ -	146	$ 4,200.42
28	2503.541	18" RC PIPE SEWER, DESIGN 3006 CLASS III	LF	62	$ 35.37	$ 2,192.94	0	$ -	63	$ 2,228.31
29	2503.602	CONNECT TO EXISTING STORM SEWER	EA	1	$ 1,178.84	$ 1,178.84	0	$ -	1	$ 1,178.84
30	2503.603	12" HDPE PIPE SEWER	LF	246	$ 13.77	$ 3,387.42	0	$ -	237	$ 3,263.49
31	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4020	LF	25.4	$ 573.34	$ 14,562.84	0	$ -	23	$ 13,186.82
32	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN 2X3 CATCH BASIN	EA	2	$ 2,137.97	$ 4,275.94	0	$ -	2	$ 4,275.94
33	2506.516	CASTING ASSEMBLY	EA	7	$ 519.76	$ 3,638.32	3	$ 1,559.28	7	$ 3,638.32
34	2506.521	INSTALL CASTING	EA	7	$ 401.87	$ 2,813.09	3	$ 1,205.61	7	$ 2,813.09
35	2511.501	RANDOM RIP RAP CLASS III	CY	19	$ 198.26	$ 3,766.94	10.76	$ 2,133.28	27.76	$ 5,503.70
36	2521.501	6" CONCRETE WALK	SF	189	$ 7.45	$ 1,408.05	0	$ -	195	$ 1,452.75
37	2531.501	CONCRETE CURB & GUTTER DESIGN B618	LF	1344	$ 17.09	$ 22,968.96	0	$ -	1350	$ 23,071.50
38	2531.501	CONCRETE CURB & GUTTER DESIGN B618 (MODIFIED)	LF	144	$ 21.38	$ 3,078.72	0	$ -	148	$ 3,164.24

39	2531.604	CONCRETE DRAINAGE FLUME	SY	3	$	182.18	$	546.54	0	$	-	3	$	546.54
40	2531.618	TRUNCATED DOMES	SF	60	$	53.58	$	3,214.80	0	$	-	60	$	3,214.80
41	2535.501	BITUMINOUS CURB	LF	277	$	3.48	$	963.96	0	$	-	277	$	963.96
42	2563.601	TRAFFIC CONTROL	LS	1	$	1,607.50	$	1,607.50	0	$	-	1	$	1,607.50
43	2573.502	SILT FENCE	LF	725	$	1.88	$	1,363.00	0	$	-	626	$	1,176.88
44	2573.53	STORM DRAIN INLET PROTECTION	EA	7	$	198.26	$	1,387.82	3	$	594.78	7	$	1,387.82
45	2573.535	STABILIZED CONSTRUCTION EXIT	EA	1	$	535.83	$	535.83	0	$	-	0	$	-
46	2574.508	FERTILIZER TYPE 3	LB	175	$	0.96	$	168.00	200	$	192.00	375	$	360.00
47	2574.525	COMMON TOPSOIL BORROW (LV)	CY	290	$	28.08	$	8,143.20	664	$	18,645.12	954	$	26,788.32
48	2575.502	SEED MIXTURE 33-261	LB	25	$	30.01	$	750.25	10	$	300.10	35	$	1,050.35
49	2575.502	SEED MIXTURE 25-131	LB	95	$	5.36	$	509.20	155	$	830.80	250	$	1,340.00
50	2575.511	MULCH MATERIAL TYPE 1	TON	1.2	$	1,607.50	$	1,929.00	0.75	$	1,205.63	1.95	$	3,134.63
51	2575.519	DISK ANCHORING	ACRE	0.44	$	214.34	$	94.31	0	$	-	0.44	$	94.31
52	2575.523	EROSION CONTROL BLANKET CATEGORY 3	SY	2150	$	1.66	$	3,569.00	3375	$	5,602.50	5525	$	9,171.50
53	2575.605	SEEDING	ACRE	0.86	$	857.34	$	737.31	0	$	-	0.86	$	737.31
54	2582.501	PAVT MSSG (HANDICAP SYMBOL) - EPOXY	EA	4	$	138.95	$	555.80	0	$	-	3	$	416.85
55	2582.502	4" SOLID LINE WHITE - EPOXY	LF	1505	$	2.50	$	3,762.50	0	$	-	1234	$	3,085.00
56	2582.502	4" BROKEN LINE YELLOW - EPOXY	LF	490	$	0.14	$	68.60	0	$	-	490	$	68.60
57	2582.503	CROSSWALK MARKING - EPOXY	SF	240	$	5.14	$	1,233.60	0	$	-	210	$	1,079.40
		TOTAL BID					$	238,992.56		$	35,930.65		$	265,778.58

DEPARTMENT OF REVENUE

Contractor Affidavit Submitted

Thank you, your Contractor Affidavit has been approved.

Confirmation Summary

Confirmation Number:	2-080-980-672
Submitted Date and Time:	16-Jul-2018 4:47:14 PM
Legal Name:	NORTH VALLEY INC
Federal Employer ID:	41-1906523
User Who Submitted:	northva
Type of Request Submitted:	Contractor Affidavit

Affidavit Summary

Affidavit Number:	**1147183104**
Minnesota ID:	3744649
Project Owner:	CITY OF RAMSEY
Project Number:	16-98
Project Begin Date:	11-Apr-2017
Project End Date:	15-Jun-2017
Project Location:	CENTRAL PARK PARKING LOT-RAMSEY
Project Amount:	$265,778.58

Subcontractor Summary

Name	ID	Affidavit Number
SAFETY SIGNS LLC	5139558	1577132032
SCHMIDT CURB COMPANY INC	3605361	2004131840
AAA STRIPING SERVICE CO	6290097	1449353216
ZAK INDUSTRIES INC	9254906	1288986624

Important Messages

A copy of this page must be provided to the contractor or government agency that hired you.

Contact Us

If you need further assistance, contact our Withholding Tax Division at 651-282-9999, (toll-free) 800-657-3594, or (email) withholding.tax@state.mn.us. Business hours are 8:00 a.m. - 4:30 p.m. Monday - Friday.

Please print this page for your records using the print or save functionality built into your browser.

DEPARTMENT OF REVENUE

Contractor Affidavit Submitted

Thank you, your Contractor Affidavit has been approved.

Confirmation Summary

Confirmation Number:	0-198-811-328
Submitted Date and Time:	10-Jul-2018 10:49:05 PM
Legal Name:	SCHMIDT CURB COMPANY INC
Federal Employer ID:	41-1555088
User Who Submitted:	Schmidt Curb
Type of Request Submitted:	Contractor Affidavit

Affidavit Summary

Affidavit Number:	**2004131640**
Minnesota ID:	3605361
Project Owner:	CITY OF RAMSEY
Project Number:	16-72
Project Begin Date:	28-Apr-2017
Project End Date:	31-Jul-2017
Project Location:	CENTRAL PARK
Project Amount:	$30,050.35
Subcontractors:	No Subcontractors

Important Messages

A copy of this page must be provided to the contractor or government agency that hired you.

Contact Us

If you need further assistance, contact our Withholding Tax Division at 651-282-9999, (toll-free) 800-657-3594, or (email) withholding.tax@state.mn.us. Business hours are 8:00 a.m. - 4:30 p.m. Monday - Friday.

Please print this page for your records using the print or save functionality built into your browser.

DEPARTMENT OF REVENUE

Contractor Affidavit Submitted

Thank you, your Contractor Affidavit has been approved.

Confirmation Summary

Confirmation Number:	0-467-230-400
Submitted Date and Time:	12-Jul-2018 12:52:06 PM
Legal Name:	AAA STRIPING SERVICE CO
Federal Employer ID:	41-0997871
User Who Submitted:	Kelly Shirley
Type of Request Submitted:	Contractor Affidavit

Affidavit Summary

Affidavit Number:	**1449353216**
Minnesota ID:	6290097
Project Owner:	CITY OF RAMSEY
Project Number:	IP 16-98
Project Begin Date:	07-Jun-2017
Project End Date:	07-Jun-2017
Project Location:	CENTRAL PARK PARKING LOT- RAMSEY
Project Amount:	$4,547.20
Subcontractors:	No Subcontractors

Important Messages

A copy of this page must be provided to the contractor or government agency that hired you.

Contact Us

If you need further assistance, contact our Withholding Tax Division at 651-282-9999, (toll-free) 800-657-3594, or (email) withholding.tax@state.mn.us. Business hours are 8:00 a.m. - 4:30 p.m. Monday - Friday.

Please print this page for your records using the print or save functionality built into your browser.

Web Confirmation

Welcome, Roger Zak Settings Log Out

ZAK INDUSTRIES INC I Want To Contractor Affidavit Web Confirmation

Contractor Affidavit Submitted

Enter Information Review and Submit **Complete**

Thank you, your Contractor Affidavit has been approved.

Confirmation Summary

Confirmation Number:	0-847-349-440
Submitted Date and Time:	13-Jul-2018 7:39:41 AM
Legal Name:	ZAK INDUSTRIES INC
Federal Employer ID:	26-1605885
User Who Submitted:	zi3834
Type of Request Submitted:	Contractor Affidavit

Affidavit Summary

Affidavit Number:	**1288986624**
Minnesota ID:	9254906
Project Owner:	CITY OF RAMSEY
Project Number:	IP 1-98
Project Begin Date:	10-Apr-2017
Project End Date:	01-Jul-2017
Project Location:	RAMSEY CENTRAL PARK
Project Amount:	$15,927.75
Subcontractors:	No Subcontractors

Important Messages

A copy of this page must be provided to the contractor or government agency that hired you.

Contact Us

If you need further assistance, contact our Withholding Tax Division at 651-282-9999, (toll-free) 800-657-3594, or (email) withholding.tax@state.mn.us. Business hours are 8:00 a.m. - 4:30 p.m. Monday - Friday.

How to View and Print this Request

You can see copies of your requests by going to your history, or by clicking the link below. To Print or email a copy of this confirmation page, click one of the buttons below.

Click here to go to your History

Printer Friendly Email Me Close

DEPARTMENT OF REVENUE

Contractor Affidavit Submitted

Thank you, your Contractor Affidavit has been approved.

Confirmation Summary

Confirmation Number:	1-812-192-960
Submitted Date and Time:	16-Jul-2018 11:42:04 AM
Legal Name:	SAFETY SIGNS LLC
Federal Employer ID:	41-1991774
User Who Submitted:	sue blanchard
Type of Request Submitted:	Contractor Affidavit

Affidavit Summary

Affidavit Number:	**1577132032**
Minnesota ID:	5139558
Project Owner:	CITY OF RAMSEY
Project Number:	NA
Project Begin Date:	01-Jul-2017
Project End Date:	15-Jul-2017
Project Location:	CENTRAL PARK RAMSEY
Project Amount:	$1,250.00
Subcontractors:	No Subcontractors

Important Messages

A copy of this page must be provided to the contractor or government agency that hired you.

Contact Us

If you need further assistance, contact our Withholding Tax Division at 651-282-9999, (toll-free) 800-657-3594, or (email) withholding.tax@state.mn.us. Business hours are 8:00 a.m. - 4:30 p.m. Monday - Friday.

Please print this page for your records using the print or save functionality built into your browser.

Bond No. 54-211405

CONSENT OF
SURETY COMPANY
TO FINAL PAYMENT
AIA DOCUMENT G707

Owner
Architect
Contractor
Surety
Other

PROJECT: (name, address) **Extend the Drive and Build a Parking Lot within Central Park in Central Ramsey, with City Improvement Project No. 16-98**

TO: (Owner)
City of Ramsey
7550 Sunwood Drive NW
Ramsey, MN 55303

ARCHITECT'S PROJECT NO:

CONTRACT FOR: **Construction**

CONTRACT DATE: **10/11/2016**

CONTRACTOR:
North Valley, Inc.
20015 Iguana Street NW
Nowthen, MN 55330

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the
United Fire & Casualty Company
118 Second Ave SE
Cedar Rapids, Iowa 52407 ,SURETY COMPANY

on bond of (here insert name and address of Contractor)
North Valley, Inc.
20015 Iguana Street NW
Nowthen, Minnesota 55330 ,CONTRACTOR,

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to (here insert name and address of Owner)
City of Ramsey
7550 Sunwood Drive NW
Ramsey, Minnesota 55303 ,OWNER,

as set forth in the said Surety Company's bond.

IN WITNESS WHEREOF,
the Surety Company has hereunto set its hand this **10th** day of **July,** **2018**

Surety Company
United Fire & Casualty Company

Melissa M. Nordin
Signature of Authorized Representative

Attest:
(Seal): Holley Smith

Melissa M. Nordin - Attorney-In-Fact
Title

NOTE: This form is to be used as a companion document to AIA DOCUMENT G706, CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS, Current Edition

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UNITED FIRE & CASUALTY COMPANY, CEDAR RAPIDS, IA
UNITED FIRE & INDEMNITY COMPANY, WEBSTER, TX
FINANCIAL PACIFIC INSURANCE COMPANY, ROCKLIN, CA
CERTIFIED COPY OF POWER OF ATTORNEY
(original on file at Home Office of Company – See Certification)

Inquiries: Surety Department
118 Second Ave SE
Cedar Rapids, IA 52401

KNOW ALL PERSONS BY THESE PRESENTS, That United Fire & Casualty Company, a corporation duly organized and existing under the laws of the State of Iowa, United Fire & Indemnity Company, a corporation duly organized and existing under the laws of the State of Texas; and Financial Pacific Insurance Company, a corporation duly organized and existing under the laws of the State of California (herein collectively called the Companies), and having their corporate headquarters in Cedar Rapids, State of Iowa, does make, constitute and appoint

TERRY STARKS, ALAN STARKS, ROBERT E. CLEMANTS, MELISSA M. NORDIN, NAME ALEMDAR, JEFFREY SETTEM, EACH INDIVIDUALLY

their true and lawful Attorney(s)-in-Fact with power and authority hereby conferred to sign, seal and execute in its behalf all lawful bonds, undertakings and other obligatory instruments of similar nature provided that no single obligation shall exceed $100,000,000.00 and to bind the Companies thereby as fully and to the same extent as if such instruments were signed by the duly authorized officers of the Companies and all of the acts of said Attorney, pursuant to the authority hereby given and hereby ratified and confirmed.

The Authority hereby granted is continuous and shall remain in full force and effect until revoked by United Fire & Casualty Company, United Fire & Indemnity Company, and Financial Pacific Insurance Company.

This Power of Attorney is made and executed pursuant to and by authority of the following bylaw duly adopted on May 15, 2013, by the Boards of Directors of United Fire & Casualty Company, United Fire & Indemnity Company, and Financial Pacific Insurance Company.

"Article VI – Surety Bonds and Undertakings"

Section 2. Appointment of Attorney-in-Fact. "The President or any Vice President, or any other officer of the Companies may, from time to time, appoint by written certificates attorneys-in-fact to act in behalf of the Companies in the execution of policies of insurance, bonds, undertakings and other obligatory instruments of like nature. The signature of any officer authorized hereby, and the Corporate seal, may be affixed by facsimile to any power of attorney or special power of attorney or certification of either authorized hereby; such signature and seal, when so used, being adopted by the Companies as the original signature of such officer and the original seal of the Companies, to be valid and binding upon the Companies with the same force and effect as though manually affixed. Such attorneys-in-fact, subject to the limitations set forth in their respective certificates of authority shall have full power to bind the Companies by their signature and execution of any such instruments and to attach the seal of the Companies thereto. The President or any Vice President, the Board of Directors or any other officer of the Companies may at any time revoke all power and authority previously given to any attorney-in-fact.

IN WITNESS WHEREOF, the COMPANIES have each caused these presents to be signed by its vice president and its corporate seal to be hereto affixed this 17th day of November, 2017

UNITED FIRE & CASUALTY COMPANY
UNITED FIRE & INDEMNITY COMPANY
FINANCIAL PACIFIC INSURANCE COMPANY

By: Dennis J. Richmann
Vice President

State of Iowa, County of Linn, ss:

On 17th day of November, 2017, before me personally came Dennis J. Richmann to me known, who being by me duly sworn, did depose and say, that he resides in Cedar Rapids, State of Iowa; that he is a Vice President of United Fire & Casualty Company, a Vice President of United Fire & Indemnity Company, and a Vice President of Financial Pacific Insurance Company the corporations described in and which executed the above instrument; that he knows the seal of said corporations; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporations and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporations.

Patti Waddell
Iowa Notarial Seal
Commission number 713274
My Commission Expires 10/26/2019

Patti Waddell
Notary Public
My commission expires: 10/26/2019

I, Mary A. Bertsch, Assistant Secretary of United Fire & Casualty Company and Assistant Secretary of United Fire & Indemnity Company, and Assistant Secretary of Financial Pacific Insurance Company, do hereby certify that I have compared the foregoing copy of the Power of Attorney and affidavit, and the copy of the Section of the bylaws and resolutions of said Corporations as set forth in said Power of Attorney, with the ORIGINALS ON FILE IN THE HOME OFFICE OF SAID CORPORATIONS, and that the same are correct transcripts thereof, and of the whole of the said originals, and that the said Power of Attorney has not been revoked and is now in full force and effect.

In testimony whereof I have hereunto subscribed my name and affixed the corporate seal of the said Corporations this 10TH day of JULY, 2018

By: Mary A Bertsch
Assistant Secretary,
UF&C & UF&I & FPIC

BPOA0049 1217

This paper has a colored background and void pantograph.

NORTH VALLEY inc

20015 Iguana St. NW Ste 100
Nowthen, MN 55330
(763) 274-2580
Fax # (763) 274-2584

July 10, 2018

City of Ramsey
7550 Sunwood Drive NW
Ramsey, MN 55303

Re: Central Park Parking Lot Prj-Ramsey

This letter is stating that North Valley, Inc., contractor on the above referenced project, has had no claims against them for the Central Park Parking Lot-Ramsey project. All subcontractors and/or suppliers have been paid to date for performing work under the above referenced project.

If you should have any questions, please call.

Sincerely,

Brad Schmidtbauer
President

THE LAW OFFICES OF DANIEL W. VOSS, PLLC

3109 Hennepin Avenue South
Minneapolis, Minnesota 55408
Tel. 612-822-2152

Daniel W. Voss
e-mail: danvoss@voss-law.net

January 2018

Mr. Brad Schmidtbauer
President
North Valley, Inc.
20015 Iguana St. NW, Suite 100
Nowthen, MN 55330

RE: Central Park Parking Lot-Ramsey

Dear Brad:

I am writing in regards to your inquiry regarding the need to obtain mechanic's lien waivers from the subcontractors that worked on the above referenced project.

A mechanic's lien cannot be legally filed and enforced against public lands. Simply put, public streets are not subject to mechanic's liens under the mechanic's-lien statute. *See Jordan v. Bd. of Educ.*, 38 Minn. 298, 39 Minn. 298, 299, 39 N.W. 801, 801-02 (1888); *Comstock & Davis, Inc. v. City of Eden Prairie*, 557 N.W.2d 213, 215 (Minn. App. 1997), *review denied* (Minn. Mar. 18, 1997) (recognizing that quintessentially public land is not lienable).

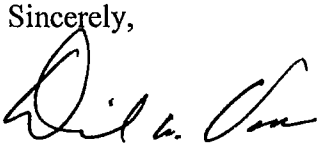
That is why there is a payment bond statute. The purpose of the payment-bond statute is to protect the interests of those performing "public work to which the mechanics' lien statute does not apply." *Wilcox Lumber Co. v. Sch. Dist. No. 268 of Otter Tail County*, 103 Minn. 43, 45, 114 N.W. 262, 263 (Minn. 1907);

The same policy that prohibits mechanic's liens on quintessentially public land prohibits liens on quintessentially public improvements as well. *See Burlington Mfg. v. Bd. of Courthouse & City Hall Commr's*, 67 Minn. 327, 327, 69 N.W. 1091, 1091 (1897) (holding that public buildings on public land are exempt from liens); *Jordan*, 39 Minn. at 299, 39 N.W. at 801-02 (holding that a public schoolhouse is not subject to a mechanic's lien). The rationale of the courts centers on the importance of protecting quintessentially public assets, land or otherwise, from forced sale.

The Central Park Parking Lot constructed for the City of Ramsey are of a quintessentially public nature. Hence, it would be unnecessary and pointless to obtain mechanic's lien waivers from NVI's subcontractors.

Should you have any further questions give me a call.

Sincerely,



Daniel W. Voss, Esq.
DWV/ttf

CC Regular Session **4. 6.**

Meeting Date: 08/06/2018

By: Colleen Lasher, Administrative Services

Information

Title

Adopt Resolution #18-165 to Hire a Permit Technician Filling the Vacant Position

Purpose/Background:

The Purpose of this case is to request authorization to hire a full-time Permit Technician to work in the Community Development Department. This position primarily reviews and processes permit applications for new and existing residential and commercial construction, issues permits for all phases of construction projects and researches and updates permit records and files.

This full-time vacancy was created when Ms. Katy Hauan, the former Building Inspections Technician, resigned. The Building Inspections Technician position served the role of Permit Technician; however, with other changes in the Community Development Department, staff recommends reducing the positions duties down to a Permit Technician level. In order to fill the current vacancy, an internal, followed by an external recruitment process was conducted. Staff conducted the necessary pre-employment background checks and recommends Ms. Alajandra Sanchez for the position.

Funding Source:

The funding required for this position is included in the approved 2018 budget.

Recommendation:

Staff recommneds hiring Ms. Alejandra Sanchez as a Permit Technician, effective on or near September 4, 2018 at $24.38 per hour, which is step 3 of the 2018 wage scale.

Action:

Motion to adopt resolution #18-165 to hire Ms. Alejandra Sanchez as a Permit Technician, effective on or near September 4, 2018 at $24.38 per hour, which is step 3 of the 2018 wage scale.

Attachments

Resolution 18-165

Form Review

Inbox	Reviewed By	Date
Kurt Ulrich	Kurt Ulrich	08/02/2018 02:03 PM
Form Started By: Colleen Lasher		Started On: 08/02/2018 08:51 AM
Final Approval Date: 08/02/2018		

Councilmember introduced the following resolution and moved for its adoption:

RESOLUTION #18-165

RESOLUTION TO HIRE A PERMIT TECHNICIAN FILLING THE VACANT POSITION

WHEREAS, there is a vacant Permit Technician position; and

WHEREAS, an internal and external recruitment process was conducted; and

WHEREAS, Ms. Alejandra Sanchez has been selected as the top candidate for the position; and

WHEREAS, staff completed the necessary background checks and is recommending that Ms. Alejandra Sanchez be hired as a Permit Technician, effective on or near September 4, 2018 at $24.38 per hour; and

WHEREAS, Ms. Alejandra Sanchez will be subject to a 6-month probationary period, the City's Personnel Policy and AFSCME union contract.

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

1) Motion to adopt resolution #18-165 to hire Ms. Alejandra Sanchez as a Permit Technician, effective on or near September 4, 2018 at $24.38 per hour, which is step 3 of the 2018 wage scale.

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 6th day of August, 2018.

_____
Mayor

ATTEST:

_____
City Clerk

CC Regular Session **4. 7.**

Meeting Date: 08/06/2018

By: Colleen Lasher, Administrative Services

Information

Title

Adopt Resolution 18-161 Hiring a Seasonal Public Works Maintenance Worker

Purpose/Background:

The purpose of this case is to request authorization to hire a Seasonal Public Works Maintenance Worker. Annually, the City employs Seasonal Public Works Maintenance Workers to perform work in the Parks, Streets, and Utilities Divisions of Public Works. At this time, staff selected Jacob Vanness to fill one of the remaining vacancies.

Funding Source:

The funding required to fill this position is included within the approved 2018 budget.

Recommendation:

Staff recommends hiring Mr. Jacob Vanness, as a Seasonal Public Works Maintenance Worker, effective July 30, 2018 at $11.50 per hour.

Action:

Motion to adopt resolution #18-161 to hire Mr. Jacob Vanness, as a Seasonal Public Works Maintenance Worker, effective July 30, 2018 at $11.50 per hour.

Attachments

Resolution_18-161

Form Review

Inbox	Reviewed By	Date
Kurt Ulrich	Kurt Ulrich	08/02/2018 01:49 PM
Form Started By: Colleen Lasher		Started On: 07/27/2018 03:13 PM
Final Approval Date: 08/02/2018		

Councilmember introduced the following resolution and moved for its adoption:

RESOLUTION #18-161

RESOLUTION HIRING A SEASONAL PUBLIC WORKS MAINTENANCE WORKER

WHEREAS, annually the City employs Seasonal Public Works Maintenance Workers to perform work in the Parks, Streets, and Utilities Divisions of Public Works; and

WHEREAS, staff selected a qualified Seasonal Public Works Maintenance Workers; and

WHEREAS, the candidate has passed the pre-employment screenings; and

WHEREAS, staff recommends hiring Mr. Jacob Vanness, effective July 30, 2018 at $11.50 per hour.

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

1) Motion to adopt resolution #18-161 to hire Mr. Jacob Vanness, as a Seasonal Public Works Maintenance Worker, effective July 30, 2018 at $11.50 per hour.

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 6th day of August, 2018.

_____

Mayor

ATTEST:

_____

City Clerk

CC Regular Session **4. 8.**

Meeting Date: 08/06/2018

Submitted For: Grant Riemer, Engineering/Public Works

By: MaryJo Warner, Engineering/Public Works

Information

Title

Report from Public Works Committee
The Public Works Committee held its regular meeting on July 17, 2018 and discussed the following cases:
1. Consider Speed Limit Reduction on Quicksilver Street: Ratify the recommendation of the Public Works Committee to leave the segment of Quicksilver Street between 167th Avenue and Elmcrest Park unposted as to the speed limit, to direct staff to place the speed trailer along this street segment when the trailer is available, and to direct staff to reach out to the soccer association with a reminder to watch for speeds.

Purpose/Background:

1. Consider Speed Limit Reduction on Quicksilver Street: City Engineer Westby stated that the purpose of the case is to consider a request to reduce the speed limit on Quicksilver Street, south of 167th and north of Elmcrest Park. He noted that staff received a request from the property owner at 16601 Quicksilver Street to reduce the speed limit on Quicksilver Street, south of 167th Avenue and north of Elmcrest Park. This property owner has reported excessive speeds along this segment of Quicksilver Street, and recently experienced damage to their landscaping and mailbox due to vehicles leaving the roadway. He stated that this section of Quicksilver currently has no posted speed limit, but based on its functional classification as a local street and the properties it serves, the street could be posted at 30 mph. Motion to ratify the recommendation of the Public Works Committee for City Council to leave the segment of Quicksilver Street between 167th Avenue and Elmcrest Park unposted as to the speed limit, to direct staff to place the speed trailer along this street segment when the trailer is available, and to direct staff to reach out to the soccer association with a reminder to watch for speeds.

Action:

Motion to recommend that City Council ratify the recommendation of the Public Works Committee.

Attachments

Agenda

Form Review

Inbox	Reviewed By	Date
Grant Riemer	Grant Riemer	08/02/2018 10:57 AM
Bruce Westby	Bruce Westby	08/02/2018 12:44 PM
Kurt Ulrich	Kurt Ulrich	08/02/2018 01:59 PM
Form Started By: MaryJo Warner		Started On: 07/31/2018 09:58 AM
Final Approval Date: 08/02/2018		

City of Ramsey
Agenda
Public Works Committee
Tuesday, July 17, 2018
5:30 pm
Lake Itasca Room, 7550 Sunwood Drive NW

1. Call to Order

2. Citizen Input

3. Approve Agenda

4. Approve Minutes

1. Approve Public Works Committee Meeting Minutes.

5. Committee Business

1. Consider Speed Limit Reduction on Quicksilver Street

6. Committee/Staff Input

1. Review Draft City of Ramsey Americans with Disabilities Act (ADA) Transition Plan

2. Review Future Topics Calendar

3. Staff Updates on Improvement Projects and Items of Interest

7. Adjournment

Public Works Committee **4. 1.**

Meeting Date: 07/17/2018
Submitted For: Grant Riemer, Engineering/Public Works
By: MaryJo Warner, Engineering/Public Works

Title:
Approve Public Works Committee Meeting Minutes.

Purpose/Background:
To review and approve the Public Works Committee meeting minutes dated June 19, 2018.

Timeframe:
5 minutes.

Observations/Alternatives:
n/a

Funding Source:
n/a

Recommendation:

Action:
Motion to approve the Public Works Committee meeting minutes dated June 19, 2018.

Attachments

Minutes

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	07/12/2018 12:49 PM
Grant Riemer	MaryJo Warner	07/12/2018 01:37 PM
Kurt Ulrich	Kurt Ulrich	07/12/2018 04:09 PM
Form Started By: MaryJo Warner		Started On: 07/12/2018 09:11 AM
Final Approval Date: 07/12/2018		

PUBLIC WORKS COMMITTEE
CITY OF RAMSEY
ANOKA COUNTY
STATE OF MINNESOTA

The Public Works Committee conducted a regular meeting on Wednesday, June 19, 2018, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present: Chairperson Chris Riley
Councilmember Melody Shryock
Councilmember Mark Kuzma

Members Absent: Councilmember Jill Johns

Also Present: Public Works Superintendent Grant Riemer
Parks & Assistant Public Works Superintendent Mark Riverblood
City Engineer Bruce Westby

1. CALL TO ORDER

Chairperson Riley called the regular meeting of the Public Works Committee to order at 5:30 p.m.

2. CITIZEN INPUT

There was none.

3. APPROVE AGENDA

Motion by Councilmember Kuzma, seconded by Councilmember Shryock, to approve the agenda, as presented.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Kuzma and Shryock. Voting No: None. Absent: Councilmember Johns.

4. APPROVE MINUTES

4.01: Approve April 18, 2018, Meeting Minutes

Motion by Councilmember Kuzma, seconded by Chairperson Riley, to approve the following minutes:

Regular Meeting Minutes dated April 18, 2018

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Kuzma. Voting No: None. Abstain: Councilmember Shryock. Absent: Councilmember Johns.

5. COMMITTEE BUSINESS

5.01: Consider Stop Sign Installation at Garnet Street and 169th Lane

Public Works Superintendent Riemer stated that staff has received a request for stop signs at the intersection of 169th Lane and Garnet Street. Currently there are no stop signs on any legs of the intersections. The requested action would change this intersection to a 2-way stop, with the stop condition on the north and south legs of Garnet Street. The reasons given for requesting the additional stop signs are excessive speed and there is a bus stop located at that intersection. The neighborhood petition requesting the stop sign was attached to the case.

Public Works Superintendent Riemer stated that the City used the police radar trailer to gather information on vehicle speed and to determine the 85th percentile speed. The 85th percentile speed is defined as "the speed at or below which 85 percent of all vehicle are observed to travel under free-flowing conditions past a monitored point". The trailer was in place May 16, 17, 21, 24 and 29th.

Public Works Superintendent Riemer stated that based on the information gathered, the intersection does not meet the warrants outlined in *Minnesota Manual of Uniform Traffic Control Devices* because of the following factors: insufficient traffic volumes, accident history at the intersection, sufficient visibility at the intersection. He stated that staff recommends not installing additional stop signs at this intersection based on the traffic counts and accident history. Staff would also recommend that the Police Department continue to enforce the 30-mph speed limit in the area in an effort to reduce speeds on Garnet Street.

Councilmember Kuzma expressed appreciation to staff for the research that was done on this matter.

Chris Worts, 6893 169th Lane, stated that his biggest concern is with construction traffic. He stated that this intersection is a bus stop for the children in the neighborhood. He stated that five resident signatures were required for the petition, but he obtained 13 signatures, noting that two of the residents are police officers. He appreciated the quick response from staff in posting the speed trailer. He noted that his concern was that the trailer only faced in one direction.

Public Works Superintendent Riemer replied that the trailer obtains speeds from both directions.

Mr. Worts stated that many of the other neighbors could not attend because of sports commitments with their children. He stated that they understand the decision of the City and asked what else could be done if the stop signs are not an option. He stated that the development has boomed, and they are concerned with the safety of the children. He stated that perhaps signs could be posted for children crossing or watch for children. He stated that the neighborhood is also worried that traffic will increase down Garnet for those attempting to reach the new elementary school.

Chairperson Riley stated that the City receives three or four requests each year that get to this level and there are specific criteria that must be reviewed. He stated that rarely ever do the

requests meet the criteria, which makes it difficult. He asked staff if there are other things that can be done in lieu of the stop sign.

Public Works Superintendent Riemer stated that the City does not install watch for children signs as there are children in every neighborhood. He stated that marked crosswalks are determined by the number of crossings and other criteria, which would not be met in this location. He stated that even if stop signs were installed, they would be placed on 169th and that would still not stop the traffic on Garnet. He stated that once the school opens, the resident could call the City again to redo the survey.

Chairperson Riley suggested that perhaps staff just schedule to redo the survey maybe one month after the school opens. He stated that additional police enforcement is available. He noted that in the long-term the construction traffic will go away.

Mr. Worts stated that he has thought about calling the police, but they did not want to bother the police, who have bigger issues.

Chairperson Riley stated that it would be encouraged to call the police when there are issues.

Mr. Worts noted that one of the police officers in the neighborhood has begun parking his police vehicle in his driveway in attempt to deter speeding.

Parks and Assistant Public Works Superintendent Riverblood stated that staff could communicate with Capstone Homes to ensure that the message is clearly communicated regarding construction traffic.

Councilmember Shryock stated that there would be opportunities to spread the word that there are children out in the area in the warmer weather, suggesting Night to Unite or neighborhood parties.

Mr. Worts noted that there have been postings on the neighborhood Facebook page as well.

Councilmember Shryock stated that education of the children is also important to ensure that they are watching for traffic as well. She understood the plight of the residents but noted that unfortunately there are guidelines that must be met for those requests. She stated that sometimes having children play equipment in the front yard also alerts some drivers to slow down.

Chairperson Riley stated that although the request does not meet the criteria, they will try to see what else they can do in terms of police enforcement.

Councilmember Shryock stated that perhaps in future editions of *Ramsey Resident* a blurb could be included warning residents to watch for children in the warmer weather.

Motion by Councilmember Kuzma, seconded by Councilmember Shryock, to accept staff recommendation to not install additional stop signs at 169th Lane/Garnet Street based on the traffic counts, visibility, and accident history.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Kuzma and Shryock. Voting No: None. Absent: Councilmember Johns.

5.02: Consider Speed Study Request for Ramsey Boulevard between Bunker Lake Boulevard and Sunwood Drive

City Engineer Westby stated that staff received a request from a former PACT Charter School bus driver who resides in Nowthen to reduce the speed limit on Ramsey Boulevard between Bunker Lake Boulevard and Sunwood Drive. The applicant feels that the existing pedestrian crossings for Ramsey Boulevard are unsafe for children who walk to PACT Charter School due to the existing posted speed limit of 55 mph.

City Engineer Westby stated that this segment of Ramsey Boulevard has two controlled pedestrian crossings, one at Bunker Lake Boulevard and one at Sunwood Drive. The controlled crossings consist of marked crosswalks with pedestrian actuated signals at each of the signalized intersections. The applicant is concerned that if a child crosses against a red light, that vehicles will not be able to react in time to avoid hitting the child, and that a slower speed limit will provide more reaction time for drivers to help them avoid hitting the child.

City Engineer Westby stated that staff does not believe that a speed study will result in a reduced speed limit on Ramsey Boulevard based on the criteria used to perform speed studies. Staff did not reach out to PACT Charter School to discuss the issue, but if the Committee believes this request should be pursued, staff will meet with school officials to discuss this issue in detail, including obtaining information on bus/walking zones. Staff did not reach out to the Anoka County Highway Department to discuss the issue but if the Committee believes that this request should be pursued, staff will meet with Anoka County Highway Department staff to discuss the issue in detail, including obtaining information on planned improvements for this corridor. It is typically best to maintain uniform speed limits along roadway corridors where the functional classification does not vary to meet driver expectations.

City Engineer Westby recommended denial to file a request with Anoka County to perform a speed study on Ramsey Boulevard between Bunker Lake Boulevard and Sunwood Drive.

Motion by Councilmember Kuzma, seconded by Chairperson Riley, of denial to file a request with Anoka County to perform a speed study on Ramsey Boulevard between Bunker Lake Boulevard and Sunwood Drive.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Kuzma and Shryock. Voting No: None. Absent: Councilmember Johns.

5.03: Consider Replacing 20+ Year Old Pergola and Park Shelter Roof At Emerald Pond Park

Parks & Assistant Public Works Superintendent Riverblood stated that the purpose of this case is to consider a recommendation to City Council for authorization to perform maintenance/replacement activity for two structures at Emerald Pond Park. Funding is requested to be allocated from the City's Capital Maintenance Fund (not the Park Trust Fund) and therefore is being brought to the Public Works Committee, because the project funding source is limited, and also is used for other (non-park) capital maintenance needs of the community. In 2017, the Council expanded the scope of this fund to allow use for other non-park capital maintenance needs (roof replacement, parking lot resurfacing, etc.).

Parks & Assistant Public Works Superintendent Riverblood stated that the pergola was completely removed in 2017 due to the cedar post decay at the mounting point with the concrete base and a concern that if not removed may have represented a safety hazard. The pergola was in service for 21 years. The roof replacement does not represent a hazard; however, the cedar shake roof is in very poor shape and water is likely penetrating through to the laminated wood roof itself. The hexagonal shelter has been in service for approximately 26 years. Emerald Pond Park is one of the most well used neighborhood parks in Ramsey's system of parks, and some of the nearby residents are very eager to see the pergola back in service, which was also used for weddings when it was in a more presentable condition.

Parks & Assistant Public Works Superintendent Riverblood stated that it may be useful to note that staff is in process of inventorying all of the City's, and park systems', capital maintenance needs to develop long-term maintenance cost projections and priorities. This work is expected to be completed this fall. If the Committee recommends replacement of the pergola and the shelter's roof, utilizing the Capital Maintenance Fund (formerly known as the Park Maintenance Fund), staff would proceed to immediately develop an RFP or obtain competitive quotes for the two projects consistent with the City's Purchasing Policy. The pergola is anticipated to cost less than $30,000; the roof replacement to a standing seam (green) steel roof with trim, less than $15,000. The new shelter's roof protects an existing asset and delaying replacement may cost more in the long-run. Consequently, replacement is recommended versus the option of not replacing the roof at this time. The pergola replacement is not time critical, and not replacing the structure is an option. Likely the expectation of the park users is that replacement would be soon, however other priorities may be considered by the City. He stated that staff recommends replacing the pergola and the roof shelter as described in the case.

Chairperson Riley stated that $30,000 for a pergola seems like a lot.

Parks & Assistant Public Works Superintendent Riverblood provided additional details on the pergola. He noted that the quote also includes replacement of the four fence sections.

Councilmember Kuzma asked the plans for the landscaping that appears to be overgrown.

Parks & Assistant Public Works Superintendent Riverblood agreed that the landscaping needs attention. He stated that with the pergola removed, the area has become overgrown and would be given attention.

Councilmember Kuzma asked how far this is from Elmcrest.

Parks and Assistant Public Works Superintendent Riverblood provided details on the location of the park. He noted that Emerald Pond Park is one of the most used and beloved neighborhood parks.

Councilmember Shryock stated that this is part of her neighborhood and it is a beautiful park to visit and also is a connection to many of the trails within the trail system. She stated that the pergola was always one of the interest points of this park. She stated that each park has a unique feature, and this was one of those unique features for this park. She believed that this feature is needed for the park. She stated that this is a dense neighborhood area that uses its park.

Chairperson Riley asked if there is a lower cost option, such as treated wood.

Parks and Assistant Public Works Superintendent Riverblood stated that treated wood could be an option, noting that staff could ask for quotes on treated and cedar but was unsure if there would be much of a cost savings.

Chairperson Riley stated that this was a structure that belongs in this park. He stated that the City has to preserve its assets and the park would not be as nice without the features.

Councilmember Kuzma stated that while the cost may seem expensive, there are a lot of young families in Ramsey and the parks and trails system is extremely important. He noted that parks are a place where young families can come to and enjoy for free. He stated that he would prefer cedar rather than treated wood.

Parks and Assistant Public Works Superintendent Riverblood commented that if there is a price difference in the treated wood and cedar, there may be a higher construction cost because it is heavier.

Councilmember Shryock noted that treated wood requires more ongoing maintenance.

Motion by Councilmember Shryock, seconded by Councilmember Kuzma, to recommend to City Council, the replacement of the pergola and roof shelter at Emerald Pond Park as discussed, at a not-to-exceed cost of $45,000 from the Capital Maintenance Fund.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Shryock and Kuzma. Voting No: None. Absent: Councilmember Johns.

Chairperson Riley confirmed the consensus of the Committee is that these types of requests for appropriation from the Capital Maintenance Fund #810, should continue to come before the Public Works Committee.

6. COMMITTEE / STAFF INPUT

6.01: Staff Updates on Improvement Projects and Items of Interest

City Engineer Westby provided an update on road construction projects within Ramsey. He reviewed the proposed schedule for crackseal and sealcoating work and noted that there will be a change order coming forward. He stated that staff is going to attempt to pursue warranty work on the sealcoating that was completed the previous year. He provided an update on The COR Infiltration Basin project, noting that staff is attempting to ensure the sizing is correct. He noted that the rail grade separation plans for Ferry Street in Anoka is still on hold and provided an update.

Councilmember Kuzma asked about painting of curbs when sections are repaired or replaced. It was confirmed that the policy has changed to now repaint the entire curb area.

Chairperson Riley asked for input on the status within the five-year plan and when the next five-year plan would be developed. He stated that he was not fully informed when the process occurred as to the inflexibility of the five-year plan.

City Engineer Westby provided details. He noted that if an unexpected repair arises, that work could still be completed without assessment. He acknowledged that road conditions can deteriorate significantly during the five-year period, explaining that perhaps a road did not seem bad and was not included in the plan but then deteriorates significantly during that period.

Chairperson Riley asked if there is a point where the City would get ahead of the road repairs, acknowledging that the City began behind.

City Engineer Westby stated that it would be difficult to determine. He noted that there are so many challenges with the unknown road conditions and therefore it is still a process to get through those unknown road conditions. He stated that once the City has roads that were all constructed to standards and on a maintenance schedule, it will be easier to follow. He noted that the City is reactive and will at some point get to the point of being proactive.

Parks & Assistant Public Works Superintendent Riverblood provided an update on the Sweet Bay median and provided a photograph of the current conditions.

6.02: Review Future Topics Calendar

No comments.

7. ADJOURNMENT

Motion by Councilmember Kuzma, seconded by Councilmember Shryock, to adjourn the Public Works Committee meeting.

Motion carried.

The regular meeting of the Public Works Committee adjourned at 6:27 p.m.

Respectfully submitted,

_____
Grant Riemer
Public Works Superintendent

Drafted by Amanda Staple
TimeSaver Off Site Secretarial, Inc.

Public Works Committee **5. 1.**

Meeting Date: 07/17/2018

By: Bruce Westby, Engineering/Public Works

Title:

Consider Speed Limit Reduction on Quicksilver Street

Purpose/Background:

Purpose:

The purpose of this case is to consider a request to reduce the speed limit on Quicksilver Street, south of 167th Avenue and north of Elmcrest Park.

Background:

Staff received a request from the property owner at 16601 Quicksilver Street to reduce the speed limit on Quicksilver Street, south of 167th Avenue and north of Elmcrest Park. This property owner has reported excessive speeds along this segment of Quicksilver Street, and recently experienced damage to their landscaping and mailbox due to vehicles leaving the roadway.

Attached are three figures showing the segment of Quicksilver Street under consideration and all accesses into Elmcrest Park.

This section of Quicksilver Street currently has no posted speed limit, but based on its functional classification as a local street and the properties it serves, this street could be posted at 30 mph.

Minnesota Statute 169.14 establishes statutory speed limits on most typical roadways under ideal conditions. All other speed limits are set by the Commissioner of the Minnesota Department of Transportation (MnDOT) based upon an engineering and traffic investigation (speed study) in which the following factors are considered:

- Road type and condition
- Location and type of access points (intersections, entrances, etc.)
- Sufficient length of roadway (1/4 mile minimum)
- Existing traffic control devices (sign, signals, etc.)
- Crash history traffic volume sight distances (curve, hill, etc.)
- Test drive results

The most common speed limits observed throughout Minnesota are:

- 10 mph in alleys
- 30 mph on streets in urban districts
- 55 mph on other roads
- 65 mph on expressways
- 65 mph on urban interstate highways
- 70 mph on rural interstate highways

Where speed limits are not posted, these are considered the default speed limits.

Local road authorities (cities, townships, and counties) can determine advisory speeds for local roads and post the roads with advisory speed signs without authorization from the MnDOT Commissioner.

Local road authorities can also pass a resolution requesting a speed study investigation by MnDOT. The local road authority that owns and operates the segment of road to be studied is responsible for submitting the request to

MNDOT. Anoka County owns and operates Ramsey Boulevard/CSAH 56 so they are required to submit the Speed Study request to MnDOT.

Based on the speed study results, which often take in excess of a year to receive, MnDOT may authorize the local road authority to post the road with new speed limits. However, it is important to note that the study could find that the new speed limit should be greater than the existing speed limit, which is typically contrary to the desired outcome. In this case, Staff would not expect the speed limit to increase given the functional classification of the road and the properties it serves.

Additional information regarding speed limits is available on MnDOT's web site at http://www.dot.state.mn.us/speed/index.html.

Timeframe:

Staff estimates 15 minutes will be required to present and discuss this case.

Observations/Alternatives:

Observations:

Staff does not recommend requesting a speed study from MnDOT. Based on the functional classification of the road and the properties it serves, staff believes the lowest posted speed MnDOT would authorize would be 30 mph. As such, Staff recommends either leaving this segment of Quicksilver Street as is with no posted speed limit, or posting this segment of Quicksilver Street at 30 mph. Staff does not support posting an advisory speed of something less than 30 mph. In any scenario, the Police Department can only enforce a 30 mph speed limit.

As always, it is best to maintain uniform speed limits along roadway corridors where the functional classification does not vary to meet driver expectation.

The applicant intends to attend the Public Works Committee meeting to explain their concerns in detail.

Alternatives:

Alternative #1 – Motion to leave the segment of Quicksilver Street between 167th Avenue and Elmcrest Park unposted as to the speed limit, and to direct staff to place the speed trailer along this street segment when the trailer is available.

Alternative #2 – Motion directing Staff to furnish and install two 30 mph speed limit signs along the segment of Quicksilver Street between 167th Avenue and Elmcrest, one at each end in the direction of travel, and to direct staff to place the speed trailer along this street segment when the trailer is available.

Funding Source:

No costs are anticipated if alternative #1 is selected. If alternative #2 is selected, each speed limit sign would cost roughly $300 to furnish and install.

Recommendation:

Staff recommends alternative #1, but would support alternative #2. If the Committee selects alternative #2, Staff recommends installing two speed limit signs, one in each direction of travel.

Staff also recommends placing the speed trailer along this segment of Quicksilver Street to help deter speeding as soon as the trailer is available.

Action:

Motion to leave the segment of Quicksilver Street between 167th Avenue and Elmcrest Park unposted as to the speed limit, and to direct staff to place the speed trailer along this street segment when the trailer is available.

Attachments

Figure 1
Figure 2
Figure 3
MSS 169.14
MnDOT Brochure

Form Review

Inbox	Reviewed By	Date
Grant Riemer	MaryJo Warner	07/12/2018 02:49 PM
Kurt Ulrich	Kurt Ulrich	07/12/2018 04:07 PM
Form Started By: Bruce Westby		Started On: 07/05/2018 02:53 PM
Final Approval Date: 07/12/2018		

Quicksilver Street - 167th Ave to Elmcrest Park



Feet
0 37.575 150 225 300

Print Date: July 12, 2018

Figure 1

Quicksilver Street - 167th Ave to Elmcrest Park



Figure 2

Print Date: July 12, 2018

Elmcrest Park Access Routes



Print Date: July 12, 2018

0 260 520 1,040 1,560 2,080 Feet

Figure 3

169.14 SPEED LIMITS, ZONES; RADAR.

Subdivision 1. **Duty to drive with due care.** No person shall drive a vehicle on a highway at a speed greater than is reasonable and prudent under the conditions. Every driver is responsible for becoming and remaining aware of the actual and potential hazards then existing on the highway and must use due care in operating a vehicle. In every event speed shall be so restricted as may be necessary to avoid colliding with any person, vehicle or other conveyance on or entering the highway in compliance with legal requirements and the duty of all persons to use due care.

Subd. 1a. **License revocation for extreme speed.** The driver's license of a person who violates any speed limit established in this section, by driving in excess of 100 miles per hour, is revoked for six months under section 171.17, or for a longer minimum period of time applicable under section 169A.53, 169A.54, or 171.174.

Subd. 2. **Speed limits.** (a) Where no special hazard exists the following speeds shall be lawful, but any speeds in excess of such limits shall be prima facie evidence that the speed is not reasonable or prudent and that it is unlawful; except that the speed limit within any municipality shall be a maximum limit and any speed in excess thereof shall be unlawful:

(1) 30 miles per hour in an urban district;

(2) 65 miles per hour on noninterstate expressways, as defined in section 160.02, subdivision 18b, and noninterstate freeways, as defined in section 160.02, subdivision 19;

(3) 55 miles per hour in locations other than those specified in this section;

(4) 70 miles per hour on interstate highways outside the limits of any urbanized area with a population of greater than 50,000 as defined by order of the commissioner of transportation;

(5) 65 miles per hour on interstate highways inside the limits of any urbanized area with a population of greater than 50,000 as defined by order of the commissioner of transportation;

(6) ten miles per hour in alleys;

(7) 25 miles per hour in residential roadways if adopted by the road authority having jurisdiction over the residential roadway; and

(8) 35 miles per hour in a rural residential district if adopted by the road authority having jurisdiction over the rural residential district.

(b) A speed limit adopted under paragraph (a), clause (7), is not effective unless the road authority has erected signs designating the speed limit and indicating the beginning and end of the residential roadway on which the speed limit applies.

(c) A speed limit adopted under paragraph (a), clause (8), is not effective unless the road authority has erected signs designating the speed limit and indicating the beginning and end of the rural residential district for the roadway on which the speed limit applies.

(d) Notwithstanding section 609.0331 or 609.101 or other law to the contrary, a person who violates a speed limit established in this subdivision, or a speed limit designated on an appropriate sign under subdivision 4, 5, 5b, 5c, or 5e, by driving 20 miles per hour or more in excess of the applicable speed limit, is assessed an additional surcharge equal to the amount of the fine imposed for the speed violation, but not less than $25.

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Subd. 2a. **Increased speed limit when passing.** Notwithstanding subdivision 2, the speed limit is increased by ten miles per hour over the posted speed limit when the driver:

(1) is on a two-lane highway having one lane for each direction of travel;

(2) is on a highway with a posted speed limit that is equal to or higher than 55 miles per hour;

(3) is overtaking and passing another vehicle proceeding in the same direction of travel; and

(4) meets the requirements in section 169.18.

Subd. 3. **Reduced speed required.** (a) The driver of any vehicle shall, consistent with the requirements, drive at an appropriate reduced speed when approaching or passing an authorized emergency vehicle stopped with emergency lights flashing on any street or highway, when approaching and crossing an intersection or railway grade crossing, when approaching and going around a curve, when approaching a hill crest, when traveling upon any narrow or winding roadway, and when special hazards exist with respect to pedestrians or other traffic or by reason of weather or highway conditions.

(b) A person who fails to reduce speed appropriately when approaching or passing an authorized emergency vehicle stopped with emergency lights flashing on a street or highway shall be assessed an additional surcharge equal to the amount of the fine imposed for the speed violation, but not less than $25.

Subd. 4. **Establishment of zones by commissioner.** On determining upon the basis of an engineering and traffic investigation that any speed set forth in this section is greater or less than is reasonable or safe under the conditions found to exist on any trunk highway or upon any part thereof, the commissioner may erect appropriate signs designating a reasonable and safe speed limit thereat, which speed limit shall be effective when such signs are erected. Any speeds in excess of such limits shall be prima facie evidence that the speed is not reasonable or prudent and that it is unlawful; except that any speed limit within any municipality shall be a maximum limit and any speed in excess thereof shall be unlawful. On determining upon that basis that a part of the trunk highway system outside a municipality should be a zone of maximum speed limit, the commissioner may establish that part as such a zone by erecting appropriate signs showing the beginning and end of the zone, designating a reasonable and safe speed therefor, which may be different than the speed set forth in this section, and that it is a zone of maximum speed limit. The speed so designated by the commissioner within any such zone shall be a maximum speed limit, and speed in excess of such limit shall be unlawful. The commissioner may in the same manner from time to time alter the boundary of such a zone and the speed limit therein or eliminate such zone.

Subd. 4a. [Repealed, 1997 c 143 s 20]

Subd. 5. **Zoning within local area.** When local authorities believe that the existing speed limit upon any street or highway, or part thereof, within their respective jurisdictions and not a part of the trunk highway system is greater or less than is reasonable or safe under existing conditions, they may request the commissioner to authorize, upon the basis of an engineering and traffic investigation, the erection of appropriate signs designating what speed is reasonable and safe, and the commissioner may authorize the erection of appropriate signs designating a reasonable and safe speed limit thereat, which speed limit shall be effective when such signs are erected. Any speeds in excess of these speed limits shall be prima facie evidence that the speed is not reasonable or prudent and that it is unlawful; except that any speed limit within any municipality shall be a maximum limit and any speed in excess thereof shall be unlawful. Alteration of speed limits on streets and highways shall be made only upon authority of the commissioner except as provided in subdivision 5a.

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Subd. 5a. **Speed zoning in school zone; surcharge.** (a) Local authorities may establish a school speed limit within a school zone of a public or nonpublic school upon the basis of an engineering and traffic investigation as prescribed by the commissioner of transportation. The establishment of a school speed limit on any trunk highway shall be with the consent of the commissioner of transportation. Such school speed limits shall be in effect when children are present, going to or leaving school during opening or closing hours or during school recess periods. The school speed limit shall not be lower than 15 miles per hour and shall not be more than 30 miles per hour below the established speed limit on an affected street or highway.

(b) The school speed limit shall be effective upon the erection of appropriate signs designating the speed and indicating the beginning and end of the reduced speed zone. Any speed in excess of such posted school speed limit is unlawful. All such signs shall be erected by the local authorities on those streets and highways under their respective jurisdictions and by the commissioner of transportation on trunk highways.

(c) For the purpose of this subdivision, "school zone" means that section of a street or highway which abuts the grounds of a school where children have access to the street or highway from the school property or where an established school crossing is located provided the school advance sign prescribed by the Manual on Uniform Traffic Control Devices adopted by the commissioner of transportation pursuant to section 169.06 is in place. All signs erected by local authorities to designate speed limits in school zones shall conform to the Manual on Uniform Traffic Control Devices.

(d) Notwithstanding section 609.0331 or 609.101 or other law to the contrary, a person who violates a speed limit established under this subdivision is assessed an additional surcharge equal to the amount of the fine imposed for the violation, but not less than $25.

Subd. 5b. **Segment in urban district.** When any segment of at least a quarter-mile in distance of any city street, municipal state-aid street, or town road on which a speed limit in excess of 30 miles per hour has been established pursuant to an engineering and traffic investigation by the commissioner meets the definition of "urban district" as defined in section 169.011, subdivision 90, the governing body of the city or town may by resolution declare the segment to be an urban district and may establish on the segment the speed limit for urban districts prescribed in subdivision 2. The speed limit so established shall be effective upon the erection of appropriate signs designating the speed and indicating the beginning and end of the segment on which the speed limit is established, and any speed in excess of such posted limits shall be unlawful. A copy of the resolution shall be transmitted to the commissioner at least ten days prior to the erection of the signs.

Subd. 5c. **Speed zoning in alleyway.** Local authorities may regulate speed limits for alleyways as defined in section 169.011 based on their own engineering and traffic investigations. Alleyway speed limits established at other than ten miles per hour shall be effective when proper signs are posted.

Subd. 5d. **Speed limit in work zone when workers present.** (a) Notwithstanding subdivision 2 and subject to subdivision 3, the speed limit on a road having an established speed limit of 50 miles per hour or greater is adjusted to 45 miles per hour in a work zone when (1) at least one lane or portion of a lane of traffic is closed in either direction, and (2) workers are present. A speed in excess of the adjusted speed limit is unlawful.

(b) Paragraph (a) does not apply to a segment of road in which:

(1) positive barriers are placed between workers and the traveled portion of the highway;

(2) the work zone is in place for less than 24 hours;

(3) a different speed limit for the work zone is determined by the road authority following an engineering and traffic investigation and based on accepted engineering practice; or

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(4) a different speed limit for the work zone is established by the road authority under paragraph (c).

(c) The commissioner, on trunk highways and temporary trunk highways, and local authorities, on streets and highways under their jurisdiction, may authorize the use of reduced maximum speed limits in work zones when workers are present, without an engineering and traffic investigation required. The work zone speed limit must not reduce the speed limit on the affected street or highway by more than:

(1) 20 miles per hour on a street or highway having an established speed limit of 55 miles per hour or greater; and

(2) 15 miles per hour on a street or highway having an established speed limit of 50 miles per hour or less.

(d) A work zone speed limit under paragraph (c) is effective on erection of appropriate regulatory speed limit signs. The signs must be removed or covered when they are not required. A speed in excess of the posted work zone speed limit is unlawful.

(e) For any speed limit under this subdivision, a road authority shall erect signs identifying the speed limit and indicating the beginning and end of the speed limit zone.

Subd. 5e. **Speed limit on park road.** The political subdivision with authority over a park may establish a speed limit on a road located within the park. A speed limit established under this subdivision on a trunk highway is effective only with the commissioner's approval. A speed limit established under this subdivision must be based on an engineering and traffic investigation prescribed by the commissioner of transportation and must not be lower than 20 miles per hour, and no speed limit established under this subdivision may reduce existing speed limits by more than 15 miles per hour. A speed limit established under this subdivision is effective on the erection of appropriate signs designating the speed limit and indicating the beginning and end of the reduced speed zone. Any speed in excess of the posted speed is unlawful.

Subd. 5f. **Speed limits on certain rural residential districts.** (a) A rural residential district existing and lawfully signed before August 1, 2009, continues to qualify as a rural residential district.

(b) A rural residential district existing and lawfully signed before August 1, 2009, is subject to the speed limit signed before August 1, 2009.

[See Note.]

Subd. 5g. **St. Louis County Road 128.** Notwithstanding any provision to the contrary in this section, the speed limit on St. Louis County Road 128 in Eagles Nest Township between marked Trunk Highway 169 and County Road 989 is 40 miles per hour. The county engineer must erect appropriate signs displaying the 40 miles per hour speed limit.

[See Note.]

Subd. 6. [Repealed, Ex1971 c 27 s 49]

Subd. 6a. **Work zone speed limit violations.** A person convicted of operating a motor vehicle in violation of a speed limit in a work zone, or any other provision of this section while in a work zone, shall be required to pay a fine of $300. This fine is in addition to the surcharge under section 357.021, subdivision 6.

Subd. 7. **Burden of proof.** The provisions of this chapter declaring speed limitation shall not be construed to relieve the plaintiff in any civil action from the burden of proving negligence on the part of the defendant as the proximate cause of an accident.

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Subd. 8. **Minimum speeds.** On determining upon the basis of an engineering and traffic investigation that a speed at least as great as, or in excess of, a specified and determined minimum is necessary to the reasonable and safe use of any trunk highway or portion thereof, the commissioner may erect appropriate signs specifying the minimum speed on such highway or portion thereof. The minimum speed shall be effective when such signs are erected. Any speeds less than the posted minimum speeds shall be prima facie evidence that the speed is not reasonable or prudent and that it is unlawful.

Subd. 9. **Standards of evidence.** In any prosecution in which the rate of speed of a motor vehicle is relevant, evidence of the speed of a motor vehicle as indicated on the speedometer thereof shall be admissible on a showing that a vehicle is regularly used in traffic law enforcement and that the speedometer thereon is regularly and routinely tested for accuracy and a record of the results of said tests kept on file by the agency having control of said vehicle. Evidence as to the speed indicated on said speedometer shall be prima facie evidence that the said vehicle was, at the time said reading was observed, traveling at the rate of speed so indicated; subject to correction by the amount of error, if any, shown to exist by the test made closest in time to the time of said reading.

Records of speedometer tests kept in the regular course of operations of any law enforcement agency shall be admissible without further foundation, as to the results of said tests. Such records shall be available to the defendant upon demand. Nothing herein shall be construed to preclude or interfere with the cross examination or impeachment of evidence of rate of speed as indicated by speedometer readings, pursuant to the Rules of Evidence.

Subd. 10. **Radar; speed-measuring device; standards of evidence.** (a) In any prosecution in which the rate of speed of a motor vehicle is relevant, evidence of the speed as indicated on radar or other speed-measuring device is admissible in evidence, subject to the following conditions:

(1) the officer operating the device has sufficient training to properly operate the equipment;

(2) the officer testifies as to the manner in which the device was set up and operated;

(3) the device was operated with minimal distortion or interference from outside sources; and

(4) the device was tested by an accurate and reliable external mechanism, method, or system at the time it was set up.

(b) Records of tests made of such devices and kept in the regular course of operations of any law enforcement agency are admissible in evidence without further foundation as to the results of the tests. The records shall be available to a defendant upon demand. Nothing in this subdivision shall be construed to preclude or interfere with cross examination or impeachment of evidence of the rate of speed as indicated on the radar or speed-measuring device.

Subd. 11. **Handheld traffic radar.** (a) Law enforcement agencies that use handheld radar units shall establish operating procedures to reduce the operator's exposure to microwave radiation.

(b) The procedures, at a minimum, must require:

(1) that the operator turn the unit off when it is not in use;

(2) if the unit has a standby mode, that the operator use this mode except when measuring a vehicle's speed;

(3) that the operator not allow the antenna to rest against the operator's body while it is in operation; and

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(4) that the operator always point the antenna unit away from the operator and any other person in very close proximity to the unit.

Subd. 12. **Radar jammer.** For purposes of this section, "radar jammer" means any instrument, device, or equipment designed or intended for use with a vehicle or otherwise to jam or interfere in any manner with a speed-measuring device operated by a peace officer.

No person shall sell, offer for sale, use, or possess any radar jammer in this state.

History: *(2720-178) 1937 c 464 s 28; 1939 c 430 s 6; 1947 c 428 s 12,13; 1955 c 802 s 1,2; 1957 c 580 s 1; 1963 c 843 s 1-4; 1969 c 623 s 1; 1975 c 53 s 1; 1975 c 363 s 1,2; 1976 c 166 s 7; 1979 c 60 s 1; 1980 c 498 s 4; 1984 c 417 s 24,25; 1986 c 444; 1987 c 319 s 1; 1991 c 298 art 4 s 9; 1993 c 26 s 1; 1993 c 61 s 1; 1994 c 635 art 1 s 12; 1994 c 640 s 1; 1994 c 645 s 1; 1995 c 118 s 1; 1995 c 265 art 2 s 18; 1996 c 455 art 1 s 5,6; 1997 c 143 s 9-11; 1997 c 159 art 2 s 20,21; 1999 c 44 s 1; 2001 c 213 s 9; 1Sp2003 c 19 art 2 s 27; 1Sp2005 c 6 art 3 s 41,42; 2008 c 287 art 1 s 45; 2009 c 56 s 4,5; 2009 c 165 s 1; 2010 c 356 s 1; 2014 c 312 art 11 s 7,8; 1Sp2017 c 3 art 3 s 48*

NOTE: Subdivision 5f, paragraph (b), as added by Laws 2009, chapter 56, section 5, expires when the speed limit signs erected before August 1, 2009, are replaced. Laws 2009, chapter 56, section 5, the effective date.

NOTE: The new speed limit under subdivision 5g, as added by Laws 2017, First Special Session chapter 3, article 3, section 48, is effective when the required signs are erected. Laws 2017, First Special Session chapter 3, article 3, section 48, the effective date.

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Q&A

Will lowering the speed limit reduce speeds?

No. Studies show there is little change in the speed pattern after the posting of a speed limit. The driver is much more influenced by the roadway conditions.

Will lowering the speed limit reduce crash frequency?

No. Although lowering the speed limit is often seen as a cure-all in preventing crashes, this is not the case. Crashes are most often the result of driver inattention and driver error. However, if a posted speed limit is unrealistically low, it creates a greater speed variance (i.e. some drivers follow the speed limit while most drive the reasonable speed). This speed variance can contribute to crashes.

Why do we even have speed limits?

A uniform speed of vehicles in a traffic flow results in the safest operation. The posted speed limits can keep the traffic flowing smoothly provided the majority of drivers find the speed limits reasonable. To best do this, the limits must be consistent throughout the state. The speed limits also give the motorist an idea of a reasonable speed to drive in an unfamiliar location. The speed limits are used by police officials to identify excessive speeds and curb unreasonable behavior.



Who do I contact?

If you believe that there is a safety concern or an inappropriate speed limit posted, the person to contact depends on the type of road.

Interstates, federal and state highways

For regulatory and advisory speed limits on the trunk highway system, contact the district traffic engineer at your MnDOT district office.

The trunk highway system includes:

- Interstate Highways
- U.S. Highways and
- Minnesota State Highways

Local streets and highways

For these roadways, you may contact your local road authority (county, city, or township).

If you are unable to find the right phone number, call the MnDOT Information center:

Greater Minnesota: 1-800-657-3774
Twin Cities Metro: 651-296-3000

MnDOT Office of Traffic Safety and Technology

For more information, visit: www.mndot.gov/speed/

We all have a stake in A B

Minnesota *Speed Limits*



What are the legal speed limits?

State law says every road should have a speed limit, whether posted or not. Speed limits are set according to Minnesota State Statute 169.14. The Minnesota Department of Transportation carries out state laws through the development and enforcement of regulations.

Speed limits are set to improve traffic flow and reduce crashes, injuries and fatalities and the costs associated with them. Speed limits are also intended to supplement motorists' judgment in determining speeds. To effectively enforce a law, motorists must believe that the law is reasonable.

Minnesota's speed regulations are based on the same basic speed law that is used in all 50 states: "No person shall drive a vehicle on a highway at a speed greater than is reasonable and prudent under the conditions."

Speed limits are based on the concept that highways can operate safely at set maximum speeds under ideal conditions. In poor weather conditions, at curves or hills and when there are potential hazards such as pedestrians, drivers are required to reduce speeds below the speed limits, whether they are posted or not.

Drivers must also reduce speed when approaching or passing emergency vehicles with emergency lights flashing.

The most common speeds regulated by state law are:

- 10 mph in alleys
- 30 mph on streets in urban districts
- 70 mph on rural interstate highways
- 65 mph on urban interstate highways
- 65 mph on expressways
- 55 mph on other roads

When these speed limits are not the correct value for a specific highway, speed limits may be changed.



Interstates are high design multi-lane divided highways that have controlled access interchanges such as cloverleaf or diamond shaped interchanges. Through traffic on the interstate never has to stop or yield.
Examples: I-94 or I-35



Expressways are multi-lane divided highways but they have entries and intersections, sometimes controlled by traffic signals. Some interchanges may exist but they are not the rule. Examples: Highways 10 or Highway 52

What are the types of speed limits?

REGULATORY SPEED LIMIT SIGN



This black and white sign shows the maximum speed that motorist may travel under ideal conditions. It can be a value based on state statute or it must be authorized by the commissioner of transportation.

ADVISORY SPEED SIGN



This black and yellow speed sign is used to advise motorists of a comfortable speed to navigate certain situations. It is used with a warning sign. For example, when traveling on a winding road, the curve warning sign would be used with an advisory speed sign. This sign may be posted by the local road authority on local roads.

SPEED LIMITS IN SCHOOL ZONES



Local authorities may establish school speed limits on local streets, within a school zone, based on the engineering and traffic investigation as directed by the commissioner of transportation. This speed limit is in effect whenever children are present, such as before and after school or during recess. The school sign is black and yellow and the other signs are black and white. Optional fluorescent yellow green may be used for the school sign.

How does MnDOT determine the speed limit?

These factors are considered:

- Road type and condition
- Location and type of access points (intersections, entrances, etc.)
- Sufficient length of roadway (1/4 mile minimum)
- Existing traffic control devices (signs, signals, etc.)
- Crash history
- Traffic volume
- Sight distances (curve, hill, etc.)
- Test drive results
- Speed study

The speed study is the most important part of the traffic investigation. Drivers take many roadway environment factors into consideration when choosing a speed. The speed that the majority of people consider reasonable is an important value. Data is collected by performing radar checks at selected locations on the roadway under ideal driving conditions.

An analysis is done on the results to determine the 85th percentile, which is the value indicating the speed at which most (85%) drivers are traveling. The posted speed limit near the 85th percentile is the maximum safe and reasonable speed. Studies show that traveling faster or slower than this value can increase the chances of being in a crash.

Engineering judgment is the most important tool. The traffic investigator must use knowledge of nationally accepted principles combined with experience to assign the safe speed.

Public Works Committee **6. 1.**

Meeting Date: 07/17/2018

By: Bruce Westby, Engineering/Public Works

Title:

Review Draft City of Ramsey Americans with Disabilities Act (ADA) Transition Plan

Purpose/Background:

Purpose:

The purpose of this case is to review the City of Ramsey's Draft Americans with Disabilities Act (ADA) Transition Plan.

Background:

The Americans with Disabilities Act (ADA) was enacted on July 26, 1990. Title II of ADA requires the City of Ramsey to meet the following general requirements:

- Must operate their programs so that, when viewed in their entirety, the programs are accessible to and useable by individuals with disabilities (28 C.F.R. Sec. 35.150).
- May not refuse to allow a person with a disability to participate in a service, program or activity simply because the person has a disability (28 C.F.R. Sec. 35.130 (a).
- Must make reasonable modifications in policies, practices and procedures that deny equal access to individuals with disabilities unless a fundamental alteration in the program would result (28 C.F.R. Sec. 35.130(b) (7).
- May not provide services or benefits to individuals with disabilities through programs that are separate or different unless the separate or different measures are necessary to ensure that benefits and services are equally effective (28 C.F.R. Sec. 35.130(b)(iv) & (d).
- Must take appropriate steps to ensure that communications with applicants, participants and members of the public with disabilities are as effective as communications with others (29 C.F.R. Sec. 35.160(a).
- Must designate at least one responsible employee to coordinate ADA compliance [28 CFR Sec. 35.107(a)]. This person is often referred to as the "ADA Coordinator." The public entity must provide the ADA coordinator's name, office address, and telephone number to all interested individuals [28 CFR Sec. 35.107(a)].
- Must provide notice of ADA requirements. All public entities, regardless of size, must provide information about the rights and protections of Title II to applicants, participants, beneficiaries, employees, and other interested persons [28 CFR Sec. 35,106]. The notice must include the identification of the employee serving as the ADA coordinator and must provide this information on an ongoing basis [28 CFR Sec. 104.8(a)].
- Must establish a grievance procedure. Public entities must adopt and publish grievance procedures providing for prompt and equitable resolution of complaints [28 CFR Sec. 35.107(b)]. This requirement provides for a timely resolution of all problems or conflicts related to ADA compliance before they escalate to litigation and/or the federal complaint process.

Attached is a draft copy of the City of Ramsey's Americans with Disabilities Act (ADA) Transition Plan, which addresses the City of Ramsey's plan for meeting these requirements over time. Staff will review the draft Plan with the Committee, and will request Committee input on several items within the plan, including ADA Compliance Goals (see page 6) and Public Outreach (see page 7).

Timeframe:

Staff estimates this case will take 20 minutes to present and respond to questions.

Observations/Alternatives:

Observations:
It is important to note that the City must have an adopted ADA Transition Plan before accepting any new federal funds. This plan must therefore be adopted by City Council before any federal grants can be accepted for projects such as the Mississippi Skyway, or any of the proposed Highway 10 improvements.

Alternatives:
N/A

Funding Source:
Staff is completing this work as part of its normal duties.

Recommendation:
Staff recommends providing input on requested items to allow Staff to present a final draft to City Council for approval on August 6th.

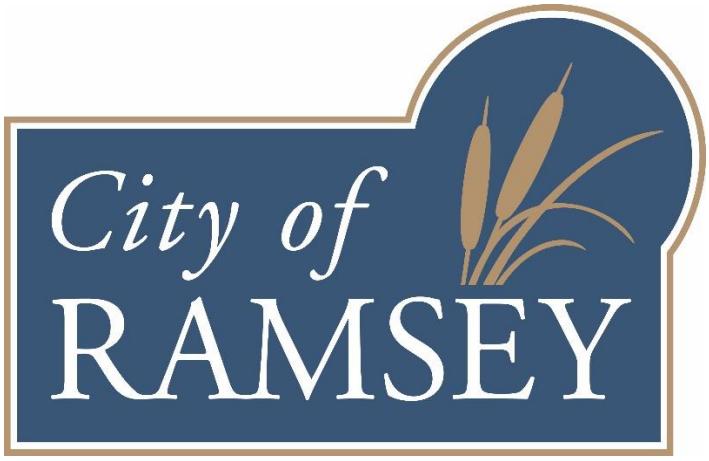
Action:
No action required.

Attachments

Draft ADA Transition Plan

Form Review

Inbox	Reviewed By	Date
Grant Riemer	MaryJo Warner	07/12/2018 01:37 PM
Kurt Ulrich	Kurt Ulrich	07/12/2018 04:11 PM
Form Started By: Bruce Westby		Started On: 07/05/2018 03:05 PM
Final Approval Date: 07/12/2018		



ADA TRANSITION PLAN

DRAFT COPY

JULY 2018

Introduction

Transition Plan Need and Purpose

The Americans with Disabilities Act (ADA), enacted on July 26, 1990, is a civil rights law prohibiting discrimination against individuals on the basis of disability. ADA consists of five titles outlining protections in the following areas:

1. Employment
2. State and local government services
3. Public accommodations
4. Telecommunications
5. Miscellaneous Provisions

Title II of ADA pertains to the programs, activities and services public entities provide. As a provider of public transportation services and programs, the City of Ramsey must comply with this section of the Act as it specifically applies to public service agencies. Title II of ADA provides that, "…no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity." (42 USC. Sec. 12132; 28 CFR. Sec. 35.130)

As required by Title II of ADA, 28 CFR. Part 35 Sec. 35.105 and Sec. 35.150, the City of Ramsey has conducted a self-evaluation of its facilities within public rights of way and has developed this Transition Plan detailing how the organization will ensure that all of those facilities are accessible to all individuals. This document serves as a supplement to the City of Ramsey's existing Transition Plan covering buildings, services, programs and activities.

ADA and its Relationship to Other Laws

Title II of ADA is companion legislation to two previous federal statutes and regulations: the Architectural Barriers Acts of 1968 and Section 504 of the Rehabilitation Act of 1973.

The Architectural Barriers Act of 1968 is a Federal law that requires facilities designed, built, altered or leased with Federal funds to be accessible. The Architectural Barriers Act marks one of the first efforts to ensure access to the built environment.

Section 504 of the Rehabilitation Act of 1973 is a Federal law that protects qualified individuals from discrimination based on their disability. The nondiscrimination requirements of the law apply to employers and organizations that receive financial assistance from any Federal department or agency. Title II of ADA extended this coverage to all state and local government entities, regardless of whether they receive federal funding or not.

Agency Requirements

Under Title II, the City of Ramsey must meet these general requirements:

- Must operate their programs so that, when viewed in their entirety, the programs are accessible to and useable by individuals with disabilities (28 C.F.R. Sec. 35.150).
- May not refuse to allow a person with a disability to participate in a service, program or activity simply because the person has a disability (28 C.F.R. Sec. 35.130 (a).
- Must make reasonable modifications in policies, practices and procedures that deny equal access to individuals with disabilities unless a fundamental alteration in the program would result (28 C.F.R. Sec. 35.130(b) (7).
- May not provide services or benefits to individuals with disabilities through programs that are separate or different unless the separate or different measures are necessary to ensure that benefits and services are equally effective (28 C.F.R. Sec. 35.130(b)(iv) & (d).
- Must take appropriate steps to ensure that communications with applicants, participants and members of the public with disabilities are as effective as communications with others (29 C.F.R. Sec. 35.160(a).
- Must designate at least one responsible employee to coordinate ADA compliance [28 CFR Sec. 35.107(a)]. This person is often referred to as the "ADA Coordinator." The public entity must provide the ADA coordinator's name, office address, and telephone number to all interested individuals [28 CFR Sec. 35.107(a)].
- Must provide notice of ADA requirements. All public entities, regardless of size, must provide information about the rights and protections of Title II to applicants, participants, beneficiaries, employees, and other interested persons [28 CFR Sec. 35,106]. The notice must include the identification of the employee serving as the ADA coordinator and must provide this information on an ongoing basis [28 CFR Sec. 104.8(a)].
- Must establish a grievance procedure. Public entities must adopt and publish grievance procedures providing for prompt and equitable resolution of complaints [28 CFR Sec. 35.107(b)]. This requirement provides for a timely resolution of all problems or conflicts related to ADA compliance before they escalate to litigation and/or the federal complaint process.

This document has been created to specifically cover accessibility within the public rights of way and does not include information on City of Ramsey programs, practices, or building facilities not related to public rights of way.

Self-Evaluation

Overview

The City of Ramsey is required, under Title II of the Americans with Disabilities Act (ADA) and 28CFR35.105, to perform a self-evaluation of its current transportation infrastructure policies, practices, and programs. This self-evaluation will identify what policies and practices impact accessibility and examine how the City of Ramsey implements these policies. The goal of the self-evaluation is to verify that, in implementing the City of Ramsey's policies and practices, the department is providing accessibility and not adversely affecting the full participation of individuals with disabilities.

The self-evaluation also examines the condition of the City of Ramsey's Pedestrian Circulation Route/Pedestrian Access Route) (PCR/PAR) and identifies potential need for PCR/PAR infrastructure improvements. This will include the sidewalks, curb ramps, bicycle/pedestrian trails, traffic control signals and transit facilities that are located within the City of Ramsey rights of way. Any barriers to accessibility identified in the self-evaluation and the remedy to the identified barrier are set out in this transition plan.

Summary

In 2017, the City of Ramsey completed an inventory of pedestrian facilities within its public right of way consisting of the evaluation of the following facilities:

- 21.6 miles of sidewalks
- 993 curb ramps
- 50.6 miles of trails
- 0 traffic control signals
- 1 bus stops

A detailed evaluation on how these facilities relate to ADA standards is found in Appendix A and will be updated periodically.

Policies and Practices

Previous Practices

Since the adoption of the ADA, the City of Ramsey has striven to provide accessible pedestrian features as part of the City of Ramsey's capital improvement projects. As additional information was made available as to the methods of providing accessible pedestrian features, the City of Ramsey updated their procedures to accommodate these methods.

(Insert specific previous ADA project, or sidewalk replacement project info here.)

Policy

The City of Ramsey's goal is to continue to provide accessible pedestrian design features as part of the City of Ramsey capital improvement projects. The City of Ramsey has established ADA design standards and procedures as listed in Appendix F. These standards and procedures will be kept up to date with nationwide and local best management practices.

The City of Ramsey will consider and respond to all accessibility improvement requests. All accessibility improvements that have been deemed reasonable will be scheduled consistent with transportation priorities. The City of Ramsey will coordinate with external agencies to ensure that all new or altered pedestrian facilities within the City of Ramsey jurisdiction are ADA compliant to the maximum extent feasible.

Maintenance of pedestrian facilities within the public right of way will continue to follow the policies set forth by the City of Ramsey . (Insert specific policy references here)

Requests for accessibility improvements can be submitted to the Responsible Party (title). Contact information for Responsible Party is located in Appendix E.

Improvement Schedule

Priority Areas

The City of Ramsey has identified specific locations as priority areas for planned accessibility improvement projects. These areas have been selected due to their proximity to specific land uses such as schools, government offices and medical facilities, as well as from the receipt of public comments. The priority areas as identified in the January 2018 self-evaluation are as follows:

- Area within 0.5 mile of the COR
  The COR was designed to be pedestrian friendly.
- Area around existing Ramsey Elementary School

Staff contacted the school district in January 2018 regarding walking routes to school. The City has a previous walking area map for the school and was seeking an update. The Current district policy is to bus all students to this school.

Additional priority will be given to any location where an improvement project or alteration was constructed after January 26, 1991, and accessibility features were omitted.

External Agency Coordination

Numerous other agencies are responsible for pedestrian facilities within the jurisdiction of the City of Ramsey. The City of Ramsey will coordinate with those agencies to track and assist in the facilitation of the elimination of accessibility barriers along their routes.

Schedule

The City of Ramsey has set the following schedule goals for improving the accessibility of its pedestrian facilities within the City of Ramsey's jurisdiction:

- After 10 years, 80% of accessibility features within the priority areas identified by City of Ramsey staff would be ADA compliant.
- After 20 years, 80% of accessibility features within the jurisdiction of City of Ramsey would be ADA compliant.
- After 20 years, 100% of accessibility features constructed after January 26, 1991, would be ADA compliant.

ADA Coordinator

In accordance with 28 CFR 35.107(a), the City of Ramsey has identified an ADA Title II Coordinator to oversee the City of Ramsey policies and procedures. Contact information for this individual is located in Appendix E.

Implementation Schedule

Methodology

The City of Ramsey will utilize two methods for upgrading pedestrian facilities to the current ADA standards. The first and most comprehensive of the two methods are the scheduled street and utility improvement projects. All pedestrian facilities impacted by these projects will be upgraded to current ADA accessibility standards. The second method is employing stand-alone sidewalk and ADA accessibility improvement projects. These projects will be incorporated into the Capital Improvement Program (CIP) on a case by case basis as determined by City of

Ramsey staff. The City of Ramsey CIP, which includes a detailed schedule and budget for specific improvements, is included in Appendix B.

Public Outreach

The City of Ramsey recognizes that public participation is an important component in the development of this document. Input from the community has been gathered and used to help define priority areas for improvements within the jurisdiction of the City of Ramsey.

Public outreach was not utilized during the creation of this document, but will be utilized during future updates.

This document will be available for public review and comment on the City of Ramsey's website following its adoption by the City Council. A summary of comments received and detailed information regarding future public outreach activities will be added in Appendix C.

Grievance Procedure

Under the Americans with Disabilities Act, each agency is required to publish its responsibilities in regards to the ADA. A draft of this public notice is provided in Appendix D. If users of City of Ramsey facilities and services believe the City of Ramsey has not provided reasonable accommodation, they have the right to file a grievance.

In accordance with 28 CFR 35.107(b), the City of Ramsey has developed a grievance procedure for the purpose of the prompt and equitable resolution of citizens' complaints, concerns, comments, and other grievances. This grievance procedure is outlined in Appendix D.

Monitor the Progress

This document will continue to be updated as conditions within the City of Ramsey evolve. The appendices in this document will be updated periodically, while the main body of the document will be updated every 5 years, with a future update schedule to be developed at that time. With each main body update, a public comment period will be established to continue the public outreach.

Appendices

A. Self-Evaluation Results

B. Schedule / Budget Information

C. Public Outreach

D. Grievance Procedure

E. Contact Information

F. Agency ADA Design Standards and Procedures

G. Glossary of Terms

Appendix A – Self-Evaluation Results

This initial self-evaluation of pedestrian facilities yielded the following results:

- XX% of sidewalks met accessibility criteria
- XX% of curb ramps met accessibility criteria
- XX% intersections did not have any curb ramps
- XX% of trails met accessibility criteria
- N/A % of traffic control signals had push buttons that are accessible, or had the pedestrian indications on recall
- N/A % of traffic control signals had APS
- 100 % of bus stops met accessibility criteria
- 100 % of bus stops had amenities that met accessibility criteria

Insert detailed self-evaluation results here:

Ped Ramps

Organize GIS files by Street, numbered then A-Z, listing cross street and quadrant, date checked and compliant. Add columns as necessary. Include table in this report.

Buildings

Add table

7-6-17 888 of 994 ramps in rightofway shape. Some are in City Parks, Some are in Townhouse developments and need more sorting. We are missing some ramps.

Appendix B – Schedule / Budget Information

Cost Information

Unit Prices

Construction costs for upgrading facilities can vary depending on each individual improvement and conditions of each site. Costs can also vary on the type and size of project the improvements are associated with. Listed below are representative 2011 costs for some typical accessibility improvements based on if the improvements are included as part of a retrofit type project, or as part of a larger comprehensive capital improvement project.

Intersection corner ADA improvement retrofit: +/- $4,000 per corner

Intersection corner ADA improvement as part of adjacent capital project: +/- $1,500 per corner

Traffic control signal APS upgrade retrofit: +/- $15,000

Traffic control signal APS upgrade as part of full traffic control signal installation: +/- $10,000

Sidewalk / Trail ADA improvement retrofit: +/- $5.00 per SF

Sidewalk / Trail ADA improvement as part of adjacent capital project: +/- $3.50 per SF

Bus Stop ADA improvement retrofit: +/- $400 per stop

Bus Stop ADA improvement as part of adjacent capital project: +/- $250 per stop

Priority Areas

Based on the results of the self-evaluation, the estimated costs associated with eliminating accessibility barriers within the targeted priority areas is as follows:

- Area 1 Cost Info COR
- Area 2 Cost Info SE Business District (TH47)
- Area 3 Cost Info Ramsey Elementary Area

Entire Jurisdiction

Based on the results of the self-evaluation, the estimated costs associated with providing ADA accessibility within the entire jurisdiction is $$$$$. This amount signifies a significant investment that City of Ramsey is committed to making in the upcoming years. A systematic approach to providing accessibility will be taken in order to absorb the cost into the City of Ramsey budget for improvements to the public right of way.

Insert detailed CIP information here:

Add any special ADA impvoement project info here:

Appendix C – Public Outreach

Insert Summary of Public Outreach here:

Insert Outreach agenda's and sign in info, as well as notification and invite strategy.

Appendix D – Grievance Procedure

As part of the ADA requirements, the City of Ramsey has posted the following notice outlining its ADA requirements:

Public Notice

In accordance with the requirements of title II of the Americans with Disabilities Act of 1990, City of Ramsey will not discriminate against qualified individuals with disabilities on the basis of disability in the City of Ramsey's services, programs, or activities.

Employment: The City of Ramsey does not discriminate on the basis of disability in its hiring or employment practices and complies with all regulations promulgated by the U.S. Equal Employment Opportunity Commission under title I of the Americans with Disabilities Act (ADA).

Effective Communication: The City of Ramsey will generally, upon request, provide appropriate aids and services leading to effective communication for qualified persons with disabilities so they can participate equally in the City of Ramsey's programs, services, and activities, including qualified sign language interpreters, documents in Braille, and other ways of making information and communications accessible to people who have speech, hearing, or vision impairments.

Modifications to Policies and Procedures: The City of Ramsey will make all reasonable modifications to policies and programs to ensure that people with disabilities have an equal opportunity to enjoy all City of Ramsey programs, services, and activities. For example, individuals with service animals are welcomed in City of Ramsey offices, even where pets are generally prohibited.

Anyone who requires an auxiliary aid or service for effective communication, or a modification of policies or procedures to participate in a City of Ramsey program, service, or activity, should contact the office of ADA Coordinator, as soon as possible but no later than 48 hours before the scheduled event.

The ADA does not require the City of Ramsey to take any action that would fundamentally alter the nature of its programs or services, or impose an undue financial or administrative burden.

The City of Ramsey will not place a surcharge on a particular individual with a disability or any group of individuals with disabilities to cover the cost of providing auxiliary aids/services or reasonable modifications of policy, such as retrieving items from locations that are open to the public but are not accessible to persons who use wheelchairs.

Sample Grievance Procedure (Source www.ada.gov):

City of Ramsey
Grievance Procedure under
the Americans with Disabilities Act

This Grievance Procedure is established to meet the requirements of the Americans with Disabilities Act of 1990 ("ADA"). It may be used by anyone who wishes to file a complaint alleging discrimination on the basis of disability in the provision of services, activities, programs, or benefits by the City of Ramsey. The City of Ramsey's Personnel Policy governs employment-related complaints of disability discrimination.

The complaint should be in writing and contain information about the alleged discrimination such as name, address, phone number of complainant and location, date, and description of the problem. Alternative means of filing complaints, such as personal interviews or a tape recording of the complaint, will be made available for persons with disabilities upon request.

The complaint should be submitted by the grievant and/or his/her designee as soon as possible but no later than 60 calendar days after the alleged violation to:

[Insert ADA Coordinator's name]
ADA Coordinator [and other title if appropriate]
[Insert ADA Coordinator's mailing address]

Within 15 calendar days after receipt of the complaint, ***[ADA Coordinator's name]*** or ***[his/her]*** designee will meet with the complainant to discuss the complaint and the possible resolutions. Within 15 calendar days of the meeting, ***[ADA Coordinator's name]*** or ***[his/her]*** designee will respond in writing, and where appropriate, in a format accessible to the complainant, such as large print, Braille, or audio tape. The response will explain the position of the **[name of public entity]** and offer options for substantive resolution of the complaint.

If the response by ***[ADA Coordinator's name]*** or ***[his/her]*** designee does not satisfactorily resolve the issue, the complainant and/or his/her designee may appeal the decision within 15 calendar days after receipt of the response to the **[City Manager/County Commissioner/ other appropriate high-level official]** or ***[his/her]*** designee.

Within 15 calendar days after receipt of the appeal, the **[City Manager/County Commissioner/ other appropriate high-level official]** or ***[his/her]*** designee will meet with the complainant to discuss the complaint and possible resolutions. Within 15 calendar days after the meeting, the **[City Manager/County Commissioner/ other appropriate high-level official]** or ***[his/her]*** designee will respond in writing, and, where appropriate, in a format accessible to the complainant, with a final resolution of the complaint.

All written complaints received by ***[name of ADA Coordinator]*** or ***[his/her]*** designee, appeals to the **[City Manager/County Commissioner/ other appropriate high-level official]** or ***[his/her]*** designee, and responses from these two offices will be retained by the **[public entity]** for at least three years.

Hennepin County Sample Grievance Procedure

Those wishing to file a formal written grievance with City of Ramsey may do so by one of the following methods:

Internet

Visit the City of Ramsey website (website) and click the "ADA" link to the ADA Grievance Form. Fill in the form online and click "submit." A copy of The ADA Grievance Form is included in this Appendix.

Telephone

Contact the pertinent City of Ramsey staff person listed in the **Contact Information** section of Appendix E to submit an oral grievance. The staff person will utilize the Internet method above to submit the grievance on behalf of the person filing the grievance.

Paper Submittal

Contact the pertinent City of Ramsey staff person listed in the **Contact Information** section of Appendix E to request a paper copy of the county's grievance form, complete the form, and submit it to the Responsible Party. A staff person will utilize the Internet method above to submit the grievance on behalf of the person filing the grievance.

The ADA Grievance Form will ask for the following information:

The **name, address, telephone number, and email address** for the person filing the grievance

The **name, address, telephone number, and email address** for the person alleging an ADA violation (if different than the person filing the grievance)

A **description and location of the alleged violation and the nature of a remedy sought**, if known by the complainant.

If the complainant has filed the same complaint or grievance with the United States Department of Justice (DOJ), another federal or state civil rights agency, a court, or others, the **name of the agency or court where the complainant filed it and the filing date**.

The City of Ramsey will acknowledge receipt of the grievance to the complainant within 10 working days of its submittal. The City of Ramsey will also provide to the complainant within 10 working days of its submittal; 1) a response or resolution to the grievance or; 2) information on when the complainant can expect a response or resolution to the grievance.

If the grievance filed does not concern a City of Ramsey facility, the City of Ramsey will work with the complainant to contact the agency that has jurisdiction.

3. Within 60 calendar days of receipt, City of Ramsey engineering staff will conduct an investigation to determine the validity of the alleged violation. As a part of the investigation, engineering staff will conduct an engineering study to help determine the City of Ramsey's response. Engineering staff will take advantage of department resources and use engineering judgment, data collected, and any information submitted by the resident to develop a conclusion. Engineering staff will be available to meet with the complainant to discuss the matter as a part of the investigation and resolution of the matter. The City of Ramsey will document each resolution of a filed grievance and retain such documentation in the department's ADA Grievance File for a period of seven years.

The City of Ramsey will consider all specific grievances within its particular context or setting. Furthermore, the City of Ramsey will consider many varying circumstances including: 1) the nature of the access to services, programs, or facilities at issue; 2) the specific nature of the disability; 3) the essential eligibility requirements for participation; 4) the health and safety of others: and 5) the degree to which an accommodation would constitute a fundamental alteration to the program, service, or facility, or cause an undue hardship to City of Ramsey.

Accordingly, the resolution by the City of Ramsey of any one grievance does not constitute a precedent upon which the City of Ramsey is bound or upon which other complaining parties may rely.

File Maintenance

The City of Ramsey shall maintain ADA grievance files for a period of seven years. Complaints of Title II violations may also be filed with the DOJ within 180 days of the date of discrimination. In certain situations, cases may be referred to a mediation program sponsored by the Department of Justice (DOJ). The DOJ may bring a lawsuit where it has investigated a matter and has been unable to resolve violations.
For more information, contact:

U.S. Department of Justice
Civil Rights Division
950 Pennsylvania Avenue, N.W.
Disability Rights Section - NYAV
Washington, D.C. 20530
www.ada.gov
(800) 514-0301 (voice – toll free)
(800) 514-0383 (TTY)

Title II may also be enforced through private lawsuits in Federal court. It is not necessary to file a complaint with the DOJ or any other Federal agency, or to receive a "right-to-sue" letter, before going to court.

Insert grievance form here.

Sample Complaint Form (Source www.ada.gov):

Appendix E – Contact Information

ADA Title II Coordinator

Name:
Address:

Phone:
Fax:
E-mail:

Public Right of Ways ADA Implementation Coordinator

Name:
Address:

Phone:
Fax:
E-mail:

Other

Appendix F – Agency ADA Design Standards and Procedures

Design Procedures

Intersection Corners

Curb ramps or blended transitions will attempt to be constructed or upgraded to achieve compliance within all capital improvement projects. There may be limitations which make it technically infeasible for an intersection corner to achieve full accessibility within the scope of any project. Those limitations will be noted and those intersection corners will remain on the transition plan. As future projects or opportunities arise, those intersection corners shall continue to be incorporated into future work. Regardless on if full compliance can be achieved or not, each intersection corner shall be made as compliant as possible in accordance with the judgment of City of Ramsey staff.

Sidewalks / Trails

Sidewalks and trails will attempt to be constructed or upgraded to achieve compliance within all capital improvement projects. There may be limitations which make it technically infeasible for segments of sidewalks or trails to achieve full accessibility within the scope of any project. Those limitations will be noted and those segments will remain on the transition plan. As future projects or opportunities arise, those segments shall continue to be incorporated into future work. Regardless on if full compliance can be achieved or not, every sidewalk or trail shall be made as compliant as possible in accordance with the judgment of City of Ramsey staff.

Other policies, practices and programs

Policies, practices and programs not identified in this document will follow the applicable ADA standards.

Design Standards

City of Ramsey has PROWAG, as adopted by the Minnesota Department of Transportation (MnDOT), as its design standard. A copy of this document is included in the following pages of this appendix.

NOTICE OF AVAILABILITY OF DRAFT PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES

The Americans with Disabilities Act (ADA) recognizes and protects the civil rights of people with disabilities and is modeled after earlier landmark laws prohibiting discrimination on the basis of race and gender. To ensure that buildings and facilities are accessible to and usable by people with disabilities, the ADA establishes accessibility requirements for State and local government facilities, places of public accommodation, and commercial facilities. Under the ADA, the Access Board has developed and continues to maintain design guidelines for accessible buildings and facilities known as the ADA Accessibility Guidelines (ADAAG). ADAAG covers a wide variety of facilities and establishes minimum requirements for new construction and alterations.

The Board maintains a similar responsibility for accessibility guidelines under the Architectural Barriers Act (ABA). The ABA requires access to certain facilities designed, built, altered, or leased with Federal funds. Like ADAAG, the Board's ABA accessibility guidelines apply to new construction and alterations.

The Board's guidelines become enforceable when they are adopted by the standard setting agency for the ADA and the ABA. The agencies responsible for standards under the ADA are the Department of Justice (DOJ) and the Department of Transportation (DOT). The agencies responsible for standards under the ABA are the General Services Administration (GSA), the Department of Defense (DOD), the Department of Housing and Urban Development (HUD), and the United States Postal Service (USPS).

The Board plans to undertake rulemaking to supplement its ADA and ABA accessibility guidelines, which primarily cover facilities on sites, by adding new provisions specific to public rights-of-way. The Board's aim is to ensure that access for persons with disabilities is provided wherever a pedestrian way is newly built or altered, and that the same degree of convenience, connection, and safety afforded the public generally is available to pedestrians with disabilities. The guidelines would not require alterations to existing public rights-of-way, but would apply where a pedestrian route or facility is altered as part of a planned project to improve existing public rights-of-way.

BACKGROUND

The Need for Guidelines on Public Rights-of-Way

Local jurisdictions, and other entities covered by the ADA or ABA, must ensure that the facilities they build or alter are accessible to people with disabilities. The Board's ADA and ABA accessibility guidelines specify the minimum level of accessibility in new construction and alteration projects and serve as the basis for enforceable standards maintained by other agencies. Currently, the Board's guidelines, like the industry standards from which they derive, focus mainly on facilities on sites. While they address certain features common to public sidewalks, such as curb ramps, accessible routes, ground and floor surfaces, and bus stops and shelters, further guidance is necessary to address conditions unique to public rights-of-way. Various

constraints posed by space limitations at sidewalks, roadway design practices, slope, and terrain raise valid questions on how and to what extent access can be achieved. Access for blind pedestrians at street crossings and wheelchair access to on-street parking are typical of the issues for which additional guidance is needed. In addition, new trends in roadway design, such as the growing use of traffic roundabouts, pose additional challenges to access, while various technological innovations, particularly those pertaining to pedestrian signaling devices, offer new solutions.

The Board previously proposed guidelines for public rights-of-way under the ADA which were published for public comment in 1992 and 1994. Based on the comments received, the Board determined that it should further coordinate with the transportation industry and State and local governments before continuing its rulemaking. Consequently, the Board undertook an outreach and training program on accessible public rights-of-way. Under this program, the Board developed a series of videos, an accessibility checklist, and a design guide on accessible public rights-of-way. In addition, the Board sponsored research on tactile warnings at street crossings, accessible pedestrian signals, and traffic roundabouts. The Board has made this information widely available to the public. The interest in these materials has underscored the need for criteria for public rights-of-way that are definitive and enforceable so that local jurisdictions and others are clear on their obligations when constructing or altering streets and sidewalks.

Public Rights-of-Way Access Advisory Committee

In resuming its rulemaking effort, the Board chartered an advisory committee in 1999 to develop recommendations on guidelines for accessible public rights-of-way. Use of advisory committees has become a standard practice in the Board's process for developing and updating design requirements. Through such committees, interested groups, including those representing designers, industry, and people with disabilities, play a substantive role in recommending to the Board the content of the guidelines to be developed. These committees provide significant sources of expertise while enhancing the level of consensus among stakeholders in advance of proposing a rule for public comment.

The Public Rights-of-Way Access Advisory Committee was composed of 33 members representing disability organizations, public works departments, transportation and traffic engineering groups, design professionals and civil engineers, government agencies, and standards-setting bodies. The committee coordinated its efforts with leading trade organizations represented on the committee, such as the American Association of State Highway and Transportation Officials, and federal agencies, such as the Federal Highway Administration, to ensure that its recommendations were consistent with generally accepted practice among design professionals. The committee organized several subcommittees focused on key issue areas. The subcommittee structure enabled members to continue work on a tight time schedule between meetings of the full committee and allowed for greater public participation in the process.

The advisory committee met regularly over a year's time, usually in Washington, D.C. but also in Austin and San Francisco. Its work culminated in the issuance of a report, "Building a True Community," which was submitted to the Board in January 2001 (http://www.access-board.gov/prowac/commrept/index.htm). The committee's report provides criteria for the construction or alteration of public rights-of-way that reflects the broad spectrum of expertise

represented by committee members. The report follows a "toolbox" approach to the establishment of guidelines designed to facilitate implementation and to promote an understanding of the needs of all users of public rights-of-ways. The report comprehensively covers the various components of public streets and sidewalks and provides criteria for sidewalks, street fixtures and furnishings, street crossings, vehicular ways, parking, and other components of public rights-of-way. In addition, the report includes advisory notes, figures, and discussion of issues that merit further study or special attention in the Board's rulemaking.

June 17, 2002 Release of Draft Guidelines

An ad hoc group of Board members reviewed the committee's report in depth and crafted a set of draft guidelines based on the committee's recommendations. Because the draft guidelines departed from the advisory committee's report in several areas, the Board made an advance draft of the guidelines available for comment by the public. The notice of availability of the draft guidelines was published in the Federal Register on June 17, 2002. The Board requested information and feedback on the draft guidelines, including usability and cost data. In addition to seeking written comment, the Board held a public hearing in Portland, Oregon.

Over 1,400 comments were received from the public in response to the publication of the draft. Of this total, almost 900 comments were tabulated from persons with disabilities and groups representing them; the great preponderance of comments in this category came from people who indicated that they were blind or had low vision. Slightly over 200 comments were submitted by respondents from the transportation industry: design engineers and consultants, State and local government departments of transportation, and the organizations and groups that represent them. Another 100 were received from State and local government administrative agencies. Comments are posted on the Board's website at http://www.access-board.gov/prowac/comments/index.htm.

Almost all of the commenters from the two major blindness organizations, the American Council of the Blind (ACB) and the National Federation of the Blind (NFB), and persons who were not affiliated with either organization addressed only the use of detectable warnings and/or accessible pedestrian signals (APS) and virtually all of them supported the requirement for these features in at least some locations (detectable warnings at islands and medians and at all low-slope sidewalk connections to the street; APS at complex intersections, irregular intersections, intersections with compound turning movements, and intersections with leading pedestrian intervals). Some commenters misunderstood the effect of the scoping provisions for these features, believing that all intersections would have to be retrofitted at tremendous cost. In fact, only future new projects would be subject to these guidelines. With respect to APS in particular, only pedestrian crossings that provide pedestrian signals would be required to include APS. Some commenters, expressing concerns about the noise output of APS, were apparently unfamiliar with the quiet, pedbutton-integrated devices now available in the United States (these devices are installed at the departure curb, near the listening user, rather than overhead).

Ten key issues from comment were identified for detailed analysis: crosswalk width; on-street parking; walking speed and pedestrian signal phase timing; elevators at pedestrian overpasses and underpasses; same-side alternate circulation routes; cross slope in crosswalks; detectable warnings; accessible pedestrian signals; roundabouts and roundabout signalization; and

alterations. These issues have been addressed in this second draft. Changes include the following:

- referenced Manual on Uniform Traffic Control Devices (MUTCD) for crosswalk width;
- reduced scoping in on-street parking to be consistent with parking lots;
- set walking speed at 3.5 fps (consistent with new recommendations currently under consideration by the National Committee on Uniform Traffic Control Devices);
- eliminated the provision requiring elevators to provide pedestrian access at overpasses and underpasses (either ramps, lifts, or elevators may be used);
- modified scoping and technical provisions for alternate circulation routes to be consistent with current MUTCD requirements and alterations requirements, which would permit opposite side routes if same-side routes are not feasible;
- provided relief (up to 5%) for maximum cross slope limits in pedestrian crosswalks at midblock and through-street locations where the roadway slope will necessarily exceed 2%;
- clarified the placement of detectable warnings on curb ramps, landings, and blended transitions;
- clarified the scoping in new construction and alterations of accessible pedestrian signals (APS);
- limited pedestrian signalization at roundabouts and channelized turn lanes to pedestrian crossings (to the splitter) of two lanes of traffic or more; and
- clarified the scope of alterations to include only that work included in the limits, boundaries, or scope of a planned project; clarified that there is no obligation in the guidelines to expand the scope or limits of a project to include other or adjacent work.

Other changes included the addition of significant advisory material throughout the document. Advisory notes are for informational purposes only.

The Board also considered industry recommendations that the guidelines be re-formatted to use transportation metrics and language and to be better coordinated with industry standards and documents, particularly the Manual on Uniform Traffic Control Devices (MUTCD).

This draft is now formatted as a stand-alone document that expresses its dimensioning requirements first in international units, as is done in other industry documents. Its provisions have been harmonized with current MUTCD standards, support, options, and guidance. Industry terms and phrases have been adopted, and industry practices recognized where feasible.

The Board is placing the revised draft in the docket to facilitate the gathering of cost data necessary for the next step in this rulemaking which is the preparation of a regulatory assessment for government review and approval prior to issuing a Notice of Proposed Rulemaking (NPRM). In order to develop an accurate picture of the potential costs and benefits of this rulemaking, the Board must work closely with the transportation industry representatives who have data on both current cost and industry practices and the knowledge and skills to assess potential effects.

The Board is not seeking comments on this draft. Readers will have an opportunity to provide input when the NPRM is published. Additional figures will be included in the NPRM.

Rulemaking Process
The Board reviewed the comments received to the draft guidelines and revised the guidelines in accordance with the comments received. The revisions are briefly discussed below in the section-by-section analysis.

The proposed rule will provide another opportunity for public comment on the guidelines. The Board will then proceed to finalize the guidelines based on public comments received in response to the proposed rule. The Board's guidelines serve as the basis for enforceable standards maintained by other agencies under the ADA and the ABA. The Department of Justice and the Department of Transportation maintain standards based on the Board's guidelines that apply to facilities covered by the ADA. Design standards for federally funded facilities covered by the ABA are maintained by the Department of Defense, the Department of Housing and Urban Development, the General Services Administration, and the U.S. Postal Service. These enforceable standards must be consistent with the Board's guidelines.

Relationship to ADA and ABA Accessibility Guidelines/Format
On July 23, 2004, the Board completed an update of ADAAG, the first comprehensive revision of the document since its publication in 1991. The revised ADAAG features a new format and numbering system and a host of updated scoping and technical provisions. On the same date, the Board updated its ABA Accessibility Guidelines along similar lines so that both of the documents are more consistent. The revised ADA and ABA Accessibility Guidelines may be found on the Board's website at http://www.access-board.gov/news/ada-aba.htm.

The draft guidelines for public rights-of-way published on June 17, 2002 were formatted to supplement the ADA and ABA guidelines and not as a stand-alone document. The guidelines were intended to ultimately comprise a new chapter on public rights-of-way. The current draft guidelines made available in this document are now formatted as a stand-alone document using transportation industry standards, terms, and measures in response to recommendations in industry comments. The document is identified by the prefix R in its provisions and has four chapters:

Chapter R1: Application and Administration covers purpose, effect on existing facilities, equivalent facilitation, conventions, figures, units of measurement, referenced documents, and definitions, harmonized with transportation industry usage.

Chapter R2: Scoping Requirements address what items of new construction and alteration are covered by this document and references technical sections that follow in Chapters R3 and R4. Key scoping provisions in R2 include: R204 Pedestrian Access Route; R205 Alternate Pedestrian Access Route; R206 Pedestrian Crossings; R207 Curb Ramps and Blended Transitions; R208 Accessible Pedestrian Signals; R209 Protruding Objects; R210 Pedestrian Signs; R211 Street Furniture; R212 Bus Stops; R213 Stairways; R214 Handrails; R215 Vertical Access; R216 On-street Parking; R217 Passenger Loading Zones; R218 Call Boxes; R219 Transit Platforms; R220 Escalators; R221 Detectable Warning Surfaces; and R222 Doors, Doorways, and Gates.

Coverage extends to temporary as well as permanent facilities. Chapter R2 also includes special provisions for historic facilities and contains a limited series of general exemptions from accessibility.

Chapter R3: Technical Provisions contains detailed specifications for new construction and alterations scoping in Chapter R2. Construction detailed in Chapter R3 is specific to public sidewalk, street crossing, and roadway projects, and covers the building blocks of pedestrian accessibility: the pedestrian access route (analogous to the accessible route on a site), curb ramps and blended transitions, pedestrian crossings (including those at roundabouts and channelized turn lanes), pedestrian signals, street furniture, and parking.

Chapter R4: Supplementary Technical Provisions include specifications adapted from the ADA and ABA Accessibility Guidelines (2004) for rights-of-way application, including such features as maneuvering clearances at doorways; drinking fountain, and telephone provisions; reach ranges; operable parts; handrails; and other items of broader application.

DISCUSSION OF PROVISIONS

DRAFT GUIDELINES FOR PUBLIC RIGHTS-OF-WAY

Clarifications, modifications, and changes that have been incorporated in this draft in response to public comment from industry, consumers, and State and local government agencies are briefly discussed below.

R1: APPLICATION AND ADMINISTRATION
R104.2.1 MUTCD. This draft references the 2003 edition of the Manual on Uniform Traffic Control Devices (MUTCD). The Access Board works closely with the MUTCD team at the Federal Highway Administration (FHWA) to harmonize standards and advisory material and to sponsor needed research. Changes in future MUTCD provisions for accessible pedestrian signals, markings (including detectable warnings), and temporary traffic zones are in process. A joint FHWA/ American Traffic Safety Services Association (ATSSA)/Access Board demonstration project identified desirable characteristics for pedestrian channelizing devices. FHWA research projects on pedestrian usability at roundabouts and contrast in detectable warnings are underway, and the Board has proposed a FY 2006 project on pedestrian demand signals for use at multi-lane roundabout crossings.

R105 Definitions. This draft uses definitions drawn from key industry references where they exist.

R2: SCOPING REQUIREMENTS
R201 Application. Text and advisory material has been added to clarify the application of these guidelines to new or altered work (permanent or temporary) put in place within the scope or limits of a planned project in the public right-of-way.

Other requirements, including those for existing facilities, maintenance of accessible features, and effective communication that derive from the ADA title II implementing regulations (28 CFR part 35) or Federal highway-aid funding (49 CFR part 27), are not addressed in these guidelines for new construction and alteration. Advisory notes have been added to clarify this difference.

This draft now includes a reference to the revised ADA and ABA Accessibility Guidelines (36 CFR part 1191) to cover buildings and facilities newly constructed or altered within the public right-of-way.

R202 Alterations and Additions to Existing Facilities. Text and advisory notes have been added to this draft to clarify the application of new construction guidelines to an alteration project. New work put in place within an existing developed right-of-way must comply with these guidelines to the maximum extent feasible; see Advisory R202.3. Transitional segments that connect undisturbed improvements with new work can facilitate compliance (R202.1.1). Where items are placed within an existing developed streetscape and the circulation route is not altered, items required to be accessible shall be located for optimal usability and access (R202.1.2).

An alteration is a change in a space or element that affects, or could affect, the accessibility or usability of that space or element. In general, when a feature in the public right-of-way is altered, the requirements for new construction in this document must be applied to the maximum extent feasible within the scope or boundary of the project that has been planned. This document does not contain a 'path of travel' obligation to expand a given scope of work to include other items or elements that are adjacent to the alteration project nor does it cover an agency's obligations to achieve program access in its existing facilities that are not being altered.

In response to the comments received, the Board has developed answers to frequently asked questions regarding the application of the alterations requirements. Those questions and the Board's responses have been included at the end of this discussion.

R204 Pedestrian Access Route (technical provisions at R301). This draft clarifies the requirement for a 1.2-meter-wide (4 ft) accessible route of travel within a pedestrian circulation path, which may be a wider sidewalk, shoulder (if pedestrian use is not prohibited), shared street, or street crossing. A provision requiring periodic passing spaces 1.5 m (5 ft) in width, omitted in the first draft, has been re-instituted. Because of the constraints imposed by right-of-way width, the pedestrian access route (PAR) is relieved of the slope limits that would apply to an accessible route on a site provided it matches the general grade of the adjacent roadway (R301.4). Where the PAR is supported by structure, as in an underpass, overpass, or bridge, this draft requires compliance with ADAAG requirements for ramps.

Technical provisions in the June 2002 draft that would have required a 30-inch separation between changes in level in the PAR have been replaced in this draft with provisions requiring a planar surface (R305.1) and limiting surface discontinuities (R301.5.2). An advisory note discourages the use of heavily textured, rough, or excessively chamfered unit pavings. Research undertaken by the Research and Rehabilitation Training Center (RRTC) at the University of Pittsburgh, under contract to a group of unit masonry associations, measured the vibration effects of various chamfer spacings on wheeled mobility devices and found that chamfers of less than 1.25 mm (.5 in), if flush, were not distinguishable from cast-in-place concrete sidewalks with a broom finish.

A series of related provisions in the June 2002 draft has been reorganized into R301.7 Horizontal Openings, which now includes walkway joints, gratings, flangeway gaps at rail crossings, and sill gaps at elevators and lifts. (Platform and car gaps at transit facilities are addressed at 36 CFR part 1191).

R205 Alternate Pedestrian Access Route. This draft clarifies that the establishment of an alternate pedestrian route is an alteration that must comply to the maximum extent feasible with technical provisions for the pedestrian access route, including curb ramps or blended transitions. MUTCD requirements and advisory material at Part 6D.01 and 6D.02 are referenced and an advisory note added to highlight the safety benefits of same-side alternate routes. Specifications for pedestrian channelizing devices and barricades at 302.4 include a reference to the MUTCD.

R206 Pedestrian Crossings (technical provisions at R305). This draft omits a provision in the June 2002 draft that would have required 2.4 m-wide (8 ft) markings at crosswalks. The MUTCD minimum of 1.8 m (6 ft) has been proposed at 305.2.1 of this draft.

Measurements on which pedestrian signal phase timing are based have been modified in response to industry comment. Calculations now proposed in R305.3 in the current draft would require the distance to be the full street width and the pedestrian walking speed to be 1.1 m/s (3.5 fps).

The June 2002 draft also proposed that the approaches to overpasses and underpasses be provided with elevators where the grade change was 1.5 m (5 ft) or greater. Both industry and persons with disabilities opposed this requirement with persons with disabilities expressing a preference for ramps, even if lengthy, to ensure the availability of a crossing. Elevators in single installations provide no access at all when out of service. Industry expressed concerns about cost and maintenance requirements. The current draft applies ramp provisions at R305.5 (but permits elevators, LULAs, and lifts).

Newly available research and the comments of both industry and consumer representatives confirm the Access Board's concerns about the usability of pedestrian crossings at roundabouts and channelized turn lanes. However, access to additional data has indicated that well-designed roundabouts and channelized turn lanes with single-lane crossings can provide cues that make non-visual use possible. Accordingly, this draft (R305.6.2) provides that signals (including accessible pedestrian signal features) be required only at multi-lane pedestrian crossings of roundabouts. The Board does not prescribe the signal operation here and has proposed that FHWA conduct research to identify appropriate technologies. Two-head signals that flash amber, then flash red and go to steady red, are in use in Australia and the United Kingdom. US motorists are familiar with pre-emptive signals installed for emergency vehicles. Utah has at least one roundabout that uses standard railway gates across the roadway when light rail cars pass through the roundabout. The Board believes that the occasional use of a properly-designed pedestrian demand signal may actually reduce delay at pedestrian crossings.

R207 Curb Ramps and Blended Transitions (technical provisions at R303). Additional text, advisory, and illustrations have been added to this draft to describe curb ramp types (perpendicular, parallel, and their combination) and to distinguish them from blended transitions, for which a definition has now been provided at R105. Blended transitions are connections between the PAR and the street that have a running slope of 1:20 or less. Level landings, gently sloped transitions, and raised crosswalks fall into this category. Parallel and perpendicular curb ramps have a running slope between 1:20 and 1:12 (steeper slopes are not permitted in new construction).

Non-visual wayfinding cues can be provided by the orientation of curb ramps, particularly if they are in-line with the path of pedestrian travel along a sidewalk. Curb ramps installed at tangent points rather than on the corner radius provide more usable cues and locate the shortest crossing point. The Access Board is collaborating with the Institute of Transportation Engineers (ITE) on a project to standardize sidewalk/ramp/crossing schemes for optimal non-visual cuing based

upon a range of corner radii and attached/separated sidewalk configurations. An advisory note (R303.1) in this draft notes the benefits for pedestrians.

Cross slope provisions at midblock curb ramps (R303) have been revised in response to industry comment to permit warping to meet roadway grade. Similar changes have been made to technical provisions at pedestrian crossings (R305.2.2). Crossings of streets without stop control would be permitted a 1:20 maximum cross slope.

Running slope limits at crosswalks (R305.2.3) are maintained at 1:20 maximum in this draft. Many commenters noted that design practices that approach this limit in new construction may have to mill the roadway crown before resurfacing in order to retain usable crossings.

R208 Accessible Pedestrian Signals (technical provisions at R306). APS provisions in this draft differ only slightly from those of the June 2002 draft. Many commenters to the June 2002 draft expressed concerns about the costs of retrofitting intersections with APS, which is not required by these or prior proposals, which guide only new construction and alterations. Where new pedestrian signals are being installed or added, scoping in this document would require that they incorporate audible and vibrotactile features.

Comments from disability organizations and individuals to the June 2002 draft were diverse. Many who believed that retrofitting was required objected to what they understood to be excessive cost. And even those who did not support a general requirement that all future pedestrian signals incorporate audible and vibrotactile formats nevertheless saw the need for them at certain types of intersections including irregular crossings, lengthy crossings, and at complex intersections with multiple vehicle turning phases or leading pedestrian interval phasing. Although many responders noted the utility of non-visual cues, a clear majority of commenters who identified themselves as blind supported universal pedestrian signals.

R209 Protruding Objects (technical provisions at R401). Advisory notes have been added at several places in this document to remind users of the need to consider projections into the pedestrian circulation route when coordinating the placement of improvements, appurtenances, utilities, or street furniture. Comments from disability organizations and individuals identified blocked or compromised pedestrian routes as a major barrier to independent travel. Protruding objects provisions in this draft have been revised only to accommodate the new format and add advisory information.

R210 Pedestrian Signs (technical provisions at R409). An advisory note has been added to clarify requirements for visual legibility in signs that indicate sidewalk closure, pedestrian detour, and tourist route signage covered in MUTCD. Braille street name signage is required only on APS pedbuttons (R306.4.2).

Signage provisions in this draft have been revised only to accommodate the new format and add advisory information.

R211 Street Furniture (technical provisions at R307). Advisory notes have been added at several places in this document to remind users of the need to consider the dimensions and use of

pedestrian circulation routes when coordinating the placement of improvements, appurtenances, utilities, or street furniture. Comments from disability organizations and individuals identified blocked or compromised pedestrian routes as a major barrier to independent travel.

Street furniture provisions in this draft have been revised only to accommodate the new format and add advisory information.

R212 Bus Stops (technical provisions at R410.2). An advisory note has been added to clarify the difference between establishing a bus stop by installing signage (signage must comply with R210.2) and constructing a bus stop (boarding/alighting areas, if provided, must comply with R410, bus shelters with R410.2).

Bus stop provisions in this draft have been revised only to accommodate the new format and add advisory information.

R213 Stairways (technical provisions at R407). Stairway provisions in this draft have been revised only to accommodate the new format.

R214 Handrails (technical provisions at R408). Handrail provisions in this draft have been revised only to accommodate the new format and add an advisory note on alterations and protruding objects.

R215 Vertical Access (technical provisions in ADAAG). Vertical access provisions in this draft have been revised only to accommodate the new format and add an advisory note on elevator use in extremes of terrain.

R216 On-Street Parking (scoping at Table R216; technical provisions at R308). Table R216 in this draft has been adapted from the table in ADAAG based upon the overall number of spaces provided within a block (or analog). Commenters strongly objected to scoping based upon the numbers of parking spaces on a block face, which could, in many places, require very high numbers of spaces disproportionate to those required in lots.

Additionally, this draft clarifies when, in new construction or alterations, the presence of a sidewalk or border wider than 4.3 m (14 ft) can accommodate an access aisle that is indented into the curb for protected transfer space, a construction that is similar to that of an on-street loading zone provided at an office, hotel, convention center, arena, or airport (R308.2.1).

Advisory notes have been added at several places in this section to convey additional information about indented, end-of-block, perpendicular or angled spaces, and signage.

R218 Call Boxes (technical provisions at R309). Call box provisions in this draft have been revised only to accommodate the new format and add an advisory note at R309.1 about the applicability of accessible call box technology to other types of communications systems, such as on-street security systems.

R219 Transit Platforms (technical provisions at R414). Transit provisions from the ADA and ABA Accessibility Guidelines (204) have been newly incorporated in this draft.

R220 Escalators. Escalator provisions in this draft have been revised only to accommodate the new format.

R221 Detectable Warning Surfaces (technical provisions at R304). Transportation industry and State and local government agency commenters expressed concern about the durability, maintainability, and contrast of detectable warning materials required at curb ramps and blended transitions in the June 2002 draft. Recent research by several State departments of transportation and by the Transportation Research Board identified several high-performing products suitable for both new construction and alterations. Approximately 20 manufacturers now produce detectable warning products in metal, concrete, tile, pavers, resilient sheets, and membrane types. The FHWA is currently overseeing human factors research intended to test the contrast effectiveness of 13 different detectable warning colors when viewed by people who have low vision.

Comments from disability organizations and individuals were divided in much the same way as consumer comments on accessible pedestrian signals. Many expressed concern about cost but, valued detectable warnings as a way to provide a cue at certain locations such as pedestrian waiting areas at roadway medians, islands, and roundabout splitter islands and at low-slope blended transitions to street crossings. A majority of these commenters favored the June 2002 draft provision requiring detectable warnings at flush transitions between sidewalks and street crossings.

The rows of domes in the detectable warning material (technical provisions at R304.2.2) must be aligned with the path of wheelchair travel, which is required to be perpendicular to the grade break at the toe of the ramp to permit tracking between dome rows. On blended transitions, dome orientation is not significant.

A new advisory note (R304.1.1) covers the use of radial dome patterns.

Detectable warnings provisions in this draft have also been clarified with respect to their permitted setback from the grade break marking the face of a curb. One corner of the detectable warning must be within 205 mm (8 in) of the grade break; no other point on the leading edge of the detectable warning may be more than 1.5 m (5 ft) from the grade break (R304.2.1).

R222 Doors, Doorways, and Gates (technical provisions at R411). These provisions have been added to this draft from the ADA and ABA Accessibility Guidelines (2004). Because public sidewalks serve the entrances and other facilities of abutters covered by title III of the ADA, coordination of slope, cross slope, and maneuvering space requirements is typically required. In many places, developers provide sidewalk improvements as part of a project. State and local governments must include accessibility compliance in such work.

TECHNICAL ASSISTANCE Q&A FOR ALTERATIONS PROJECTS

Alterations are projects planned for implementation by a jurisdiction. Program access obligations for existing facilities are not a part of the Board's accessibility guidelines, and the Board's responses to the following questions do not address program access issues (see title II of the ADA at 28 CFR 35.149 and 35.151).

CURB RAMPS

Question: A multi-block length of roadway is being resurfaced. The corners have curb ramps that meet some but not all of the current specifications; for example the cross slope may be too steep or the curb ramps do not have detectable warnings. Must the curb ramps be reconstructed as part of the resurfacing project?
Answer: Yes, if it is technically feasible to provide complying features. The work should be done at the same time the resurfacing is being done.

Question: New curb ramps are being installed at an existing developed corner. New construction standards require the curb ramp to be within the crosswalk, but an existing underground utility vault is located where the ramp should be. Must the utility vault be moved?
Answer: The scope of this project will determine the answer. If utilities are being moved for other reasons within the project limits, it may be possible to alter or relocate the vault. If project construction will not involve the vault, it may be technically infeasible to locate the curb ramp optimally. It may be possible to widen the crosswalk markings to include the curb ramp.

Question: What if the curb ramp can be placed over the vault, but the access cover would be located on the curb ramp?
Answer: If the access cover must be located on the curb ramp, it should meet the surface requirements of the pedestrian access route.

Question: One corner of an intersection is being altered by curb and gutter reconstruction and paired curb ramps are being installed as part of this project. The other three corners of the intersection are not being altered. Must curb ramps be provided at the unaltered corners as part of this work?
Answer: No. The scope of the project requires curb ramps only at the altered corner.

SIDEWALKS

Question: A project will be undertaken to connect a series of sidewalk segments near a school. Must the existing segments of sidewalk be modified if they do not meet width or cross slope provisions?
Answer: Yes, to the maximum extent feasible within the scope of the project. Agencies are not required to expand a planned scope of work to include other items of accessibility.

Question: A new sidewalk is being built along an existing road that contains driveway access points. Must those driveways be modified if their cross slope exceeds 2%?
Answer: Yes, to the maximum extent feasible within the scope of the project.

Question: A city is rebuilding a sidewalk along Main Street. The distance between the edge of the right-of-way and the existing road does not provide sufficient room for a 4-foot-wide pedestrian access route. Does the municipality have to acquire more right-of-way on private property or narrow the roadway to provide the necessary space?
Answer: No, these guidelines do not require the municipality to obtain right-of-way or to narrow roadways. A municipality may decide to do either for other reasons (for instance, the roadway may be narrowed as a larger traffic calming effort or as part of a larger project in the roadway).

SIGNALS

Question: Curb ramps are being installed at a signalized intersection as part of a roadway improvement project. Existing pedestrian signals are pedestrian actuated but the pushbuttons are not accessible or placed in accessible locations. Must accessible pedestrian signals be installed at the existing pedestrian signals?
Answer: If work on pedestrian pushbuttons is not planned as part of this project, there is no need to expand its scope to include APS.

Question: The pedestrian signals in a corridor are being replaced with new combined count-down signals. Must APS be included in the new system?
Answer: Yes. The installation of a new system is an alteration that requires compliance with the new construction guidelines to the maximum extent feasible. However, the addition of a new feature, such as a countdown face or larger display, to an existing installed system does not require that the scope of work be expanded to include other features.

Question: Count-down signal displays are being added to the existing pedestrian signal heads at an intersection, but the software and signal controller are not being altered. Must APS be installed?
Answer: No, simply adding a display to the existing WALK/DON'T WALK signal would not involve the system changes needed to implement APS.

Question: An intersection is being signalized and will include APS. The installation of stub poles on the existing sidewalks to mount the new pedbuttons will not involve disturbing the roadway or sidewalk. Must curb ramps be installed if none existed?
Answer: No. This is a project to install pedbuttons; it is not an alteration to the sidewalk or street that would require the installation of curb ramps, as required by 28 CFR 35.151(e).

Question: The pushbutton on an existing pedestrian signal is being replaced with a sturdier model. Must APS be installed?
Answer: No, but the new pushbutton must meet applicable requirements (i.e., location, height, operable parts).

Question: An intersection with sidewalks and pedestrian signals is being widened to include a right turn lane. Must APS be installed as a consequence of the widening project?

Answer: No, installing APS is not within scope of the project. Any new pedestrian pushbuttons installed in the course of the work must meet applicable requirements. Note that this project is an alteration to the street and sidewalk and thus must provide compliant curb ramps.

GENERAL

Question: The local public transit agency has designated a bus stop by placing a sign in the ground along a roadway with no sidewalk. Must a concrete or other improved surface be installed?

Answer: No, the placement of a bus stop sign alone does not require other site improvements. When other site improvements are provided they should meet the applicable access requirements.

CHAPTER R1: APPLICATION AND ADMINISTRATION

R101 Purpose

R101.1 General. This document contains scoping and technical requirements for accessibility to facilities for pedestrian circulation and use located in the public right-of-way. Advisory notes are for informational purposes only. These requirements are to be applied during the design, construction, additions to, and alterations of facilities in the public right-of-way to the extent required by regulations issued by Federal agencies.

Advisory R101.1 General. Access requirements are also addressed in the Manual on Uniform Traffic Control Devices (MUTCD), FHWA/US DOT, 2003 (http://mutcd.fhwa.dot.gov). MUTCD is a reference standard in this guideline.

Key transportation industry guidance documents also address accessibility in the public right-of-way and can provide useful information on design and construction. They include 'Guide for the Planning, Design, and Operation of Pedestrian Facilities', American Association of State Highway and Transportation Officials, July 2004 (www.aashto.org) and 'Designing Sidewalks and Trails for Access', FHWA/US DOT September 2001 (http://www.fhwa.dot.gov/environment/sidewalk2/index.htm).

R101.2 Effect on Existing Facilities. This document does not address existing facilities unless they are included in the scope of an alteration undertaken at the discretion of a covered entity. The U.S. Department of Justice and U.S. Department of Transportation have issued and enforce separate regulations for existing facilities subject to their requirements for program accessibility under the Americans with Disabilities Act.

Advisory R101.2 Effect on Existing Facilities. The U.S. Department of Justice ADA regulations require that the usability of accessible features be maintained (28 CFR §35.133 and §36.211).

Federal agencies and entities receiving federal funds may also have an obligation for program accessibility under section 504 of the Rehabilitation Act of 1973 as amended. For example, state departments of transportation that receive Federal-aid Highway funds must comply with program accessibility requirements issued by the U.S. Department of Transportation at 49 CFR part 27.

R102 Equivalent Facilitation

Nothing in these requirements prevents the use of designs, products, or technologies as alternatives to those prescribed, provided they result in substantially equivalent or greater accessibility and usability.

R103 Conventions

R103.1 Dimensions. Dimensions that are not stated as "maximum" or "minimum" are absolute.

> **R103.1.1 Construction and Manufacturing Tolerances.** All dimensions are subject to conventional industry tolerances except where the requirement is stated as a range with specific minimum and maximum end points.

Advisory R103.1.1 Construction and Manufacturing Tolerances. Conventional industry tolerances recognized by this provision include those for field conditions and those that may be a necessary consequence of a particular manufacturing process. Recognized tolerances are not intended to apply to design work.

Information on specific tolerances may be available from industry or trade organizations, code groups and building officials, and published references.

R103.2 Calculation of Percentages. Where the required number of elements or facilities to be provided is determined by calculations of ratios or percentages and remainders or fractions result, the next greater whole number of such elements or facilities shall be provided. Where the determination of the required size or dimension of an element or facility involves ratios or percentages, rounding down for values less than one half shall be permitted.

R103.3 Figures. Unless specifically stated otherwise, figures are provided for informational purposes only.

R103.4 Units of Measurement. Measurements are presented in this document in both metric and U.S. customary units and were developed independently within each system. The relationship between the metric and U.S. customary values is neither an exact (soft) conversion nor a completely rationalized (hard) conversion. The metric values are those that would have been used had the requirements been presented exclusively in metric units; the U.S. customary values are those that would have been used had the requirements been presented exclusively in U.S. customary units. Therefore, the user is advised to work entirely in one system and not attempt to convert directly between the two.

R104 Referenced Guidelines and Standards

R104.1 General. The guidelines and standards listed in R104.2 are incorporated by reference in this document and are part of the requirements to the prescribed extent of each such reference. The Director of the Federal Register has approved these guidelines and standards for incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the referenced guidelines and standards may be inspected at the Architectural and Transportation Barriers Compliance Board, 1331 F Street, NW, Suite 1000, Washington, DC 20004; at the Department of Justice, Civil Rights Division,

Disability Rights Section, 1425 New York Avenue, NW, Washington, DC; at the Department of Transportation, 400 Seventh Street, SW, Room 10424, Washington DC; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: **http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html**.

R104.2 Referenced Guidelines and Standards. The specific edition of the guidelines and standards listed below are referenced in this document. Where differences occur between this document and the reference, this document applies.

R104.2.1 MUTCD. Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), 2003 edition. Copies of the referenced standard may be obtained on-line from the Federal Highway Administration at **http://mutcd.fhwa.dot.gov**. (see R205 and R302.4).

R104.2.2 ANSI/BHMA. Copies of the referenced standards may be obtained from the Builders Hardware Manufacturers Association, 355 Lexington Avenue, 17th floor, New York, NY 10017 (http://www.buildershardware.com).

ANSI/BHMA A156.10-1999 American National Standard for Power Operated Pedestrian Doors (see R411.3).

ANSI/BHMA A156.19-1997 American National Standard for Power Assist and Low Energy Power Operated Doors (see R411.3).

ANSI/BHMA A156.19-2002 American National Standard for Power Assist and Low Energy Power Operated Doors (see R411.3).

R104.2.3 ASME. Copies of the referenced standard may be obtained from the American Society of Mechanical Engineers, Three Park Avenue, New York, NY 10016 (http://www.asme.org).

ASME A17.1-2000 Safety Code for Elevators and Escalators, including ASME A17.1a-2002 Addenda and ASME A17.1b-2003 Addenda (see R220; R305.5.5).

R105 Definitions

R105.1 General. For the purpose of this document, the terms defined in R105.5 have the indicated meaning.

R105.2 Terms Defined in Referenced Guidelines and Standards. Terms not defined in R105.5 or in regulations issued by Federal agencies, but specifically defined in a referenced guideline or standard, shall have the specified meaning from the referenced guideline or standard unless otherwise stated.

R105.3 Undefined Terms. The meaning of terms not specifically defined in R105.5 or in regulations issued by Federal agencies or in referenced guidelines and standards shall be as defined by collegiate dictionaries in the sense that the context implies.

R105.4 Interchangeability. Words, terms and phrases used in the singular include the plural and those used in the plural include the singular.

R105.5 Defined Terms.

Accessible. Describes a facility in the public right-of-way that complies with this part.

Accessible Pedestrian Signal. A device that communicates information about the WALK phase in audible and vibrotactile formats.

Alteration. A change to a facility in the public right-of-way that affects or could affect access, circulation, or use.

Blended Transition. A connection with a grade of 5 percent or less between the level of the pedestrian walkway and the level of the crosswalk.

Channelization. The separation or regulation of conflicting traffic movements into definite paths of travel by devices such as cones, tubular markers, vertical panels, drums, barricades, temporary raised islands and barriers, to facilitate the orderly movements of traffic, to separate vehicles and pedestrians, and to protect them from construction or hazardous areas.

Channelized Intersection. An at-grade intersection in which traffic is directed into definite paths by islands.

Crosswalk. (Shall have the meaning in MUTCD Section 1A13.18).

Cross Slope. The grade that is perpendicular to the direction of accessible pedestrian travel. On a sidewalk, shoulder, or blended transition, it is measured perpendicular to the curb line or edge of the street or highway; on a curb ramp, it is measured perpendicular to the running grade.

Curb Line. A line at the face of the curb that marks the transition between the curb and the gutter, street, or highway.

Curb Ramp. A perpendicular or parallel ramp and its landing that cuts through or is built up to the curb.

Detectable Warning. A surface feature of truncated dome material built in or applied to the walking surface to advise of an upcoming change from pedestrian to vehicular way.

Element. An architectural or mechanical component of a building, facility, space, site, or public right-of-way.

Facility. All or any portion of buildings, structures, improvements, elements, and pedestrian or vehicular routes located in a public right-of-way.

Grade Break. The meeting line of two adjacent surface planes of different grade.

Highway. (Shall have the meaning in MUTCD Section 1A13.32).

Intersection. (Shall have the meaning in MUTCD Section 1A13.39).

Island. (Shall have the meaning in MUTCD Section 1A13.40).

Median. (Shall have the meaning in MUTCD Section 1A13.48).

Operable Part. A component of an element used to insert or withdraw objects, or to activate, deactivate, or adjust the element.

Pedestrian. (Shall have the meaning in MUTCD Section 1A13.55).

Pedestrian Access Route. A continuous and unobstructed walkway within a pedestrian circulation path that provides accessibility.

Pedestrian Circulation Path. A prepared exterior or interior way of passage provided for pedestrian travel.

Pushbutton Locator Tone. A repeating sound that identifies the pushbutton location and indicates the need to actuate pedestrian timing.

Public Right-of-Way. Public land or property, usually in interconnected corridors, that is acquired for or devoted to transportation purposes.

Roundabout Intersection. (Shall have the meaning in MUTCD Section 1A13.68).

Running Slope. The grade that is parallel to the direction of travel, expressed as a ratio of rise to run or as a percent.

Sidewalk. (Shall have the meaning in MUTCD Section 1A13.73).

Splitter Island. A flush or raised island that separates entering and exiting traffic in a roundabout intersection.

Street. (Shall have the meaning in MUTCD Section 1A13.84).

Street Furniture. Sidewalk equipment or furnishings.

Vibrotactile. A vibrating surface, located on the accessible pedestrian signal button, that communicates information through touch.

Walk Interval. That phase of a traffic signal cycle during which the pedestrian is to begin crossing, typically indicated by a WALK message or the walking person symbol and its audible equivalent.

Walkway. The continuous portion of the pedestrian access route that is connected to street crossings by curb ramps or blended transitions.

CHAPTER R2: SCOPING REQUIREMENTS

R201 Application

R201.1 Scope. All newly designed and newly constructed facilities located in the public right-of-way shall comply with these requirements. All altered portions of existing facilities located in the public right-of-way shall comply with these requirements to the maximum extent feasible.

Advisory R201.1 Scope. This document (see R101.1General) covers facilities for pedestrian circulation and use in the right-of-way. Examples of facilities include, but are not limited to, walkways and sidewalks, street or highway shoulders where pedestrians are not prohibited, crosswalks, islands and medians, overpasses and underpasses, on-street parking spaces and loading zones, and equipment, signals, signs, street furniture, and other appurtenances provided for pedestrians. Examples of facilities not included are manholes and utility vaults.

These requirements are to be applied to all areas of a facility within the scope or limits of the planned project unless expressly exempted or limited with respect to the number of multiple elements required to be accessible. For example, not all benches are required to be accessible; those that are not required to be accessible are not required to comply with these requirements or to be served by a pedestrian access route.

R201.2 Temporary and Permanent Facilities. These requirements shall apply to temporary and permanent facilities.

Advisory R201.2 Temporary and Permanent Facilities. Temporary facilities covered by these requirements include, but are not limited to, temporary routes around work zones, portable toilets in the public right-of-way, sidewalk vending facilities, street fair booths, performance stages and reviewing stands, and the pedestrian access routes that serve them. As permitted in R203.1.1, structures and equipment directly associated with the actual processes of construction are not required to be accessible.

Elements are often placed on a sidewalk without coordination by different agencies or entities. The U.S. Department of Justice ADA regulations require that the usability of accessible features be maintained (28 CFR §35.133 and §36.211).

R201.3 Requirements for Buildings and Structures. Buildings, structures, and similar facilities constructed in the public right-of-way but not specified in this document shall comply with the applicable requirements in 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R201.3.1 Buildings and Structures Covered by the Americans with Disabilities Act. Buildings, structures, and similar facilities covered by the Americans with Disabilities Act (ADA) shall comply with Appendices B and D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R201.3.2 Buildings and Structures Covered by the Architectural Barriers Act. Buildings, structures, and similar facilities covered by the Architectural Barriers Act (ABA) shall comply with Appendices C and D to 36 CFR part 1191.

R202 Alterations and Additions to Existing Facilities

R202.1 General. Additions and alterations to existing facilities shall comply with R202.

Advisory R202.1 General. Alterations include, but are not limited to, renovation, rehabilitation, reconstruction, historic restoration, resurfacing of circulation paths or vehicular ways, or changes or rearrangement of structural parts or elements of a facility.

The U.S. Department of Justice Title II regulation at 28 CFR 35.151(e) requires that curb ramps be installed whenever pedestrian walkways on sidewalks and across streets are newly constructed or altered. A 1993 case, Kinney v. Yerusalim, 9 F.3d 1067 (3d Cir. 1993), cert. denied, 511 U.S. 1033 (1994), held that resurfacing of a street constitutes an alteration that requires the installation of curb ramps (for text see http://www.ada.gov/deldot.htm).

Pavement patching and liquid-applied sealing, lane restriping, and short-term maintenance activities are not alterations.

R202.1.1 Transitional Segments. Transitional segments connecting to existing unaltered segments shall comply with R301 to the maximum extent feasible.

Advisory R202.1.1 Transitional Segments. It is often possible to construct transitional segments that blend between existing undisturbed facilities and newly-altered elements. This may permit the work of the alteration to more nearly meet the new construction standards. At a later time, when other walkway segments are altered, the non-complying transitional segments can be removed and replaced with complying work.

R202.1.2 Added Elements. Where elements are added and the circulation path is not altered, a pedestrian access route is not required.

Advisory R202.1.2 Added Elements. This provision does not eliminate the requirements specified for a particular element. For example, a bench that is installed on an existing sidewalk must have the necessary clearances and clear floor space specified in section 307. Where possible added elements should connect to an existing pedestrian access route.

R202.2 Additions. Each addition to an existing facility shall comply with the requirements for new construction. Where an existing pedestrian circulation path is extended, the extension shall contain a pedestrian access route complying with R301.

R202.3 Alterations. Where existing elements or spaces are altered, each altered element or space within the limits or scope of the project shall comply with the applicable requirements for new construction to the maximum extent feasible.

Advisory R202.3 Alterations. From the U.S. Department of Justice title III regulation at 28 CFR 36.402 Alterations: "The phrase 'to the maximum extent feasible,' … applies to the occasional case where the nature of an existing facility makes it virtually impossible to comply fully with applicable accessibility standards through a planned alteration. In these circumstances, the alteration shall provide the maximum physical accessibility feasible. Any altered features of the facility that can be made accessible shall be made accessible. If providing accessibility in conformance with this section to individuals with certain disabilities (e.g., those who use wheelchairs) would not be feasible, the facility shall be made accessible to persons with other types of disabilities (e.g., those who use crutches, those who have impaired vision or hearing, or those who have other impairments)."

Existing conditions (e.g., underlying terrain, right-of-way availability, underground structures, adjacent developed facilities, drainage, the presence of a notable natural or historic feature) may limit choices in an alterations project. In determining the maximum feasible accessibility that can be achieved for pedestrians with disabilities within a given alterations project, covered entities may consider constructability limits commensurate with those of the project as a whole.

There is no 'path-of-travel' obligation in these guidelines; covered entities shall apply the guidelines to achieve the maximum feasible accessibility within the limits of the planned project boundary or scope. However, the alteration of multiple elements or spaces within a facility may provide a cost-effective opportunity to make the entire facility, or a significant portion of it, accessible. When undertaking right-of-way alterations, jurisdictions should consult their transition plans to determine if related work has been identified as needed to achieve program accessibility in existing facilities at the same location.

Most rights-of-way work occurs as an alteration in a complex environment also regulated for vehicle operation and safety and subject to the well-established industry practice of applying 'engineering judgment'. These techniques can also be used to evaluate the feasibility of accessibility solutions.

R202.3.1 Prohibited Reduction in Required Access. An alteration shall not decrease or have the effect of decreasing the accessibility of a facility or an accessible connection to an adjacent building or site below the requirements for new construction in effect at the time of the alteration.

Advisory R202.3.1 Prohibited Reduction in Access. Sidewalk improvements that correct existing excessive cross slope should be carefully planned to avoid the imposition of barriers elsewhere, as, for example, creating excessive slope in a curb ramp or adding a step at an existing building entrance. Solutions that have been successfully implemented include:

1)split sidewalks that serve entrances and roadway at separate levels;
2)sidewalk widths of greater cross slope at street edge, with a pedestrian access route at lesser cross slope along building entrances;
3)a pedestrian access route along the curb, with ramped entrances along the shop fronts.

Where facilities are newly-constructed or altered along an existing sidewalk, it may not always be possible to provide the required level landing at an entrance or other feature required to be accessible without altering the sidewalk. Often, the jurisdiction will require the developer of a new or altered facility on a site served by the sidewalk to redesign and replace the public sidewalk as a part of the permit for construction. Careful coordination between public and private planning is the usual practice.

R202.3.2 Extent of Application. An alteration of an existing element, space, or area of a facility shall not impose a requirement for accessibility greater than required for new construction.

R202.3.3 Alterations to Qualified Historic Facilities. Where the State Historic Preservation Officer or Advisory Council on Historic Preservation determines that compliance with these requirements would threaten or destroy the historic significance of a qualified facility or element, compliance shall be required to the maximum extent that does not threaten or destroy the historic significance.

Advisory R202.3.3 Alterations to Qualified Historic Facilities. It is the element or facility subject to the alteration which must have historic significance. Furthermore, it must be determined that compliance with these requirements would threaten or destroy the historic significance, not merely alter the appearance.

R202.3.3.1 Historic District. Location of the facility or element within an historic district is not a sufficient condition for qualification as an historic facility.

Advisory R202.3.3.1 Historic District. Altered street crossings, sidewalks, and pedestrian facilities that are not historic but are merely located in historic areas must meet new construction requirements to the maximum extent feasible.

R202.3.3.2 Reproductions or Replications. Reproductions or replications of historic facilities shall not qualify as historic facilities.

R203 General Exceptions

R203.1 General. Facilities, sites, spaces, and elements are exempt from these requirements to the extent specified by R203.

R203.1.1 Construction Sites. Structures and sites directly associated with the actual processes of construction, including but not limited to, scaffolding, bridging, materials hoists, materials storage, portable toilet units provided for use exclusively by construction personnel, and construction trailers, shall not be required to comply with this part.

R203.1.2 Limited Access Spaces. Spaces accessed only by ladders, catwalks, crawl spaces, or very narrow passageways shall not be required to comply with this part.

R203.1.3 Machinery Spaces. Spaces or elements frequented only by service personnel for maintenance, repair, or occasional monitoring of equipment shall not be required to comply with this part. Machinery spaces include, but are not limited to, elevator pits or elevator penthouses; mechanical, electrical or communications equipment cabinets and vaults; electric substations and transformer vaults; and highway and tunnel utility facilities.

R203.1.4 Single Occupant Structures. Single occupant structures accessed only by passageways below grade or elevated above standard curb height, including but not limited to toll booths that are accessed only by underground tunnels, shall not be required to comply with this part.

R204 Pedestrian Access Route

Pedestrian circulation paths shall contain a pedestrian access route complying with R301 which connects to facilities, elements, and spaces required to be accessible by Chapter R2 and to accessible routes required to connect to public streets and sidewalks by section 206.2.1 of appendix B to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines) or section F206.2.1 of appendix C of 36 CFR 1191 (the ADA and ABA Accessibility Guidelines). Where a pedestrian circulation path is provided in the street, along a highway, or within a shoulder, it shall contain a pedestrian access route.

Advisory R204 Pedestrian Access Route. The pedestrian access route is a portion of the general pedestrian circulation path, which may include walkways, sidewalks, street crossings and crosswalks, and overpasses and underpasses, courtyards, elevators, platform lifts, stairs, ramps and landings. Where sidewalks are not provided, pedestrian circulation paths maybe provided in the street, highway, or shoulder unless pedestrian use is prohibited. This provision does not require a pedestrian access route if a pedestrian circulation path is not provided. -

R205 Alternate Pedestrian Access Route
When an existing pedestrian access route is blocked by construction, alteration, maintenance, or other temporary conditions, an alternate pedestrian access route complying to the maximum extent feasible with R301, R302, and Section 6D.01 and 6D.02 of the MUTCD (incorporated by reference; see R104.2.1) shall be provided.

Advisory R205 Alternate Pedestrian Access Route. Same-side travel is preferred because it does not increase pedestrian exposure and risk of accident consequent upon added street crossings. A route that uses vehicle lane width may be shorter, safer, and more usable than one that requires two street crossings, even if the roadway surface is imperfect. Part 6D.01 of the MUTCD requires alternate routes to provide the best elements of accessibility provided in the pedestrian circulation route before its disruption.

R206 Pedestrian Crossings
Where a pedestrian street or rail track crossing is provided, it shall contain a pedestrian access route complying with R301 and the applicable provisions of R305. Where a pedestrian rail crossing is not contained within a street or highway, a detectable warning shall be provided in compliance with R304.

Advisory R206 Pedestrian Crossings. When tracks are located in a street or highway that has a pedestrian route, the detectable warnings at the curb ramps make a second set of detectable warnings at the rail unnecessary in most applications. When rail tracks are not associated with a street or highway, they must have detectable warnings across the pedestrian access route on either side.

R207 Curb Ramps and Blended Transitions
A curb ramp or blended transition complying with R303, or a combination of curb ramps and blended transitions, shall connect the pedestrian access route to each pedestrian street crossing within the width of each crosswalk.

R208 Accessible Pedestrian Signals (APS)
Where pedestrian signals are provided at pedestrian street crossings, they shall comply with R306.

R209 Protruding Objects

Protruding objects along or overhanging any portion of a pedestrian circulation path shall comply with R401 and shall not reduce the clear width required for pedestrian access routes.

Advisory R209 Protruding Objects. Banners, awnings, tree branches, and temporary street or highway signs may also be hazards if not placed or maintained properly.

R210 Pedestrian Signs

R210.1 General. Signs designed primarily for pedestrian use shall comply with R210.

R210.2 Bus Route Identification. Bus route identification signs shall comply with R409.5.1 through R409.5.4, and R409.5.7 and R409.5.8. In addition, to the maximum extent practicable, bus route identification signs shall comply with R409.5.5. Bus route identification signs located at bus shelters shall provide raised and braille characters complying with R409.2, and shall have rounded corners. Signs shall not be required to comply with R409.2 where audible signs are user- or proximity-actuated or are remotely transmitted to a portable receiver carried by an individual. Bus schedules, timetables and maps that are posted at the bus stop or bus shelter are not required to comply.

R210.3 Directional, Informational, and Warning Signs. Directional, informational, and warning signs shall comply with R409.5.

Advisory R210.3 Directional, Informational, and Warning Signs. This provision applies legibility criteria to text signs. Examples of covered signs include, but are not limited to, sidewalk closure and pedestrian detour signing required by MUTCD, tourist information signing, and pedestrian route signing along an historic trail. Standard highway street-name signage is not covered by this part.

Braille identification of street names is a required feature where APS are provided (see R306).

A proximity-,-user-, or button-activated audible sign can provide this information in audible formats for pedestrians who don't read print. Such devices are now being manufactured for rights-of-way applications.

R211 Street Furniture

Street furniture intended for use by pedestrians and installed on or adjacent to a pedestrian circulation path shall comply with R307.

Advisory R211 Street Furniture. This scoping applies usability and operability criteria to certain items intended for pedestrian use in the public right-of-way. Where multiple items of a single type are provided at a single location, only a proportion may be required to be accessible and to be located on a pedestrian access route. Types of street furniture for which usability and operational criteria are provided include elements such as drinking fountains; public telephones; public toilet facilities; and tables, counters, and benches in R211; parking meters in R308.6; bus stops and shelters in R212; and signage, including bus stop signage, in R210. Where applicable, usability and operability provisions shall be satisfied in the design and construction of other items installed on or along a public right-of-way for pedestrian use (see sections R307, R401, and R405).

Some items intended for pedestrian use are installed on private property bounded by a public right-of-way and are intended for use from the right-of-way. Such items include wall-mounted ATMs, overnight mail kiosks, and walk-up service windows. Other items may be placed within a public sidewalk under the terms of a public space permit, such as the tables, chairs, and enclosures used by sidewalk cafes and restaurants or sidewalk vending carts and machines. The ADA and ABA Accessibility Guidelines cover these street furniture items, which should not be permitted to intrude on the required pedestrian access route or to violate protruding objects provisions.

Some street furniture, such as fire hydrants, signal control boxes, signal and sign poles, and overhead awnings and signs, is not intended for pedestrian operation. These and similar items shall not intrude on the required pedestrian access route or violate protruding objects provisions (see sections R301 and R401).

The location of bicycle racks on a public sidewalk should consider their footprint in use, since a bicycle carelessly fixed to a rack can become a barrier to accessible travel along a pedestrian access route or a protruding object along it.

Careful coordination is required between agencies and divisions authorized to install items on and along sidewalks in order to avoid inadvertent conditions that may constitute barriers. The U.S. Department of Justice ADA regulations require that the usability of accessible features be maintained (28 CFR §35.133 and §36.211).

R212 Bus Stops

Where provided, bus boarding and alighting areas shall comply with R410. Where provided, bus shelters shall comply with R410.2.

Advisory R212 Bus Stops. Where bus stops are marked along existing streets by the placement of signage, benches, or shelters, other features necessary to accessibility, such as surface improvements and curb ramps, will be subject to the program access requirements of the U.S. Department of Justice title II regulation at 28 CFR 35.151 or the U.S. Department of Transportation 504 regulation at 49 CFR Part 27. Transportation, public works, and transit agencies should consider including needed improvements in their transition plans and other program accessibility planning.

Furthermore, the placement of such items is subject to usability and protruding objects provisions that apply to street furniture. Bus stop benches and shelters shall not intrude into an existing pedestrian access route.

Signage required at bus stops is scoped at R210.2 Bus Route Identification.

R213 Stairways
Where provided on a pedestrian circulation path, stairways shall comply with R407. Stairways shall not be part of a pedestrian access route.

R214 Handrails
Where provided, handrails shall comply with R408.

Advisory R214 Handrails. It may not be feasible to install handrails with fully complying features on existing developed rights-of-way if the full horizontal handrail extension would narrow a required pedestrian access route or be a hazard to cross traffic. Handrail design should not constitute a protruding object (see R401).

R215 Vertical Access
Where provided, elevators, limited-use/limited-application elevators, and platform lifts shall comply with the applicable requirements in section 407, 408, and 410 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines) and shall provide for independent operation. Vertical access shall remain unlocked during the operating hours of the facility served.

Advisory R215 Vertical Access. Elevators in public and private buildings accessible from the public right-of-way have been successfully used to provide low-effort routes between sidewalk levels in hilly terrain.

R216 On-Street Parking
Where on-street parking is marked or metered, accessible parking spaces complying with R308 shall be provided on the block perimeter in accordance with Table R216.

Advisory R216 On-Street Parking. Accessible on-street parking spaces are best located where the street has the least crown and grade and close to key destinations. Adjacent sidewalk space should be free of obstructions (including curb ramps) to permit deployment of a van side-lift.-

Table R216 Accessible Parking Spaces

Total Number of Marked or Metered Parking Spaces on the Block Perimeter	Minimum Required Number of Accessible Parking Spaces
1 to 25	1
26 to 50	2

51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 and over	4% of total

R217 Passenger Loading Zones
Where passenger loading zones are provided, a minimum of one passenger loading zone complying with R412 shall be provided in every continuous 30 m (100 ft) of loading zone space or fraction thereof.

R218 Call Boxes
Where provided, roadside call boxes shall comply with R309.

R219 Transit Platforms
Where provided, transit platforms shall comply with R414.

R220 Escalators
Where provided, escalators shall comply with sections 6.1.3.5.6 and 6.1.3.6.5 of ASME A17.1 (incorporated by reference; see 104.2.2).

R221 Detectable Warning Surfaces
Detectable warning surfaces shall comply with R304.

Advisory R221 Detectable Warning Surfaces. Detectable warning surfaces are required where curb ramps, blended transitions, or landings provide a flush pedestrian connection to the street. Sidewalk crossings of residential driveways should not generally be provided with detectable warnings, since the pedestrian right-of-way continues across most driveway aprons and overuse of detectable warning surfaces should be avoided in the interests of message clarity. However, where commercial driveways are provided with traffic control devices or otherwise are permitted to operate like public streets, detectable warnings should be provided at the junction between the pedestrian route and the street.

R222 Doors, Doorways, and Gates
Where provided, doors, doorways, and gates shall comply with R411.

CHAPTER R3: TECHNICAL PROVISIONS

R301 Pedestrian Access Route

R301.1 General. Pedestrian access routes shall comply with R301 and shall connect pedestrian elements and facilities required to be accessible.

R301.2 Components. Pedestrian access routes shall consist of one or more of the following components: walkways, ramps, curb ramps (excluding flared sides) and landings, blended transitions, crosswalks, and pedestrian overpasses and underpasses, elevators, and platform lifts. Stairways and escalators shall not be part of a pedestrian access route. All components of a pedestrian access route shall comply with the applicable portions of this document.

R301.3 Width.

R301.3.1 Continuous Width. The minimum continuous and unobstructed clear width of a pedestrian access route shall be 1.2 m (4.0 ft), exclusive of the width of the curb.

Advisory R301.3.1 Continuous Width. The pedestrian access route provides a minimum accessible route of passage within a sidewalk or other walkway that may not comprise the full width of the pedestrian circulation route, particularly in urban areas. Industry-recommended sidewalk widths can be found in 'Guide for the Planning, Design, and Operation of Pedestrian Facilities', American Association of State Highway and Transportation Officials, July 2004 (www.aashto.org). The minimum width must be maintained without obstruction.

Where a pedestrian access route turns or changes direction, it should accommodate the continuous passage of a wheelchair or scooter. As with street or highway design for vehicles, additional maneuvering width or length may be needed at recesses and alcoves, doorways and entrances, and along curved or angled routings, particularly where the grade exceeds 5%. Individual segments of pedestrian access routes should have a minimum straight length of 1.2 m (4.0 ft).

Street furniture, including fixed or movable elements such as newspaper and sales racks, cafe seating and tables, bus shelters, vender carts, sidewalk sculptures, and bicycle racks, shall not reduce the required width of the pedestrian access route.

Provisions for protruding objects apply across the entire width of the pedestrian circulation path, not just the pedestrian access route.

R301.3.2 Width at Passing Spaces. Walkways in pedestrian access routes that are less than 1.5 m (5.0 ft) in clear width shall provide passing spaces at intervals of 61 m (200 ft) maximum. Pedestrian access routes at passing spaces shall be 1.5 m (5.0 ft) wide for a distance of 1.5m (5.0 ft).

R301.3.3 Width at Elevators and Lifts. The pedestrian access route at elevators and platform lifts shall be permitted to comply with the applicable requirements of section 407, 408, and 410 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R301.3.4 Width at Doors, Doorways, and Gates. The pedestrian access route through doors, doorways, and gates shall be permitted to comply with R411.2.3.

R301.4 Walkway Grade and Cross Slope.

R301.4.1 Cross Slope. The cross slope of the walkway of a pedestrian access route shall be 2 percent maximum.

R301.4.2 Street or Highway Grade. Where the walkway of a pedestrian access route is contained within a street or highway border, its grade shall not exceed the general grade established for the adjacent street or highway.

R301.4.3 Supported Slope. Where the walkway of a pedestrian access route is supported by a structure, it shall comply with R305.5.

Advisory R301.4.3 Supported Slope. This provision covers pedestrian access routes on bridges, overpasses, underpasses and similar facilities.

R301.5 Surface. The surface of the pedestrian access route shall be firm, stable and slip resistant.

Advisory R301.5 Surface. The U.S. Department of Justice ADA regulations require that the usability of accessible features be maintained (28 CFR §35.133 and §36.211).-

R301.5.1 Vertical Alignment. Vertical alignment shall be planar within curb ramp runs, blended transitions, landings, and gutter areas within the pedestrian access route, and within clear spaces required for accessible pedestrian signals, street furniture, and operable parts. Grade breaks shall be flush. Where the pedestrian access route crosses rail tracks at grade, the surface of the pedestrian access route shall be level and flush with the top of the rail at the outer edges of the rail. The surface between the rails shall be aligned with the top of the rail.

R301.5.2 Surface Discontinuities. Surface discontinuities shall not exceed 13 mm (0.50 in) maximum. Vertical discontinuities between 6.4 mm (0.25 in) and 13 mm (0.5 in) maximum shall be beveled at 1:2 minimum. The bevel shall be applied across the entire level change.

Advisory R301.5.2 Surface Discontinuities. Surfaces with individual units laid out of plane and those that are heavily textured, rough, or chamfered, will greatly increase rolling resistance and will subject pedestrians who use wheelchairs, scooters, and rolling walkers to the stressful (and often painful) effects of vibration. It is highly desirable to minimize surface discontinuities; when discontinuities on the pedestrian access route are unavoidable, they should be widely separated.

R301.7 Horizontal Openings.

R301.7.1 Walkway Joints and Gratings. Openings shall not permit passage of a sphere more than 13 mm (0.5 in) in diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

R301.7.2 Clearances at Elevator and Platform Lift Sills. Clearances between elevator car platform sills and associated hoistways and between a platform lift sill and any landing shall comply with the applicable requirements in sections 407.4.3, 408.4.3, and 410.4 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R301.7.3 Flangeway Gaps at Non-Freight Rail Crossings. Openings for wheel flanges at pedestrian crossings of non-freight rail track shall be 64 mm (2.5 in) maximum.

R301.7.4 Flangeway Gaps at Freight Rail Crossings. Openings for wheel flanges at pedestrian crossings of freight rail track shall be 75 mm (3 in) maximum.

R302 Alternate Circulation Path

R302.1 General. Alternate circulation paths shall comply with R302 and shall contain a pedestrian access route complying with R301.

Advisory R302.1 General. Temporary routes are alterations to an existing developed pedestrian environment and are required to achieve the maximum accessibility feasible under existing conditions.

R302.2 Location. To the maximum extent feasible, the alternate circulation path shall be provided on the same side of the street as the disrupted route.

Advisory R302.2 Location. Where it is not feasible to provide a same-side alternate circulation path and pedestrians will be detoured, section 6D.02 of the MUTCD specifies that the alternate path provide a similar level of accessibility to that of the existing disrupted route. This may include the incorporation of accessible pedestrian signals (APS), curb ramps, or other accessibility features.

R302.3 Protection. Where the alternate circulation path is exposed to adjacent construction, excavation drop-offs, traffic, or other hazards, it shall be protected with a pedestrian barricade or channelizing device complying with R302.4.

Advisory R302.3 Protection. When it is necessary to block travel at the departure curb to close a crosswalk that is disrupted by excavation, construction, or construction activity, care must be taken to preserve curb ramp access to the perpendicular crosswalk. This may require additional pedestrian channelization if only a single diagonal curb ramp

serves the corner.

Figures 6H-28 and 6H-29 of the MUTCD specify notification signage for pedestrian closings and detours. Audible signage triggered by proximity switches can provide information to pedestrians who do not use print signs.

R302.4 Pedestrian Barricades and Channelizing Devices. Pedestrian barricades and channelizing devices shall be continuous, stable, and non-flexible and shall consist of a wall, fence, or enclosures specified in section 6F-58, 6F-63, and 6F-66 of the MUTCD (incorporated by reference; see R104.2.4).

R302.4.1 Detectable Base. A continuous bottom edge shall be provided 150 mm (6 in) maximum above the ground or walkway surface.

R302.4.2 Height. Devices shall provide a continuous surface or upper rail at 0.9 m (3.0 ft) minimum above the ground or walkway surface. Support members shall not protrude into the alternate circulation path.

R303 Curb Ramps and Blended Transitions

R303.1 General. Curb ramps and blended transitions shall comply with R303.

Advisory R303.1 General. Curb ramps can be a key source of wayfinding information for pedestrians who travel without vision cues if they are installed in-line with the direction of pedestrian travel at crossings. This is most easily accomplished by locating the ramp at the tangent point of the curb return, using either a small curb radius in an attached sidewalk or, in larger radii, a border or setback from the street edge. The Institute of Transportation Engineers (www.ite.org) has undertaken an industry-wide effort to develop and standardize intersection plans that optimize wayfinding. The challenge for practitioners is to provide usability for pedestrians in wheelchairs and scooters with a rectangular ramp plan that can also be directional.

R303.2 Types. Perpendicular curb ramps shall comply with R303.2.1 and R303.3; parallel curb ramps shall comply with R303.2.2 and R303.3; blended transitions shall comply with R303.2.3 and R303.3.

Advisory R303.2 Types. This provision permits a combination of ramps and blended transitions.

It will sometimes be necessary to limit the run of a parallel or perpendicular ramp in order to avoid 'chasing grade' indefinitely. In new construction at standard curb heights, required level landings can provide a datum for measuring most curb ramp slopes.

Limiting new ramps to an 8.3% slope on steep routes will result in a slight increase in grade on the balance of the route, but will facilitate street crossing and a timely and manageable ascent to the sidewalk, particularly important when crossing in traffic.

R303.2.1 Perpendicular Curb Ramps. Perpendicular curb ramps shall have a running slope that cuts through or is built up to the curb at right angles or meets the gutter grade break at right angles.

R303.2.1.1 Running Slope. The running slope shall be 5 percent minimum and 8.3 percent maximum but shall not require the ramp length to exceed 4.5 m (15.0 ft).

R303.2.1.2 Cross Slope. The cross slope at intersections shall be 2 percent maximum. The cross slope at midblock crossings shall be permitted to be warped to meet street or highway grade.

R303.2.1.3 Landing. A landing 1.2 m (4.0 ft) minimum by 1.2 m (4.0 ft) minimum shall be provided at the top of the curb ramp and shall be permitted to overlap other landings and clear space. Running and cross slopes at intersections shall be 2 percent maximum. Running and cross slope at midblock crossings shall be permitted to be warped to meet street or highway grade.

R303.2.1.4 Flares. Flared sides with a slope of 10 percent maximum, measured parallel to the curb line, shall be provided where a pedestrian circulation path crosses the curb ramp.

Advisory R303.2.1.4 Flares. Sides of ramps may be returned, providing useful directional cues, if protected from cross travel by landscaping, street furniture, poles, or equipment.

R303.2.2 Parallel Curb Ramps. Parallel curb ramps shall comply with R303.2.2, and shall have a running slope that is in-line with the direction of sidewalk travel.

R303.2.2.1 Running Slope. The running slope shall be 5 percent minimum and 8.3 percent maximum but shall not require the ramp length to exceed 4.5 m (15.0 ft).

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R303.2.2.2 Cross Slope. The cross slope shall be 2 percent maximum.

R303.2.2.3 Landing. A landing 1.2 m (4.0 ft) minimum by 1.2 m (4.0 ft) minimum shall be provided at the bottom of the ramp run and shall be permitted to overlap other landings and clear floor or ground space. Running slope and cross slopes at intersections shall be 2 percent maximum. Running and cross slope at midblock crossings shall be permitted to be warped to meet street or highway grade.

R303.2.2.4 Diverging Sidewalks. Where a parallel curb ramp does not occupy the entire width of a sidewalk, drop-offs at diverging segments shall be protected.

R303.2.3 Blended Transitions. Blended transitions shall comply with R303.3. Running slope shall be 5 percent maximum and cross slope shall be 2 percent maximum.

R303.3 Common Elements. Curb ramps and blended transitions shall comply with R303.3.

R303.3.1 Width. The clear width of landings, blended transitions, and curb ramps, excluding flares, shall be 1.2 m (4.0 ft) minimum.

R303.3.2 Detectable Warnings. Detectable warning surfaces complying with R304 shall be provided, where a curb ramp, landing, or blended transition connects to a street.

R303.3.3 Surfaces. Surfaces of curb ramps, blended transitions, and landings shall comply with R301. Gratings, access covers, and other appurtenances shall not be located on curb ramps, landings, blended transitions, and gutters within the pedestrian access route.

R303.3.4 Grade Breaks. Grade breaks at the top and bottom of perpendicular curb ramps shall be perpendicular to the direction of ramp run. At least one end of the bottom grade break shall be at the back of curb. Grade breaks shall not be permitted on the surface of curb ramps, blended transitions, landings, and gutter areas within the pedestrian access route. Surface slopes that meet at grade breaks shall be flush.

R303.3.5 Counter Slopes. The counter slope of the gutter or street at the foot of a curb ramp, landing, or blended transition shall be 5 percent maximum.

R303.3.6 Clear Space. Beyond the curb face, a clear space of 1.2 m (4.0 ft) minimum by 1.2 m (4.0 ft) minimum shall be provided within the width of the crosswalk and wholly outside the parallel vehicle travel lane.

R304 Detectable Warning Surfaces

R304.1 General. Detectable warnings shall consist of a surface of truncated domes aligned in a square or radial grid pattern and shall comply with R304.

R304.1.1 Dome Size. Truncated domes in a detectable warning surface shall have a base diameter of 23 mm (0.9 in) minimum to 36 mm (1.4 in) maximum, a top diameter of 50 percent of the base diameter minimum to 65 percent of the base diameter maximum, and a height of 5 mm (0.2 in).

Advisory R304.1.1 Dome Size. Where domes are arrayed radially, they may differ in diameter within the ranges specified.

R304.1.2 Dome Spacing. Truncated domes in a detectable warning surface shall have a center-to-center spacing of 41 mm (1.6 in) minimum and 61 mm (2.4 in) maximum, and a base-to-base spacing of 17 mm (0.65 in) minimum, measured between the most adjacent domes.

Advisory R304.1.2 Dome Spacing. Where domes are arrayed radially, they may differ in center-to-center spacing within the range specified.

R304.1.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent gutter, street or highway, or walkway surface, either light-on-dark or dark-on-light.

Advisory R304.1.3 Contrast. Contrast may be provided on the full ramp surface but should not extend to the flared sides. Many pedestrians use the visual contrast at the toe of the ramp to locate the curb ramp opening from the other side of the street.

R304.1.4 Size. Detectable warning surfaces shall extend 610 mm (24 in) minimum in the direction of travel and the full width of the curb ramp (exclusive of flares), the landing, or the blended transition.

R304.2 Location and Alignment.

R304.2.1 Perpendicular Curb Ramps. Where both ends of the bottom grade break complying with R303.3.4 are 1.5 m (5.0 ft) or less from the back of curb, the detectable warning shall be located on the ramp surface at the bottom grade break. Where either end of the bottom grade break is more than 1.5 m (5.0 ft) from the back of curb, the detectable warning shall be located on the lower landing.

Advisory R304.2.1 Perpendicular Curb Ramps. Detectable warnings are intended to provide a tactile equivalent underfoot of the visible curbline; those placed too far from the street edge because of a large curb radius may compromise effective crossing analysis.

R304.2.2 Landings and Blended Transitions. The detectable warning shall be located on the landing or blended transition at the back of curb.

R304.2.3 Alignment. The rows of truncated domes in a detectable warning surface shall be aligned to be perpendicular or radial to the grade break between the ramp, landing, or blended transition and the street.

Advisory R304.2.3 Alignment. Where a ramp, landing, or blended transition provides access to the street continuously around a corner, the vertical rows of truncated domes in a detectable warning surface should be aligned to be perpendicular or radial to the grade break between the ramp and the street for a 1.2 meter-wide (4.0 ft) width for each crosswalk served.

R304.2.3 Rail Crossings. The detectable warning surface shall be located so that the edge nearest the rail crossing is 1.8 m (6 ft) minimum and 4.6 m (15 ft) maximum from the centerline of the nearest rail. The rows of truncated domes in a detectable warning surface shall be aligned to be parallel with the direction of wheelchair travel.

R305 Pedestrian Crossings

R305.1 General. Pedestrian crossings shall comply with R305.

R305.2 Crosswalks. Crosswalks shall comply with R305.2 and shall contain a pedestrian access route that connects to departure and arrival walkways through any median or pedestrian refuge island.

R305.2.1 Width. Marked crosswalks shall be 1.8 m (6 ft) wide minimum.

R305.2.2 Cross Slope.

R305.2.2.1 Crossings with Stop Control. The cross slope shall be 2 percent maximum.

R305.2.2.2 Crossings without Stop Control. The cross slope shall be 5 percent maximum.

R305. 2.2.3 Midblock Crossings. The cross slope at midblock crossings shall be permitted to be warped to meet street or highway grade.

R305.2.3 Running Slope. The running slope shall be 5 percent maximum, measured parallel to the direction of pedestrian travel in the crosswalk.

R305.3 Pedestrian Signal Phase Timing. All pedestrian signal phase timing shall be calculated using a pedestrian walk speed of 1.1 m/s (3.5 ft/s) maximum. The crosswalk distance used in calculating pedestrian signal phase timing shall include the entire length of the crosswalk.

R305.4 Medians and Pedestrian Refuge Islands. Medians and pedestrian refuge islands in crosswalks shall comply with R305.4 and shall contain a pedestrian access route, including passing space, complying with R301 and connecting to each crosswalk.

R305.4.1 Length. Medians and pedestrian refuge islands shall be 1.8 m (6.0 ft) minimum in length in the direction of pedestrian travel.

Advisory R305.4.1 Length. The edges of cut-throughs and curb ramps are useful as cues to the direction of a crossing. This should be considered when planning an angled route through a median or island. Curb ramps in medians and islands can add difficulty to the crossing for some users. There are many factors to consider when deciding whether to ramp or cut-through a median or island. Those factors may include slope and cross slope of road, drainage, and width of median or island.

R305.4.2 Detectable Warnings. Medians and pedestrian refuge islands shall have detectable warnings complying with R304 at curb ramps and blended transitions. Detectable warnings at cut-through islands shall be located at the curbline in-line with the face of curb and shall be separated by a 61 cm (2.0 ft) minimum length of walkway without detectable warnings. Where the island has no curb, the detectable warning shall be located at the edge of roadway.

R305.5 Pedestrian Overpasses and Underpasses. Pedestrian overpasses and underpasses shall comply with R305.5.

R305.5.1 Pedestrian Access Route. Pedestrian overpasses and underpasses shall contain a pedestrian access route complying with R301.

R305.5.2 Approach. Where the approach slope exceeds 5 percent, the approach shall be a ramp 1.2 m (4.0 ft) minimum in width complying with R406 or an elevator, a limited use/limited application elevator, or platform lift complying with the applicable requirements in section 407, 408, and 410 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines) and providing for independent operation.

Advisory R305.5.2 Approach. This provision leaves the decision of type of accessible vertical access up to the jurisdiction. Long ramps can present difficulties for some persons with disabilities and may require snow clearance. Elevators or lifts entail a maintenance obligation.

R305.5.3 Stairs. Stairs shall comply with R407.

R305.5.4 Escalators. Escalators shall comply with sections 6.1.3.5.6 and 6.1.3.6.5 of ASME A17.1 (incorporated by reference; see R104.2.3) and shall have a clear width of 82 cm (32 in) minimum.

R305.6 Roundabout Intersections. Where pedestrian facilities are provided at roundabout intersections, they shall comply with R305.6 and shall contain a pedestrian access route complying with R301.

R305.6.1 Separation. If walkways are curb-attached, there shall be a continuous and detectable edge treatment along the street side of the walkway wherever pedestrian crossing is not intended. Where chains, fencing, or railings are used, they shall have a bottom element 38 cm (15 in) maximum above the pedestrian access route.

Advisory R305.6.1 Separation. Because the pedestrian crossings are located off to the side of the pedestrian route around the street or highway and noise from continuously circulating traffic may mask useful audible cues. Carefully delineated crosswalk approaches with plantings, low enclosures, curbs, or other defined edges can be effective in identifying the crossing location(s). European and Australian roundabout intersections extend a 6- cm (24-inch) width of tactile surface treatment from the centerline of the ramp or blended transition across the full width of the sidewalk to provide an underfoot cue. Several manufacturers make a surface of raised bars for this use. The detectable warning surface should not be used, since it indicates the edge of a street or highway.

Schemes that remove cyclists from the circulating street or highway by means of a ramp that angles from the curb lane to the sidewalk and then provide re-entry by means of a similar ramp beyond the pedestrian crossing may provide false cues about the location of a crossing to pedestrians who are using the edge of the sidewalk for wayfinding. Designers should consider ways to mitigate this hazard.

R305.6.2 Signals. At roundabouts with multi-lane crossings, a pedestrian activated signal complying with R306 shall be provided for each segment of each crosswalk, including the splitter island. Signals shall clearly identify which crosswalk segment the signal serves.

Advisory R305.6.2 Signals. There are many suitable demand signals for this application. Crossings at some roundabout intersections in Australia and the United Kingdom

incorporate such systems, in which the driver first sees a flashing amber signal upon pedestrian activation and then a solid red while the pedestrian crosses to the splitter island (there is no green). These types of signals are also used in some U.S. cities at pedestrian crossings of arterial street or highways. The pedestrian pushbutton should be identifiable by a locator tone, and an accessible pedestrian signal incorporated to provide audible and vibrotactile notice of the gap created by the red signal. If properly signed, it need only be used occasionally by those who do not wish to rely solely on visual gap selection.

Roundabout intersections with single-lane approach and exit legs are not required to provide signals.

R305.7 Channelized Turn Lanes at Intersections. Where pedestrian crosswalks are provided at multi-lane right or left channelized turn lanes at intersections with pedestrian signal indications, a pedestrian activated signal complying with R306 shall be provided.

Advisory R305.7 Channelized Turn Lanes at Intersections. Accessible pedestrian signal devices installed at splitter and 'pork chop' islands must be carefully located and separated so that signal spillover does not give conflicting information about which crossing has the WALK indication displayed.

Additional guidance on signal types is provided in Advisory R305.6.2.

R306 Accessible Pedestrian Signals (APS)

R306.1 General. Pedestrian signals shall comply with R306.

R306.2 Pedestrian Signals. Each crosswalk with pedestrian signal indication shall have an accessible pedestrian signal which includes audible and vibrotactile indications of the WALK interval. Where a pedestrian pushbutton is provided, it shall be integrated into the accessible pedestrian signal and shall comply with R306.2.

Advisory R306.2 Pedestrian Signals. Signals should generally sound and vibrate throughout the WALK interval. Where signals rest in WALK, audible operation may be limited to a repetition at short intervals rather than continuous sounding for several minutes.

R306.2.1 Location. Accessible pedestrian signals shall be located so that the vibrotactile feature can be contacted from the level landing serving a curb ramp, if provided, or from a clear floor or ground space that is in line with the crosswalk line adjacent to the vehicle stop line.

R306.2.1.1 Crossings. Accessible pedestrian signal devices shall be 3.0 m (10.0 ft) minimum from other accessible pedestrian signals at a crossing. The control face of the accessible pedestrian signal shall be

installed to face the intersection and be parallel to the direction of the crosswalk it serves.

R306.2.1.2 Medians and Islands. Accessible pedestrian signals located in medians and islands shall be 1.5 m (5.0 ft) minimum from other accessible pedestrian signals.

R306.2.2 Reach and Clear Floor or Ground Space. Accessible pedestrian pushbuttons shall be located within a reach range complying with R404. A clear floor or ground space complying with R402 shall be provided at the pushbutton and shall connect to or overlap the pedestrian access route.

R306.2.3 Audible Walk Indication. The audible indication of the WALK interval shall be by tone or speech message.

R306.2.3.1 Tones. Tones shall consist of multiple frequencies with a dominant component at 880 Hz. The duration of the tone shall be 0.15 s and shall repeat at intervals of 0.15 s.

Advisory R306.2.3.1 Tones. Many new accessible pedestrian signal installations in the US use speech messages, which are perceived as being more user-friendly than tones. However, such messages may not be intelligible under high-ambient-noise conditions or to non-English speakers. Electronic tones are more universal and unambiguous. Section 4E.06 of the MUTCD specifies content of speech messages.

R306.2.3.2 Volume. Tone or voice volume measured at 92 cm (3.0 ft) from the pedestrian signal device shall be 2 dB minimum and 5 dB maximum above ambient noise level in standard operation and shall be responsive to ambient noise level changes.

Advisory R306.2.3.2 Volume. Where additional volume or beaconing features are available on pedestrian activation, they will momentarily exceed volume limits.

R306.3 Pedestrian Pushbuttons. Pedestrian pushbuttons shall comply with R306.3.

R306.3.1 Operation. Pedestrian pushbuttons shall comply with R405.4.

R306.3.2 Pushbutton Locator Tone. Pedestrian pushbuttons shall incorporate a locator tone at the pushbutton. Pushbutton locator tone volume measured at 92 cm (3.0 ft) from the pushbutton shall be 2 dB minimum and 5 dB maximum above ambient noise level and shall be responsive to ambient noise level changes. The duration of the locator tone shall be 0.15 s maximum and shall repeat at intervals of one second. The locator tone shall operate during the DON'T WALK and flashing DON'T WALK intervals only and shall be deactivated when the pedestrian signal is not operative.

R306.3.3 Size and Contrast. Pedestrian pushbuttons shall be a minimum of 0.5 cm (2 in) across in one dimension and shall contrast visually with their housing or mounting.

R306.3.4 Optional Features. An extended button press shall be permitted to activate additional features. Buttons that provide additional features shall be marked with three braille dots forming an equilateral triangle in the center of the pushbutton.

R306.4 Directional Information and Signs. Pedestrian signal devices shall provide tactile and visual signs complying with 306.4 on the face of the device or its housing or mounting to indicate crosswalk direction and the name of the street containing the crosswalk served by the pedestrian signal.

R306.4.1 Arrow. Signs shall include a tactile arrow aligned parallel to the crosswalk direction. The arrow shall be raised 0.8 mm (.03 inch) minimum and shall be 4 mm (1.5 in) minimum in length. The arrowhead shall be open at 45 degrees to the shaft and shall be 33 percent of the length of the shaft. Stroke width shall be 10 percent minimum and 15 percent maximum of arrow length. The arrow shall contrast with the background.

R306.4.2 Street Name. Accessible pedestrian signals (APS) shall include street name information aligned parallel to the crosswalk direction and shall comply with R409.3 or shall provide street name information in audible format.

R306.4.3 Crosswalk Configuration. Where provided, graphic indication of crosswalk configuration shall be tactile.

R307 Street Furniture

R307.1 General. Street furniture shall comply with R307.

Advisory R307.1 General. Elements are often placed on a sidewalk without coordination by different agencies or entities. Covered entities must ensure that the usability of the pedestrian access route is maintained.

Where items are added to an existing developed streetscape and the pedestrian walkway is not being replaced or altered within the scope of the project, locations should be carefully selected for minimum slope and cross slope and adequate width and maneuvering space to optimize usability.

R307.2 Clear Floor or Ground Space. Street furniture shall have clear space complying with R402 and shall be connected to the pedestrian access route.

R307.3 Drinking Fountains. Where drinking fountains are provided, they shall comply with R413.

R307.4 Public Telephones. Where public telephones are provided, they shall comply with R307.4.

R307.4.1 Single Telephone. Where a single public telephone is provided, it shall comply with sections 704.2 and 704.4 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R307.4.2 Multiple Telephones. Where a bank of public telephones is provided, at least one telephone shall comply with section 704.2 of Appendix D to 36 CFR part 1191, and at least one additional telephone shall comply with section 704.4 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R307.4.3 Volume Controls. All public telephones shall provide volume controls complying with section 704.3 of Appendix D to 36 CFR 1191.

R307.5 Public Toilet Facilities. Permanent or portable public toilet facilities shall comply with section 603 of Appendix D to 36 CFR part 1191. At least one fixture of each type provided shall comply with sections 604 through 610 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines). Operable parts, dispensers, receptacles, or other equipment shall comply with R405. Where multiple single-user toilet facilities are clustered at a single location, at least 5 percent, but no fewer than one single-user toilet at each cluster shall comply with section 603 of Appendix D to 36 CFR part 1191 and shall be identified by the International Symbol of Accessibility complying with R409.7.2.1.

R307.6 Tables, Counters, and Benches. Tables, counters, and benches shall comply with R307.6.

R307.6.1 Tables. Where tables are provided in a single location, at least 5 percent but no fewer than one, shall comply with section 902 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R307.6.2 Counters. Where provided, counters shall comply with section 904 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R307.6.3 Benches.

R307.6.3.1 Clear Space for Wheelchairs at Benches. Where benches without tables are provided at a single location, at least 50 percent, but no fewer than one, shall provide clear space complying with R402 positioned at the end of the bench seat and located for shoulder-to-shoulder seating.

R307.6.3.2 Benches. Where benches without tables are provided at a single location, at least 50 percent, but no fewer than one, shall have a seat

height at the front edge of 43 cm (17 in) minimum and 49 cm (19 in) maximum above the ground or floor space.

Advisory R307.6.3.2 Benches. Benches will be most useful if they have full back support and armrests to assist in sitting and standing.

R308 On-Street Parking

R308.1 General. On-street parking spaces shall comply with R308.

R308.2 Parallel Parking Spaces.

R308.2.1 Wide Walkways. Where the width of the adjacent walkway exceeds 4.3 m (14 ft), an access aisle at least 1.5 m (5.0 ft) wide shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route serving the space. The access aisle shall not encroach on the vehicular travel lane.

Advisory R308.2.1 Wide Walkways. The walkway adjacent to an accessible parallel parking space should be free of obstructions such as signage, plantings, or equipment that would preclude deployment of a vehicle side-lift onto the access aisle or walkway.

A vehicle may park at the curb or at the parking lane boundary in order to locate the access aisle for individual use.

R308.2.2 Narrow Walkways. An access aisle is not required where the width of the adjacent walkway is less than or equal to 4.3 m (14 ft). When an access aisle is not provided, the parking space shall be located at either end of the block face.

Advisory R308.2.2 Narrow Walkways. An end-of-block space can be served by the curb ramps at the street crossing.

R308.3 Perpendicular or Angled Parking Spaces. Where perpendicular or angled parking is provided, an access aisle 2.4 m (8.0 ft) wide minimum shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route serving the space. Access aisles shall be marked so as to discourage parking in them.

Advisory R308.3 Perpendicular or Angled Parking Spaces. All accessible angled and perpendicular on-street parking is treated as van parking with wide access aisles. In many cases, two spaces on either side of a single access aisle will satisfy scoping requirements. Where backing into the space (to locate the access aisle on the side needed) is not permitted, an access aisle for each accessible space should be provided.

R308.4 Curb Ramps or Blended Transitions. A curb ramp or blended transition complying with R303 shall connect the access aisle to the pedestrian access route.

R308.5 Signs. Parking space identification signs shall include the International Symbol of Accessibility complying with R409.5.10. Signs shall be located at the head or foot of the parking space so as not to interfere with the operation of a side lift or a passenger side transfer.

Advisory R308.5 Signs. Accessible parallel parking spaces located at the foot of a block can serve vans that have rear lifts or cars with scooter platforms.

R308.6 Parking Meters. Where parking meters are provided, they shall comply with R308.6. Operable parts shall comply with R405.

R308.6.1 Meters at Parking Spaces. A parking meter shall be located at the head or foot of a parallel parking space so as not to interfere with the operation of a side lift or a passenger side transfer.

R308.6.2 Remote Meters. Where payment for parking in a space is included in a centralized collection box or paying station, the space shall be connected to the centralized collection point with a pedestrian access route.

R308.6.3 Displays and Information. Displays and information shall be visible from a point located 1.0 m (3.3 ft) maximum above the center of the clear floor space in front of the meter.

R309 Call Boxes

R309.1 General. Call boxes shall comply with R309. Where provided, labeling shall comply with R409.2 and R409.3.

Advisory R309.1 General. These provisions may be helpful in making other types of emergency communication devices accessible such as on street security phone systems.

R309.2 Operable Parts.

R309.2.1 Electronic Operation. Operable parts shall comply with R405.

R309.2.2 Mechanical Operation. Operable parts shall comply with R404 and R405.2. Mechanically operated systems in which the signal is initiated by a lever pull shall be permitted to have an activating force of 53.4 N (12 lbs) maximum.

R309.3 Edge Protection. Edge protection complying with R406.8 shall be provided where the use area at the call box is adjacent to an abrupt level change.

R309.4 Motor Vehicle Turnouts. Where provided, a motor vehicle turnout shall have a minimum paved area of 4.9 m (16 ft) wide minimum and 7.0 m (23 ft) long minimum and shall connect to the clear space at the call box with a pedestrian access route complying with R301. Where shoulder texturing is used, it shall be discontinued at the turnout.

R309.5 Two-Way Communication. Where provided, two-way voice communication shall comply with R309.5, and with sections 708.2 and 708.3 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

> **R309.5.1 Volume Controls.** Volume controls complying with section 704.3 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines) shall be provided.
>
> **R309.5.2 TTY.** A TTY complying with section 704.4 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines) shall be provided.

CHAPTER R4: SUPPLEMENTARY TECHNICAL PROVISIONS

R401 Protruding Objects

R401.1 General. Protruding objects on sidewalks and other pedestrian circulation paths shall comply with R401 and shall not reduce the clear width required for pedestrian access routes.

Advisory R401.1 General. Banners, awnings, tree branches, sidewalk sculpture, and temporary street or highway signs can become protruding objects if not placed or maintained properly.

R401.2 Protrusion Limits. Objects with leading edges more than 685 mm (27 in) and not more than 2 m (80 in) above the finish surface or ground shall protrude 100 mm (4 in) maximum horizontally into the pedestrian circulation path.

R401.3 Post-Mounted Objects. Objects mounted on free-standing posts or pylons, 685 mm (27 inches) minimum and 2030 mm (80 inches) maximum above the finish surface or ground, shall overhang circulation paths 100 mm (4 inches) maximum beyond the post or pylon base measured 150 mm (6 inches) minimum above the finish surface or ground. Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 305 mm (12 in), the lowest edge of such sign or obstruction shall be 685 mm (27 in) maximum or 2 m (80 in) minimum above the finish surface.

R401.4 Reduced Vertical Clearance. Guardrails or other barriers shall be provided where the vertical clearance is less than 2 m (80 in) high. The leading edge of such

guardrail or barrier shall be located 685 mm (27 in) maximum above the finish surface or ground.

R402 Clear Space

R402.1 General. Clear space at accessible pedestrian signals (APS), street furniture, and operable parts shall comply with R402.

R402.2 Surface Characteristics. Surfaces of clear spaces shall comply with R301.5 and shall have a slope and cross slope of 2 percent maximum.

R402.3 Size. The clear space shall be 760 mm (30 in) minimum by 1220 mm (48 in) minimum.

R402.4 Knee and Toe Clearance. Unless otherwise specified, clear space shall be permitted to include knee and toe clearance complying with R403.

R402.5.Position. Unless otherwise specified, clear space shall be positioned for either forward or parallel approach to an element.

R402.6 Approach. One full unobstructed side of the clear space shall adjoin a pedestrian access route or adjoin another clear space.

R402.7 Maneuvering Space. Where a clear space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering space shall be provided in accordance with R402.7.1 and R402.7.2.

> **R402.7.1 Forward Approach.** Alcoves shall be 915 mm (36 in) wide minimum where the depth exceeds 610 mm (24 in).
>
> **R402.7.2 Parallel Approach.** Alcoves shall be 1525 mm (60 in) wide minimum where the depth exceeds 380 mm (15 in).

R403 Knee and Toe Clearance

R403.1 General. Where space beneath an element is included as part of clear space, the space shall comply with R403. Additional space shall not be prohibited beneath an element but shall not be considered as part of the clear space.

Advisory R403.1 General. Clearances are measured in relation to the usable clear space, not necessarily to the vertical support for an element. When determining clearance under an object for required maneuvering space, care should be taken to ensure the space is clear of any obstructions.

R403.2 Toe Clearance.

R403.2.1 General. Space under an element between the finish surface and 230 mm (9 in) above the finish surface shall be considered toe clearance and shall comply with R403.2.

R403.2.2 Maximum Depth. Toe clearance shall extend 635 mm (25 in) maximum under an element.

R403.2.3 Minimum Required Depth. Where toe clearance is required at an element as part of a clear space, the toe clearance shall extend 430 mm (17 in) minimum under the element.

R403.2.4 Additional Clearance. Space extending more than 150 mm (6 in) beyond the available knee clearance at 230 mm (9 in) above the finish surface shall not be considered toe clearance.

R403.2.5 Width. Toe clearance shall be 760 mm (30 in) wide minimum.

R403.3 Knee Clearance.

R403.3.1 General. Space under an element between 230 mm (9 in) and 685 mm (27 in) above the finish surface shall be considered knee clearance and shall comply with R403.3.

R403.3.2 Maximum Depth. Knee clearance shall extend 635 mm (25 in) maximum under an element at 230 mm (9 in) above the finish surface.

R403.3.3 Minimum Required Depth. Where knee clearance is required under an element as part of a clear space, the knee clearance shall be 280 mm (11 in) deep minimum at 230 mm (9 in) above the finish surface, and 205 mm (8 in) deep minimum at 685 mm (27 in) above the finish surface.

R403.3.4 Clearance Reduction. Between 230 mm (9 in) and 685 mm (27 in) above the finish surface, the knee clearance shall be permitted to reduce at a rate of 25 mm (one inch) in depth for each 150 mm (6 in) in height.

R403.3.5 Width. Knee clearance shall be 760 mm (30 in) wide minimum.

R404 Reach Ranges

R404.1 General. Reach ranges shall comply with R404.

R404.2 Forward Reach.

R404.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 1220 mm (48 in) maximum and the low forward reach shall be 380 mm (15 in) minimum above the finish surface.

R404.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 1220 mm (48 in) maximum where the reach depth is 510 mm (20 in) maximum. Where the reach depth exceeds 510 mm (20 in), the high forward reach shall be 1120 mm (44 in) maximum and the reach depth shall be 635 mm (25 in) maximum.

R404.3 Side Reach.

R404.3.1 Unobstructed. Where a clear space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 1220 mm (48 in) maximum and the low side reach shall be 380 mm (15 in) minimum above the finish surface. An obstruction shall be permitted between the clear space and the element where the depth of the obstruction is 255 mm (10 in) maximum.

R404.3.2 Obstructed High Reach. Where a clear space allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 865 mm (34 in) maximum and the depth of the obstruction shall be 610 mm (24 in) maximum. The high side reach shall be 1220 mm (48 in) maximum for a reach depth of 255 mm (10 in) maximum. Where the reach depth exceeds 266 mm (10 in), the high side reach shall be 1170 mm (46 in) maximum for a reach depth of 610 mm (24 in) maximum.

R405 Operable Parts

R405.1 General. Operable parts shall comply with R405.

R405.2 Clear Space. A clear space complying with R402 shall be provided.

R405.3 Height. Operable parts shall be placed within one or more of the reach ranges specified in R404.

R405.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 22 N (5 lbs) maximum.

R406 Ramps

R406.1 General. Ramps shall comply with R406.

R406.2 Slope. Ramp runs shall have a running slope between 5 percent minimum and 8.3 percent maximum.

Advisory R406.2 Slope. To accommodate the widest range of users, provide ramps with

the least possible running slope and, wherever possible, accompany ramps with stairs for use by those individuals for whom distance presents a greater barrier than steps, for example, people with heart disease or limited stamina.

R406.3 Cross Slope. Cross slope of ramp runs shall be 2 percent maximum.

R406.4 Surfaces. Ramp run surfaces shall comply with R301.5.

R406.5 Rise. The rise for any ramp run shall be 76 cm (30 in) maximum.

R406.6 Landings. Ramps shall have landings at the top and the bottom of each ramp run. Landings shall comply with R406.6.

R406.6.1 Slope. Perpendicular and parallel ramp landing slopes shall be 2 percent maximum.

R406.6.2 Width. The landing clear width shall be at least as wide as the widest ramp run leading to the landing.

R406.6.3 Length. The landing clear length shall be 1.5 m (5.0 ft) long minimum.

R406.6.4 Change in Direction. Ramps that change direction between runs at landings shall have a clear landing 1.5 m (5.0 ft) minimum by 1.5 m (5.0 ft) minimum.

R406.7 Handrails. Ramp runs with a rise greater than 15 cm (6 in) shall have handrails complying with R408.

R406.8 Edge Protection. Edge protection complying with R406.8.1 or R406.8.2 shall be provided on each side of ramp runs. Edge protection shall not be required on curb ramps and their landings.

R406.8.1 Extended Ramp Surface. The surface of the ramp run or landing shall extend 31 cm (12 in) minimum beyond the inside face of a handrail complying with R408.

Advisory R406.8.1 Extended Ramp Surface. The extended surface prevents wheelchair casters and crutch tips from slipping off the ramp surface.

R406.8.2 Curb or Barrier. A curb or barrier shall be provided that prevents the passage of a 100 mm (4 in) diameter sphere, where any portion of the sphere is within 100 mm (4 in) of the ramp surface.

R407 Stairways

R407.1 General. Stairways shall comply with R407.

R407.2 Treads and Risers. All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 100 mm (4 in) high minimum and 180 mm (7 in) high maximum. Treads shall be 28 cm (11 in) deep minimum.

R407.3 Open Risers. Open risers are not permitted.

R407.4 Tread Surface. Stairway treads shall comply with R301.5. Stairway treads shall have a 51 mm (2 in) minimum wide strip that contrasts visually with the tread and riser. The strip shall be located at the front of each tread and run the full width of the tread.

R407.5 Nosings. The radius of curvature at the leading edge of the tread shall be 13 mm (0.5 inch) maximum. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled. Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from vertical. The permitted projection of the nosing shall extend 38 mm (1.5 in) maximum over the tread below.

R407.6 Handrails. Stairs shall have handrails complying with R408.

R408 Handrails

R408.1 General. Handrails provided along walking surfaces complying with R301, required at ramps complying with R406, and required at stairs complying with R407 shall comply with R408.

Advisory R408.1 General. Handrails are required on ramp runs with a rise greater than 150 mm (6 in) and on certain stairways. Handrails are not required on walking surfaces with running slopes less than 5 percent. However, if handrails are provided on walking surfaces with running slopes less than 5 percent, they must comply with R408. Sections R408.2, R408.3, and R408.10 do not apply to handrails provided on walking surfaces with running slopes less than 5 percent as those sections only reference requirements for ramps and stairs.

R408.2 Where Required. Handrails shall be provided on both sides of stairs and ramps.

R408.3 Continuity. Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs and ramps shall be continuous between flights or runs.

R408.4 Height. Top of gripping surfaces of handrails shall be 87 cm mm (34 in) minimum and 97 cm (38 in) maximum vertically above walking surfaces, stair nosings, and ramp surfaces. Handrails shall be at a consistent height above walking surfaces, stair nosings, and ramp surfaces.

R408.5 Clearance. Clearance between handrail gripping surfaces and adjacent surfaces shall be 38 mm (1.5 in) minimum.

R408.6 Gripping Surface. Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Where provided, horizontal projections shall occur 38 mm (1.5 in) minimum below the bottom of the handrail gripping surface.

Advisory R408.6 Gripping Surface. People with disabilities, older people, and others benefit from continuous gripping surfaces that permit users to reach the fingers outward or downward to grasp the handrail.

R408.7 Cross Section. Handrail gripping surfaces shall have a cross section complying with R408.7.1 or R408.7.2.

R408.7.1 Circular Cross Section. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 32 mm (1.25 in) minimum and 51 mm (2 in) maximum.

R408.7.2 Non-Circular Cross Sections. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 100 mm (4 in) minimum and 160 mm (6.25 in) maximum, and a cross-section dimension of 57 mm (2.25 in) maximum.

R408.8 Surfaces. Handrail gripping surfaces and any surfaces adjacent to them shall be free of sharp or abrasive elements and shall have rounded edges.

R408.9 Fittings. Handrails shall not rotate within their fittings.

R408.10 Handrail Extensions. Handrail gripping surfaces shall extend beyond and in the same direction of stair flights and ramp runs in accordance with R408.10. Extensions shall not be required for continuous handrails at the inside turn of switchback or dogleg stairs and ramps.

R408.10.1 Top and Bottom Extension at Ramps. Ramp handrails shall extend horizontally above the landing for 31 cm (12 in) minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp run.

R408.10.2 Top Extension at Stairways. At the top of a stair flight, handrails shall extend horizontally above the landing for 31 cm (12 in) minimum beginning directly above the first riser nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

R408.10.3 Bottom Extension at Stairways. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extension shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

R409 Signs

R409.1 General. Signs shall comply with R409. Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, shall be provided.

R409.2 Raised Characters. Raised characters shall comply with R409.2 and shall be duplicated in braille complying with R409.3. Raised characters shall be installed in accordance with R409.4.

Advisory R409.2 Raised Characters. Signs that are designed to be read by touch should not have sharp or abrasive edges.

R409.2.1 Depth. Raised characters shall be 0.8 mm (.03 in) minimum above their background.

R409.2.2 Case. Characters shall be uppercase.

R409.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

R409.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

R409.2.5 Character Height. Character height measured vertically from the baseline of the character shall be 16 mm (0.625 in) minimum and 51 mm (2 in) maximum based on the height of the uppercase letter "I". Where separate raised and visual characters with the same information are provided, raised character height shall be permitted to be 13 mm (0.5 in) minimum.

R409.2.6 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 15 percent maximum of the height of the character.

R409.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 3.2 mm (0.125 in) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1.6 mm (.625 in)

minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 3.2 mm (0.125 in) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 9.5 mm (.375 in) minimum.

R409.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height.

R409.3 Braille. Braille shall be contracted (Grade 2) and shall comply with R409.3 and R409.4.

R409.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table R409.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.

R409.3.1 Braille Dimensions

Measurement Range	Minimum in Millimeters Maximum in Millimeters
Dot base diameter	1.5 mm (0.059 in) to 1.6 mm (0.063 in)
Distance between two dots in the same cell[1]	2.3 mm (0.090 in) to 2.5 mm (0.100 in)
Distance between corresponding dots in adjacent cells[1]	6.1 mm (0.241 in) to 7.6 mm (0.300 in)
Dot height	0.6 mm (0.025 in) to 0.9 mm (0.037 in)
Distance between corresponding dots from one cell directly below[1]	10 mm (0.395 in) 10.2 mm to (0.400 in)

1. Measured center to center.

R409.3.2 Position. Braille shall be positioned below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 9.5 mm (.375 in) minimum from any other tactile characters and 9.5 mm (.375 in) minimum from raised borders and decorative elements. Braille provided on elevator car controls shall be separated 4.8 mm (.1875 in) minimum and shall be located either directly below or adjacent to the corresponding raised characters or symbols.

R409.4 Installation Height and Location. Signs with tactile characters shall comply with R409.4.

R409.4.1 Height Above Finish Floor or Ground. Tactile characters on signs shall be located 1.2 m (4.0 ft) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 1.5 m (5.0 ft) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character. Tactile characters for elevator car controls shall not be required to comply with R409.4.1.

R409.5 Visual Characters. Visual characters shall comply with R409.5. Where visual characters comply with R409.2 and are accompanied by braille complying with R409.3, they shall not be required to comply with R409.5.2 through R409.5.9.

R409.5.1 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

Advisory R409.5.1 Finish and Contrast. Signs are more legible for persons with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and its background colors and textures.

R409.5.2 Case. Characters shall be uppercase or lowercase or a combination of both.

R409.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

R409.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

R409.5.5 Character Height. Minimum character height shall comply with Table R409.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I".

R409.5.5 Visual Character Height

Height to Finish Floor or Ground From Baseline of Character	Horizontal Viewing Distance	Minimum Character Height
1.0 m (3.3 ft) to less than or equal to 1.8 m	less than 1.8 m (6 ft)	16 mm (0.625 in)
	1.8 m (6 ft) and	16 mm (0.625 in), plus 3.2 mm (0.125

(5.8 ft)	greater	in) per 0.3 m (one ft) of viewing distance above 1.8 m (6 ft)
Greater than 1.8 m (5.8 ft) to less than or equal to 3.0 m (10 ft)	less than 4.6 m (15 ft)	51 mm (2 in)
	4.6 m (15 ft) and greater	51 mm (2 in), plus 3.2 mm (0.125 in) per 0.3 m (12 in) of viewing distance above 4.6 m (15 ft)
greater than 3.0 m (10 ft)	less than 6.4 m (21 ft)	75 mm (3 in)
	6.4 m (21 ft) and greater	75 mm (3 in), plus 3.2 mm (0.125 in) per 0.3 m (12 in) of viewing distance above 6.4 m (21 ft)

R409.5.6 Height from Finish Floor or Ground. Visual characters shall be 1.0 m (3.25 ft) minimum above the finish floor or ground. Visual characters indicating elevator car controls shall not be required to comply with R409.5.6.

R409.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 30 percent maximum of the height of the character.

R409.5.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.

R409.5.9 Line Spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

R409.5.10 The International Symbol of Accessibility. The International Symbols of Accessibility shall comply with Figure 409.5.10.



Figure R409.5.10
International Symbol of Accessibility

R410 Bus Stops

R410.1 Bus Boarding and Alighting Areas. Bus boarding and alighting areas shall comply with R410.

Advisory R410.1 Bus Boarding and Alighting Areas. At bus stops where a shelter is provided, the bus stop pad can be located either within or outside of the shelter.

R410.1.1 Surface. Bus stop boarding and alighting areas shall have a firm, stable, and slip resistant surface.

R410.1.2 Dimensions. Bus stop boarding and alighting areas shall provide a clear length of 2.4 m (8.0 ft) minimum, measured perpendicular to the curb or vehicle street or highway edge, and a clear width of 1.5 m (5.0 ft) minimum, measured parallel to the vehicle street or highway.

R410.1.3 Connection. Bus stop boarding and alighting areas shall be connected to streets, sidewalks, or pedestrian paths by a pedestrian access route complying with R301.

R410.1.4 Grade. Parallel to the street or highway, the grade of the bus stop boarding and alighting area shall be the same as the street or highway, to the maximum extent practicable. Perpendicular to the street or highway, the grade of the bus stop boarding and alighting area shall not be steeper than 2 percent.

R410.2 Bus Shelters. Bus shelters shall provide a minimum clear space complying with R402 entirely within the shelter. Bus shelters shall be connected by pedestrian access route complying with R301 to a boarding and alighting area complying with R410.1.

R411 Doors, Doorways, and Gates

R411.1 General. Doors, doorways, and gates that are part of a pedestrian access route shall comply with R411.

Advisory R411.1 General. This section provides information on minimum width and maneuvering space requirements for doors, doorways, and gates. For additional requirements for accessible doors, doorways, and gates, see 36 CFR part 1191 Appendix D Section 404 (the ADA and ABA Accessibility Guidelines).

R411.2 Manual Doors, Doorways, and Manual Gates. Manual doors and doorways and manual gates intended for user passage shall comply with R411.2.

R411.2.1 Revolving Doors, Gates, and Turnstiles. Revolving doors, revolving gates, and turnstiles shall not be part of a pedestrian access route.

R411.2.2 Double-Leaf Doors and Gates. At least one of the active leaves of doorways with two leaves shall comply with R411.2.3 and R411.2.4.

R411.2.3 Clear Width. Door openings shall provide a clear width of 82 cm (32 in) minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 61 cm (24 in) deep shall provide a clear opening of 92 cm (36 in) minimum. There shall be no projections into the required clear opening width lower than 87 cm (34 in) above the finish floor or ground. Projections into the clear opening width between 87 cm (34 in) and 2 m (6.7 ft) above the finish floor or ground shall not exceed 100 mm (4 in).

R411.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with R411.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.

R411.2.4.1 Swinging Doors and Gates. Swinging doors and gates shall have maneuvering clearances complying with Table R411.2.4.1.

R411.2.4.1 Maneuvering Clearances at Manual Swinging Doors and Gates

Type of Use		Minimum Maneuvering Clearance	
Approach Direction	**Door or Gate Side**	**Perpendicular to Doorway**	**Parallel to Doorway (beyond latch side unless noted)**
From front	Pull	153 cm (60 in)	46 cm (18 in)
From front	Push	122 cm (48 in)	0 mm (0 in)[1]
From hinge side	Pull	153 cm (60 in)	92 cm (36 in)
From hinge side	Pull	137 cm (54 in)	107 cm (42 in)
From hinge side	Push	107 cm (42 in)[2]	56 cm (22 in)[3]
From latch side	Pull	122 cm (48 in)[4]	61 cm (24 in)
From latch side	Push	107 cm (42 in)[4]	61 cm (24 in)

1. Add 305 cm (12 in) if closer and latch are provided.
2. Add 150 mm (6 in) if closer and latch are provided.
3. Beyond hinge side.
4. Add 150 mm (6 in) if closer is provided.

R411.2.4.2 Doorways without Doors or Gates, Sliding Doors, and Folding Doors. Doorways less than 92 cm (36 in) wide without doors or gates, sliding doors, or folding doors shall have maneuvering clearances complying with Table R411.2.4.2.

R411.2.4.2 Maneuvering Clearances at Doorways without Doors or Gates, Manual Sliding Doors, and Manual Folding Doors

	Minimum Maneuvering Clearance	
Approach Direction	**Perpendicular to Doorway**	**Parallel to Doorway (beyond stop/latch side unless noted)**
From Front	122 cm (48 in)	0 mm (0 in)

From side[1]	107 cm (42 in)	0 mm (0 in)
From pocket/hinge side	107 cm (42 in)	56 cm (22 in)[2]
From stop/latch side	107 cm (42 in)	61 cm (24 in)

1. Doorway with no door only.
2. Beyond pocket/hinge side.

R411.2.4.3 Recessed Doors and Gates. Maneuvering clearances for forward approach shall be provided when any obstruction within 46 cm (18 in) of the latch side of a doorway projects more than 205 mm (8 in) beyond the face of the door, measured perpendicular to the face of the door or gate.

Advisory R411.2.4.3 Recessed Doors and Gates. A door can be recessed due to wall thickness or because of the placement of casework and other fixed elements adjacent to the doorway. This provision must be applied wherever doors are recessed.

R411.2.4.4 Floor or Ground Surface. Floor or ground surface within required maneuvering clearances shall comply with R301.5.

R411.2.5 Doors in Series and Gates in Series. The distance between two hinged or pivoted doors in series and gates in series shall be 1.2 m (48 in) minimum plus the width of doors or gates swinging into the space.

R411.2.6 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with R405. Operable parts of such hardware shall be 87 cm (34 in) minimum and 122 cm (48 in) maximum above the finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

R412 Passenger Loading Zones

R412.1 General. Passenger loading zones shall comply with R412.

R412.2 Vehicle Pull-Up Space. Passenger loading zones shall provide a vehicular pull-up space 2.4 m (8 ft) wide minimum and 6.1 m (20 ft) long minimum.

R412.3 Access Aisle. Passenger loading zones shall provide access aisles complying with R412 adjacent to the vehicle pull-up space. Access aisles shall adjoin a pedestrian access route and shall not overlap the vehicular way.

R412.3.1 Width. Access aisles serving vehicle pull-up spaces shall be 1.5 m (5.0 ft) wide minimum.

R412.3.2 Length. Access aisles shall extend the full length of the vehicle pull-up spaces they serve.

R412.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

R412.4 Floor and Ground Surfaces. Access aisles serving vehicle pull-up spaces shall comply with R301.5. Access aisles shall be at the same level as the vehicle pull-up space they serve.

R412.5 Vertical Clearance. Vehicle pull-up spaces, access aisles serving them, and a vehicular route to and from the passenger loading zone shall provide a vertical clearance of 3 m (9.5 ft) minimum.

R413 Drinking Fountains

R413.1 General. Drinking fountains shall comply with R401 and R413.

R413.2 Clear Floor Space. Units shall have a clear space complying with R402 positioned for a forward approach and centered on the unit. Knee and toe clearance complying with R403 shall be provided.

R413.3 Operable Parts. Operable parts shall comply with R405.

R413.4 Spout Height. Spout outlets shall be 92 cm (36 in) maximum above the finish floor or ground.

R413.5 Spout Location. The spout shall be located 38 cm (15 in) minimum from the vertical support and 125 mm (5 in) maximum from the front edge of the unit, including bumpers.

R413.6 Water Flow. The spout shall provide a flow of water 100 mm (4 in) high minimum and shall be located 125 mm (5 in) maximum from the front of the unit. The angle of the water stream shall be measured horizontally relative to the front face of the unit. Where spouts are located less than 75 mm (3 in) of the front of the unit, the angle of the water stream shall be 30 degrees maximum. Where spouts are located between 75 mm (3 in) and 125 mm (5 in) maximum from the front of the unit, the angle of the water stream shall be 15 degrees maximum.

Advisory R413.6 Water Flow. The purpose of requiring the drinking fountain spout to produce a flow of water 4 inches (100 mm) high minimum is so that a cup can be inserted under the flow of water to provide a drink of water for an individual who, because of a disability, would otherwise be incapable of using the drinking fountain.

R413.7 Drinking Fountains for Standing Persons. Spout outlets of drinking fountains for standing persons shall be 97 cm (38 in) minimum and 109 cm (43 in) maximum above the finish floor or ground.

R414 Rail Platforms

R414.1 General. Rail platforms shall comply with R414. In light rail, commuter rail, and intercity rail systems, platforms shall provide level-entry boarding where structurally and operationally practicable.

R414.2 Slope. Rail platforms shall not exceed a slope of 2 percent in all directions. Where platforms serve vehicles operating on existing track or track laid in existing street or highway, the slope of the platform parallel to the track shall be permitted to be equal to the slope (grade) of the street or highway or existing track.

R414.3 Detectable Warnings. Platform boarding edges not protected by platform screens or guards shall have detectable warnings complying with R304 along the full length of the public use area of the platform.

R414.4 Platform and Vehicle Floor Coordination. Station platforms shall be positioned to coordinate with vehicles in accordance with the applicable requirements of 36 CFR part 1192 (ADA Accessibility Guidelines for Transportation Vehicles). Low-level platforms shall be 205 mm (8 in) minimum above top of rail. Where vehicles are boarded from sidewalks or street-level, low-level platforms shall be permitted to be less than 205 mm (8 in).

*Advisory R414.4 Platform and Vehicle Floor Coordination. The height and position of a platform must be coordinated with the floor of the vehicles it serves to minimize the vertical and horizontal gaps, in accordance with the ADA Accessibility Guidelines for Transportation Vehicles (36 CFR part 1192). The vehicle guidelines, divided by bus, van, light rail, rapid rail, commuter rail, intercity rail, are available at **www.access-board.gov**. The preferred alignment is a high platform, level with the vehicle floor. In some cases, the vehicle guidelines permit use of a low platform in conjunction with a lift or ramp. Most such low platforms must have a minimum height of eight inches above the top of the rail. Some vehicles are designed to be boarded from a street or the sidewalk along the street. The exception permits those boarding areas to be less than eight inches high.*

R415 Rail Station Signs

R415.1 General. Rail station signs shall comply with R415.

Advisory R415.1 General. Emerging technologies such as audible sign systems using infrared transmitters and receivers may provide greater accessibility in the transit environment than traditional braille and raised letter signs. The transmitters are placed

on or next to print signs and transmit their information to an infrared receiver that is held by a person. By scanning an area, the person will hear the sign. This means that signs can be placed well out of reach of pedestrians, even on parapet walls and on walls beyond barriers. Additionally, such signs can be used to provide wayfinding information that cannot be efficiently conveyed on braille signs.

R415.2 Entrances. Where signs identify a station or its entrance, at least one sign at each entrance shall comply with R409.2 and shall be placed in uniform locations to the maximum extent practicable. Where signs identify a station that has no defined entrance, at least one sign shall comply with R409.2 and shall be placed in a central location. Tactile signs shall not be required where audible signs are remotely transmitted to hand-held receivers, or are user- or proximity-actuated.

R415.3 Routes and Destinations. Lists of stations, routes and destinations served by the station which are located on boarding areas, platforms, or mezzanines shall comply with R409.5. Signs covered by this requirement shall, to the maximum extent practicable, be placed in uniform locations within the system. Where sign space is limited, characters shall not be required to exceed 75 mm (3 in). At least one tactile sign identifying the specific station and complying with R409.2 shall be provided on each platform or boarding area. Tactile signs shall not be required where audible signs are remotely transmitted to hand-held receivers, or are user- or proximity-actuated. Route maps are not required to comply.

R415.4 Station Names. Stations covered by this section shall have identification signs complying with R409.5. Signs shall be clearly visible and within the sight lines of standing and sitting passengers from within the vehicle on both sides when not obstructed by another vehicle.

Appendix G – Glossary of Terms

ABA: See Architectural Barriers Act.

ADA: See Americans with Disabilities Act.

ADA Transition Plan: Mn/DOT's transportation system plan that identifies accessibility needs, the process to fully integrate accessibility improvements into the Statewide Transportation Improvement Program (STIP), and ensures all transportation facilities, services, programs, and activities are accessible to all individuals.

ADAAG: See Americans with Disabilities Act Accessibility Guidelines.

Accessible: A facility that provides access to people with disabilities using the design requirements of the ADA.

Accessible Pedestrian Signal (APS): A device that communicates information about the WALK phase in audible and vibrotactile formats.

Alteration: A change to a facility in the public right-of-way that affects or could affect access, circulation, or use. An alteration must not decrease or have the effect of decreasing the accessibility of a facility or an accessible connection to an adjacent building or site.

Americans with Disabilities Act (ADA): The Americans with Disabilities Act; Civil rights legislation passed in 1990 and effective July 1992. The ADA sets design guidelines for accessibility to public facilities, including sidewalks and trails, by individuals with disabilities.

Americans with Disabilities Act Accessibility Guidelines (ADAAG): contains scoping and technical requirements for accessibility to buildings and public facilities by individuals with disabilities under the Americans with Disabilities Act (ADA) of 1990.

APS: See Accessible Pedestrian Signal.

Architectural Barriers Act (ABA): Federal law that requires facilities designed, built, altered or leased with Federal funds to be accessible. The Architectural Barriers Act marks one of the first efforts to ensure access to the built environment.

Capital Improvement Program (CIP): The CIP for the Transportation Department includes an annual capital budget and a five-year plan for funding the new construction and reconstruction projects on the county's transportation system.

Detectable Warning: A surface feature of truncated domes, built in or applied to the walking surface to indicate an upcoming change from pedestrian to vehicular way.

DOJ: See United States Department of Justice

Federal Highway Administration (FHWA): A branch of the US Department of Transportation that administers the federal-aid Highway Program, providing financial assistance to states to construct and improve highways, urban and rural roads, and bridges.

FHWA: See Federal Highway Administration

Pedestrian Access Route (PAR): A continuous and unobstructed walkway within a pedestrian circulation path that provides accessibility.

Pedestrian Circulation Route (PCR): A prepared exterior or interior way of passage provided for pedestrian travel.

PROWAG: An acronym for the *Guidelines for Accessible Public Rights-of-Way* issued in 2005 by the U. S. Access Board. This guidance addresses roadway design practices, slope, and terrain related to pedestrian access to walkways and streets, including crosswalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way.

Right of Way: A general term denoting land, property, or interest therein, usually in a strip, acquired for the network of streets, sidewalks, and trails creating public pedestrian access within a public entity's jurisdictional limits.

Section 504: The section of the Rehabilitation Act that prohibits discrimination by any program or activity conducted by the federal government.

Uniform Accessibility Standards (UFAS): Accessibility standards that all federal agencies are required to meet; includes scoping and technical specifications.

United States Access Board: An independent federal agency that develops and maintains design criteria for buildings and other improvements, transit vehicles, telecommunications equipment, and electronic and information technology. It also enforces accessibility standards that cover federally funded facilities.

United States Department of Justice (DOJ): The United States Department of Justice (often referred to as the Justice Department or DOJ), is the United States federal executive department responsible for the enforcement of the law and administration of justice.

Public Works Committee **6. 2.**

Meeting Date: 07/17/2018

By: Bruce Westby, Engineering/Public Works

Title:

Review Future Topics Calendar

Purpose/Background:

Attached is a calendar of future topics for review and discussion by the Public Works Committee. The list includes topics drawn from Committee requests received during meetings and/or topics previously discussed by the Committee that are not yet resolved. All dates shown are estimated based on availability of information, staff workload, and competing objectives and are therefore subject to change.

Timeframe:

Staff estimates 5 minutes will be necessary to review the future topics calendar and address Committee questions.

Observations/Alternatives:

N/A

Funding Source:

N/A

Recommendation:

N/A

Action:

No formal action required. For Committee review and discussion purposes only.

Attachments

PWC Calendar July2018

Form Review

Inbox	Reviewed By	Date
Grant Riemer	MaryJo Warner	07/12/2018 03:42 PM
Kurt Ulrich	Kurt Ulrich	07/12/2018 04:08 PM
Form Started By: Bruce Westby		Started On: 07/05/2018 02:55 PM
Final Approval Date: 07/12/2018		

Public Works Committee Future Topics Calendar *

Date	Topics for Discussion – Committee Action
August 2018	Sunfish Lake Sedimentation Basin Improvements *(Westby)*
September 2018	Gibbon Street Basement Flooding Funding Options *(Westby)*
October 2018	Well Siting Study - Well #9 *(Westby)*
Future/TBD	Sunwood Drive Roundabout Landscaping *(Riemer)*
Future/TBD	County Ditch Maintenance / Buffer Law *(Westby)*
Date	**Topics for Discussion – Regulatory**
Future/TBD	Sunfish Lake Boulevard Speed Zone Study Results *(Westby)*
October 2018	Wellhead Protection Plan Update *(Westby)*
Date	**Topics for Discussion – Policy**
Future	Landscaped Median Maintenance Policy *(Riemer)*
November 2018	Draft Trail Maintenance Policy *(Westby)*
November 2018	Draft Stormwater Pond Maintenance Policy *(Westby)*
July 2018	ADA Transition Plan *(Westby)*
Date	**Topics for Discussion – Planning and Budget**
October 2018	Municipal State Aid System (MSAS) Revisions *(Westby)*
September 2018	Review 1996 and 2007 (unadopted) TH 47 Corridor Studies *(Westby)*
Future	Public Works Facility Review/Update *(Riemer)*
February 2019	Long-Term Water Supply Plan *(Westby)*
Date	**Topics for Discussion – Staff Updates**
February 2019	Water Conservation Opportunities / Incentives *(Westby)*
January 2019	Asset Management Program *(Westby)*

* Dates are estimated and are subject to change based on availability of information, staff workload, and competing objectives.

Public Works Committee **6. 3.**

Meeting Date: 07/17/2018

By: Bruce Westby, Engineering/Public Works

Title:

Staff Updates on Improvement Projects and Items of Interest

Purpose/Background:

Purpose/Background:

The purpose of this case is to update the Public Works Committee on current and proposed improvement projects within the City, and on other items of interest to the Committee.

City Improvement Projects

- **Riverdale Drive Extension - Traprock St. to Ramsey Blvd. (#16-20)**
  - Construction complete
  - Only punch list items remain
  - Final payment in 2019
- **River's Bend Street Reconstructions (#17-02)**
  - Construction complete
  - Only punch list items remain
  - Final payment in 2019
- **Puma Street Utilities Extensions (#17-10)**
  - Construction complete
  - Only punch list items remain
  - Final payment in 2019
- **Stanhope Terrace Street Reconstructions (#18-00)**
  - Construction complete
  - Only punch list items remain
  - Final payment in 2019
- **2018 Street Overlay Improvements (#18-03)**
  - Construction substantially complete
  - Final payment 2019
- **2018 Crackseal and Sealcoat Improvements (#18-04)**
  - Cracksealing nearly complete
  - Sealcoating scheduled for week of July 16
- **The COR Regional Infiltration Basin (#18-09)**
  - Plans & Specifications nearly complete
  - Excess fill to be placed throughout The COR
  - Anticipate City Council approval to authorize bids August 6th
  - Construction proposed to start this fall
  - Final completion proposed in 2019
- **Bunker Lake Boulevard and Puma Street Improvements (#18-05)**
  - Construction anticipated to begin late August
  - Substantial completion anticipated mid-October
  - Final completion 2019

Anoka County Improvement Projects

- **Foley Boulevard/CSAH 11 Grade Separation @ BNSF Railway Crossing**

- Project is currently unfunded

MnDOT Improvement Projects

- **Ferry Street / Trunk Highway 47 Grade Separation @ BNSF Railway Crossing (2017)**
  - Preliminary design on hold
  - Exploring realignment of Highway 47 to remove S-curve at fair grounds
  - Ramsey Staff will continue tracking this project
  - Combine with other Highway 10 improvement projects?

Items of Interest

- **Ground Penetrating Radar versus Pavement Cores**
  - Staff requests Committee input on using GPR vs. pavement cores to verify constructed pavement sections

Timeframe:

Staff estimates 5 minutes will be needed for updates and discussion.

Observations/Alternatives:

N/A

Funding Source:

N/A

Recommendation:

N/A

Action:

No formal action required. For Committee review and discussion purposes only.

Attachments

No file(s) attached.

Form Review

Inbox	Reviewed By	Date
Grant Riemer	MaryJo Warner	07/12/2018 03:42 PM
Kurt Ulrich	Kurt Ulrich	07/12/2018 04:07 PM
Form Started By: Bruce Westby		Started On: 07/05/2018 02:55 PM
Final Approval Date: 07/12/2018		

Our Mission: To work together to resposibly grow our community, and to provide quality, cost-effective, and efficient government services.

CC Regular Session **6. 1.**

Meeting Date: 08/06/2018

By: JoAnn Shaw, Community Development

Information

Title:

Public Hearing: Approve On-Sale, Patio, and Sunday Liquor License for Pleasant Valley Sunrise Group LLC dba Aurelio's Pizza.

Purpose/Background:

Purpose: To approve an on-sale liquor license for Pleasant Valley Sunrise Group LLC dba Aurelio's Pizza. The license approval would also include Sunday and patio sales. The patio would require secure fencing per State requirements.

Background: Pleasant Valley Sunrise Group LLC dba Aurelio's Pizza has properly applied for an on-sale, patio and Sunday liquor license at 6415 Highway 10 NW, Suite 120.

Police Chief Katers has completed the background investigation and found everything to be in order.

This establishment is a new liquor establshment.

Notification:

Notice of the public hearing was published in the Anoka County Union Herald on Friday, July 27, 2018.

Recommendation:

Staff is recommending approval of the on-sale, patio, and Sunday liquor license for Pleasant Valley Sunrise Group LLC dba Aurelio's Pizza.

Action:

Motion to approve an on-sale, patio and Sunday liquor license for Pleasant Valley Sunrise Group LLC dba Aurelio's Pizza.

Attachments

License Report

Form Review

Inbox	Reviewed By	Date
Tim Gladhill	Tim Gladhill	08/02/2018 09:33 AM
Kurt Ulrich	Kurt Ulrich	08/02/2018 01:44 PM
Form Started By: JoAnn Shaw		Started On: 07/24/2018 12:21 PM
Final Approval Date: 08/02/2018		

City of Ramsey
Business License Pending Renewals

Status	Appl ID	Applicant	License #	Business	License Type	Exp Date
Pending	1581		00007843	Pleasant Valley Sunrise Group LLc	Liquor On-Sale	06/30/2019
	1581		00007844	Pleasant Valley Sunrise Group LLc	Liquor On-Sale Sunday	06/30/2019

Sub Total: **2**

Grand Total: **2**

Our Mission: To work together to resposibly grow our community, and to provide quality, cost-effective, and efficient government services.

CC Regular Session **7. 1.**

Meeting Date: 08/06/2018

By: Chris Anderson, Community Development

Information

Title:

Adopt Resolution #18-166 Clarifying Lawful, Non-Conforming Use on the Property Identified as PID #22-32-25-23-0002

Purpose/Background:

The property identified by PID #22-32-25-23-0002 (the "Subject Property"), which is located at the southeast corner of Ramsey Blvd and Alpine Drive, has an existing accessory building but no principal structure. A single owner previous owned this parcel and the adjacent parcel with the primary dwelling jointly. The existing accessory structure pre-dates current accessory structure regulations. The parcels have now been sold separately, created a non-conforming issue. The City avoids this situation under existing regulations by not allowing accessory structures on separate parcels, regardless of common ownership at the time.

Presently, City Code Section 117-349 (d) (2) states that no accessory building shall be constructed on any lot prior to the time of construction of a principal building. The Subject Property is for sale and City Staff have fielded multiple inquiries on this parcel, primarily about potential commercial uses. There is a sale pending with the buyer interested in utilizing the building for primarily for personal storage but also to conduct motor vehicle repairs on the Subject Property.

Notification:

No notification is required.

Observations/Alternatives:

The Subject Property is about 3.2 acres in size and is zoned R-1 Residential (Rural Developing). The surrounding parcels range in size from about 0.4 acres to just over 4.5 acres and are all zoned R-1 Residential (Rural Developing) as well. The Building Permit indicates that the original accessory building was to 1,944 square feet in size (36' x 54'), which does comply with the square footage allotment for the size of the Subject Property. However, it appears that the accessory building was expanded at some point as it is now approximately 3,024 square feet (56' x 54'), which exceeds what is allowed by City Code. There is no evidence of a Building Permit for this expansion in the Property File. However, the City did acquire a portion of the Subject Property to facilitate construction of Alpine Drive. Prior to that, the Subject Property was closer to five (5) acres in size and it appears that the square footage of the accessory building would have been compliant if not for the land acquisition for right of way. Thus, it appears that the size of the building could be considered lawful, non-conforming.

The existing accessory building was constructed in 1977 after issuance of a Building Permit. At that time, the Subject Property and the adjacent property (with a home on it), located at 15443 Ramsey Blvd, were owned by one individual and the building location was approved by the City. Over time, the Subject Property was sold separately from the home at 15443 Ramsey Blvd and now is a stand-alone, lawful non-conforming property due the existence

of an accessory building with no principal structure.

It appears that some sort of vehicle repair work and/or salvage operation previously occurred unlawfully on the Subject Property (past code enforcement letters regarding junk vehicles and cannabilized parts were found in the Property File). That dates back to the early 1990s. Even if that past use (motor vehicle repair) had been lawful, non-conforming, it appears that it has not occurred on the Subject Property for at least twelve (12) months, which voids that designation.

After conferring with the City Attorney, use of the accessory building for personal storage is permitted. Any commercial type of use though does not appear to comply with City Code based on the zoning designation and the Home Occupation standards. Furthermore, within the Property File, there is a signed letter from the individual that originally constructed the accessory building stating that the building was to be used exclusively for the storage of personal property and that no business operation shall be conducted there.

There are at least two (2) other properties within the city with similar circumstances (accessory building with no principal structure). It is likely that Staff will bring forward a similar case to address those at a future date. However, there is a closing scheduled for August 12, 2018 for the purchase of the Subject Property and the buyer is seeking resolution to how the building can legally be used (see attached letter from buyer). The interested buyer has noted that he works on vehicles 'on the side' and not as a full time job. He has stated that his desire is to move the vehicles he is working on out of his neighborhood and into this accessory building.

Alternatives

Alternative #1: Confirm use of the accessory building on the Subject Property for personal storage only. The accessory building was designed for personal storage and was compliant when it was orginally constructed. The fact that it now is on a parcel with no principal building (Subject Property was sold into separate ownership) should not result in an improper (non-compliant) use today. This is an existing accessory building that was lawfully constructed and allowing its use for personal storage seems appropriate without changing the character of the surrounding neighborhood. As long as the accessory building is used only for personal storage and there is no vehicle repair work, even of personal vehicles, conducted on the Subject Property, Staff would support this alternative.

Alternative #2: Direct Staff to inform potential buyers and the seller that there shall be no use of the existing accessory building until such time that a principal building (home) is constructed on the Subject Property. The accessory building was lawfully constructed and only later was the land sold into separate ownership creating the non-conformity. Also, locating a home on the Subject Property may be challenging based on the depth of the parcel (roughly 120 feet), the required front and rear yard setbacks (forty [40] feet each), and the location of the existing accessory building. Use of the accessory building for its designed purpose (personal storage) seems a reaonable approach. After conferring with the City Attorney, Staff does not support this alternative.

Funding Source:

This case is being handled as part of Staff's regular duties.

Recommendation:

Staff recommends confirming the use of the accessory building strictly for personal storage only, at least until such time a home is constructed on the Subject Property.

Action:

Motion to adopt Resolution #18-166 confirming allowable uses of the accessory building on the Subject Property.

Attachments

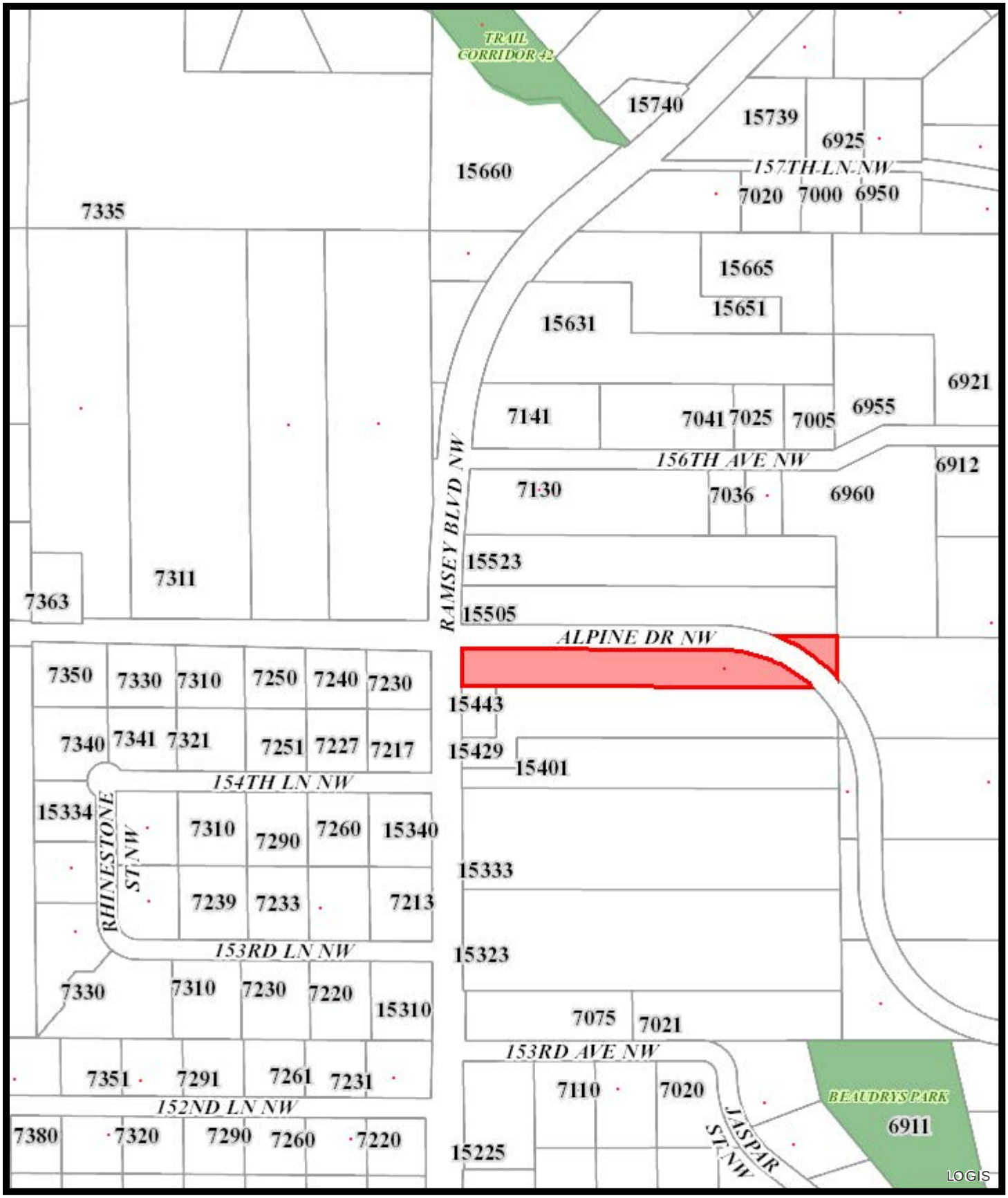
Site Location Map

Aerial View of Property
Letter from Potential Buyer
Correspondence from Real Estate Agent
Resolution #18-166

Form Review

Inbox	Reviewed By	Date
Tim Gladhill	Tim Gladhill	07/31/2018 04:01 PM
Kurt Ulrich	Kurt Ulrich	08/02/2018 01:58 PM
Form Started By: Chris Anderson		Started On: 07/31/2018 08:54 AM
Final Approval Date: 08/02/2018		

Site Location Map



Feet
0 110220 440 660 880

Print Date: July 31, 2018


15523
15505
ALPINE DR NW
RAMSEY BLVD NW
15443
15429
15401
Search

Council members,

I am interested in purchasing the property that is currently for sale at the intersection of Alpine Drive and Ramsey Blvd. It was attached previously to the address 15443 and is now referred to legally as N ½ of N ½ of N ½ of SW ¼ of NW ¼ of Sec 22-32-25 ex Rd , subject to ease of rec as a separate parcel. The property is currently zoned R-1 and does not allow for a structure to be built on any property without a residence attached however, It was applied for to the city and was permitted without a residence.

I am a Ramsey resident and currently own a home a couple blocks from this location. I would like to be allowed to purchase this property and because of the special circumstances be allowed to repair the existing structure and utilize it to work on vehicles inside the building. This is not my full time job; I work on vehicles currently out of my home on the side. I would like to be allowed to take the vehicles I'm working on out of the neighborhood I am currently in and put them into the building at the new location. The previous owners must have utilized this 56x54 building as a shop at one point since it set up as one and comes with a hoist in it.

I am hoping to be grandfathered in due to the special circumstances attached to this property and it previously being approved as its own parcel without a home on it. If that is not an option, I am hoping to have the council's guidance to approve an acceptable plan so I may utilize the building currently on my property once it is purchased. The closing date for this parcel is set for August 12th or sooner if an agreement can be made with the city for use without a home on the property. This property is 3.2 acres. I realize I would not be allowed to build anything else on this property without a residence. I would simply like to use the building currently on the property and be allowed to make necessary repairs.

Thank you for your consideration,

Thomas Jorgensen

July 20 2018

Chris Anderson

From: Tim Gladhill
Sent: Tuesday, July 24, 2018 3:03 PM
To: Chris Anderson
Subject: Fwd: Property at 0000 Alpine Drive for the City Council Meeting
Attachments: Scanned from a Xerox Multifunction Printer.pdf; ATT00001.htm

Sent from my mobile device.

Tim Gladhill, AICP
City of Ramsey
Community Development Director
7550 Sunwood Dr NW
Ramsey, MN 55303
763-433-9826
tgladhill@cityoframsey.com

Begin forwarded message:

> **From:** Cynthia Bromen <cindybrealtor@yahoo.com>
> **Date:** July 23, 2018 at 4:09:36 PM CDT
> **To:** Tim Gladhill <tgladhill@ci.ramsey.mn.us>
> **Subject: Property at 0000 Alpine Drive for the City Council Meeting**
>
> Tim,
> Hi here is the letter he wrote. In addition to this I just wanted to add on his behalf that his intention is not to make this into a business. He currently owns 7 vehicles, 2 atvs, 2 snowmobiles, two boats and a trailer. He would like to mainly be working on his things without crowding the space at his current residence and paying for storage of his toys. He does occasionally work on a friend or family members things also but his main intent is to free up the space at his home. These are not junky vehicles they are nice and collectors. he would like to store in the garage and have the ability to work on them out of the garage on the property.
> Thank you for your consideration.
> Cindy Bromen
> Re/Max Results
> 763-300-9968

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

RESOLUTION # 18-166

RESOLUTION CONFIRMING USES OF EXISTING ACCESSORY BUILDING ON THE PROPERTY IDENTIFIED BY PID #22-32-25-23-0002

WHEREAS, there is an existing accessory building on the property located at the southeast corner of the intersection of Ramsey Boulevard and Alpine Drive, identified by PID #22-32-25-23-0002 (the "Subject Property") but no principal structure; and

WHEREAS, a Building Permit was issued for the accessory building in the late 1970s when the Subject Property was under the same ownership as the adjacent property located at 15443 Ramsey Blvd NW; and

WHEREAS, the Subject Property was sold separately from the adjacent land and is now under separate ownership and is now a stand-alone parcel; and

WHEREAS, the Subject Property is for sale and the City has received multiple inquiries about the potential use(s) of the accessory building; and

WHEREAS, Staff has received a written request from a potential buyer seeking to use the accessory building for both personal storage and for motor vehicle repair; and

WHEREAS, Staff's interpretation of City Code would allow the use of the lawful, non-conforming accessory building for personal storage only with no commercial uses.

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

1. That the Ramsey City Council hereby confirms and supports Staff's interpretation of City Code relating the use of the accessory building on the Subject Property as follows:
    a. The accessory building may be used by the property owner for personal storage only.
    b. That no commercial use(s), nor any motor vehicle repairs, shall be conducted on the Subject Property.
    c. That no Home Occupation can occur on the Subject Property until such time that a home is constructed and only in compliance with City Code Section 117-351 (Home Occupations), with the approval of 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:

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 6th day of August, 2018

_____
Mayor

ATTEST:

_____
City Clerk

Our Mission: To work together to resposibly grow our community, and to provide quality, cost-effective, and efficient government services.

CC Regular Session **7. 2.**

Meeting Date: 08/06/2018

By: Bruce Westby, Engineering/Public Works

Information

Title:

Approve Letter of Support for Anoka County Grant Application for Roundabout at Armstrong Boulevard and Alpine Drive

Purpose/Background:

Purpose:

The purpose of this case is to approve a Letter of Support for Anoka County's grant application through the Highway Safety Improvement Program (HSIP) for construction of a roundabout at the intersection of CSAH 83/Armstrong Boulevard and Alpine Drive.

Background:

Anoka County Highway Department Staff contacted City Staff on July 27th requesting a Letter of Support for their Highway Safety Improvement Program grant application for construction of a roundabout at the intersection of CSAH 83/Armstrong Boulevard and Alpine Drive by August 20th.

Anoka County is still working on their HSIP application so a copy of their application was not yet available for attaching to this case. However, based on the preliminary information provided to Staff, a higher than average number of crashes have been observed over the last three years at this intersection, which results in a benefit to cost ratio in excess of 5, which means it should rank very competitively against other projects.

This is a skewed intersection, meaning the legs of the intersection are not at right angles to each other, which significantly reduces visibility for drivers entering and crossing the intersection. To address this safety concern, Anoka County enlisted the services of a consulting engineer to complete an Intersection Control Evaluation for this intersection, and prepared the attached conceptual layout showing a roundabout at this intersection.

Attached is a draft Letter of Support for Anoka County's HSIP application. Following Council approval of the letter, Staff will sign and submit the letter to Anoka County by August 20th as requested.

Notification:

N/A

Observations/Alternatives:

Observations:
Attached is a preliminary layout of the proposed roundabout. According to Anoka County, they feel strongly that this project will rank very well against other HSIP applications and they propose to construct the roundabout in the year 2022.

Alternatives:
Alternative #1 – Motion to approve a Letter of Support for Anoka County's Highway Safety Improvement Program grant application for construction of a roundabout at the intersection of CSAH 83/Armstrong Boulevard and Alpine Drive.

Alternative #2 – Motion to deny approval of a Letter of Support for Anoka County's Highway Safety Improvement Program grant application for construction of a roundabout at the intersection of CSAH 83/Armstrong Boulevard and Alpine Drive at this time.

Funding Source:

No costs are associated with this request. If HSIP funds are awarded for the construction of a roundabout at the intersection of CSAH 83/Armstrong Boulevard and Alpine Drive, Anoka County and the City of Ramsey would split the local share of the costs per Anoka County's cost-share policy (see attached).

HSIP funds cover up to 90% of project costs. Anoka County has estimated project costs to be $1.5M. If HSIP funds are awarded to Anoka County for this project, the local share of project costs are therefore anticipated to be $150,000. The City's anticipated share of the costs is roughly half the local costs, or $75,000.

Recommendation:

Staff supports this request based on the existing skewed geometrics of the intersection and the higher than average number of crashes observed over the last three years.

Action:

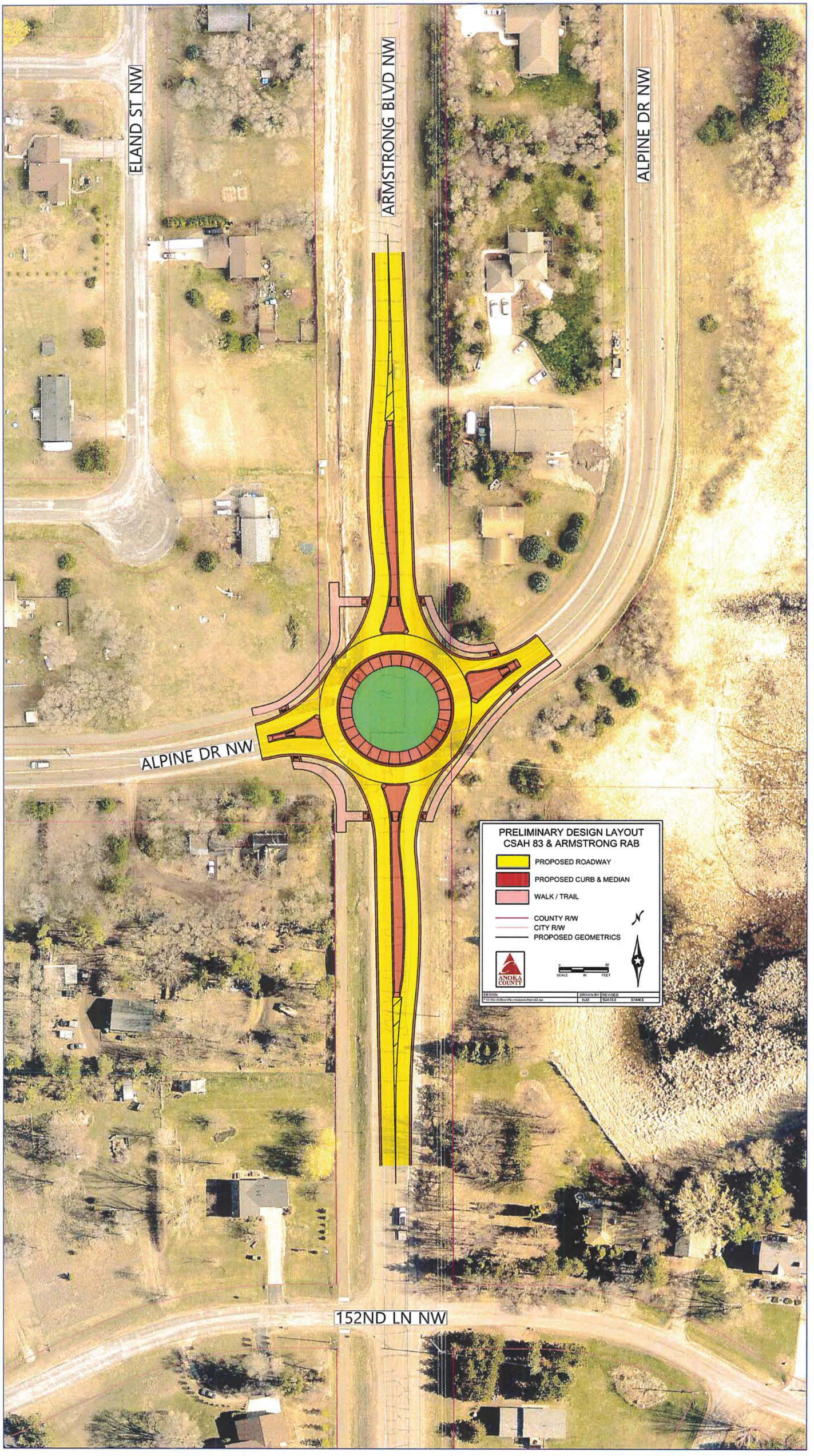
Motion to approve a Letter of Support for Anoka County's Highway Safety Improvement Program grant application for construction of a roundabout at the intersection of CSAH 83/Armstrong Boulevard and Alpine Drive.

Attachments

Conceptual Layout
Letter of Support
AC Cost Share Policy

Form Review

Inbox	Reviewed By	Date
Kurt Ulrich	Kurt Ulrich	08/02/2018 03:45 PM
Form Started By: Bruce Westby		Started On: 07/31/2018 08:16 AM
Final Approval Date: 08/02/2018		


ELAND ST NW
ARMSTRONG BLVD NW
ALPINE DR NW
ALPINE DR NW
152ND LN NW
PRELIMINARY DESIGN LAYOUT
CSAH 83 & ARMSTRONG RAB
PROPOSED ROADWAY
PROPOSED CURB & MEDIAN
WALK / TRAIL
COUNTY R/W
CITY R/W
PROPOSED GEOMETRICS
ANOKA COUNTY
SCALE: IN = FEET
DESIGN
DRAWN BY
REVISED
RJD
DATE
STAKES

City of RAMSEY

7550 Sunwood Drive NW • Ramsey, MN 55303
City Hall: 763.427.1410 • Fax: 763.427.5543
www.cityoframsey.com

August 6, 2018

Doug Fischer, P.E.
Anoka County Division Manager / County Engineer
2100 Third Avenue
Anoka, MN 55303-2270

RE: Support for CSAH 83 & Alpine Drive Roundabout HSIP Application

Dear Mr. Fischer,

The City of Ramsey acknowledges that Anoka County plans to apply for Highway Safety Improvement Program (HSIP) funding to improve safety at the skewed intersection of CSAH 83/ Armstrong Blvd and Alpine Drive NW by constructing a roundabout. This intersection is of noted concern given the skewed angle of the intersecting roads, which reduces visibility, the higher than average number of reported crashes at this intersection, and the regional importance of CSAH 83/ Armstrong Blvd for both City and County residents.

The City of Ramsey supports the County's efforts to address geometric issues and safety concerns at this intersection. Improvements at this intersection will improve safety and will support all modes of transportation, and will serve regional and local businesses and residents. The City also supports the County's efforts to pursue funding through various federal and state transportation programs, including the Highway Safety Improvement Program, understanding that the City will be required to split local costs with Anoka County per the County's cost share policy.

The City of Ramsey appreciates the County's efforts to address the noted safety concerns at the intersection of CSAH 83/Armstrong Blvd and Alpine Drive NW, and will commit to operating and maintaining the Alpine Drive legs of the roundabout should it be selected to receive funding for construction through HSIP.

Sincerely,

Kurt Ulrich
Ramsey City Administrator

EXHIBIT "C"

COST-SHARING AGREEMENT
FOR PROJECTS CONSTRUCTED IN ANOKA COUNTY
USING COUNTY STATE AID FUNDS OR LOCAL TAX LEVY DOLLARS

ITEMS	COUNTY SHARE	CITY SHARE
Concrete Curb & Gutter	50%	50%
Concrete Curb & Gutter for Median Construction	100%	0%
Concrete Median	100%	0*1
Concrete Sidewalk	0%	100%
Concrete Sidewalk Replacement	100%	0%
Bikeways	0%	100%
Bikeway Replacement	100%, Unless existing trail not placed at edge of R/W	0%
Construction or Adjustment of Local Utilities	0%	100%
Grading, Base and Bituminous	100%	0%
Storm Sewer	based on state aid letter*2	based on state aid letter*2
Driveway Upgrades	100%, in-kind	100%, of up-grades
Traffic Signals, new & replacements (communities larger than 5,000) w/ State Aid approved SJR	½ the cost of its legs of the intersection	the cost of its legs of the intersection plus ½ the cost of the County legs of the intersection
Traffic Signals, new & replacements (communities less than 5,000) w/ State Aid approved SJR	100%	0%
Traffic Signal, w/o State Aid approved SJR	0%	100%
EVP	0%	100%
Engineering Services	*3	*3
Right-of-Way	100%*4	0%
Street Lights	0%	100%
Noise Walls	100%, if not previously notified*5	100%, if previously notified*5

*1 The County pays for 100% of Standard Median Design such as plain concrete. If a local unit of government requests decorative median such as brick, stamped concrete, or landscaping, the local unit will pay the additional cost above the cost of standard median.

*2 In the event no State Aid is being used, or in the event the state aid letter does not determine cost split percentages, drainage cost shares will be computed by the proportion of contributing flow outside the County right of way to the total contributing flow.

*3 Engineering shall be paid by the Lead Agency except that any participating agency will pay construction engineering in the amount of 8% of the construction costs paid by that agency.

*4 In the event that the Township or City requests purchase of right-of-way in excess of those right-of-ways required by County construction, the Township or City participates to the extent an agreement can be reached in these properties. For instance, a Township or City may request a sidewalk be constructed alongside a County roadway which would require additional right-of-way, in which case the Township or City may pay for that portion of the right-of-way. Acquisition of right-of-way for new alignments shall be the responsibility of the Township or City in which the alignment is located. This provision may be waived by agreement with the County Board if the roadway replaces an existing alignment and the local unit of government takes jurisdiction of that existing alignment. In addition, any costs, including right-of-way costs, incurred by the County because a Township or City did not acquire sufficient right-of-way during the platting process or redevelopment process as requested by the County shall be paid by the Township or City.

*5 Notification includes any letter to the agency indicating that noise will potentially be an issue in the future, likely received during the Plat Review Process. Maintenance shall be the responsibility of the agency paying for the initial installation. When the County is the responsible agency, it shall pay 100% of Standard Noise Wall Cost. If a local agency requests decorative noise walls, the requesting agency will pay the additional cost above the cost of standard noise wall.

DRAFT

CC Regular Session **7. 3.**

Meeting Date: 08/06/2018

Information

Title:

Receive Update on Highway 47 Plan

Purpose/Background:

City Staff is working on a Highway 47 plan to improve the image of the corridor. Staff would like to update the City Council on its recent items in relation to the plan including feedback from the Highway 47 Kickoff Meetings held on July 26 and 27.

Twelve residents signed in during the two meetings and helped identify key issues along the Highway 47 corridor. The key issues for participants appeared to be:

- Traffic
- Trails, Connections, Landscaping
- Safety
- Signage (Trails, Parks, etc.)
- Noise (extending/constructing noise walls in key priority residential areas)
- Streetscape/Landscaping at Key Nodes (such as Bunker Lake Boulevard and 167th Avenue)
    - Branding the 167the Retail Node as the Elmcrest District to draw attention to access to Elmcrest Park.
- Code Enforcement

Next Steps

- Staff is following up with individual property owners for multipe code enforcement cases.
- Staff is working with the MnDOT to discuss a potential landscape partnership project along Highway 47. MnDOT is potentially providing the services of a Landscape Architect. Additionally, there may be some captial dollars for landcape improvements.
- Staff is working to get construction documents for the new Welcome Sign at the intersection of Highway 47 and Bunker Lake Boulevard.
- Staff will create a work session topic in October or November to discuss and prioritize key issues.
    - Public Workshop #2 (Did we hear your ideas correctly? Are these the right solutions?) will occur in late 2018/early 2019
    - Public Workshop #3 (Adopt the Plan) will occur in mid-2019
- Staff is looking into pricing for online mapping systems for others to participate easily on an ongiong basis.

Staff expects that participation in the project will increase as residents see actual plans and designs for the corridor. Staff hopes to increase participation through direct mailings, the use of social media, and word of mouth.

Attachments

Work Plan

Form Review

Inbox	Reviewed By	Date
Tim Gladhill	Chloe McGuire Brigl	07/30/2018 02:01 PM
Tim Gladhill	Tim Gladhill	07/31/2018 10:40 AM
Tim Gladhill	Tim Gladhill	07/31/2018 03:55 PM

Kurt Ulrich Kurt Ulrich 08/02/2018 01:48 PM
Form Started By: Chloe McGuire Brigl Started On: 07/27/2018 10:06 AM
Final Approval Date: 08/02/2018

Highway 47 Corridor Study: Work Plan

Strategic Initiative	Department and Responsible Party	Tactics	Initiation Date	Completion Date	Tools Required	Key Outcomes
Create Highway 47 Committee	Community Development Dept – Chloe	-Advertise for committee positions a. Choose meeting dates in advance so people know if they are available b. Send to Ramsey Resident for May/June edition -Interview, if needed, and choose committee members -Email all applicants	May/ June 2018 April 2018 April 2018 End of June 2018 End of June 2018	July 1, 2018	-Online application -Advertisements on Facebook -Advertisement in Ramsey Resident Guide -Advertise on website	Create Highway 47 Committee
Publish Online Interactive Map for Committee Comment	Community Development Dept – Chloe	Create online interactive map and have committee members respond to map	July 10, 2018	July 24, 2018	Online interactive map	-Compiled map of issues -Areas of focus from committee members
Drive of Highway 47	Community Development Dept – Chloe	Drive Highway 47, take pictures of specific areas, take notes and make observations	July 16, 2018	July 20, 2018	Nice camera Car	Detailed notes of area geographically and photos of the area to use in future planning efforts
Create Meeting #1 Packet, Send to Committee Members	Community Development Dept – Chloe	Compile map comments Send agenda for meeting	July 25, 2018	July 31, 2018	N/A	Published agenda and packet of information for first committee meeting

Committee Meeting #1	Community Development Dept – Chloe, Tim	First meeting agenda: • Physical map of Highway 47 • Post it's – work towards problem statement • Begin starting the vision statement	N/A	August 7, 2018	-Meeting room -Physical map -Large scale visioning exercise	-Draft vision statement -Draft of issues along Highway 47 -Draft problem statement
Hold Community Workshop	Community Development Dept – Chloe, Tim	-Provide community opportunity to identify issue areas on paper maps -Put online map for those who can't attend meeting	N/A	August 14, 2018	-Interactive online map -Paper maps	-Provide draft map of issues -Provide draft vision statement and draft problem statement
Summarize Meeting #1 and Workshop for Planning Commission	Community Development Dept – Chloe	Inform council on potential issues and problem statement	N/A	September 6, 2018	Interactive online map	-Provide draft map of issues -Provide draft vision statement and draft problem statement
Summarize Meeting #1 and Workshop for EDA	Community Development Dept – Chloe	Inform council on potential issues and problem statement	N/A	??	Interactive online map	-Provide draft map of issues -Provide draft vision statement and draft problem statement
Summarize Meeting #1 and Workshop for Council	Community Development Dept – Chloe	-Inform council of what is happening -Get feedback on vision statement	N/A	September 11, 2018	Interactive online map	Provide draft vision statement

Committee Meeting #2	Community Development Dept – Chloe, Tim	First meeting agenda: • Agree on vision statement • Mapping exercise • Draft solutions	N/A	November 6, 2018	N/A	-Finalized problem statement -Finalized vision statement -Draft solutions -Agree on how to tackle plan
Hold Community Workshop	Community Development Dept – Chloe	-Get community input on draft solutions -Provide vision statement -Provide problem statement	N/A	November 13, 2018		-Show finalized vision statement -Work on draft solutions
Summarize Meeting for EDA, PC, CC	Community Development Dept – Chloe	-Provide vision statement -Provide problem statement -Provide draft solutions	N/A	November 15, 2018		-Get feedback on solutions -Inform of problem and vision statements (they are finalized)
Committee Meeting #3	Community Development Dept – Chloe, Tim	First meeting agenda: -Agree on solutions -Agree on plan outline	N/A	February 5, 2019		-Agree on solutions -Agree on plan outline
Hold Community Workshop	Community Development Dept – Chloe	-Advertise last community workshop and inform residents of draft plan	N/A	February 12, 2019	-Draft Plan -Meeting room	-Share information about plan, show draft plan to community members
Summarize Meeting for EDA, PC, CC	Community Development Dept – Chloe	-Provide information on solutions -Provide plan outline	N/A	?		

Finalization of Strategic Plan	Community Development Dept – Chloe, Tim	Finalize plan	Feb 6, 2019	March 15, 2019	Adobe Suite	Finished plan!

Our Mission: To work together to resposibly grow our community, and to provide quality, cost-effective, and efficient government services.

CC Regular Session **7. 4.**

Meeting Date: 08/06/2018

By: Tim Gladhill, Community Development

Information

Title:

Adopt Resolution #18-167 Approving Response to Draft Anoka County 2040 Comprehensive Plan Update

Purpose/Background:

The purpose of this case is to review and respond to the Draft Comprehensive Plan Update for Anoka County.

Once every ten years, metro area communities must update their long-term land use plan and vision. As part of that update process, adjacent and impacted jurisdictions are afforded the opportunity to review and comment on adjacent plans.

Notification:

Notification is not required.

Observations/Alternatives:

Staff has prepared a draft response for consideration by the City Council. Details of the response are in the attached document. Highlights of the response include, but are not limited to the following.

- Overview of Ramsey's Vision and Updated Land Use Plan
- Priorities of Ramsey's Highway 10 Plan
- Request for increased prioritization for planning for a Future Mississippi River Crossing
- Additional corridor planning for Highway 47, Nowthen Boulevard, Armstrong Boulevard, Green Valley Road, and 181st Avenue
- Reviewing options to increase ridership from the Northstar Commuter Rail - Ramsey Station
- Discussion alternative alignments for Central Anoka County Regional Trail, Rum River Regional Trail, and Regional Trail Search Corridor for Trott Brook

Funding Source:

This case is being handled as part of normal Staff duties.

Recommendation:

Staff recommends approval of the attached response.

Action:

Motion to adopt Resolution #18-167 approving response to the Draft Hennepin County Comprehensive Plan.

Attachments

Anoka County Transportation Plan

Draft Response

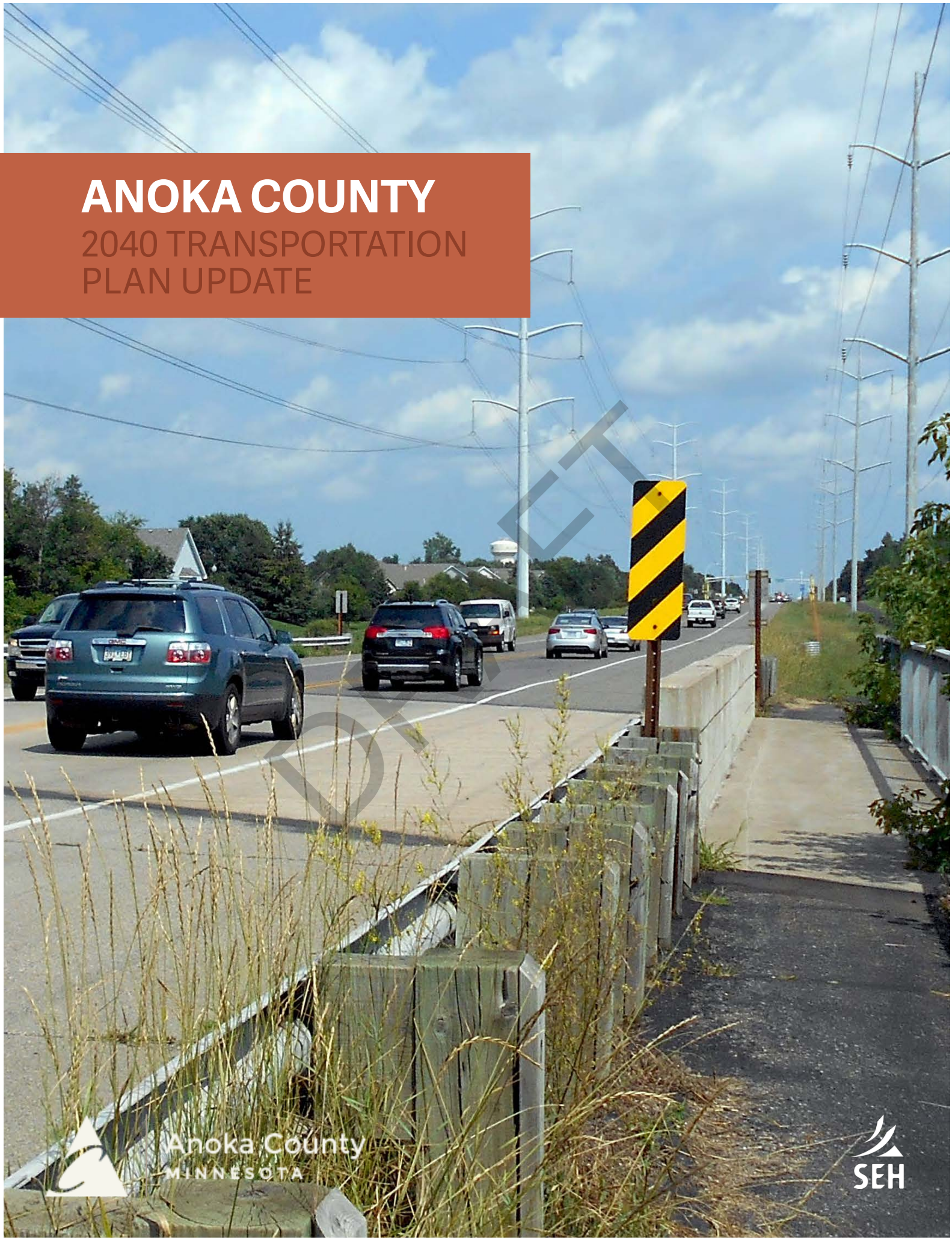
Resolution #18-167

Form Review

Inbox	Reviewed By	Date
Tim Gladhill (Originator)	Tim Gladhill	08/02/2018 09:39 AM
Kurt Ulrich	Tim Gladhill	08/02/2018 09:43 AM
Tim Gladhill (Originator)	Tim Gladhill	08/02/2018 09:49 AM
Kurt Ulrich	Kurt Ulrich	08/02/2018 01:42 PM
Form Started By: Tim Gladhill		Started On: 05/22/2018 09:25 AM
Final Approval Date: 08/02/2018		

ANOKA COUNTY

2040 TRANSPORTATION PLAN UPDATE



ANOKA COUNTY
2040 TRANSPORTATION PLAN UPDATE

MAY 2018

DRAFT

PREPARED FOR:

Anoka County
MINNESOTA
Respectful, Innovative, Fiscally Responsible

PREPARED BY:

SEH
Building a Better World for All of Us®

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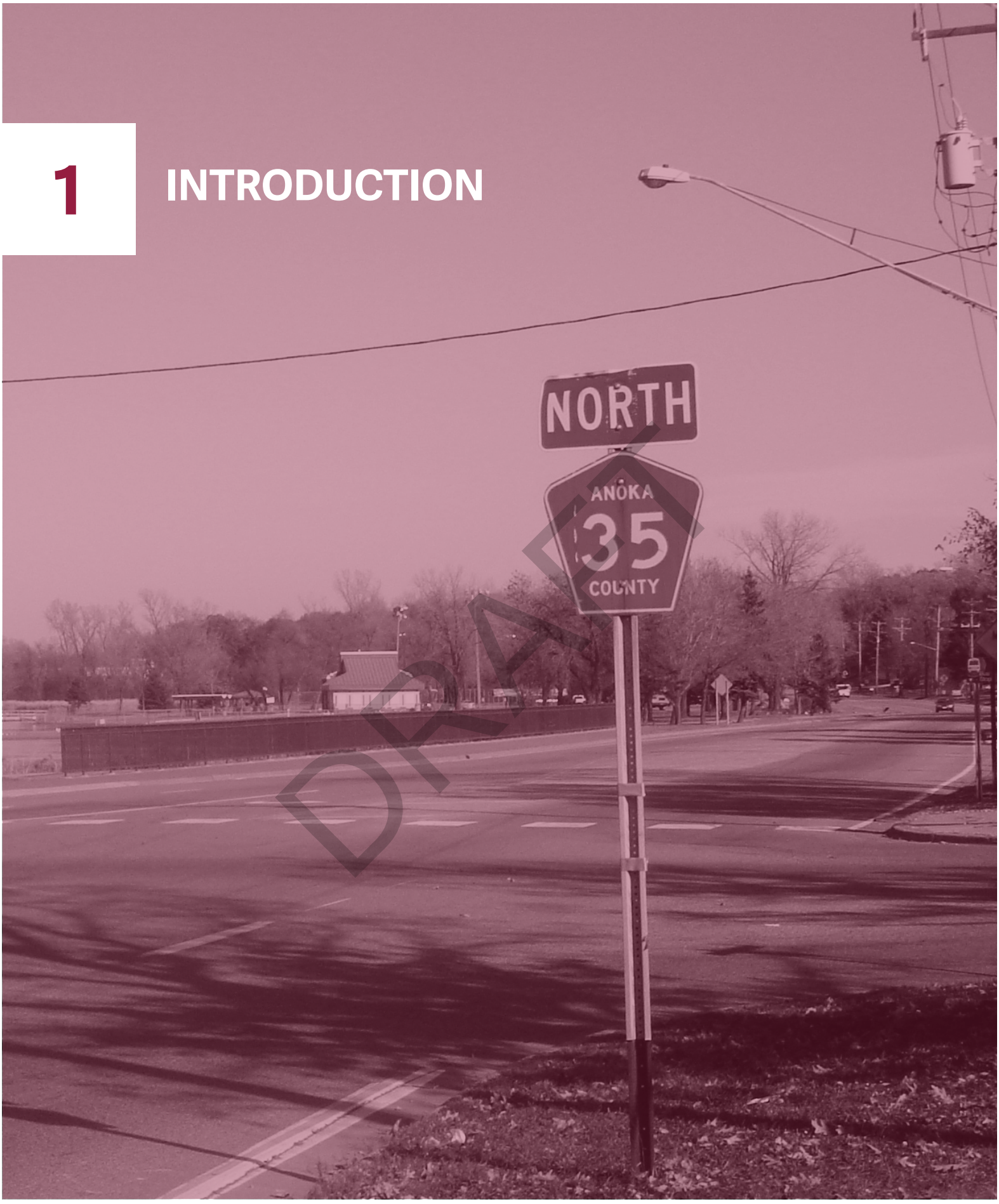
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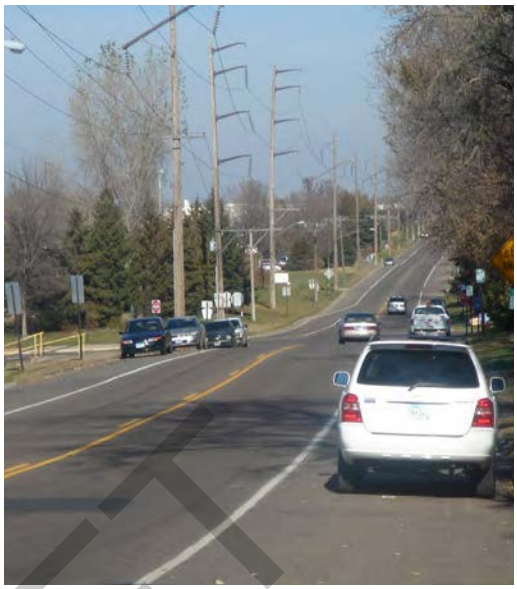
DRAFT

1 INTRODUCTION



DRAFT

The 2040 Transportation Plan is Anoka County's highest level policy plan for transportation. This plan communicates the transportation system needs and sets goals, priorities, and funding strategies to guide the County's infrastructure investments over the next several decades. It also enables other public and private organizations to plan their activities in coordination with the County.



Roadway in Anoka County (Source: Anoka County)

1.1 PLAN UPDATE PROCESS

State law requires that all incorporated cities, counties, and townships within the seven-county metropolitan region must update their Comprehensive Plans every ten years to align with the Metropolitan Council's regional system plans for highways, transit, airports, wastewater services, and parks. Anoka County's transportation plan was last updated in 2009. This update is focused on addressing the requirements outlined in the Metropolitan Council's Local Planning Handbook for 2017 and preparing an implementation plan that is reflective of the continued funding constraints faced by the County, the local communities, and the State. This update has also been guided by a Project Management Team which consisted of participants from the following organizations: Anoka County Highway Department, Anoka County Department of Parks and Recreation, Anoka County Transit, Metropolitan Council, the Minnesota Department of Transportation (MnDOT), and consultant team.

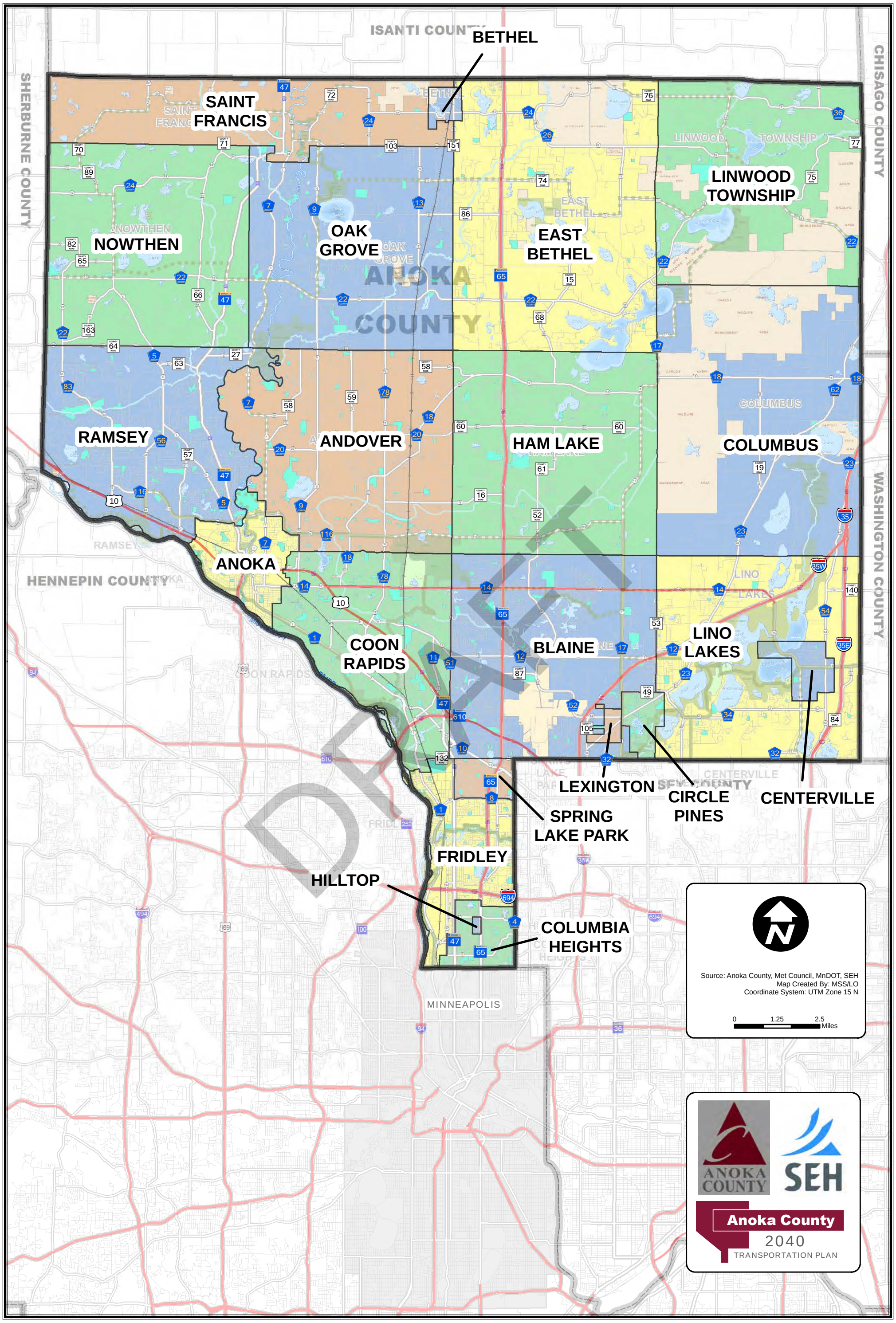
DRAFT

1.2 RELATIONSHIP TO THE FIVE-YEAR IMPROVEMENT PROGRAM

The Anoka County Highway Department Five-Year Improvement Program is published annually and identifies upcoming projects. The goals and recommendations identified in this 2040 Transportation Plan will form the basis of future five-year improvement program documents.

1.3 PARTNERS

Implementing the strategies identified in this plan requires partnerships. As shown on Figure 1, Anoka County is comprised of 20 cities and one township. Throughout the entire update process, Anoka County sought input from the public and transportation partners. This effort included individual meetings with staff from each city at the onset of the planning process to discuss planned development activities and to gain a better understanding of the priorities of each city as it relates to this planning process. These meetings are discussed in more detailed in Section 5.1.



ANOKA COUNTY
COMMUNITIES

FIGURE **1**



Roadway sign for Columbia Heights (Source: Anoka County)

1.4 OVERVIEW OF THE PLAN

The plan is organized by the following chapters:

Chapter 1 – Introduction;

Chapter 2 – Transportation Goals identifies the vision for the transportation system in Anoka County and introduces the goals, objectives, performance measures and strategies framework for the Plan;

Chapter 3 – Existing Conditions describes the existing transportation system within the County, its use and condition and how each type of transportation is funded;

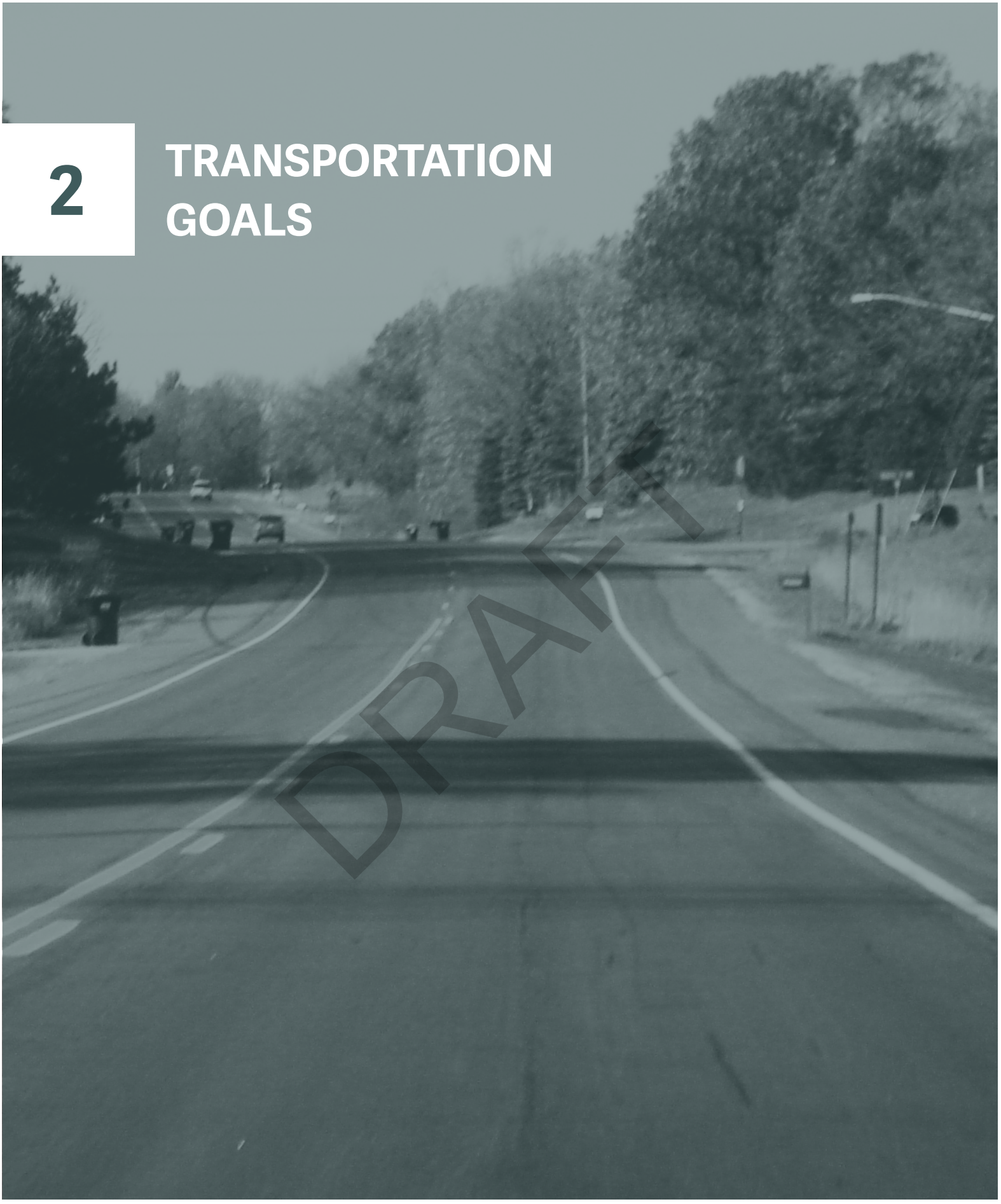
Chapter 4 – Forecast Conditions describes the challenges and opportunities facing the transportation system, including key trends that could influence and impact Anoka County's road system in the next 20 years (e.g., population, economy, travel behavior, technology, and roadway design);

Chapter 5 – Collaboration with Communities, Agencies and the Public describes the public and stakeholder engagement activities that have informed the development of this Plan; and

Chapter 6 – Improvement Strategies and Implementation sets priorities for transportation project investments based on needs and challenges.

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2 TRANSPORTATION GOALS



Anoka County is committed towards making its highways and bridges, transit systems, air transportation, and freight systems safe, efficient and cost-effective. A performance-based planning process has been followed for this plan and includes, for the first time all of the following, the identification of goals, objectives, performance measures and targets, and strategies. Each of these elements are defined in greater detail below.



Roadway in Anoka County (Source: Anoka County)

Goals – A goal is a broad statement that describes a desired end state. Transportation planning goals represent key priorities for desired outcomes for the transportation system and/or for society as a whole. Goals are typically broad, visionary statements focused on key priority topics.

Objectives – An objective is a specific, measurable statement that support the achievement of goals. Transportation objectives describe an achievable outcome within constraints (timeframe, funding). Objectives are more specific than goals and there often multiple objectives for every goal.

Performance Measures and Targets – Performance measures and associated targets serve as the basis for measuring objectives with technical analysis and data. Performance measures are used to compare alternative plan strategies and for tracking performance over time. Performance measures and targets can also be used to identify the location, extent, and intensity of travel needs or deficiencies.

Strategies – Strategies describe actions that can or will be taken to address goals and objectives. Strategies describe the role of programs, policies, and priorities in determining a list of projects and services for investment. Strategies can also address guiding principles for how implementing partners will act to progress toward goals and objectives.

Overall, Anoka County has identified five broad goals for its transportation system (listed below), which are closely aligned with the Metropolitan Council's 2040 Transportation Policy Plan (TPP).

- Transportation System Stewardship
- Safety and Security
- Access to Destinations
- Competitive Economy
- Healthy Environment

Each transportation goal is described in greater detail below. The goals are numbered for ease of use and do not reflect prioritization.

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2.1 GOAL 1: TRANSPORTATION SYSTEM STEWARDSHIP

The County seeks to strategically preserve, maintain, and operate system assets.



Roadway in Anoka County (Source: Anoka County)

Transportation System Stewardship Objectives

With this broad, long-term goal in mind, the County has identified the following objectives to help realize this transportation system stewardship goal by 2040:

- Efficiently preserve and maintain the County transportation system in a state of good repair; and
- Operate the County transportation system to efficiently and cost-effectively connect people and freight to destinations.

Transportation System Stewardship Performance Measures

Performance measures and associated targets have been identified to help track progress and evaluate the effectiveness of the County's actions on achieving the transportation system stewardship objectives (see Table 1).

The pavement and bridge condition performance measures are described in greater detail in the following sub-sections.

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Table 1 - Transportation System Stewardship Performance Measures

Performance Measure		Anoka County Target
Pavement Condition	Percentage of County Roadway Pavement in Good Condition	≥ 60%
	Percentage of County Roadway Pavement in Poor Condition	≤ 3%
Bridge Condition	Percentage of County Bridges by Deck Area in Good Condition	≥ 50%
	Percentage of County Bridges by Deck Area in Poor Condition	≤ 2%

Pavement Condition Performance Measure Explanation

Anoka County's decision to repave or overlay a roadway is assisted by monitoring the Pavement Quality Index (PQI), which quantifies the pavement condition based on surface distress and wheel path roughness. The PQI rating system ranges from 0 to 100, with 100 being the best quality roadway. The County classifies PQI using the following categories:

- Very Good (81-100)
- Good (61-80)
- Fair (41-60)
- Poor (21-40)
- Very Poor (1-20)

When a roadway drops below the minimum thresholds (which vary depending on the traffic volume, as identified below), the County will either plan to recondition the pavement surface or reconstruct it.

- Road Segments with Average Annual Daily Traffic (AADT) >11,001 and PQI <60
- Road Segments with AADT 6,001 – 11,000 and PQI <55
- Road Segments with AADT 3,001 - 6,000 and PQI <50
- Road Segments with AADT < 3,000 and PQI <45

Bridge Condition Performance Measure Explanation

The bridges on the county road system are inspected on a regular basis for safety and condition. The Bridge Structural Condition Rating is a broad measure of the structural condition of a bridge (or culvert). Each bridge is categorized as "Good," "Satisfactory," "Fair," or "Poor" by using 4 National Bridge Inventory (NBI) condition ratings and 2 NBI appraisal ratings.

Bridges are typically rated in three components – deck, superstructure and substructure. If a bridge spans over a waterway, the channel must also be rated. The 4 NBI condition ratings are Deck Condition, Superstructure Condition, Substructure Condition, and Culvert Condition. The 2 NBI appraisal ratings are Structural Evaluation and Waterway Adequacy. Condition Ratings and Appraisal Ratings use a scale from 0 to 9 where 9 is "Excellent" and 0 is "Failed." The criteria for the 4 categories are identified in Table 2. If a bridge qualifies in more than one category, it is placed in the poorest category.

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Table 2 - Bridge Structural Condition Rating Definition

Measures	NBI Condition Ratings				NBI Appraisal Ratings	
	Deck	Super Structure	Sub Structure	Culvert	Structural Evaluation[5]	Waterway Adequacy[6]
Good[1]	≥ 7	≥ 7	≥ 7	≥ 7	≥ 6	≥ 6
Satisfactory[2]	6	6	6	6	5	5
Fair[3]	5	5	5	5	3 or 4	3 or 4
Poor[4]	≤ 4	≤ 4	≤ 4	≤ 4	≤ 2	≤ 2

Table Notes:
[1] Good Condition = If all of the condition ratings (deck, superstructure, substructure, or culvert) are 7 or greater, and both of the appraisal ratings (structural evaluation and waterway adequacy) are 6 or greater.
[2] Satisfactory Condition = If any of the condition ratings (deck, superstructure, substructure, or culvert) are 6, or either of the appraisal ratings (structural evaluation or waterway adequacy) are 5.
[3] Fair Condition = If any of the condition ratings (deck, superstructure, substructure, or culvert) are 5, or either of the appraisal ratings (structural evaluation or waterway adequacy) are 3 or 4.
[4] Poor Condition = If any of the condition ratings (deck, superstructure, substructure, or culvert) are 4 or less, or either of the appraisal ratings (structural evaluation or waterway adequacy) are 2 or less. (This is defined as Structurally Deficient).
[5] Structural Evaluation is an appraisal rating that in plain English describes an overall rating of the condition of the bridge structure. This is the summary of the separately rated conditions of the structural components of the bridge. This is the truest measure in the National Bridge Inventory of the structural fitness of a bridge.
[6] The Waterway Adequacy Appraisal Rating is a general assessment of the waterway opening with respect to the passage of flow through the bridge. This rating is based upon the frequency of "overtopping" of the bridge and approach (and the resultant traffic delays). The functional class of the roadway is also taken into consideration.

Source: Minnesota Department of Transportation

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Transportation System Stewardship Strategies

The following list of strategies have been identified to achieve this transportation system stewardship goal and related objectives:

- Place the highest priority for transportation investments on strategically preserving, maintaining, and operating the transportation system; and
- Regularly review planned maintenance preservation and reconstruction projects to identify cost-effective opportunities to incorporate improvements for safety, lower-cost congestion management and mitigation, strategic capacity, transit, bicycle and pedestrian facilities.

2.2 GOAL 2: SAFETY AND SECURITY

The County seeks to provide a safe and secure transportation system for all users.

Safety and Security Objectives

With this broad, long-term goal in mind, the County has identified the following objectives to help realize this safety and security goal by 2040:

» Reduce crash rate and improve safety and security for all modes of passenger travel and freight transport; and

» Reduce the transportation system's vulnerability to natural and man-made incidents and threats.

Safety and Security Performance Measures

Performance measures and associated targets have been identified to help track progress and evaluate the effectiveness of the County's actions on achieving these objectives on all roadway systems in Anoka County (see Table 3).

Table 3 - Safety and Security Performance Measures and Targets

Performance Measure	Anoka County Target
Total Number of Fatalities Resulting from Crashes Involving a Motor Vehicle	0
Traffic Fatality Rate on All County Roadways (per 100 million VMT)	0
Total Number of Serious Injuries Resulting from Crashes Involving a Motor Vehicle	0
Serious Injury Rate on All County Roadways (per 100 million VMT)	0
Total Number of Non-Motorized Fatalities and Serious Injuries	0

Safety and Security Strategies

The following list of strategies have been identified to achieve this safety and security goal and related objectives:

» Incorporate safety and security considerations for all modes and users throughout the processes of planning, funding, construction and operation;

» Work with local, state, and federal public safety officials, including emergency responders, to protect and strengthen the role of the regional transportation system in providing security and effective emergency response to serious incidents and threats;

» Monitor and routinely analyze safety and security data by mode, severity and location to identify priorities and progress;

» Support the state's vision of moving toward zero traffic fatalities and serious injuries, which includes supporting educational and enforcement programs to increase awareness of regional safety issues, shared responsibility, and safe behavior (created in 2003, the Minnesota Toward Zero Deaths or TZD is the state's cornerstone traffic safety program); and

» Use best practices to provide and improve facilities for safe walking and bicycling, since pedestrians and bicyclists are the most vulnerable users of the transportation system.

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2.3 GOAL 3: ACCESS TO DESTINATIONS

The County seeks to strategically improve mobility and reliability at high priority locations on its transportation system.

Access to Destinations Objectives

With this broad, long-term goal in mind, the County has identified the following objectives to help realize this access to destinations goal by 2040:

- Increase travel time reliability and predictability for travel on highway and transit systems;
- Ensure access to freight terminals such as airports, and intermodal rail yards; and
- Improve multimodal travel options for people of all ages and abilities to connect to jobs and other opportunities.

Access to Destinations Performance Measures

Traffic modeling will continue to be used to measure the performance of the transportation system in Anoka County. The Twin Cities Regional Model is described in greater detail in the following sub-section.

Twin Cities Regional Travel Demand Forecast Model Explanation



Anoka County Intersection (Source: Anoka County)

The Metropolitan Council maintains a multimodal transportation forecasting model that uses a classic, four-step travel demand modeling process. The Metropolitan Council Travel Demand Model was used for determining future travel conditions on the roadways in Anoka County. The Metropolitan Council upgraded its trip-based model to an Activity-Based Model (ABM) for its 2040 TPP and released its latest version in July 2017. Local communities are required to conduct transportation plan updates using the latest ABM model.

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In addition to data preparation and special generation aggregate models, there are four major categories of disaggregate models in the Metropolitan Council's ABM.

1. **Long-Term Models:** The models in this category capture decisions with a longer time horizon including the location of one's regular workplace, regular school location, vehicle availability, and transit and toll transponder pass ownership models. These decisions are modeled first since the outcome of these decisions influences other components of travel including mode choice and time availability for non-mandatory travel.

2. **Daily Activity Patterns:** The models in this category establish daily travel patterns at the individual level. Related to this concept is the understanding that each individual has a restricted amount of time per day that can be engaged in activities and associated travel. The daily activity patterns are simulated through a series of models including daily activity pattern, mandatory tour generation, school escorting, joint non-mandatory tour participation and individual non-mandatory tour generation models.

3. **Tour Level Models:** The models in this category incorporate interrelationship among trips that are components of a "tour" which typically departs from home, visits one or more activity locations, and then return home.

   Hierarchical rules are established to identify the appropriate nature of the tour. For instance, tours that include a mandatory destination such as work or school are defined as a work-based tour irrespective of other destinations serviced as part of this tour. The tour-level models provide an improved framework over trip-based models to represent daily travel decisions since they account for previous and subsequent trips within a tour. Overall, tour-based models account for information on modes, time-of-day, group travel, and other characteristics of travel that are clearly interrelated across trips within a tour.

4. **Trip/Stop Level Models:** Within each tour, non-primary stops are modeled as intermediate stops. For tours with intermediate stops, separate models that capture the destination of the stop, the mode of travel, and the time-of-day of travel are developed.

These models are constrained by the choices already made at the tour-level and therefore, allow for a more realistic decision-making process for every individual trip.

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Foley Park and Ride (Source: Anoka County)

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Access to Destinations Strategies

The following list of strategies have been identified to achieve this access to destinations goal and related objectives:

- Continue to work together to plan and implement transportation systems that are multimodal and provide connections between modes;
- Provide a network of interconnected highways, bicycle facilities, and pedestrian facilities to meet local travel needs;
- Promote multimodal travel options and alternatives to single occupant vehicle travel and highway congestion through a variety of travel demand management initiatives, with a focus on major job, activity, and industrial and manufacturing concentrations on congested highway corridors and corridors served by regional transit service;
- Manage and optimize the performance of the principal arterial system as measured by person throughput;
- Prioritize all regional highway capital investments based on a project's expected contributions to achieving the outcomes, goals, and objectives identified in Thrive MSP 2040 and the TPP;
- Manage access to principal and A-minor arterials to preserve and enhance their safety and capacity;

» Invest in prioritized non-freeway principal arterial intersections in accordance with the Principal Arterial Intersection Conversion Study;

» Focus investments on completing the region's Regional Bicycle Transportation Network (RBTN) alignments and their direct connections with local bicycle networks;

» Fund projects that improve key regional bicycle barrier crossing locations, provide for pedestrian travel across physical barriers, and/or improve continuity of bicycle and pedestrian facilities between jurisdictions;

» Provide or encourage reliable, cost-effective, and accessible transportation choices that provide and enhance access to employment, housing, education, and social connections for pedestrians and people with disabilities; and

» Pursue short- and long-term improvements to accommodate future freight and passenger rail demand.

2.4 GOAL 4: COMPETITIVE ECONOMY

The County seeks to support the economic competitiveness, vitality, and prosperity of Anoka County, the region and state through its transportation system.

Competitive Economy Objectives

With this broad, long-term goal in mind, the County has identified the following objectives to help realize this competitive economy goal by 2040:

» Improve multimodal access to County and regional job concentrations identified in Thrive MSP 2040;

» Invest in a multimodal transportation system to attract and retain businesses and residents; and

» Support the County and region's economic competitiveness through the efficient movement of freight.



Lot for Sale in Anoka County (Source: Anoka County)

Competitive Economy Performance Measures

No specific performance measures have been identified for this goal.

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Competitive Economy Strategies

The following list of strategies have been identified to achieve this competitive economy goal and related objectives:

- Identify and pursue the level of increased funding needed to create a multimodal transportation system that is safe, well maintained, offers modal choices, manages and eases congestion, provides reliable access to jobs and opportunities, facilitates the shipping of freight, connects and enhances communities, and shares benefits and impacts equitably among all communities and users; and
- Invest in regional transit and bicycle and pedestrian facilities that improve connections to jobs and opportunity, promote economic development, and attract and retain businesses and workers in the county on the established transit corridors.

2.5 GOAL 5: HEALTHY ENVIRONMENT

The County seeks to advance equity and contribute to communities' livability and sustainability while protecting the natural, cultural, and developed environments.

Healthy Environment Objectives

With this broad, long-term goal in mind, the County has identified the following objectives to help realize this healthy environment goal by 2040:

- Reduce transportation-related air emissions;
- Reduce impacts of transportation construction and operations on the natural, cultural, and developed environments; and
- Increase the availability of transit, bicycling, and walking to encourage healthy communities and active car-free lifestyles.

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Construction Zone on Highway 10 in Ramsey (Source: Carlos Gonzalez)



Islands of Peace County Park in Fridley (Source: Anoka County)

Healthy Environment Performance Measures

No specific performance measures have been identified for this goal.

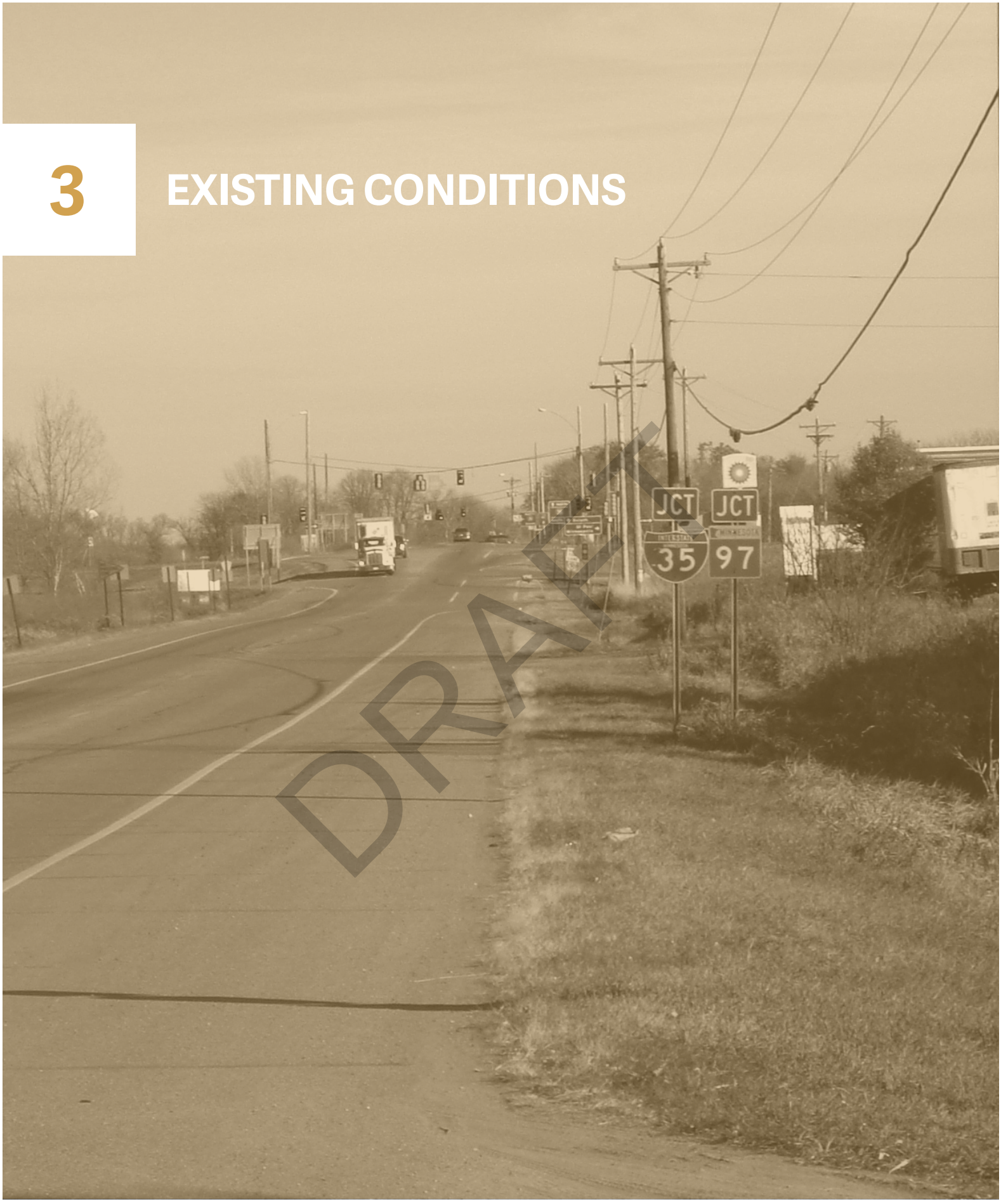
Healthy Environment Strategies

The following list of strategies have been identified to achieve this healthy environment goal and related objectives:

- Plan and implement a transportation system that considers the needs of all potential users, including children, senior citizens, and persons with disabilities, and that promotes active lifestyles and cohesive communities;
- Protect, enhance and mitigate impacts on natural resources when planning, constructing, and operating transportation systems;
- Protect, enhance and mitigate impacts on the cultural and built environments when planning, constructing, and operating transportation systems; and
- Use a variety of communication methods and eliminate barriers to foster public engagement in transportation planning.

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3 EXISTING CONDITIONS



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This chapter describes the existing transportation system within the County, its use, and condition, and how each type of transportation element is funded.



Anoka County intersection (Source: Anoka County)

3.1 EXISTING TRANSPORTATION SYSTEM

The existing transportation system in Anoka County is comprised of various modes (roadways, transit, bicycling and walking, aviation, commuter rail and freight), which are described in greater detail in the following sections.

Roadways

The roadway system is well developed and classified into categories based on function, with some roads designed primarily for mobility, or carrying longer-distance trips at higher speeds, while some roads function mainly to provide access at low speeds to adjacent properties.

Functional Roadway Classification

The functional roadway classification system, which is described in greater detail in Appendix A, consists of four classes of roadways: principal arterials (which include Interstate freeways), minor arterials, collector streets, and local streets. Figure 2 depicts the functional classification of roadways in Anoka County. The current distribution of functional classification for highways in Anoka County is shown in Table 4. Most of the county system is classified as either minor arterials (79.2 percent) or collectors (17.3 percent).

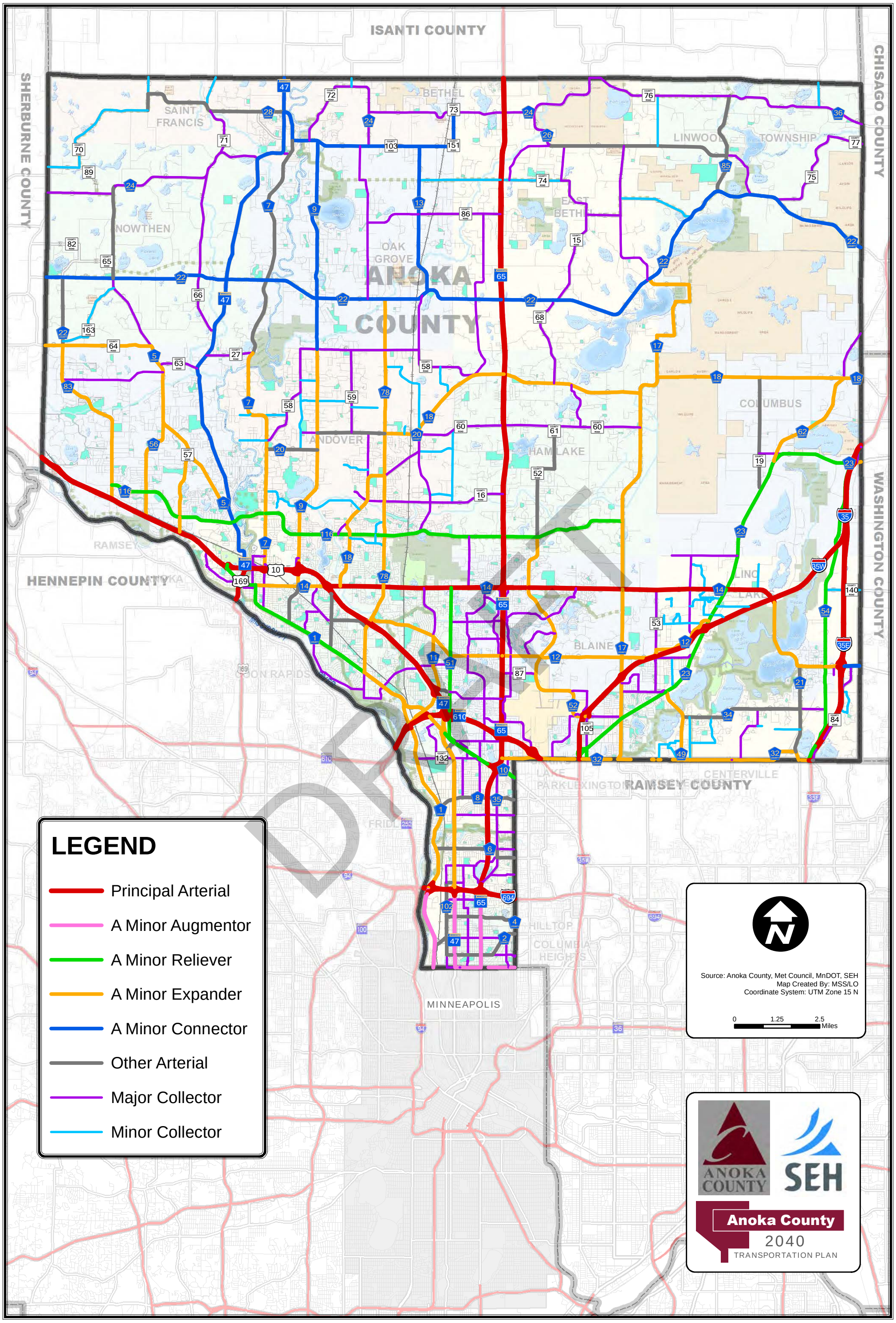
Figures 3 and 4 depict the number of through lanes for roadways in Anoka County. Figure 3 shows roadways with a raised center median (divided) and those without (undivided). Figure 4 shows roadways with curb and gutter (urban cross section) and those without (rural cross section).

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Table 4 - Centerline Mileage of Highways in Anoka County by Functional Classification, 2106

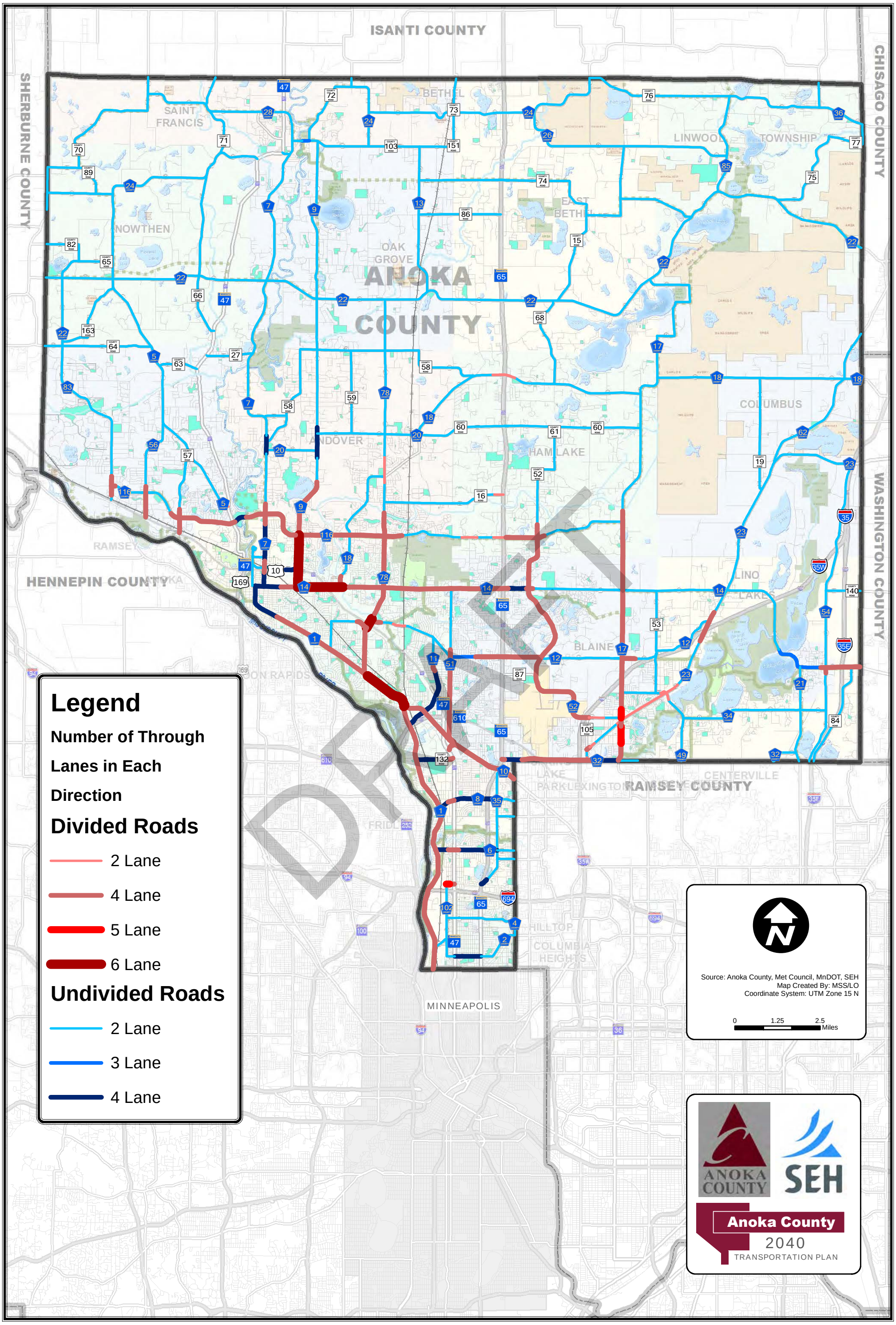
Functional Class	Miles	Percent of Roadways
Principal Arterials	82	3.5
Minor Arterials	310	13.2
Collectors	258	11.0
Local	1,706	72.4

Source: MnDOT Statewide Mileage and Lane Miles by Route System within Each County Report, 2016.



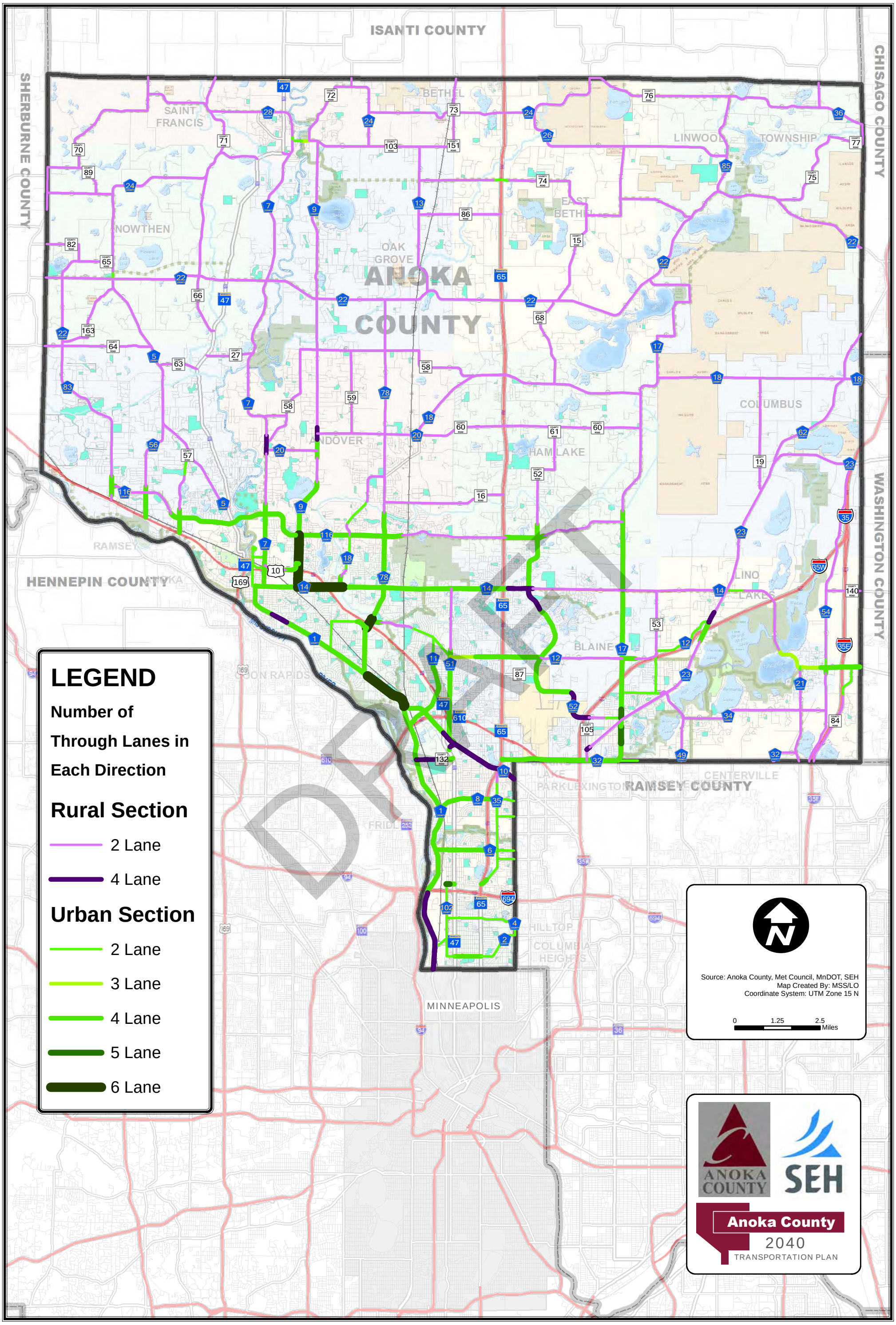
FUNCTIONAL ROADWAY CLASSIFICATION

FIGURE 2



EXISTING AND FUTURE THROUGH LANES IN EACH DIRECTION (DIVIDED / UNDIVIDED SECTION)

FIGURE **3**



EXISTING AND FUTURE THROUGH LANES IN EACH DIRECTION (RURAL / URBAN SECTION)

FIGURE **4**

Roadway Jurisdiction

Jurisdiction over roadways in Anoka County are held by the state, county, cities and a township. Generally, MnDOT maintains the interstate and trunk highway system on behalf of the State, Anoka County maintains the County State Aid Highway (CSAH) system and other county roads, and cities and townships maintain the remaining public roadways. Roadway jurisdiction is described in greater detail in Appendix B. Figure 5 depicts roadways within Anoka County under State and County jurisdiction.

When an agency has jurisdiction of a street or highway, that agency is responsible for the upkeep of that facility. These responsibilities remain with the agency until the jurisdiction is transferred to another roadway authority. All governmental agencies within Anoka County work together to ensure that roadways in the county are owned and operated by the right level of government.

Table 5 identifies the list of jurisdictional transfers that have occurred since Anoka County's transportation plan was last updated in 2009. The 11 transfers in Anoka County total 9.8 miles. Jurisdictional transfers often take place as opportunities arise, funding becomes available, or willing partners agree to the transfer. It should also be noted that all of the activity since 2009 has been turn-backs from the county to various cities, whereas the 2030 Transportation Plan lists a variety of types of jurisdictional changes.

CSAH System

CSAH roads are usually classified as "minor arterials" or "major collectors" and are usually the more heavily traveled roads on county systems. The CSAH designation allows use of funds from the Highway User Tax Distribution Fund for maintenance and construction, as outlined in the State Constitution. Overall, the state aid road system (shown in Figure 6) was developed to provide vital, high-quality connections necessary for the overall state highway network to work well. However, not all county roads are on the state aid system. The roads that are on the state aid system typically carry heavier traffic volumes, connect major points of interest (i.e. isolated towns and communities, farms to markets, parks, industrial areas, etc.), and provide an integrated and coordinated road system.

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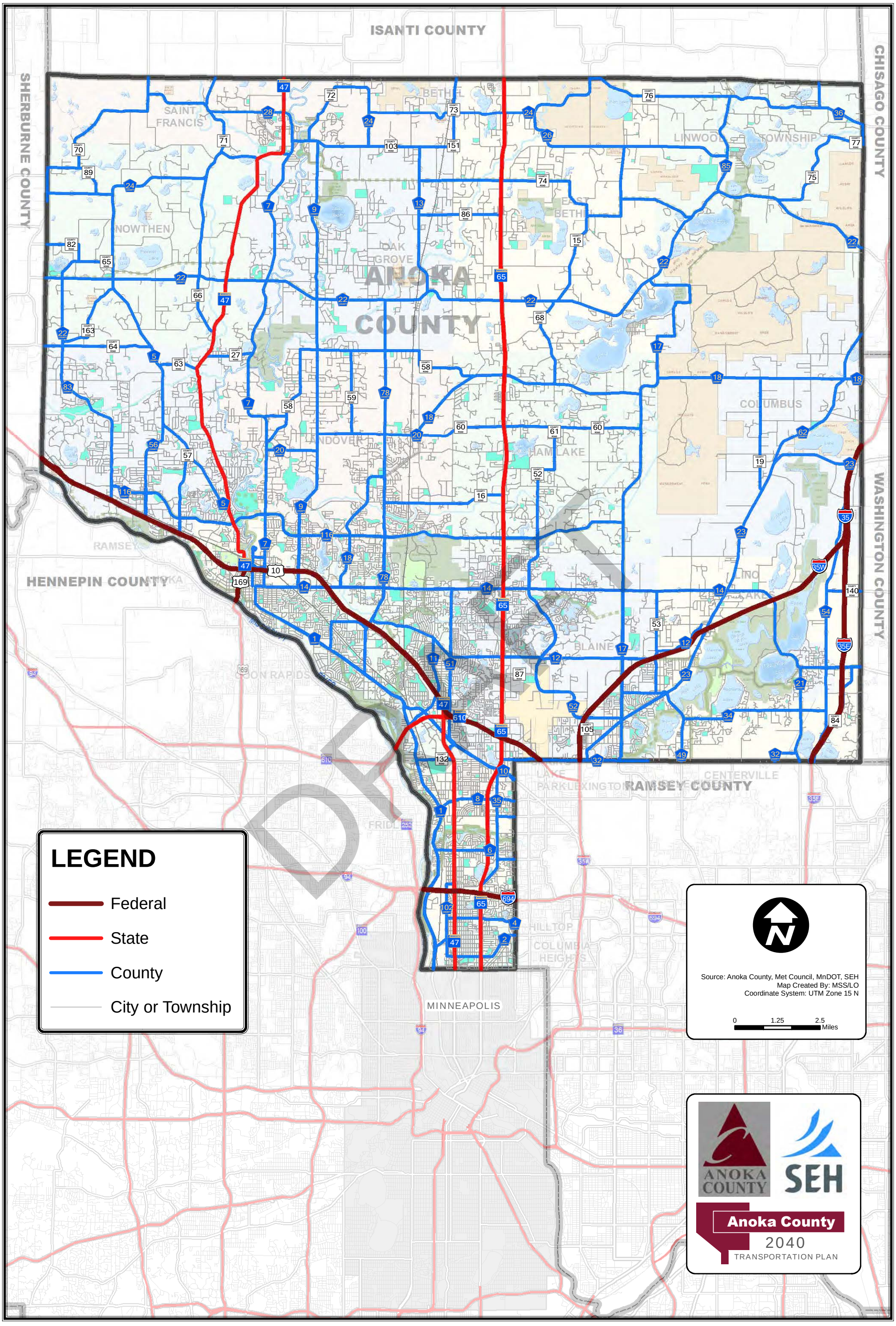
Anoka County CSAH 14 (Source: SRF Consulting)

Table 5 - Anoka County Jurisdictional Transfers Since 2009

Former Roadway Name	New Roadway Name	Mileage	Location	Former Roadway Owner	New Roadway Owner	Timeframe for Transfer as Listed in the 2030 Plan
CSAH 153	Lilac St.	0.3	4th Ave. to Apollo Drive	County	City	--
CR 81	Pederson Dr. NW	1.2	Ambassador Blvd to TH 47	County	City	Long Term (2020-2030)
CR 61	153rd Ave. NE	1.0	TH 65 to Radisson Rd	County	City	Long Term (2020-2030)
CR 153[1]	Lilac St.	1.01	Sunset Ave. to 4th Ave.	County	City	Short Term (2009-2015)
CR 153	Lilac St.	0.6	CR 53 to CSAH 23	County	City	Mid Term (2021-2030)
CR 67	Cedar Dr. NW	1.6	181st Ave. to Viking Blvd.	County	City	--
CR 105	Naples St. NE	1.0	Lake Drive to 95th Ave.	County	City	Short Term (2009-2015)
43rd Ave	43rd Ave.	0.1	Main St. to RR Yard	County	City	--
CSAH 7	7th Ave.	0.7	Coon Rapids Blvd to Main St.	County	City	--
CR 79	North St./ River-dale Dr. NW	1.3	CSAH 7 to CSAH 9	County	City	--
CR 87	105th Ave NE	1.0	TH 65 to CR 52	County	City	--
Table Notes: [1] One mile of the 1.6 miles proposed in the Long-Range Transportation Plan were transferred.						

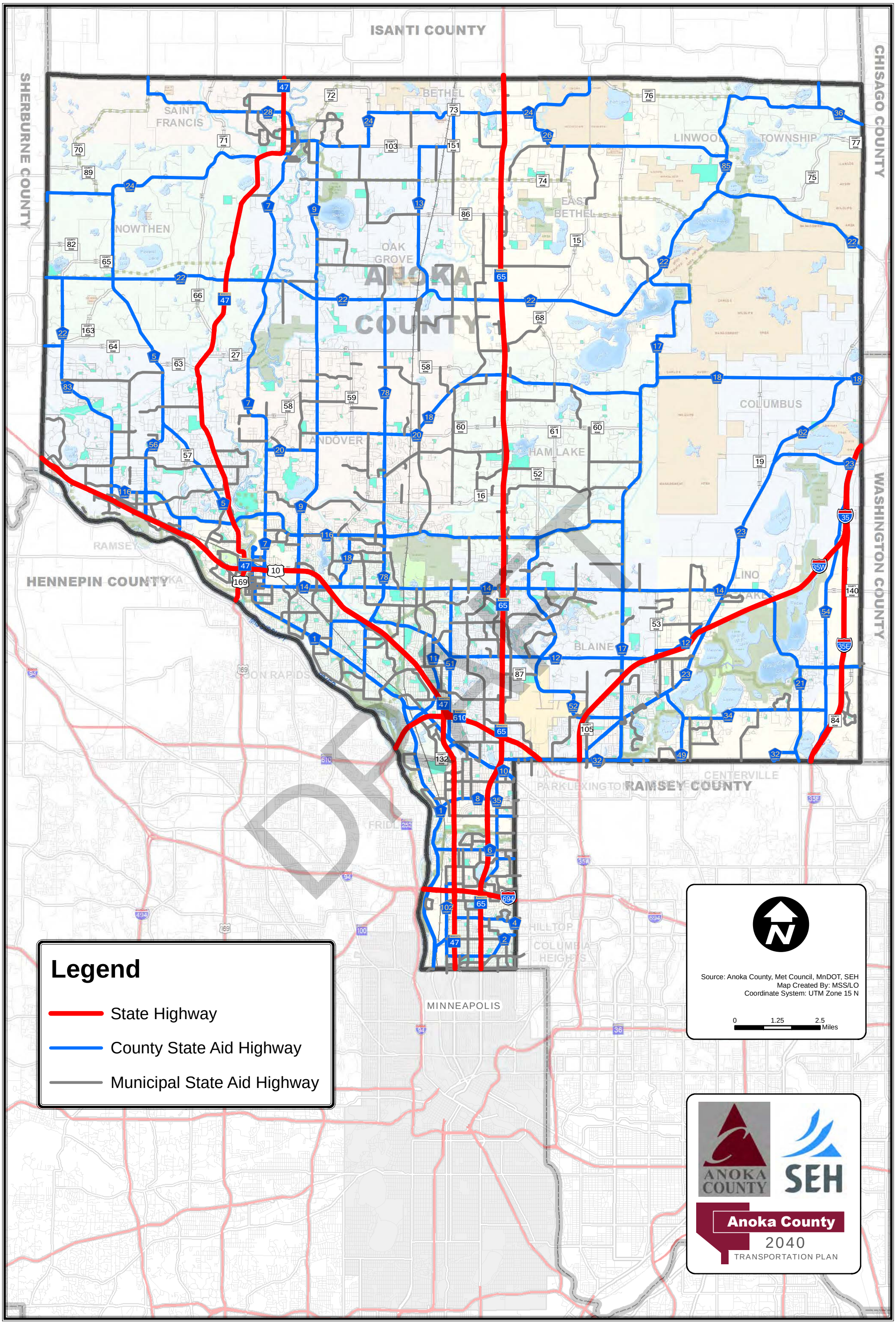
Source: Anoka County System Preservation Study, as modified by Anoka County staff in 2018

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ROADWAY JURISDICTION

FIGURE 5



STATE AID HIGHWAY SYSTEM

FIGURE 6

Existing Traffic Analysis



Traffic on Highway 169/Highway 10 in Anoka (Source: Bill Klotz)

A planning level congestion analysis was performed for the existing roadways based on the daily traffic and roadway capacity. Existing year 2015 traffic volumes and congestion levels for the roadways within the County are depicted on Figure 7. Roadway traffic congestion and operations are categorized by Level of Service (LOS) letter grades of "A" through "F". LOS A indicates the best traffic operation, with vehicles experiencing minimal delays. LOS F indicates that demand exceeds capacity and that drivers experience significant delays and traffic congestion. The Metropolitan Council defines LOS D as the minimal acceptable LOS. Table 6 illustrates the LOS categories, approximate volume-to-capacity (V/C) ratios, and a general description of the traffic operations.

The capacity of a roadway is a measure of its ability to accommodate a certain volume of vehicles. The factors affecting capacity include roadway geometric conditions such as number of lanes, design standards and traffic controls. At this planning level of analysis, the daily capacities for different roadway types were estimated based on the Highway Capacity Manual, the number of lanes, and the hourly per-lane capacity in the regional model. Table 7 summarizes the capacity for the different roadway types.

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Table 6 - Roadway Segment Level of Service Description Versus Volume-to-Capactiy Ratio

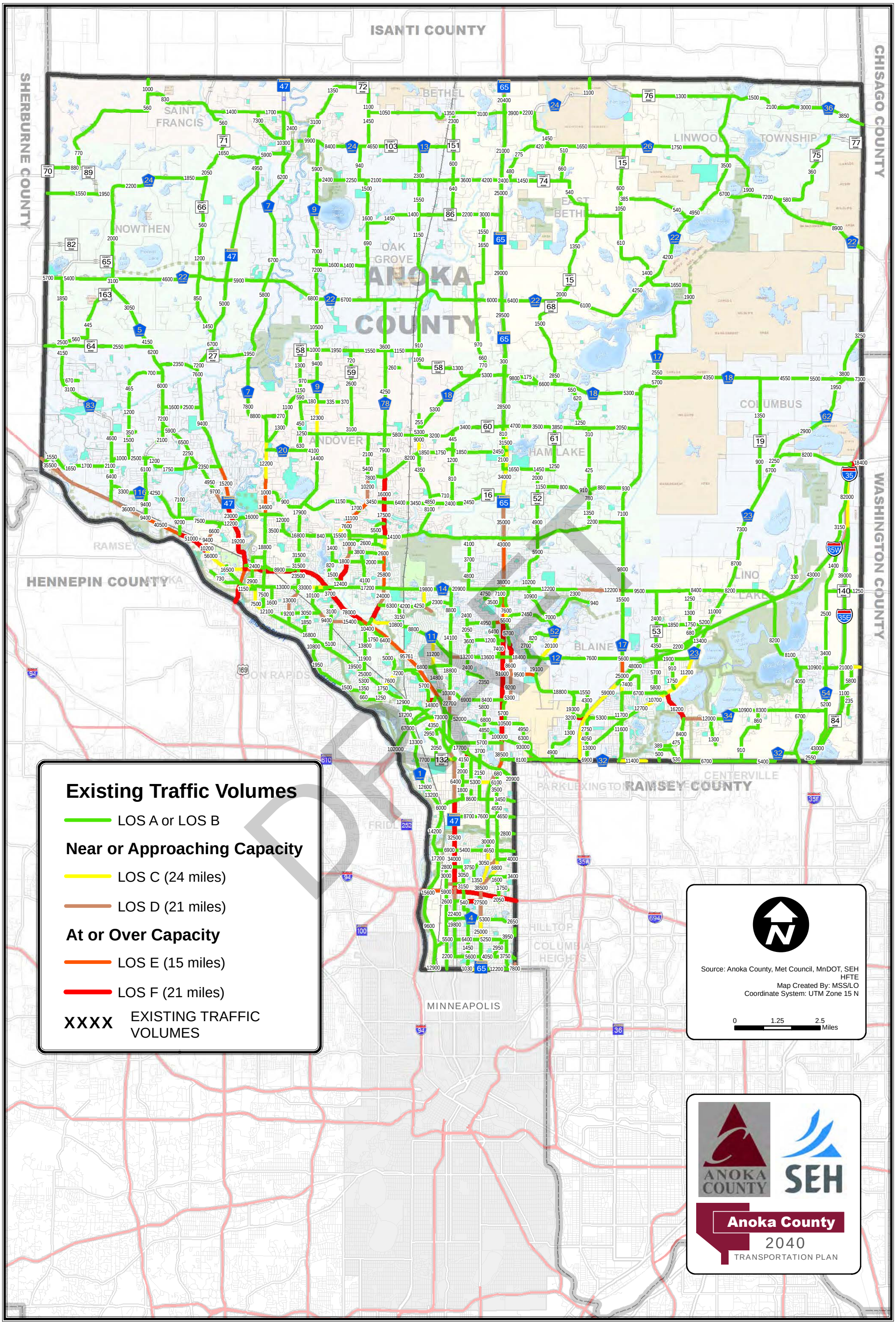
Level of Service	Voume-to-Capacity Ratio	Description
A	<0.65	Low volumes and no delays
B	0.65-0.75	Low volumes and speeds dictated by travel conditions
C	0.75-0.85	Speeds and maneuverability closely controlled due to higher volumes
D	0.85-0.95	Higher density traffic restricts maneuverability and volumes approaching capacity
E	0.95-1.05	Low speeds, considerable delays, and volumes at or slightly over capacity.
F	>1.05	Very low speeds, volumes exceed capacity, and long delays with stop-and-go traffic.

Table 7 – Generalized Average Daily Traffic Capacity Thresholds

Facility Type	Number of Lanes	Daily Capacity
Metered Interstate Freeway	8	147,000
	6	110,000
	4	73,000
Un-Metered Interstate Freeway	6	99,000
	4	66,000
Expressway	6	62,000
	4	41,000
Divided Arterial (Rural)	6	56,000
	4	36,000
	2	19,000
Divided Arterial (Developing)	6	54,000
	4	34,000
	2	18,000
Divided Arterial (Developed)	6	48,000
	4	30,000
	2	16,000
Un-Divided Arterial (Rural)	6	45,000
	4	28,000
	2	15,000
Un-Divided Arterial (Developing)	6	42,000
	4	26,000
	2	14,000
Un-Divided Arterial (Developed)	6	36,000
	4	22,000
	2	12,000
Collector (Rural)	4	23,000
	2	11,000
Collector (Developing)	4	21,000
	2	10,000
Collector (Developed)	4	19,000
	2	9,000

Table Notes: Estimated based on freeway daily capacity in the Highway Capacity Manual and hourly capacity in the Metropolitan Council Activity-Based Model. They were finalized based on the previous Anoka County Plan. For Anoka County in the Metropolitan Council's system, the area located north of CSAH 14 is classified as rural area type; north of CSAH 10 as a developing area, and south of CSAH 10 as developed area type (along with residential and business cores towards the central business districts of Minneapolis and St. Paul.

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EXISTING 2015 ROADWAY DAILY TRAFFIC AND CONGESTION LEVELS

FIGURE **7**

Based on the capacity and LOS definitions detailed in Tables 6 and 7, the daily traffic thresholds for different level of service were calculated and are identified in Table 8.

Table 8 – Average Daily Traffic Lower Limit Thresholds for Different Levels of Service

Facility Type	Number of Lanes	B	C	D	E	F
Metered Interstate Freeway	8	95,600	110,000	125,000	140,000	154,000
	6	71,500	82,500	93,500	105,000	116,000
	4	47,500	54,800	62,100	69,400	76,700
Un-Metered Interstate Freeway	6	64,400	74,300	84,200	94,100	104,000
	4	42,900	49,500	56,100	62,700	69,300
Expressway	6	40,300	46,500	52,700	58,900	65,100
	4	26,700	30,800	34,900	39,000	43,100
Divided Arterial (Rural)	6	36,400	42,000	47,600	53,200	58,800
	4	23,400	27,000	30,600	34,200	37,800
	2	12,400	14,300	16,200	18,100	20,000
Divided Arterial (Developing)	6	35,100	40,500	45,900	51,300	56,700
	4	22,100	25,500	28,900	32,300	35,700
	2	11,700	13,500	15,300	17,100	18,900
Divided Arterial (Developed)	6	31,200	36,000	40,800	45,600	50,400
	4	19,500	22,500	25,500	28,500	31,500
	2	10,400	12,000	13,600	15,200	16,800
Un-Divided Arterial (Rural)	6	29,300	33,800	38,300	42,800	47,300
	4	18,200	21,000	23,800	26,600	29,400
	2	9,800	11,300	12,800	14,300	15,800
Un-Divided Arterial (Developing)	6	27,300	31,500	35,700	39,900	44,100
	4	16,900	19,500	22,100	24,700	27,300
	2	9,100	10,500	11,900	13,300	14,700
Un-Divided Arterial (Developed)	6	23,400	27,000	30,600	34,200	37,800
	4	14,300	16,500	18,700	20,900	23,100
	2	7,800	9,000	10,200	11,400	12,600
Collector (Rural)	4	15,000	17,300	19,600	21,900	24,200
	2	7,200	8,300	9,400	10,500	11,600
Collector (Developing)	4	13,700	15,800	17,900	20,000	22,100
	2	6,500	7,500	8,500	9,500	10,500
Collector (Developed)	4	12,400	14,300	16,200	18,100	20,000
	2	5,900	6,800	7,700	8,600	9,500
	V/C Ratio	0.65	0.75	0.85	0.95	1.05

Table Notes: LOS E/F roadways operate at or over capacity; LOS C/D roadways operate near or approaching capacity.

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Based on the daily traffic, capacity and LOS defined above, the existing roadway congestion levels were analyzed. Figure 7 illustrates those existing roadway segments with congestion levels that are approaching or exceeding capacity based on the Metropolitan Council Travel Demand Model. Table 9 summarizes the mileage of congested roadways and roadways approaching congested conditions.

Overall, 27 percent of the total state highways in the county are at or over capacity while another 19 percent are approaching capacity. By comparison only, 2 percent of county roadways are at or over capacity and 5 percent are approaching capacity.

Table 9 – Existing (Year 2015) Roadway Capacity Deficiencies Summary

Roadway Class	Near or Approaching Capacity		At or Over Capacity	
	LOS	Length (Mile)	LOS	Length (Mile)
Freeway[1]	C	5.43	E	4.59
	D	0.18	F	5.55
	Subtotal	**5.60**	**Subtotal**	**10.14**
Expressway[2]	C	3.04	E	3.49
	D	6.58	F	4.43
	Subtotal	**9.61**	**Subtotal**	**7.92**
Divided Arterial[3]	C	0.88	E	0.00
	D	2.51	F	2.56
	Subtotal	**3.39**	**Subtotal**	**2.56**
Undivided Arterial[4]	C	9.9	E	4.42
	D	5.41	F	6.46
	Subtotal	**15.31**	**Subtotal**	**10.88**
Collector Road[5]	C	4.63	E	2.24
	D	6.00	F	2.38
	Subtotal	**10.63**	**Subtotal**	**4.63**
Total		**44.54**		**36.13**

Table Notes: LOS E/F roadways operate at or over capacity; LOS C/D roadways operate near or approaching capacity.
[1] A freeway is a divided roadway with limited access and no traffic signals or other traffic control.
[2] An expressway is a high speed, multi-lane, divided highway which is generally an arterial road with a posted speed greater than 55 mph. Most intersections are at-grade, although grade separated interchanges may exist.
[3] A divided roadway has a raised median separating opposing traffic, left-turn lanes and right-turn lanes.
[4] An undivided roadway does not have a raised median separating opposing traffic or left-turn lanes for turning traffic.
[5] A collector roadway collects traffic from local roads and connects them with arterials; usually lower speed for shorter distances.

Source: Metropolitan Council Travel Demand Model

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Safety and Crash Analysis

Traffic safety is a priority for Anoka County, with the primary concern in any crash being the potential for injury or death. Crash severity is divided into five categories (listed below).

- **Fatal** – Crash that results in a death
- **Severity A** – Crash that results in an incapacitating or serious life altering injury
- **Severity B** – Crash that results in a non-incapacitating or moderate injury
- **Severity C** – Crash that results in possible minor injury
- **Property Damage** – Crash that results in property damage only, with no injuries

From 2006 to 2015, total crashes and severity of crashes within Anoka County on all roadway systems have been on a steady decline (see Table 10). The corresponding trend lines are shown in Figure 8. The data indicates that the safety improvements the County has been implementing during the last ten years along with continued improvement in vehicle design safety appears to have had a positive impact on both the number and severity of crashes within the county. Total daily per-capita vehicle miles traveled on all roadway systems in Anoka County can also vary due to the economy (e.g., fewer people driving) and other factors.

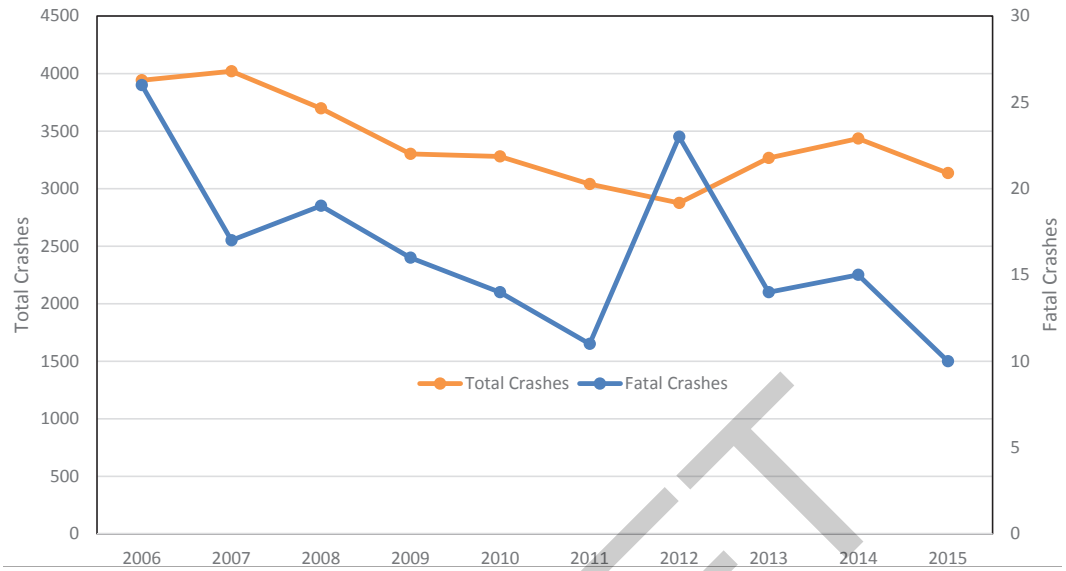
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Table 10 – Reported Crash Severity, 2006-2015

Year	Fatal Crashes (# Fatalities)	Severity A	Severity B	Severity C	Property Damage	Total Crashes
2006	26 (29)	111	448	836	2,520	3,941
2007	17 (17)	98	415	898	2,592	4,020
2008	19 (19)	69	386	879	2,343	3,696
2009	16 (16)	65	334	766	2,121	3,302
2010	14 (15)	58	322	746	2,139	3,279
2011	11 (11)	40	262	783	1,944	3,040
2012	23 (25)	75	274	724	1,779	2,875
2013	14 (16)	49	306	790	2,107	3,266
2014	15 (16)	49	276	859	2,236	3,435
2015	10 (11)	53	295	761	2,016	3,135
TOTAL	**165 (175)**	**667**	**3,318**	**8,042**	**21,797**	**33,989**

Source: Minnesota Crash Mapping Analysis Tool (MnCMAT)

Figure 8 – 10-Year Crash History



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Supplemental safety and crash analysis is detailed in Appendix C. Of note, there was a substantial spike in both Fatal and Severity A crashes in 2012, coinciding with a spike in impaired driver crashes as well as pedestrian and bicycle crashes. A short section along CSAH 22 east of Trunk Highway 65 had five fatal collisions in 2012 including two non-motorized crashes; the County has since completed safety improvements to this stretch of roadway in an effort to reduce serious and fatal crashes.

The majority of all reported Fatal and Serious Injury crashes (339) in Anoka County on all roadway systems for the five-year period between 2011 and 2015 involved two or more vehicles colliding. The number of single vehicle crashes with non-motorized users as well as animals and roadside objects are also high. Other key crash findings on all roadway systems in Anoka County are summarized below.

- 55 percent involved two or more vehicles (46 percent involved two vehicles; 9 percent involved three vehicles)
- 29 percent involved a vehicle hitting an object or considered a non-collision
- 1.5 percent involved a single vehicle hitting an animal
- 14.7 percent involved a vehicle and a non-motorized user (pedestrian or bicyclist)
- Distracted driving accounts for approximately 20 percent of all Fatal and Serious Injury crashes

» Failure to yield accounts for 20 percent and speed was a factor in approximately 15 percent of the crashes

» Driver impairment, either with illicit drugs or alcohol, accounts for almost 18 percent of all severe crashes

» In total, approximately 56 percent of Fatal and Serious Injury crashes are located off of the County Highway System

» The PM peak traffic period between 3pm and 6pm accounts for 22 percent of all fatal and serious crashes

» The 6pm to 12am time period also shows a substantial amount of fatal and serious crashes (28 percent)

For a discussion of traveler safety trends affecting the transportation system in Anoka County, see "Traveler Safety" Section on page 59.

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Anoka County State Aid Highway 14 (Source: Anoka County)

Public Transit in Anoka County

Transit Market Areas

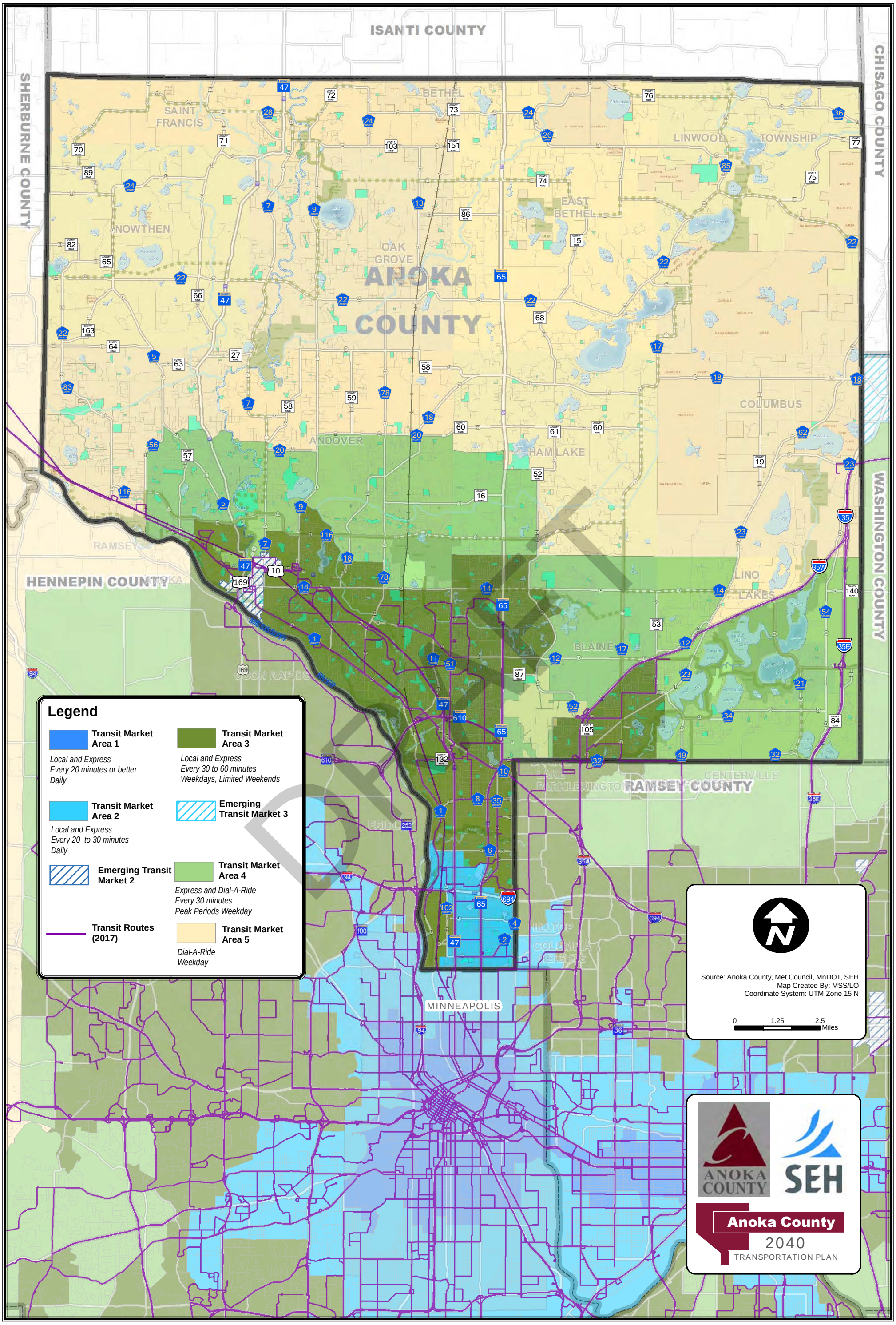
The region has established Transit Market Areas to guide the types and levels of transit service that are appropriate for efficient and effective services. Transit Market Areas are defined in Appendix G of the Metropolitan Council's 2040 TPP by the demographic and urban design factors that are associated with successful transit service. The Transit Market Areas in Anoka County are described in Table 11 and mapped in Figure 9.

Table 11 – Transit Market Areas in Anoka County

Transit Market Area	Market Area Description and Typical Transit Services
Market Area II	Transit Market Area II has high to moderately high population and employment densities and typically has a traditional street grid comparable to Market Area I. Much of Market Area II is also categorized as an Urban Center and it can support many of the same types of fixed-route transit as Market Area I, although usually at lower frequencies or shorter service spans.
Market Area III	Transit Market Area III has moderate density but tends to have a less traditional street grid that can limit the effectiveness of transit. It is typically Urban with large portions of Suburban and Suburban Edge communities. Transit service in this area is primarily commuter express bus service with some fixed-route local service providing basic coverage. General public dial-a-ride services are available where fixed-route service is not viable.
Market Area IV	Transit Market Area IV has lower concentrations of population and employment and a higher rate of auto ownership. It is primarily composed of Suburban Edge and Emerging Suburban Edge communities. This market can support peak-period express bus services if a sufficient concentration of commuters likely to use transit service is located along a corridor. The low-density development and suburban form of development presents challenges to fixed-route transit. General public dial-a-ride services are appropriate in Market Area IV.
Market Area V	Transit Market Area V has very low population and employment densities and tends to be primarily Rural communities and Agricultural uses. General public dial-a-ride service may be appropriate here, but due to the very low-intensity land uses these areas are not well-suited for fixed-route transit service.

Source: Metropolitan Council's 2040 TPP

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TRANSIT MARKET AREAS

FIGURE 9

Existing Transit Service

The transit system serving Anoka County consists of a network of services provided by different agencies and operators. The majority of the county's transit service is provided by the Anoka County Traveler (ACT) and the Metropolitan Council's Metro Transit (see Figure 9).

Publicly-provided, demand response service is also provided throughout Anoka County. Metro Mobility and ACT provide dial-a-ride service in southern Anoka County. Anoka County Traveler provides dial-a-ride service in the northern portion of the county on a more limited basis than is available the southern part of the county.



Metro Transit Route 865 stops to discharge passengers at the East Bethel Theater Park & Ride (Source: Henry Pan)

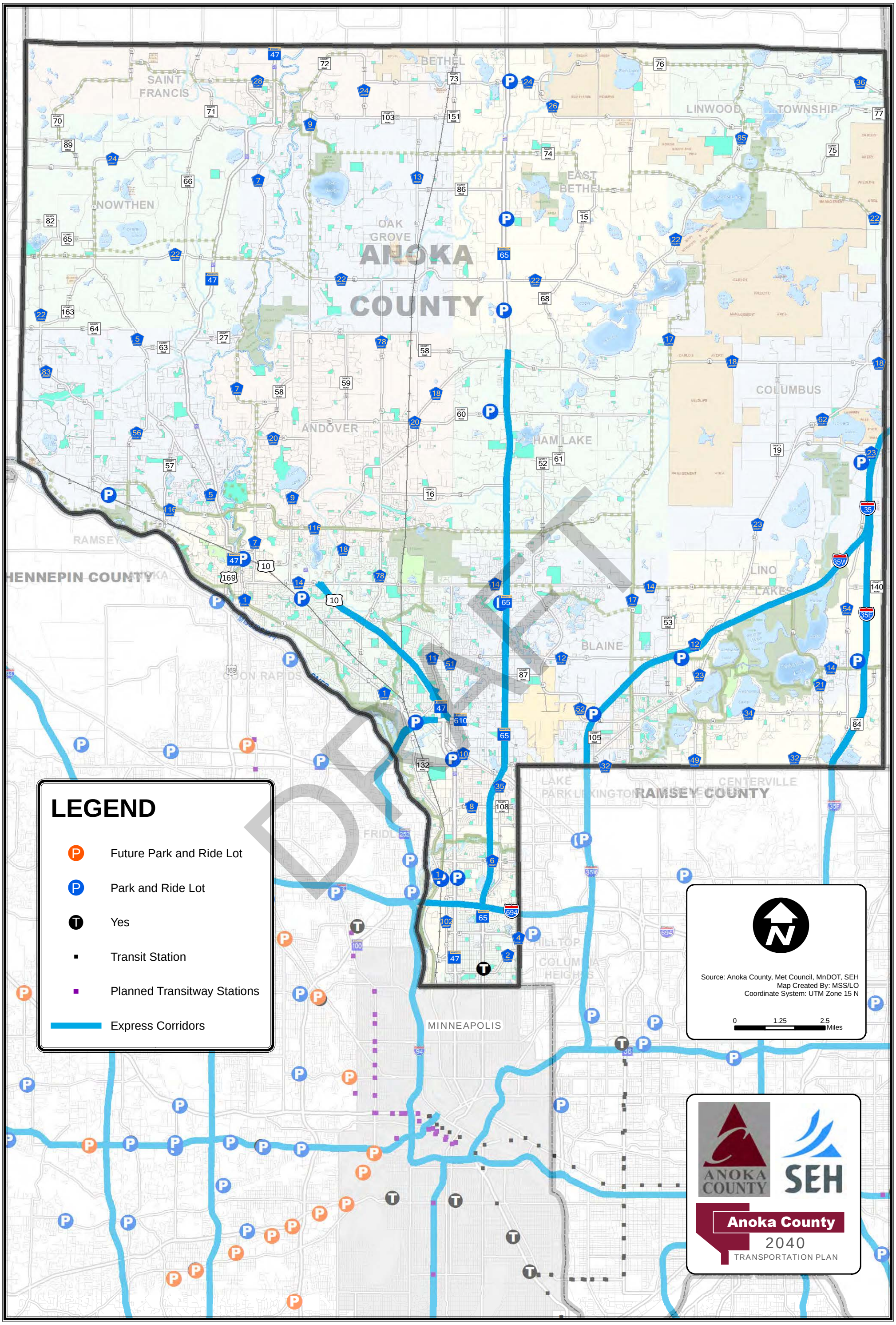
The Metropolitan Council has identified several express corridors where weekday peak period commuter bus service is concentrated (Figure 10). These include:

- U.S. Highway 10
- Trunk Highway 65
- I-35W
- I-35E

Existing Transit Support Facilities

Within Anoka County, transit support facilities include park-and-ride locations throughout the south, southwest, and southeast areas of the county. Existing park-and-ride locations are shown in Figure 10. Table 12 details the capacity and usage of the various park-and-ride facilities in Anoka County.

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PARK-AND-RIDE SYSTEM & EXPRESS BUS CORRIDORS

FIGURE 10

Table 12 - 2016 Park and Ride Capacity and Usage

Transit Provider	Park-and-Ride Name	City	Travel Corridor	2016 Capacity	2016 Use	% Occupied
Metro Transit Rail	Ramsey Station	Ramsey	Hwy 10/169 North	360	317	88
Metro Transit Rail	Anoka Station	Anoka	Hwy 10/169 North	525	188	36
Metro Transit Rail	Coon Rapids/ Riverdale Station	Coon Rapids	Hwy 10/169 North	455	260	57
Metro Transit Rail	Fridley Station	Fridley	Hwy 10/169 North	668	76	11
MnDOT	Hwy 65 & Co Rd 24	East Bethel	--	41	11	27
MnDOT	East Bethel Ice Arena	East Bethel	--	53	0	0
Metro Transit	Church of St. William	Fridley	Hwy 10/169 North	50	15	30
Metro Transit	East Bethel Theatre[1]	East Bethel	Hwy 65 North	50	19	38
Metro Transit	Family of Christ Lutheran Church[1]	Ham Lake	Hwy 65 North	50	28	56
Metro Transit	Foley Blvd	Coon Rapids	Hwy 10/169 North	1,243	970	78
Metro Transit	I-35E & County Road 14	Lino Lakes	I-35E North/Hwy 36 East	300	88	29
Metro Transit	St. Joseph's Church	Lino Lakes	I-35W North	12	4	33
Metro Transit	I-35W & 95th Ave	Blaine	I-35W North	1,482	777	52
Metro Transit	Northtown Transit Center	Blaine	Hwy 10/169 North	366	166	45
Metro Transit	Paul Pkwy	Blaine	Hwy 65 North	411	232	56
TOTAL				**6,066**	**3,151**	**52**

Table Notes: [1]Service on Express Bus Route 865 to the Family of Christ Lutheran Church Park & Ride in Ham Lake and the East Bethel Theatre Park & Ride in East Bethel was discontinued in August 2017 as part of a 3-year transit project with the Metropolitan Council. All trips previously serving Ham Lake and East Bethel currently end at Paul Parkway Park & Ride in Blaine.

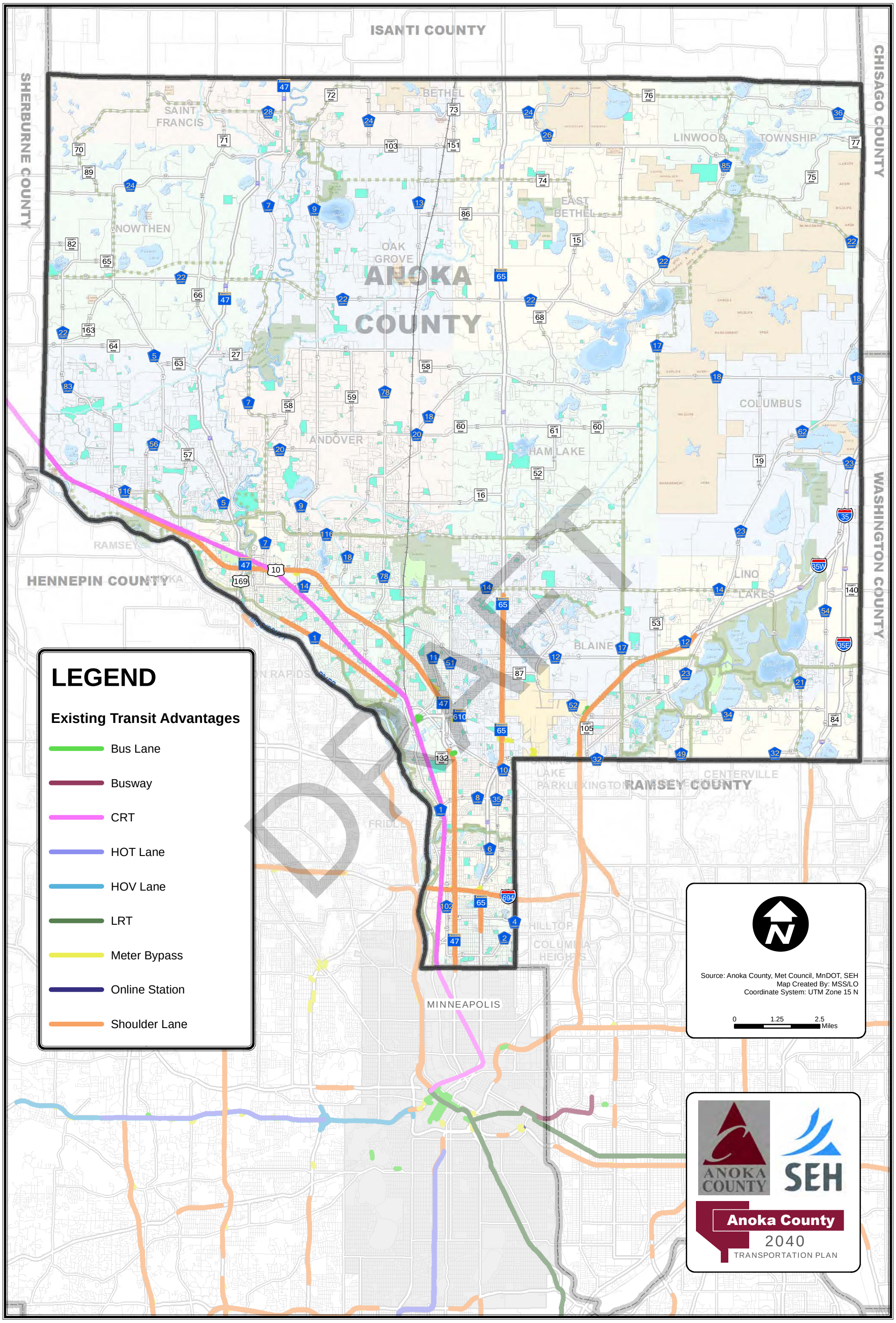
Source: 2016 Annual Regional Park-and-Ride System Report (January 2017)

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The usage data, which is based on a single day of data collection, indicates that most of the larger facilities were at least 50 percent occupied and overall 52 percent of the total park-and-ride lot system capacity is being used on a daily basis.

Transit Advantages

Transit service, both fixed route and demand response, is supported by a variety of transit advantages. Existing (and planned) transit advantages are shown on Figure 11. On state highways, transit advantages include bus-only shoulders, dedicated bus lanes, MnPASS lanes, ramp meter bypasses, and transit stations adjacent to or between roadways. As shown on Figure 11, existing shoulder lanes are located along U.S. Highway 10, Trunk Highway 47 (University Avenue), Trunk Highway 65, I-35W and CSAH 1 (Coon Rapids Boulevard).



TRANSIT ADVANTAGES

FIGURE 11

Northstar Commuter Rail



Big Lake Northstar Station (Source: Metro Transit)

Metro Transit began operating the region's first commuter rail service, the 40-mile Northstar line, in late 2009. There were six stations in operation as part of the initial project and an additional station was completed in Ramsey in November 2012. The line operates with six locomotives and 18 passenger cars that are maintained at a service facility in Big Lake. Operating and maintaining the existing transitways, which include the Northstar Line, is funded within the Metropolitan Council's Current Revenue Scenario (see Figure 12). The Northstar Line offers service between Big Lake and downtown Minneapolis, stopping at stations in Elk River, Ramsey, Anoka, Coon Rapids and Fridley. It connects with Northstar Link bus service for service to and from St. Cloud, with Friday midday trips. As identified in Table 13, Northstar Commuter Rail transit ridership fluctuated over the past five reporting years.

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Table 13 – Northstar Commuter Rail Transit Ridership, 2010-2016

Year	Transit Ridership
2010	710,436
2011	703,700
2012	703,425
2013	787,239
2014	721,215
2015	722,637
2016	711,167

Source: 2016 Transportation System Performance Evaluation

Amtrak



Source: MnDOT

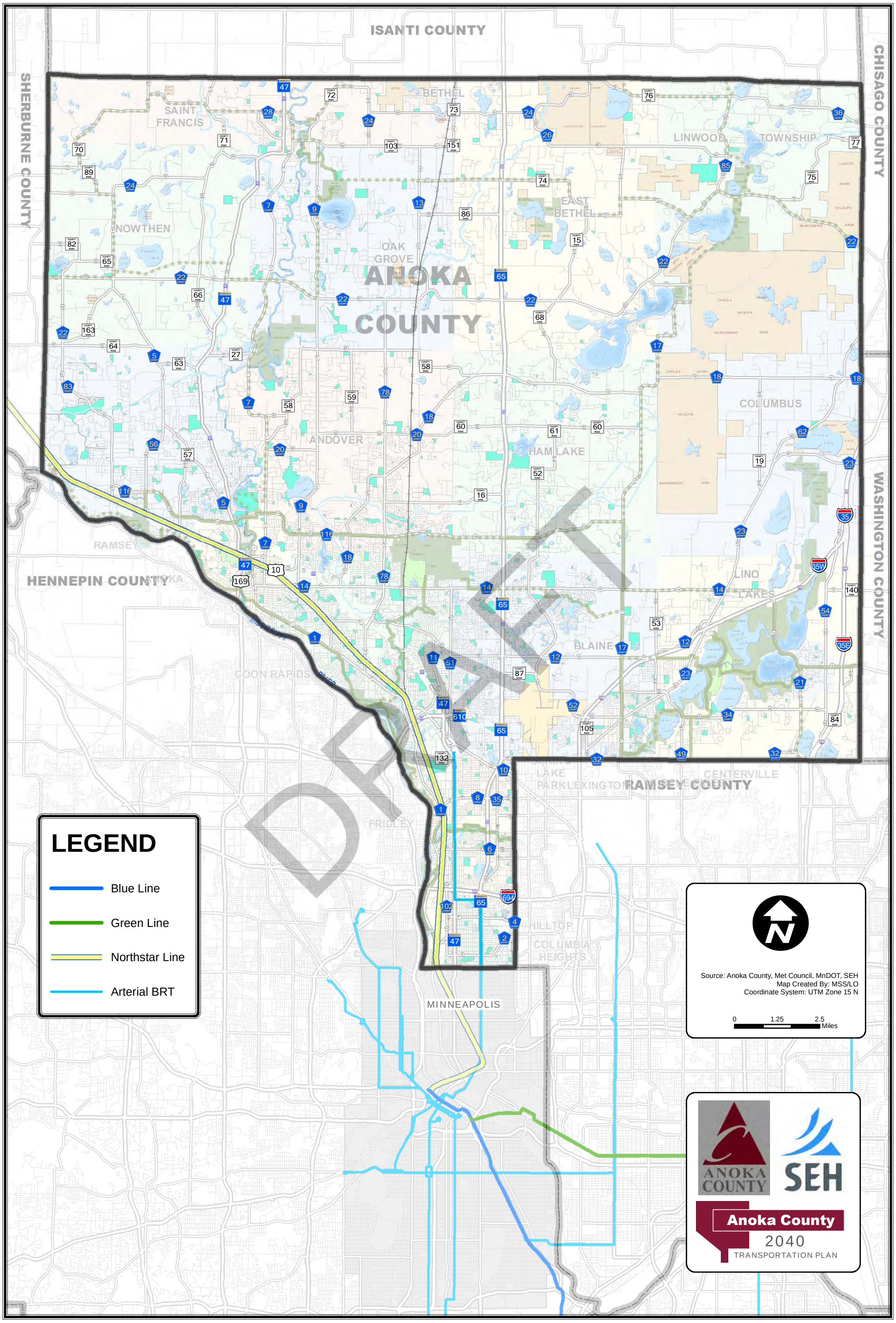
Amtrak, the national rail operator, currently provides passenger rail service through Anoka County on its Empire Builder route from Chicago, Illinois to Portland, Oregon and Seattle, Washington. The Empire Builder operates one daily train in each direction in Minnesota, and makes station stops in Winona, Red Wing, St. Paul/Minneapolis, St. Cloud, Staples, and Detroit Lakes (see Table 14 for Amtrak station ridership totals in fiscal year 2017). The Empire Builder also makes station stops in the border cities of La Crosse, Wisconsin, Fargo, North Dakota, and Grand Forks, North Dakota. It operates over freight rail tracks owned by Canadian Pacific Railway, Minnesota Commercial Railway, and the Burlington Northern Sante Fe (BNSF) Railway while traveling through Minnesota.

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Table 14 – Amtrak Ridership for Minnesota Stations, FY 2017

City	Boardings and Alightings
Detroit Lakes	4,667
Red Wing	8,557
St. Cloud	10,325
St. Paul-Minneapolis	92,271
Staples	5,676
Winona	17,595
Total Minnesota Station Usage	**139,091**

Source: Amtrack



CURRENT REVENUE SCENARIO TRANSITWAYS

FIGURE 12

Bicycling & Walking

County Highway Multi-Use Trails

A network of multi-use trails exist along many of the County's highway facilities. The Anoka County Highway Department's practice is to work with the cities and the Anoka County Parks Department to construct trail and/or sidewalk on newly constructed or reconstructed roadways. The result is that approximately two to three miles of new trail or sidewalk are constructed by the Highway Department every year. In addition, the cities and the Anoka County Parks Department work to expand and maintain the multi-use trail system outside of highway projects.



Bike Riders using an Anoka County trail (Source: Anoka County)

Regional Trails

There are bicycle and pedestrian trails located within Anoka County focused on recreational use, traveling in loops through the county's park facilities. However, several longer, regional trails connect Anoka County communities to one another and to other residential, commercial, and recreational opportunities. These regional trails, owned, managed, and maintained by the Anoka County Parks and Recreation Department are listed below:

- Rice Creek West & North Regional Trails;
- Mississippi River Regional Trail;
- East Anoka County Regional Trail;
- Central Anoka County Regional Trail;
- Rum River Regional Trail; and
- Coon Creek Regional Trail.

As shown in Figure 13, the existing regional trails are located in the southern half of the county.

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Regional Bicycle Transportation Network

The Metropolitan Council's Regional Bicycle Transportation Network (RBTN), the region's vision for regional bikeways, is shown in Figure 13 for Anoka County. The RBTN is made up of a series of specific alignments and broad planning corridors and includes regional destinations the network is intended to connect. The purpose of the RBTN is threefold:

- To establish an integrated/seamless network of on- and off-street bikeways;
- To provide the vision for a "backbone" arterial network for daily bicycle transportation; and
- To encourage cities, counties, park agencies, and the state to plan and implement future bikeways.

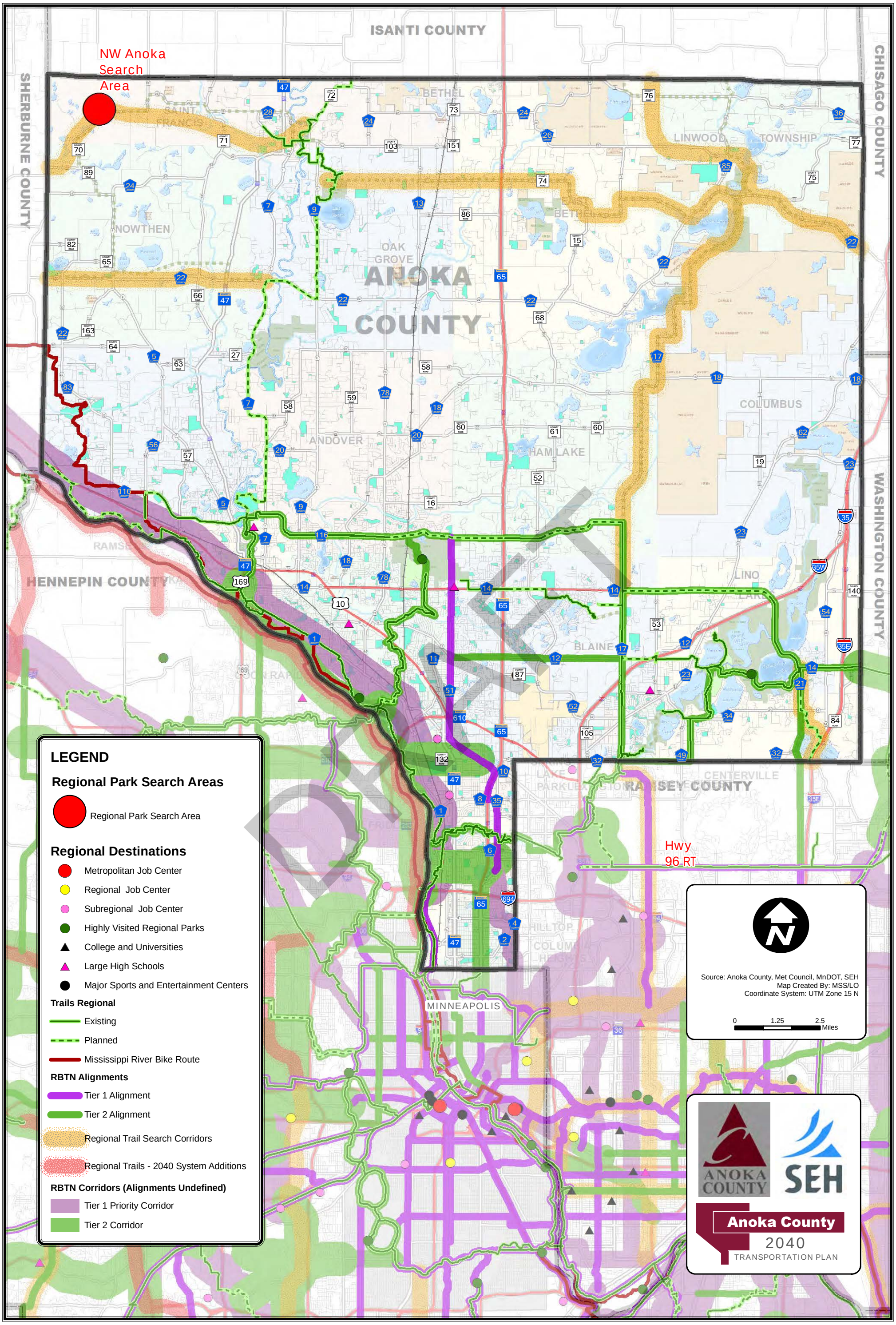
The RBTN corridors are established where existing or potential high demand for transportation-related bicycle trips has been identified and where specific alignments have not been implemented by local agencies. This network is intended to provide mid-to-long range connections to and between major regional destinations. RBTN alignments were established to represent where local plans have identified existing or planned off-street trails or on-street bikeways.

The network is further divided into Tier 1 and Tier 2 alignments and corridors based on potential bicycle demand levels as determined in the Metropolitan Council's Regional Bicycle System Study (2014). There are more than 1,300 miles of designated regional bicycle network corridors and alignments across the Twin Cities Region. This compares very favorably with other metro regions around the nation that have established regional bicycle networks.



Multi-use trail in Anoka County (Source: Kris Lindhahl)

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EXISTING REGIONAL BICYCLE TRANSPORTATION NETWORK

FIGURE 13

Freight

The freight transportation system plays a critical role in supporting the region's economic status, competitiveness, and quality of life, allowing it to stand out as an important business and transportation hub. Figure 14 provides the locations of trucking freight facilities within Anoka County, as well as the type of facility. The freight system is composed of two modes, the region's principal arterial highway system and two BNSF Railway lines. BNS=F is a Class I railroad, the category for railroads with over one million dollars in annual operating revenue.



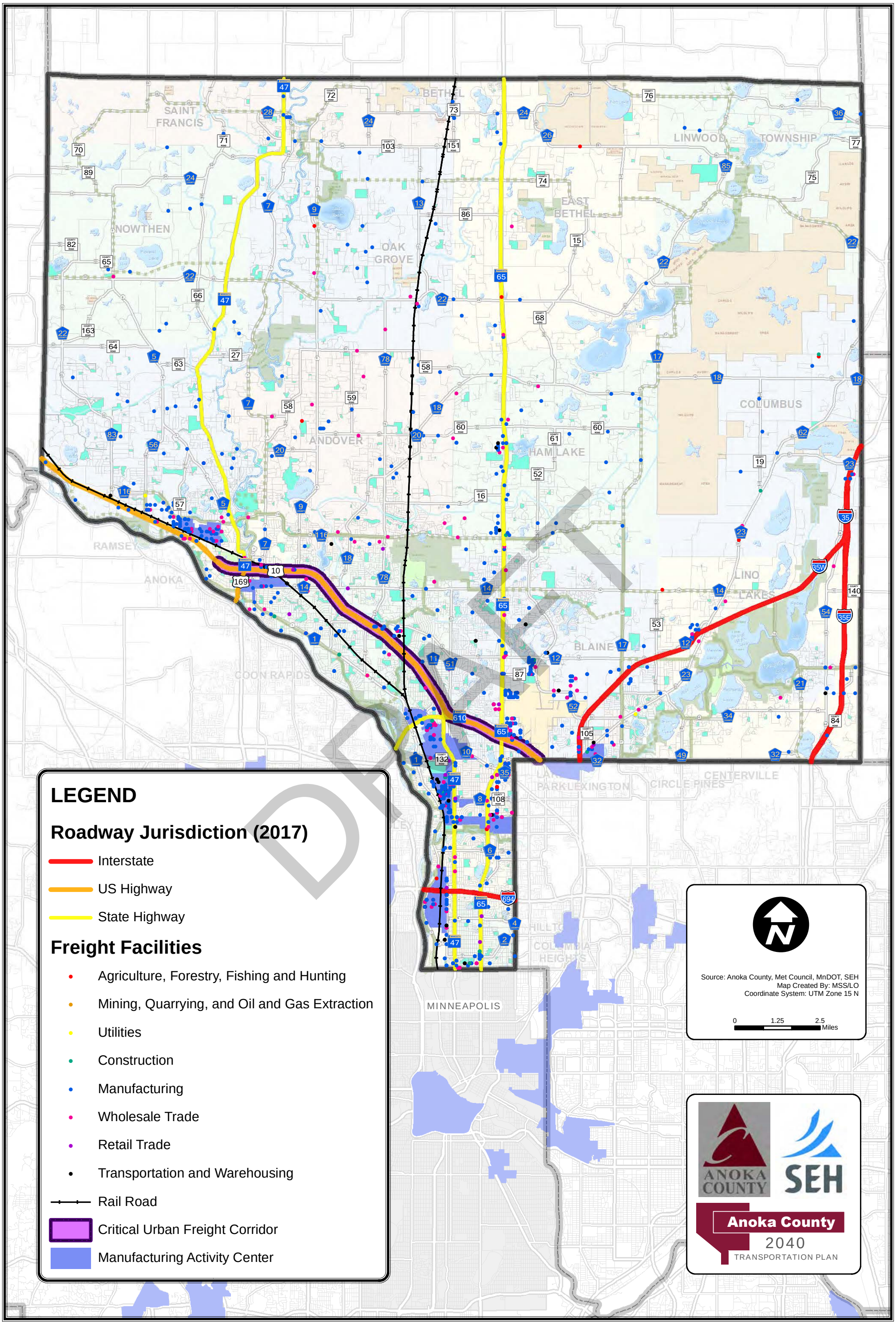
BNSF Northtown Yard in Fridley (Source: Wikipedia)

Rail and Intermodal

The BNSF mainline on which Amtrak and Northstar commuter rail service operates is an east-west route connecting the major Midwest transportation hub in Chicago with the Port of Seattle and the Pacific Rim. The rail segment within the county includes a junction with the northern (Cambridge) BNSF line. This line provides a direct rail linkage between the Twin Cities and the Port of Duluth. The Staples subdivision averages about 44 trains per day (including about six passenger trains) and the Hinckley subdivision averages about 14 trains per day total (BNSF, 2017).

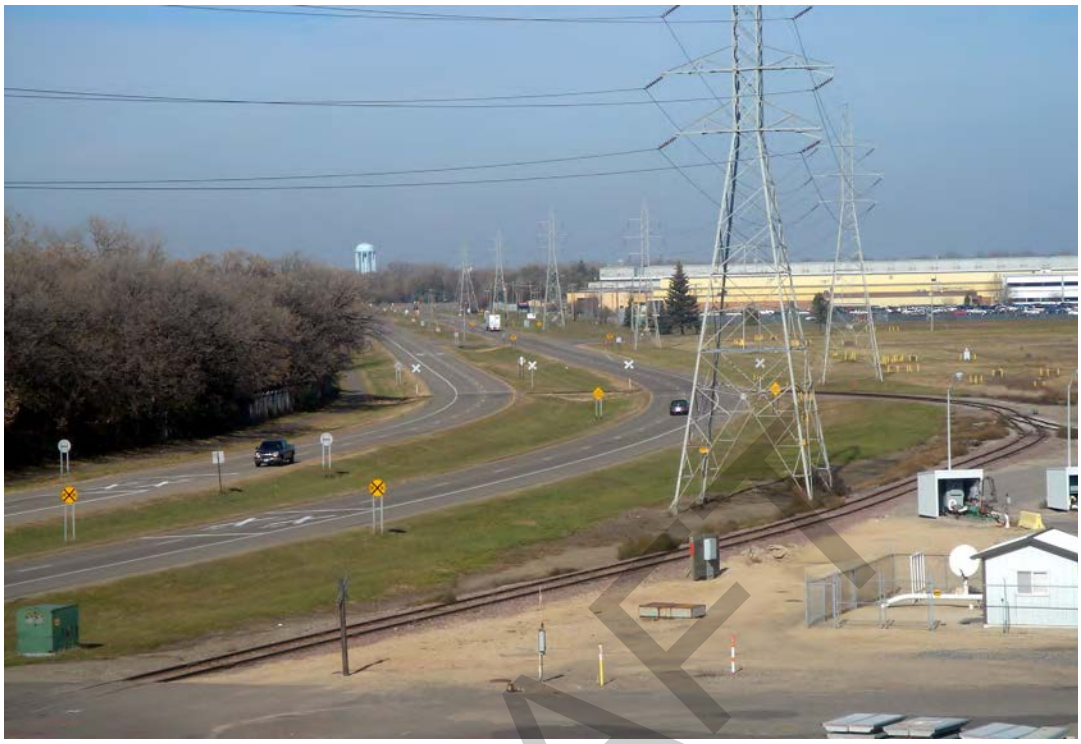
A major intermodal freight corridor has evolved along U.S. Highway 10 in the county. This corridor includes clusters of industrial development including the Anoka Enterprise Park and other manufacturing facilities in Anoka, and a concentration of light industrial uses in Ramsey. A major distribution center and trucking terminal anchors the central portion of the corridor. The large concentration of warehousing, manufacturing, and distribution facilities in Fridley forms the southern portion of the freight corridor. The BNSF Northtown Yard is a large rail switching yard located near CSAH 1 (East River Road) and 42nd Avenue in Fridley. Shoreham Yard, owned by Canadian Pacific Railway, is a major train, trucking and bulk-distribution site extending from Central to University Avenues NE and 27th Avenue NE up to St. Anthony Parkway in Northeast Minneapolis.

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ANOKA COUNTY
FREIGHT SYSTEMS

FIGURE 14



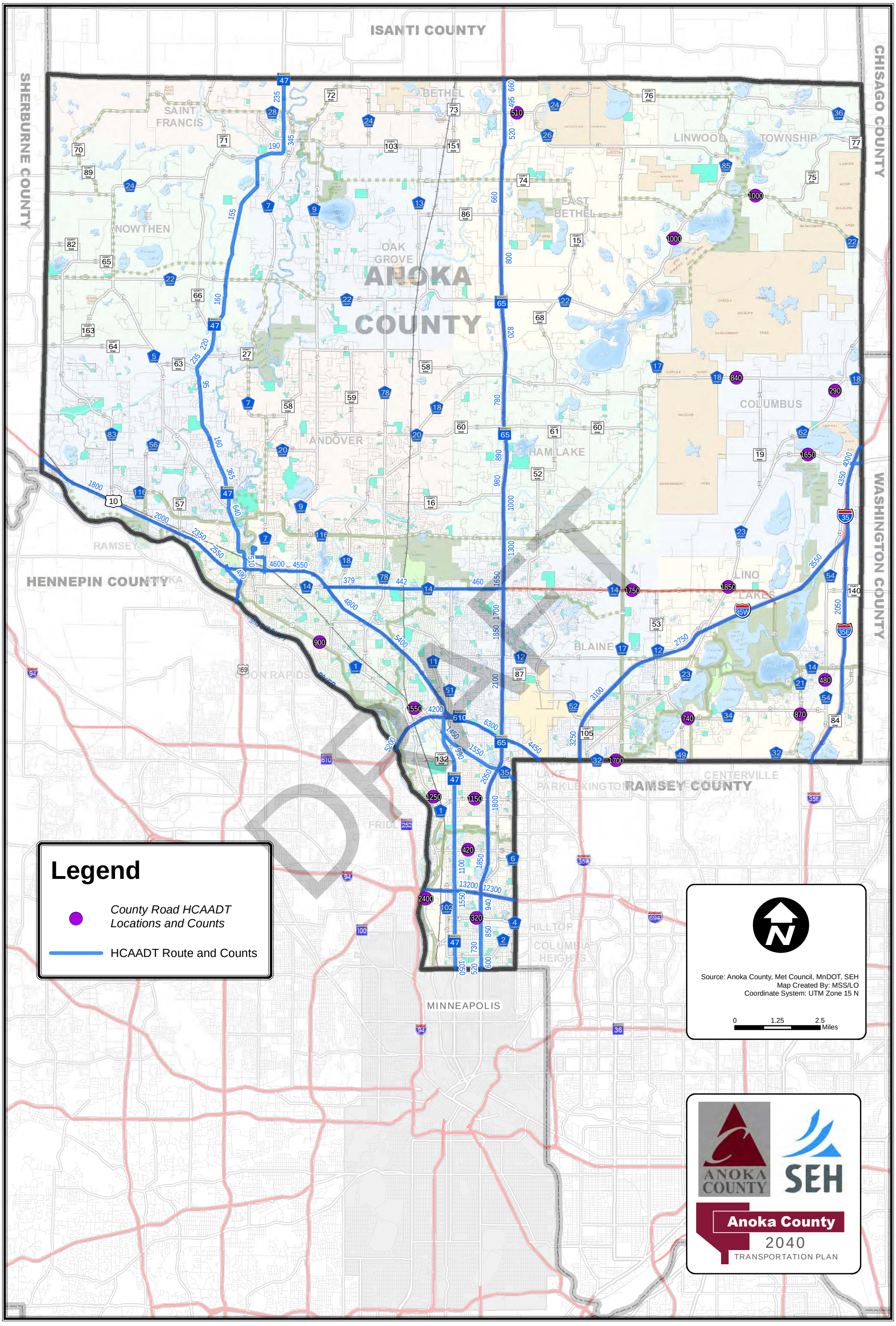
Freight Facility in Anoka County (Source: Anoka County)

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Trucks on Highways

Since the majority of freight in the region moves by truck, highways continue to be a critical element of the freight transportation system and the region's economic sustainability. According to the Metropolitan Council, principal arterials and A-minor arterials help people and freight move the longest distances in the region. The A-minor arterial network is very important for trucks hauling freight, especially to provide access between the principal arterials and the freight terminals.

Figure 15 shows the heavy commercial average annual daily traffic (HCAADT) volumes. Highway congestion is often cited as a growing obstacle to efficient trucking operations in the Twin Cities. While other metropolitan regions have large freight activity centers with concentrated truck and rail activity focused in relatively few urban corridors, the Twin Cities' freight system has more and smaller freight centers distributed throughout the region. As a result, freight traffic has a greater potential to be exposed to highway congestion throughout the region.



EXISTING (2016) HEAVY COMMERCIAL ANNUAL AVERAGE DAILY TRAFFIC (HCAADT)

FIGURE 15

Rail/Roadway Crossings

Table 15 details the freight railroad crossing information for all county roadways. Seven of the rail/roadway crossings are grade-separated, while the others are at-grade. Construction of two more grade-separated crossings are included in the Anoka County Highway Department Five-Year Improvement Program (CSAH 78 and CSAH 11, as noted in the following two paragraphs). The existing at-grade crossings represent both a safety issue and a roadway delay and congestion issue. As train and vehicle volumes increase at these crossings, so do the safety and delay challenges. The majority of the crossings are with BNSF Railroad. Approximately 21 percent of public rail crossings are grade-separated. Approximately 93 percent of public at-grade crossings have active crossing warning devices such as gates, cantilevers and flashing light signals, while the remaining 7.4 percent of public at-grade crossings have passive crossing warning devices (e.g., a crossbuck, yield or stop sign).

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Table 15 – Anoka County Rail System Crossing Data

Measure	Number	Percent
Overall Track Miles	39.8	100
Public Crossings	34	100
Grade Separated	7	20.6
At-Grade	27	79.4
Active Warning Devices	25	92.6
Passive Warning Devices[1]	2	7.4
Private Crossings	0	--
Grade Separated	0	--
At-Grade	0	--
Active Warning Devices	0	--
Passive Warning Devices	0	--

Table Notes: [1] Public at-grade crossings with passive crossing warning devices on Anoka County's roadways include: USDOT No. 082711U (East River Road/CSAH 1 in Fridley, BNSF) and USDOT No. 082709T (East River Road/CSAH 1 in Fridley, BNSF).

In 2018/2019, Anoka County, in cooperation with MnDOT and the City of Coon Rapids, plans to reconstruct CSAH 78 (Hanson Boulevard) to a four-lane divided section that is grade-separated from the BNSF railroad. Approximately 81 trains per day, comprised of freight, Northstar Commuter traffic and Amtrak rail traffic, use the BNSF rail line. The high competing volumes of vehicles and rail make this at-grade crossing one of the busiest in the state and long queues and delays for vehicles are frequently observed at this crossing. BNSF also plans to add a third track to accommodate the growing demands of freight traffic and commuter rail traffic in the future.

In 2020, Anoka County plans to reconstruct CSAH 11 (Foley Boulevard) from CSAH 1 (East River Road) to 750 feet north of CSAH 3 (Coon Rapids Boulevard). The project area contains the Foley Boulevard Park and Ride lot and a Northstar Commuter Rail Line station. The primary component of the project is an overpass of two BNSF tracks that carry over 70 trains per day at an approved speed of 75 mph. The existing at-grade crossing is a safety concern due to the high vehicle and rail traffic volumes, compounded by identified sight line limitations for northbound trains. The average daily train exposure is 490,000, which exceeds the minimum standard for constructing a grade-separation by 40 percent. This train exposure risk will more than triple by 2030 as traffic volumes increase. In addition, the frequent trains act as a barrier to mobility causing substantial delays. The proposed overpass will include four lanes and non-motorized crossings on each side of CSAH 11, providing safe, uninterrupted travel for all types of travelers.

Air

The Anoka County-Blaine Airport (Janes Field) is the largest reliever airport in the Metropolitan Airport Commission's (MAC's) reliever airport system. Reliever airports provide an alternative to the Minneapolis–St. Paul (MSP) International Airport for private and corporate flights, thereby increasing safety and efficiency and easing congestion at the MSP airport. In addition to the Anoka County-Blaine Airport, five other airports serve as relievers to the MSP airport.

The Anoka County-Blaine Airport is under the jurisdiction of the MAC. This airport is classified as an Intermediate Airport based on the State of Minnesota classification and a Minor Airport by the MAC (Metropolitan Council's Metropolitan Development Guide – Aviation Chapter) with a 4,855-foot north-south runway, and a 5,000-foot east-west runway that is equipped with an instrument landing system. The airport supports more than 90,000 takeoffs and landings annually; 490 aircraft are based at the airport.

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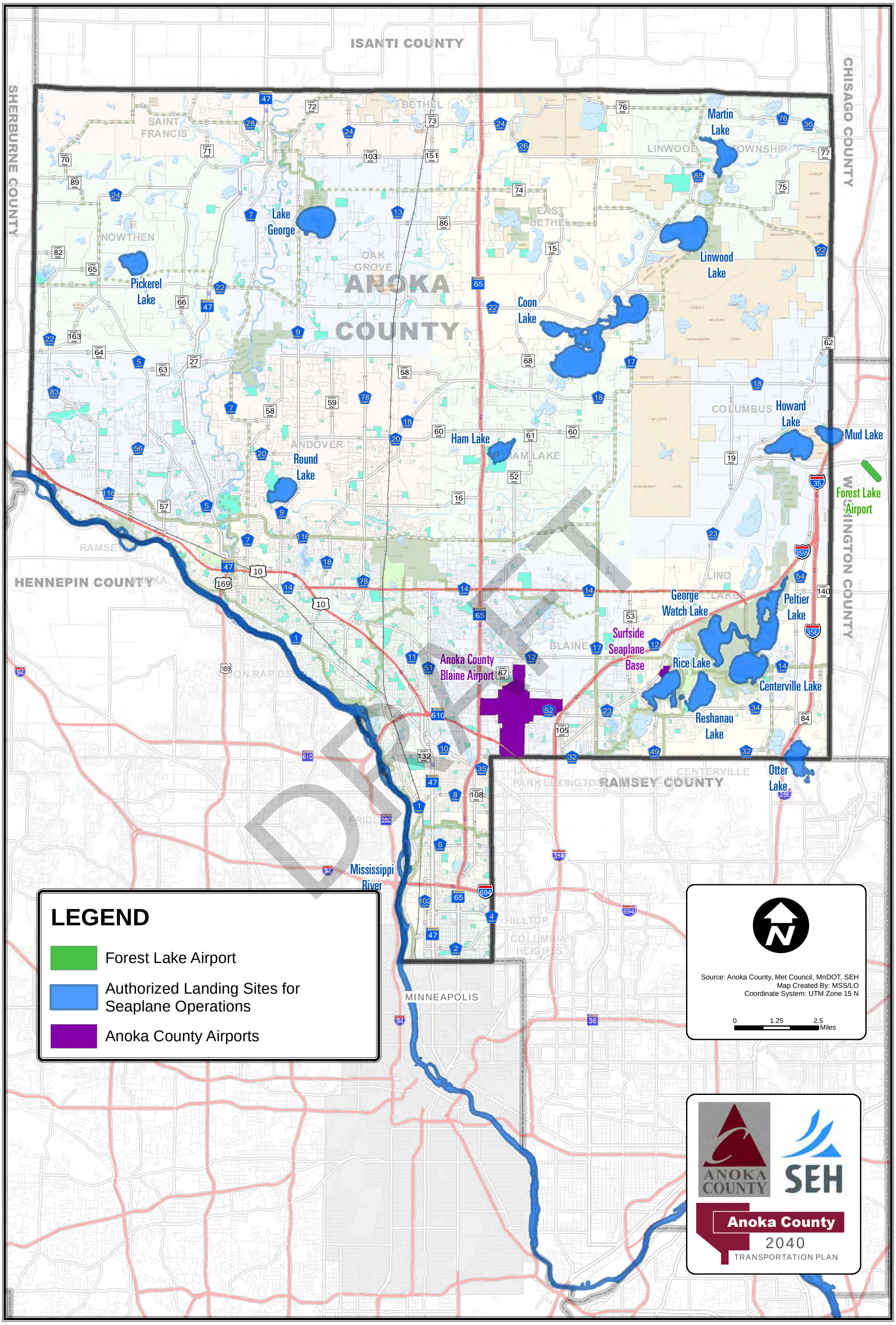


The Anoka County-Blaine Airport (Janes Field) (Source: Metropolitan Airport Commission)

In addition, Surfside Seaplane Base is located on Rice Lake in Lino Lakes. Locations authorized for seaplane operations are designated in Minnesota Rules 8800.2800. The following lakes and rivers within Anoka County are authorized seaplane locations: Centerville Lake, Coon Lake, George Watch Lake, Lake George, Ham Lake, Howard Lake, Linwood Lake, Martin Lake, Mississippi River, Mud Lake, Otter Lake, Peltier Lake, Pickerel Lake, Reshenau Lake, Rice Lake and Round Lake.

The location of the Anoka County Blaine Airport, all designated seaplane locations, and the Forest Lake Airport in northern Washington County are shown in Figure 16.

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ANOKA COUNTY AVIATION LOCATIONS

FIGURE 16

3.2 HISTORIC PERFORMANCE TRENDS AFFECTING THE COUNTY'S TRANSPORTATION SYSTEM

This section describes trends in the condition and service levels provided by Anoka County's highway network.

Pavement Condition

Anoka County has established performance targets to maintain at least 60 percent of county roadways in good or very good condition, and allow less than 3 percent of county roadways to be in poor or very poor condition. Anoka County's roadway system consists of approximately 414 centerline miles of pavement.

As shown in Figure 17, the pavement condition for county roadways did meet Anoka County's performance target for roadways in good or very good condition. In 2015, 69 percent or 286 miles of the County's 414 miles of roadway were in at least good condition. The percentage of roadways with a poor or very poor rating has hovered around 4 or 5 percent in recent years, which is slightly above the 3 percent performance target. This means approximately 18 miles of the County's roadways were in poor or very poor condition.

Figure 17 - Percentage of County Roadway Pavement in Good, Fair, & Poor Condition



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Potential Future Pavement Overlay Candidates

As identified in Tables 16 through 19, Anoka County has compiled several lists of road segments by AADT that have dropped below the minimum pavement condition thresholds and need rehabilitation or reconstruction by 2040. Most of these road segments are not currently planned to receive funding in Anoka County's Five-Year Highway Improvement Program. As noted previously, the deficiencies identified in this Plan will form the basis of future five-year improvement program documents.

Table 16 – Road Segments with AADT >11,001 and PQI <60

Route	From	To	Length (Miles)	AADT	PQI
CSAH 14	900' W. of Round Lake Blvd.	Round Lake Blvd.	0.2	14,251	34
CSAH 17	Lake Drive	Lovell Rd.	0.1	11,836	36
CSAH 116*	Andover Cl.	160' W. of Terrace Rd.	0.3	11,118	36
CSAH 14*	8th Ave.	560' E. of 10th Ave.	0.4	12,866	39
CR 132	Fridley Cl.	250' W. of Cottonwood St.	0.4	12,491	39
CSAH 14*	560' E. of 10th Ave.	900' W. of Round Lake Blvd.	0.3	13,558	41
CSAH 116*	370' W. of Van Buren St.	45' W. of Buchanan St.	0.5	11,118	41
CSAH 11*	250' N. of 107th Ln. NW	Northdale Blvd./Foley Blvd.	0.7	11,791	45
CSAH 3	86th Lane	TH 47	0.1	14,778	46
CSAH 1	Fridley Cl.	1200' N. of 90th Ave.	1.3	12,845	49
CSAH 51*	106th Ave.	300' N. of Northdale	0.4	17,727	51
CSAH 78*	Coon Creek Bridge	Andover Blvd.	0.3	17,709	52
CSAH 78*	Andover Blvd.	470' S. of 150th Ln. NW	0.6	15,641	52
CSAH 51	97th Ave.	106th Ave.	1.2	23,709	53
CSAH 116	190' E. of Industry Ave. NW	270' E. of TH 47	0.1	12,327	53
CSAH 7	Johnson St.	530' N. of 38th Lane	1.1	16,211	54
CSAH 1	Hartman Circle	Glen Creek Rd.	0.8	13,302	55
CSAH 1	Yucca St. NW	Dakotah St. NW	0.3	12,123	55
CSAH 23	590' E. of Naples	Blaine Cl.	0.2	14,273	56
CSAH 116*	160' W. of Terrace Rd.	370' W. of Van Buren St.	0.5	11,118	56
CSAH 1	64th Way	260' S. of Rice Creek Way	0.3	14,887	58
CSAH 1	260' S. of Rice Creek Way	Rice Creek Way	0.1	14,887	58
CSAH 1	Glen Creek Rd.	Rickard Rd.	0.3	13,162	58
CSAH 7	TH 10	Johnson St.	0.3	18,477	58
CSAH 51	250' N. of 92nd Lane	97th Ave.	0.4	15,217	58
CSAH 1	Charles St.	64th Way	0.5	16,332	59
CSAH 1	Rice Creek Way	Hartman Circle	0.1	13,302	59
CSAH 1	550' N. of Hanson Blvd.	Crooked Lake Blvd.	1.2	18,927	59
CSAH 10	750' W. of TH 65 SB ramp	200' E. of TH 65 NB Ramp	0.6	22,317	59
CSAH 17	Blaine Cl.	Pheasant Ridge Dr.	0.6	21,688	59
CSAH 23	Blaine Cl.	170' S. of Albert Ave.	0.1	14,273	59
CSAH 23	Dunlap Ave.	Circle Pines Cl.	0.2	11,691	59
CSAH 52	95th Ave. NE	Naples St. NE	0.4	22,440	59

Table Notes: * Represents a segment that is partially or entirely programmed for reconstruction in the Anoka County Highway Department Five-Year Highway Improvement Program.

Source: Anoka County Highway Department

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Table 17 – Road Segments with AADT 6,001 – 11,000 and PQI <55

Route	From	To	Length (Miles)	AADT	PQI
CR 79*	CSAH 7	560' E. of CSAH 7	0.1	6,302	30
CR 79*	560' E. of CSAH 7	120' W. of 9th Ave.	0.2	7,128	32
CSAH 23*	W. Freeway Dr.	SB Ramp I-35	0.1	8,229	34
CR 49*	590' E. of Lakeview	Lake Dr.	0.1	6,057	36
CSAH 116*	Wintergreen St.	Andover Cl.	1.5	10,814	36
CSAH 6	East River Rd.	2nd St.	0.4	6,395	37
CSAH 6	2nd St.	5th St.	0.3	8,333	43
CSAH 32	TH 65	Center Dr. NE	0.1	8,242	43
CR 79*	120' W. of 9th Ave.	Anoka Cl.	0.4	7,128	43
CR 79*	980' E. of Anoka Cl.	Round Lake Blvd.	0.3	7,954	43
CSAH 22*	Lake George Blvd.	425' W. of Heather St. NW	0.2	6,948	45
CR 49*	Lakeview Dr.	590' E. of Lakeview	0.1	6,057	45
CSAH 11*	Redwood St. NW	1070' W. of Redwood St. NW	0.2	10,657	50
CSAH 14	Blaine Cl.	350' W. 4th Ave.	0.9	9,027	50
CSAH 2	East River Rd.	W. End of Bridge No. 02523	0.2	6,129	52
CSAH 34	Hodgson Rd.	Centerville Rd.	3.6	10,036	52
CSAH 35*	Mississippi St.	Rice Creek Bridge	0.4	6,405	52
CR 132	East River Rd.	Coon Rapids Cl.	0.3	7,158	52
CSAH 7	1,130' N. of 165th Ave. NW	Andover Cl.	1.2	8,134	54
CSAH 14	330' E. of Lexington	Blaine Cl.	0.9	8,890	54
CSAH 32	Lexington Ave.	Blaine Cl.	0.6	10,931	54

Table Notes: * Represents a segment that is partially or entirely programmed for reconstruction in the Anoka County Highway Department Five-Year Highway Improvement Program.

Source: Anoka County Highway Department

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Table 18 – Road Segments with AADT 3,001 – 6,000 and PQI <50

Route	From	To	Length (Miles)	AADT	PQI
CSAH 24	Bethel Cl.	TH 65	1.3	3,123	30
CR 60	1550' E. of Andover Cl.	TH 65	1.2	3,138	34
CSAH 11*	East River Rd.	Coon Rapids Blvd.	0.6	5,531	36
CSAH 4	University Ave.	Monroe St. NE	0.5	4,913	41
CSAH 31*	4th Ave.	7th Ave.	0.4	3,398	43
CSAH 2	TH 65	Reservoir Blvd./40th Ave.	0.3	3,695	45
CSAH 5	Viking Blvd.	Old Viking Blvd.	0.2	3,296	45

Table 18 – Road Segments with AADT 3,001 – 6,000 and PQI <50 (Continued)

Route	From	To	Length (Miles)	AADT	PQI
CSAH 9	217th Ave.	Oak Grove City Limit	1.5	5,932	45
CSAH 18	40' W. of Soderville Dr.	East Lake Netta Dr.	1.7	5,921	45
CSAH 102	I-694 Bridge	57th Ave.	0.2	5,625	45
CSAH 32	South County Line	Centerville Rd.	0.9	5,109	47
CR 106	Old Central Ave.	East County Line	0.5	3,498	47

Table Notes: * Represents a segment that is partially or entirely programmed for reconstruction in the Anoka County Highway Department Five-Year Highway Improvement Program.

Source: Anoka County Highway Department

Table 19 – Road Segments with AADT <3,000 and PQI <45

Route	From	To	Length (Miles)	AADT	PQI
CSAH 2	350' S. of 44th Ave.	43rd Ave.	0.1	2,972	27
CSAH 26*	237th Ave.	Durant St.	3.4	1,635	30
CSAH 24	University Ave. Ext.	Bethel Cl.	0.2	2,246	32
CR 60*	East Lake Netta Dr.	Lexington Ave.	1.8	1,952	32
CR 70	Hill and Dale Rd.	Ambassador Blvd.	0.5	561	32
CSAH 2	40th Ave.	TH 47	0.2	2,214	34
CSAH 26	East Bethel Cl.	Typo Creek Dr.	2.1	1,629	34
CSAH 2	43rd Ave.	975' S. of 43rd Ave.	0.2	2,972	36
CSAH 28	Seelye Brook Dr.	Nacre St.	1.8	826	36
CSAH 2	Main St.	350' S. of 44th Ave.	0.1	2,972	39
CSAH 26	Durant St.	East Bethel Cl.	1.0	1,666	39
CSAH 28	Ambassador Blvd.	North County Line	0.5	995	39
CSAH 31*	Main Street	Grant St.	0.9	2,988	39
CR 65	Tiger St.	Nowthen Blvd.	1.1	571	39
CR 72	243rd Ave.	North County Line	0.3	1,691	39
CSAH 13	Viking Blvd.	229th Ave.	4.4	1,650	41
CR 15	Viking Blvd.	213th Ave.	2.8	1,534	41
CSAH 24	Jarvis St.	Nowthen Blvd.	1.9	1,667	41
CSAH 131*	Grant St.	1,550' N. of Grant St.	0.5	1,150	41
CR 68	Crosstown Blvd.	Ham Lake Cl.	1.0	2,640	43
CR 72	Bridge St.	Verdin St.	2.3	2,037	43
CR 89	Norris Lake Rd.	223rd Ave.	1.0	543	43

Table Notes: * Represents a segment that is partially or entirely programmed for reconstruction in the Anoka County Highway Department Five-Year Highway Improvement Program.

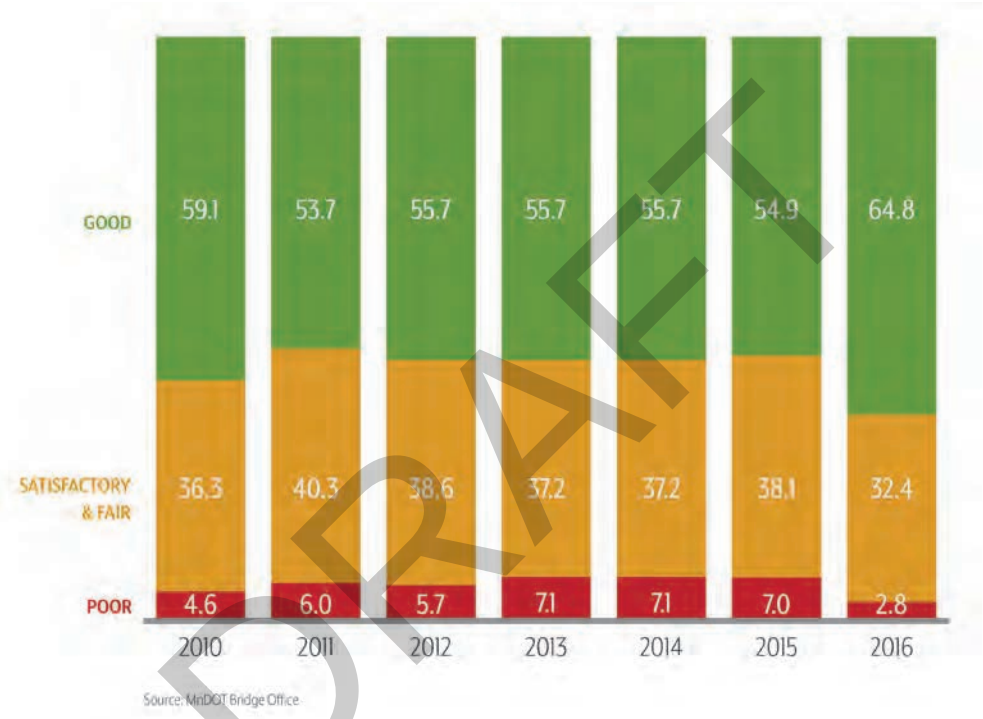
Source: Anoka County Highway Department

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Bridge Condition

As shown in Figure 18, the share of county bridges in good condition improved to 64.8 percent in 2016, which is above Anoka County's target of 50 percent. The share of county bridges in poor condition decreased to 2.8 percent in 2016, which is slightly above Anoka County's target of 2 percent.

Figure 17 - Percentage of County Bridges in Good, Satisfactory/Fair, & Poor Condition



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Structurally Deficient or Functionally Obsolete County Bridges

According to MnDOT, bridges are classified as structurally deficient if they have a general condition rating of 4 or less for the deck, superstructure, substructure or culvert, or if the road approaches regularly take on water due to flooding. The fact that a bridge is structurally deficient does not imply that it is unsafe. For bridge owners, the classification is a reminder that the bridge may need further analysis that may result in load posting, maintenance, rehabilitation, replacement or closure. If unsafe conditions are identified during a physical inspection, the structure will be closed. Structurally deficient is a term used to indicate a priority for federal funding eligibility.

A functionally obsolete bridge is one that was built to standards that no longer meet the minimum federal clearance requirements for a new bridge. These bridges are not automatically rated as structurally deficient, nor are they inherently unsafe. Functionally obsolete bridges include those that have sub-standard geometric features such as narrow lanes, narrow shoulders, poor approach alignment or inadequate vertical under clearance. The classification of a bridge as functionally obsolete also indicates a priority status for federal funding eligibility.



Anoka-Champlin Mississippi River Bridge (Source: MnDOT)

Sufficiency rating is a computed numerical value that is used to determine eligibility for federal funding. The sufficiency rating formula result varies from 0 to 100. The formula includes factors for structural condition, bridge geometry and traffic considerations. The sufficiency rating formula is contained in the December 1995 edition of the "Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges." A bridge that is structurally deficient or functionally obsolete with a sufficiency rating of 80 or less is eligible for federal rehabilitation funding. Of those, a bridge with a sufficiency rating of less than 50 is eligible for federal replacement funding.

Table 20 identifies structures that are classified as being structurally deficient as of the year 2016 and have a sufficiency rating that is either at or currently approaching eligibility for federal rehabilitation funding. Anoka County does not have any functionally obsolete bridges under its jurisdiction.

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Table 20 – Structurally Deficient County Bridges - 2016

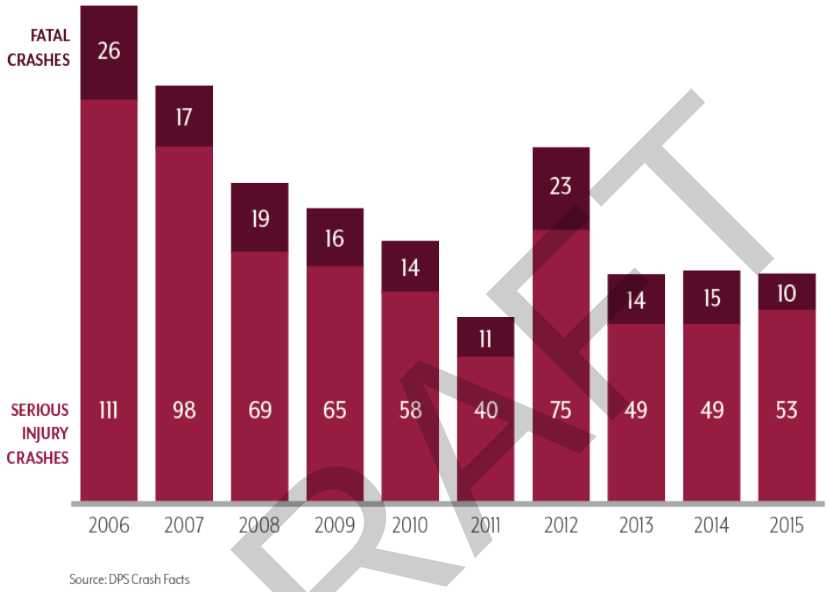
Bridge No.	Year Built	Facility – Feature Crossed	City	Structure Type	Sufficiency Rating
02521	1972	CSAH 116 over BNSF RR	Coon Rapids	Bridge	83
3310	1920	CSAH 35 over Rice Creek	Fridley	Culvert	70.9
94197	1979	CSAH 34 (Birch St.) over County Ditch #25	Lino Lakes	Culvert	69.1
93674	1983	CSAH 17 over Coon Creek	Ham Lake	Culvert	63.0
02549	1988	CSAH 18 over Coon Creek	Coon Rapids	Bridge	59.9

As of March 2018, there are two county-owned bridges that are posted with weight restrictions: CSAH 13 over Cedar Creek (Br. No. 02518) and CSAH 22 over the Rum River (Br. No. 02519).

Traveler Safety

There were 11 people who died in 10 fatal crashes on roadways in Anoka County in 2015, a decrease of 39 percent over the 10-year reporting period average (see Figure 19). The figure also indicates there were 53 serious injury crashes in 2015.

Figure 19 - Total Number of Serious Injury and Fatal Crashes Involving a Motor Vehicle on All Roadways within Anoka County



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Crash rates, which are calculated by dividing the number of crashes by 100 million vehicle miles traveled, is a common metric to compare and assess fatal and serious injury crash data. As illustrated in Figure 20, in 2015, there were 0.32 traffic fatalities per 100 million vehicle miles traveled, which is the lowest traffic fatality rate since 2006. By comparison, the traffic fatality rate statewide in 2015 was 0.65 and the rate for the Twin Cities seven-county metropolitan area was 0.33.

Figure 20 - Traffic Fatality Rate on All Roadways within Anoka County (per 100 Million MT)

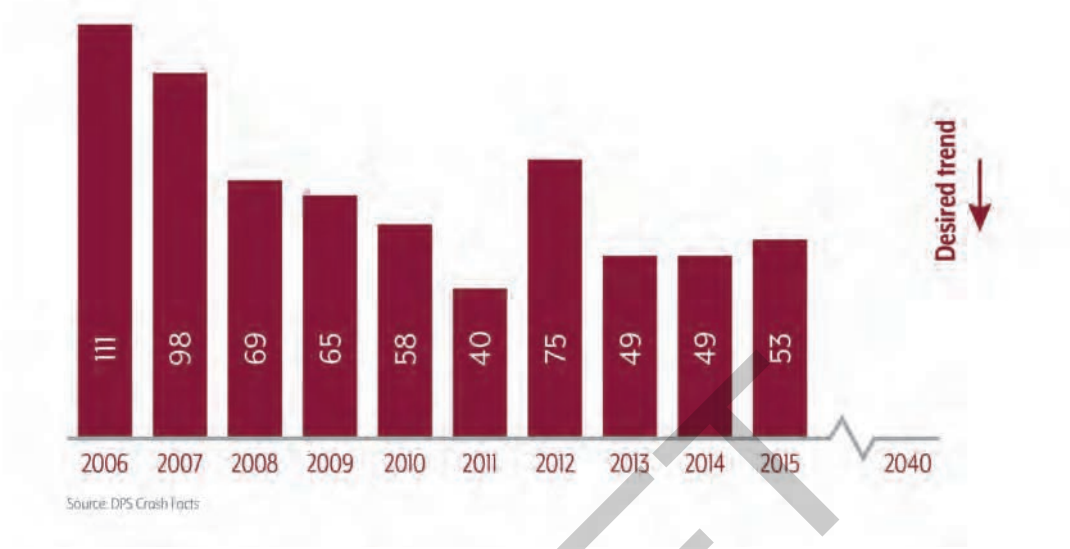
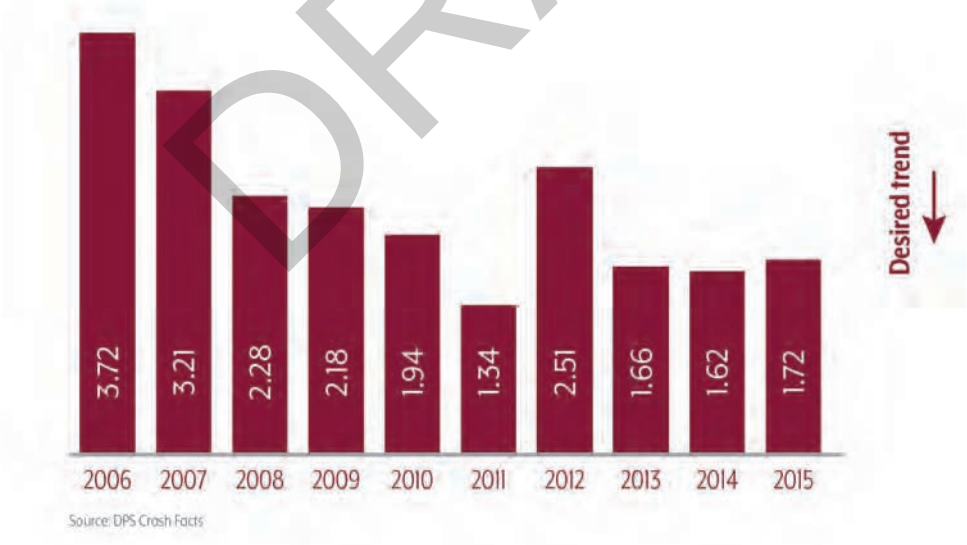


Figure 21 indicates that in 2015, there were 1.72 serious injuries per 100 million vehicle miles traveled, which is the fourth lowest in the ten-year timeframe between 2006 and 2015.

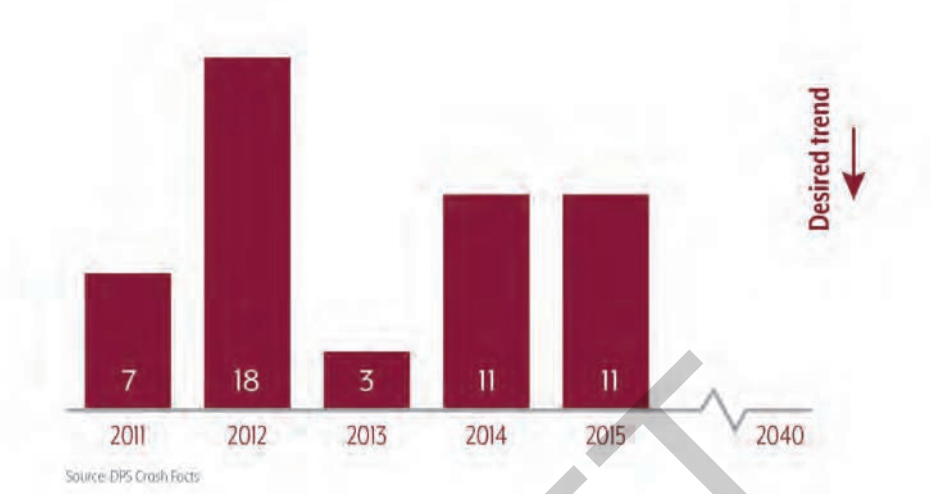
Figure 21 - Serious Injury Rate on All Roadways within Anoka County (Per 100 Million VMT)



Finally, in 2015, there were 11 pedestrian, bicyclist, and other non-motorized transportation fatalities and serious injuries, which ties for the second highest total in the ten-year timeframe between 2006 and 2015 (see Figure 22).

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Figure 22 - Total Number of Pedestrian, Bicyclist, and Other Non-Motorized Transportation Fatalities and Serious Injuries



In order to understand the contributing factors for the fatalities and serious injuries in Anoka County, crashes are sorted by crash category and focus areas by category.

Table 21 provides a detailed breakdown of fatal and serious injury crashes for 2006 and 2015. This approach allows for an assessment of trends over time.

Table 21 – Fatal and Serious Injury Crashes by Focus Area (2006 and 2015)

Category	Focus Area	2006 Results	2015 Results	10-Year Actual Change	10-Year Percent Change
Driver Behavior	Impaired Driver	31	9	-22	-71%
	Inattentive Driver[1]	33	8	-25	-76%
	Speeding	17	8	-9	-53%
Driver Characteristic	Under 21	45	17	-28	-62%
	Older Than 64	23	16	-7	-30%
Special User	Motorcyclist	23	17	-6	-26%
	Pedestrian	10	7	-3	-30%
	Bicyclist	8	4	-4	-50%
Crash Type	Lane Departure	32	26	-6	-19%
	Intersection	60	22	-38	-63%
Total Fatal and Severe Crashes[2]		**137**	**63**	**-74**	**-54%**

[1] Note: Severe crashes involving inattentive drivers are likely underreported and should be evaluated with caution.
[2] Note: Crashes may involve multiple focus areas.

Source: MnDOT Crash Mapping Software

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The data illustrated a fairly significant positive trend within the County as all crash type categories and focus areas have seen a measurable decrease in the number of crashes between 2006 and 2015.

High Frequency Intersection Crash Locations

The Anoka County Highway Department uses the Minnesota Crash Mapping Analysis Tool (MnCMAT) to review high crash locations to identify patterns that are correctable and locations on the County system that would benefit from traffic control or geometric improvements. Crash data is used to identify projects for the federal Hazard Safety Improvement Program (HSIP), Local Road Improvement Program (LRIP), Central Safety Fund, Safe Routes to School (SRTS), and other funding programs, as appropriate.

Intersection crashes were sorted utilizing an intersection buffer to aggregate crashes at each intersection. An approximate 250-foot radius surrounding each intersection was used for the majority of intersection. On some of the more access controlled corridors, such as Trunk Highway 47 and Trunk Highway 65, a 500-foot radius surrounding each intersection was used. On intersections that are closely spaced, within 500 feet of each other, the distance between intersections was divided evenly.

Figure 23 depicts the highest crash locations in Anoka County; this figure is zoomed in as all of the high crash locations are located in the southern portion of the County. Table 22 shows all intersections that had 35 or more crashes during the five-year analysis period; a total of 49 intersections.

Crash frequency only includes the total number of crashes observed at each intersection location, this is not always indicative of a serious problem. Intersection crash rates can be a better indicator of problem intersections as the rate normalizes the crashes based on the vehicle exposure at the intersection. However, intersection crash rates were not evaluated for each site as part of this crash evaluation. Therefore, there may be some intersection locations with higher crash rates that are not included in this intersection list of crash frequency; specifically in the more rural areas with low volume intersections.



Anoka County intersection (Source: Anoka County)

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Traffic on Fairoak Avenue in Anoka (Source: City of Anoka)

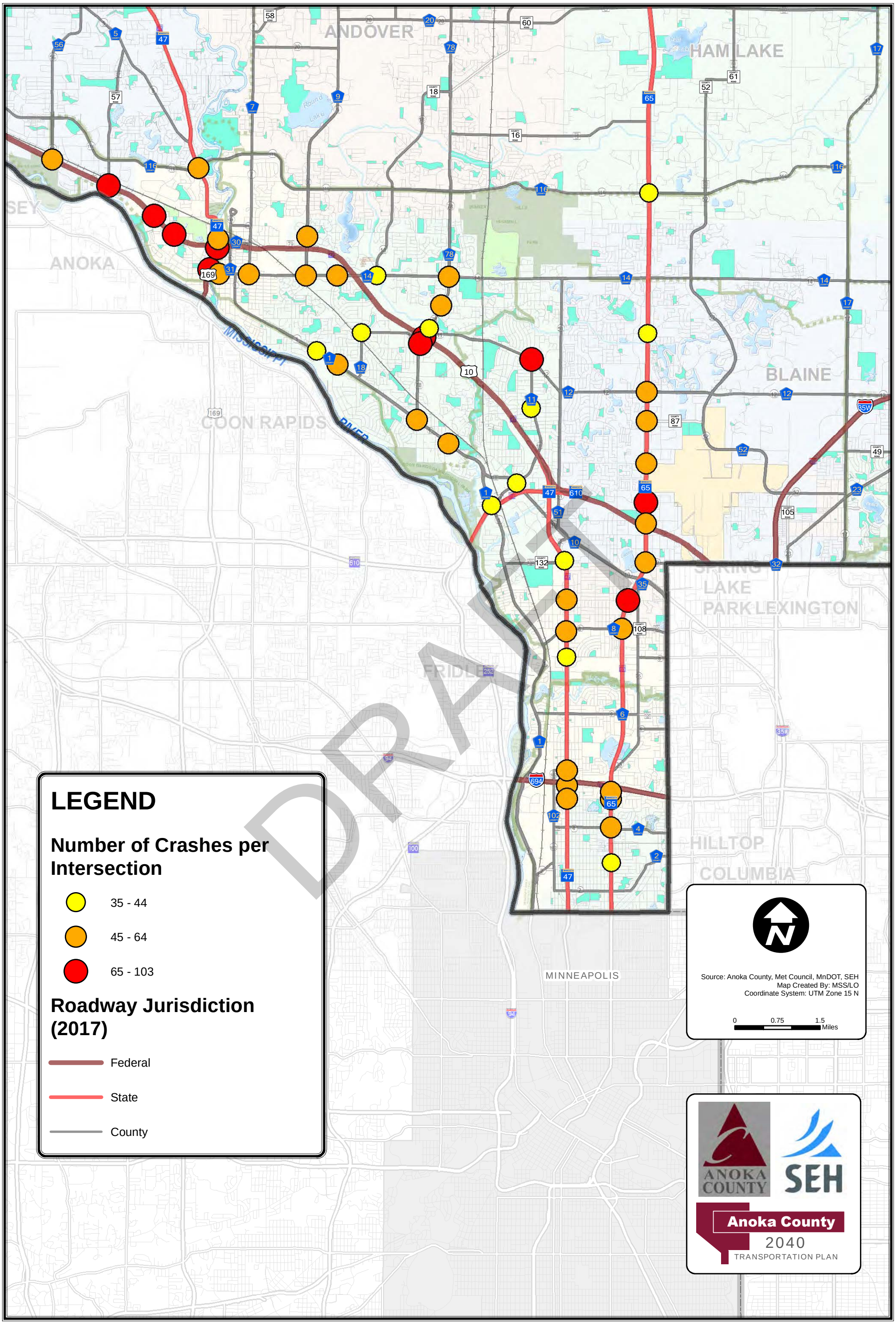
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Not surprising, the corridors with high traffic demands dominate the list of high crash locations. Trunk Highway 65 has the highest number of intersections with 14 intersection in this list; Trunk Highway 47 is 2nd with 8 intersections. U.S. Highway 10 ramp terminals and U.S. Highway 169 intersections are included 7 times in this list of high incident locations. MnDOT is the controlling intersection agency on 30 or the top 49 intersections in this list.

Anoka County corridors in this list include CSAH 1, CSAH 11, CSAH 14, and CSAH 78 which all have at least 5 intersections. Anoka County is the controlling intersection agency on 18 intersection, with 13 additional intersections shared with MnDOT. There are 8 intersections with County and City jurisdiction, and a single intersection that a City is the controlling agency.

Many of these intersections have had improvements made in recent years or currently have planned improvements in the current Five-Year Highway Improvement Program. The improvements vary in size and scope, with some including additional capacity, turn lane extensions, and signal retiming and coordination. All of these projects should have a positive impact on the safety of each intersection.

While many current and planned projects will have a significant positive impact on crashes, other corridors and intersections should be monitored to see if additional improvements could be made to improve traffic safety.



HIGH FREQUENCY INTERSECTION CRASH LOCATIONS (35 OR MORE CRASHES) 2011-2015

FIGURE **23**

Table 22 – Top Intersection High Crash Locations

#	Roadway #1	Roadway #2	City	Jurisdiction	Crashes
1	CSAH 78 (Hanson Blvd)	US Highway 10 Ramp	Coon Rapids	MnDOT-County	103
2	TH 65	81st Ave/Central Ave	Spring Lake Park	MnDOT-City	96
3	US Highway 169 (Ferry St)	Main St	Anoka	MnDOT-City	86
4	US Highway 10	Thurston Ave	Anoka	MnDOT-City	84
5	US Highway 169 (Ferry St)	EB US Highway 10 Ramp	Anoka	MnDOT-MnDOT	81
6	US Highway 10	Fairoak Ave	Anoka	MnDOT-City	78
7	TH 65	Clover Leaf Pkwy/93rd Ln	Blaine	MnDOT-City	76
8	County Road 57 (Sunfish Lake)	US Highway 10	Ramsey	MnDOT-County	75
9	CSAH 78 (Hanson Blvd)	CSAH 11 (Northdale Blvd/ Robinson Dr)	Coon Rapids	County-County	72
10	CSAH 11 (Foley Blvd)	CSAH 11/CSAH 12 (Northdale Blvd)	Coon Rapids	County-County	68
11	TH 65 (Central Ave)	99th Ave	Blaine	MnDOT-City	64
12	CSAH 9 (Round Lake Blvd)	Northdale Blvd	Coon Rapids	County-City	63
13	TH 47 (University Ave)	81st Ave	Fridley	MnDOT-City	63
14	CSAH 1 (Coon Rapids Blvd)	CSAH 78 (Hanson Blvd)	Coon Rapids	County-County	62
15	TH 65 (Central Ave)	89th Ave	Blaine	MnDOT-City	61
16	TH 47 (Ferry St)	CSAH 30/Pleasant St	Anoka	MnDOT-County-City	59
17	TH 47 (University Ave)	CSAH 8 (Osborne Rd)	Fridley	MnDOT-County	58
18	TH 65 (Central Ave)	CSAH 87 (105th Ave)	Blaine	MnDOT-County	56
19	CSAH 1 (Coon Rapids Blvd)	Egret Blvd	Coon Rapids	County-City	53
20	TH 65 (Central Ave)	WB US Highway 10 Ramp	Blaine	MnDOT-MnDOT	53
21	TH 65 (Central Ave)	CSAH 4 (49th Ave)	Columbia Heights	MnDOT-County	52
22	TH 65 (Central Ave)	CSAH 12 (109th Ave)	Blaine	MnDOT-County	52
23	Main St	2nd Ave	Anoka	City-City	52
24	TH 47 (St Francis Blvd)	CSAH 116 (Bunker Lake Blvd)	Ramsey	MnDOT-County	51
25	TH 47 (University Ave)	EB I-694 Ramp	Fridley	MnDOT-MnDOT	51
26	US Highway 10	CSAH 56 (Ramsey Blvd)	Ramsey	MnDOT-MnDOT	50
27	TH 65 (Central Ave)	CSAH 32 (85th Ave)	Blaine	MnDOT-County	50
28	CSAH 14 (Main St)	CSAH 7 (7th Ave)	Anoka	County-County	50
29	CSAH 14 (Main St)	CSAH 9 (Round Lake Blvd)	Coon Rapids	County-County	50
30	CSAH 78 (Hanson Blvd	121st Ave	Coon Rapids	County-City	49

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Table 22 – Top Intersection High Crash Locations (Cont.)

#	Roadway #1	Roadway #2	City	Jurisdiction	Crashes
31	TH 47 (University Ave)	CSAH 102 (57th Ave)	Fridley	MnDOT-County	48
32	TH 65	CSAH 8 (Osborne Rd)	Spring Lake Park	MnDOT-County	48
33	CSAH 1 (Coon Rapids Blvd)	Mississippi Blvd	Coon Rapids	County-City	48
34	CSAH 14 (Main St)	Northdale Blvd	Coon Rapids	County-City	47
35	TH 65 (Central Ave)	EB I-694 Ramp	Fridley	MnDOT-MnDOT	46
36	CSAH 14 (Main St)	CSAH 78 (Hanson Blvd)	Coon Rapids	County-County	45
37	TH 47 (University Ave)	53rd Ave	Fridley	MnDOT-City	45
38	CSAH 11 (Foley Blvd)	Egret Blvd	Coon Rapids	County-City	44
39	CSAH 11 (Foley Blvd)	Coon Rapids Blvd	Coon Rapids	County-City	44
40	TH 65 (Central Ave)	117th Ave/Cloud Dr	Blaine	MnDOT-City	42
41	TH 65 (Central Ave)	44th Ave	Columbia Heights	MnDOT-City	41
42	CSAH 11 (Northdale Blvd)	CSAH 18 (Crooked Lake Blvd)	Coon Rapids	County-County	40
43	TH 65 (Central Ave)	CSAH 116 (Bunker Lake Blvd)	Ham Lake	MnDOT-County	39
44	CSAH 78 (Hanson Blvd)	CSAH 11 (Northdale Blvd/Gateway Dr)	Coon Rapids	County-County	37
45	CSAH 1 (Coon Rapids Blvd)	Pheasant Ridge Dr	Coon Rapids	County-City	37
46	TH 47 (University Ave)	73rd Ave	Fridley	MnDOT-City	37
47	TH 47 (University Ave)	County Road 132 (85th Ave)	Blaine	MnDOT-County	36
48	CSAH 1 (East River Rd)	CSAH 11/SB Highway 610 Ramp	Coon Rapids	County-County	36
49	CSAH 14 (Main St)	CSAH 18 (Coon Creek Blvd)	Coon Rapids	County-County	35

Source: Minnesota Crash Mapping Analysis Tool (MnCMAT)

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3.3 TRANSPORTATION FUNDING IN ANOKA COUNTY

Funds for transportation in Anoka County come from local, state and federal sources and are raised through a variety of user taxes and fees, general state and local taxes and federal funding allocations or competitive programs. Appendix D examines the sources of funding that will be available for transportation investments within Anoka County in the coming years. In general, the trend over the past several years, which is expected to continue into the future, has been a decline in total revenue and a focus on system maintenance and preservation rather than expansion. Additional funding information is provided in Section 6.3.

4 FORECAST CONDITIONS



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This chapter describes the transportation opportunities and challenges that will effect Anoka County in the next 20 years. Forecast conditions for roadways, transit, bicycling and walking, aviation and freight in Anoka County are also described later on in this chapter.

4.1 TRENDS IMPACTING ANOKA COUNTY

This section describes the key trends that could influence and impact Anoka County's road system in the next 20 years. Trends assessed include population, employment, housing, commuting, technology and road design.

Population Trends

Anoka County has been gaining population and households steadily since 1970, as identified in Table 23. The growth taking place in the county is reflective of regional trends. By 2040, the Metropolitan Council expects that Anoka County will grow by nearly 96,000 people and over 43,000 households. Figures 24 and 25 show the current and forecast population densities in Anoka County, mapped based on 2040 TAZ data. These figures indicate that population growth will largely be concentrated in the southern portion of Anoka County including the cities of Blaine, Ramsey and Andover.

Anoka County's Aging Population

The elderly population in Anoka County is growing. In 2010, 9.7 percent of the population was older than age 65. According to the American Community Survey (ACS), Anoka County is aging slightly. In 2016, 11.8 percent of the population was older than age 65. This trend will affect where people live, and how they travel, as historically the elderly have used transit at higher percentages than other age groups.



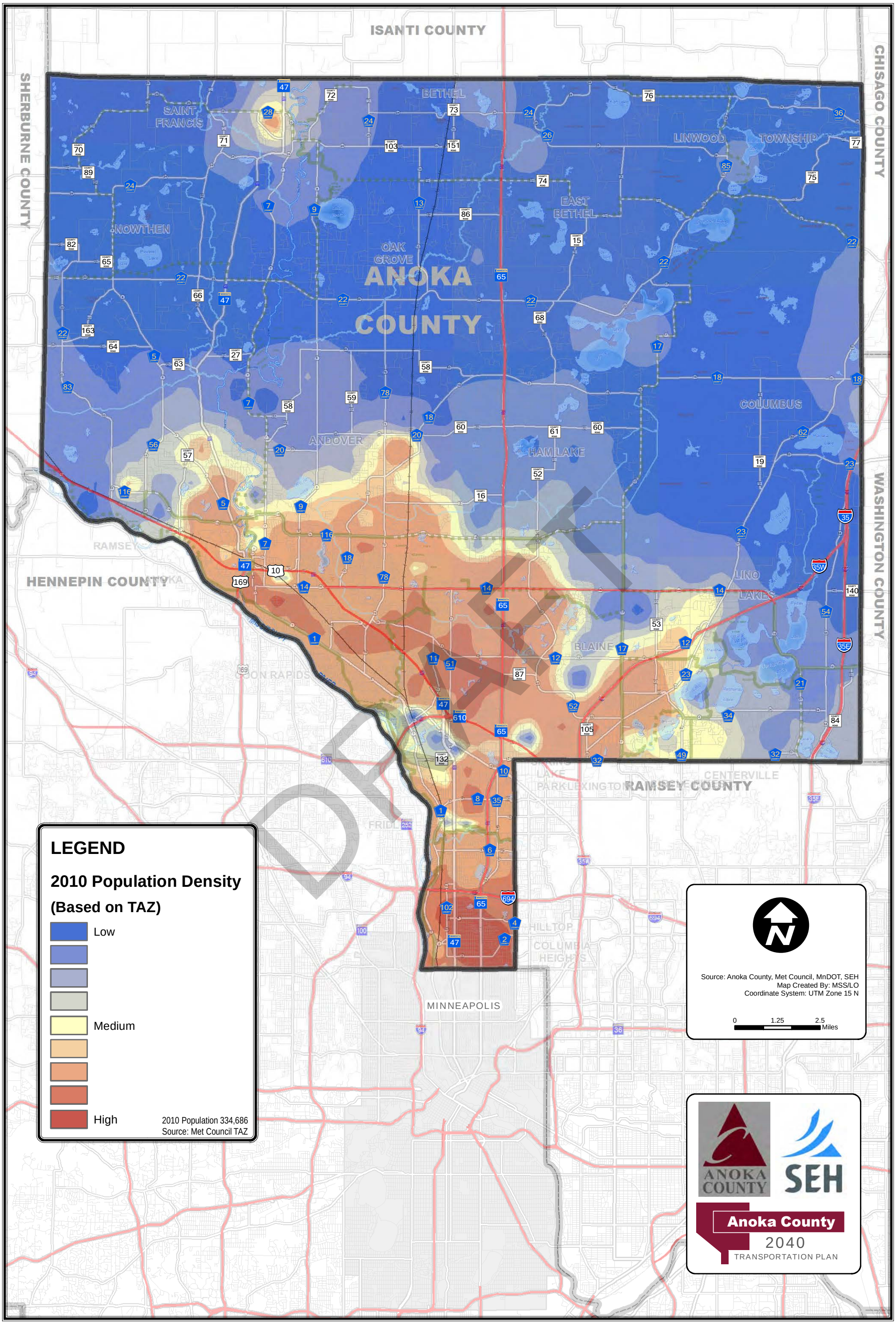
Roadway in Anoka County (Source: Anoka County)

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Table 23 – Populations and Households in Anoka County

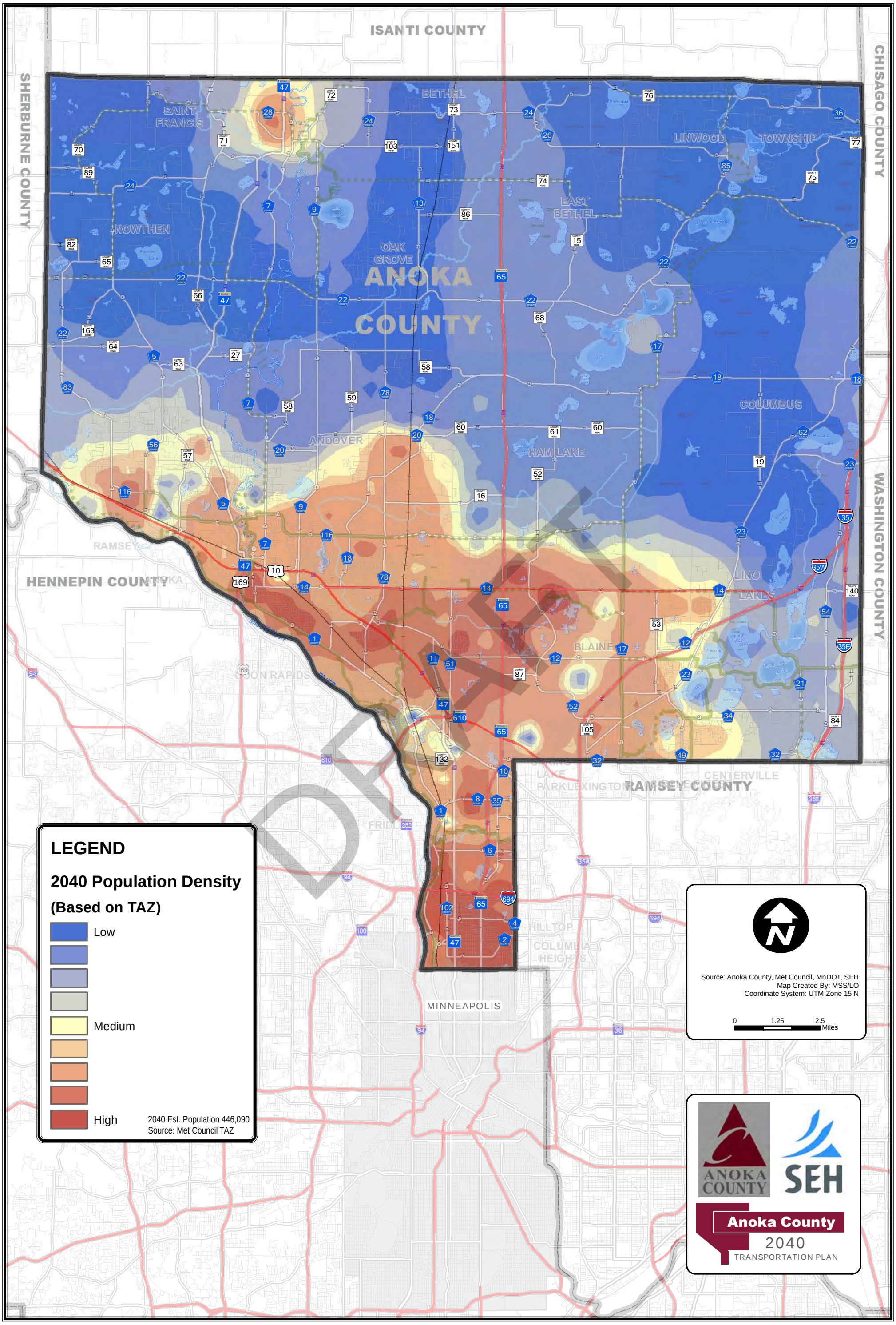
	1970	1980	1990	2000	2010	2015	2020	2030	2040
Population	154,712	195,998	243,641	298,084	330,844	348,104	364,260	405,335	443,801
Households	39,688	60,716	82,437	106,428	121,227	130,382	138,612	157,045	173,672

Sources: U.S. Census Bureau Decennial Census, Metropolitan Council Annual Estimates, and Metropolitan Council Forecasts



2010 POPULATION DENSITY

FIGURE **24**



2040 POPULATION DENSITY

FIGURE **25**

Employment Trends

Figures 26 and 27 show the current and forecast employment densities in Anoka County, mapped based on 2040 TAZ data. The data indicate that within Anoka County, jobs are concentrated in the south, which is consistent with closer proximity to the cities of Minneapolis-St. Paul, more urban land uses, and a higher population.



Housing in Coon Rapids (Source: City of Coon Rapids)

Housing and Commuting Trends

Housing Trends

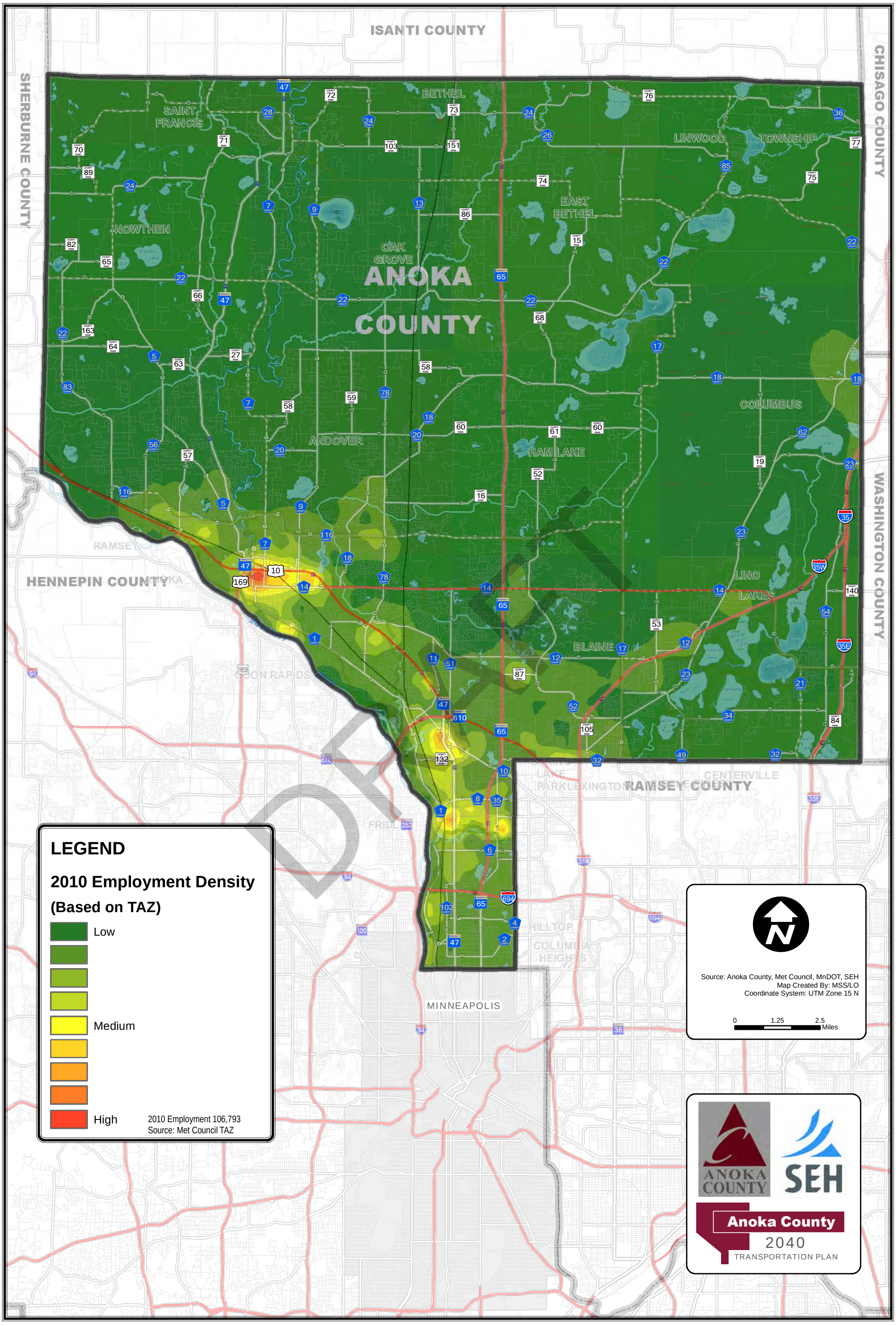
For the foreseeable future, suburban areas will remain the leader in growth in housing. According to the Urban Land Institute, the suburbs accounted for 90 percent of population growth nationwide in the top 50 metropolitan areas. From 2016 to 2025, 12.5 million net new households will be formed, with almost 80 percent of that growth experienced in suburban areas, resulting in younger and more diverse suburban populations.

The Millennial generation is expected to rent housing more than owning them. On the other side of the generational age range, the Baby Boom generation is aging and entering retirement and will require different housing and transportation options. By 2025, 66 million Americans will be over age 65 - 38 percent more than in 2015. Some are on fixed incomes and the generation as a whole has higher rates of disabilities. Most seniors remain homeowners through the age of 75 to 84. The largest group of baby boomers is still under age 60, indicating that most will be homeowners for at least another 15+ years, when they will move from larger homes on larger lots to smaller homes on smaller lots, or townhomes and apartments.

The Minnesota Housing Finance Agency has determined that Minnesota needs more affordable housing. In recent years, the number of Minnesota households that are cost burdened by their housing payment has increased by 63 percent as median incomes have declined and housing costs have increased. Households are cost burdened if they spend more than 30 percent of their income on housing.

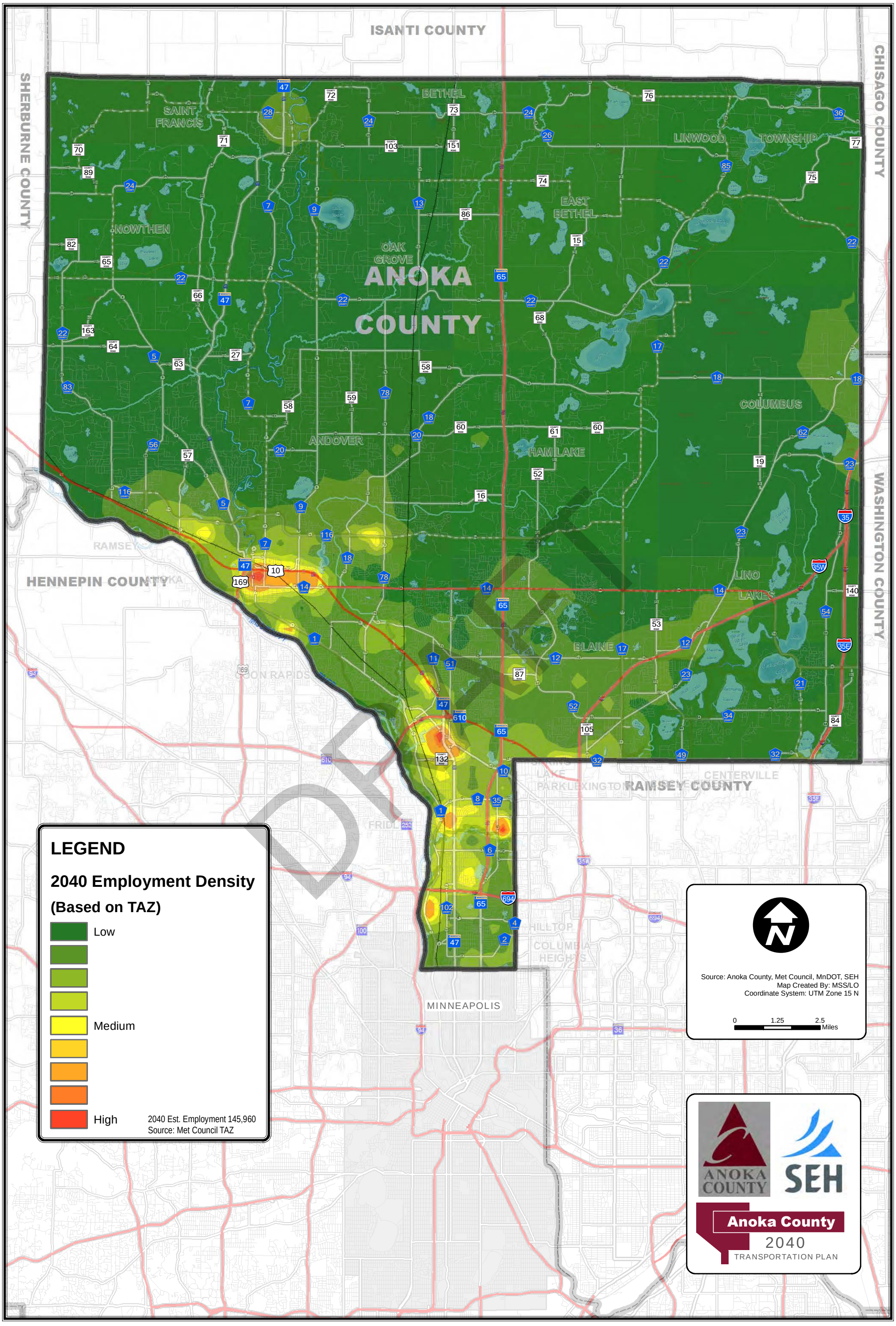
In summary, as the Baby Boom generation grows older, retires, and moves from larger, more expensive suburban homes and lots to smaller, more affordable homes, townhomes, and apartments in more urban areas, younger Millennial families will likewise prefer to live in smaller homes and smaller lots in pedestrian-friendly neighborhoods. Many Baby Boomers and Millennials will be renters. Demand for housing in first-ring suburb style communities in southern Anoka County will increase in the future, while demand for traditional large home/large lot development of suburban areas may remain flat or even decline.

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2010 EMPLOYMENT DENSITY

FIGURE **26**



2040 EMPLOYMENT DENSITY

FIGURE **27**

Commuting Trends

Twin Cities' residents are increasingly using options other than cars to travel. Per-capita vehicle miles traveled remains below the peak set in 2004. Transit ridership and the percentage of people who bicycle and walk have grown in recent years. E-commerce, telecommuting and flex-hours also influence how people travel. As access to high speed internet grows, more and more people will have the option to shop, see a doctor, or work online. Many companies currently allow for flexible working hours to avoid peak hours of traffic congestion, and this is expected to continue.

Table 24 shows the historic commuting trends for Anoka County from 2009 to 2016.

Table 24 – American Community Survey Commuting Data Historic Trends – Anoka County

	2009	2010	2011	2012	2013	2014	2015	2016	Change per year	Growth rate
Drive Alone	83.1	82.9	82.5	82.3	82.0	82.0	82.1	82.0	-0.2%	-0.2%
Carpool	8.7	8.7	8.7	8.9	8.6	8.7	8.5	8.3	-0.5%	-0.6%
Transit	2.8	2.9	3.2	3.2	3.4	3.3	3.4	3.4	+0.09%	+3.0%
Walk	1.0	1.0	1.0	0.9	1.0	1.1	1.1	1.1	+0.02%	2.0%
Bicycle	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	-0.002%	-1.0%
Taxi, motorcycle or other	0.8	0.7	0.8	0.7	0.7	0.6	0.7	0.7	-0.02%	-2.0%
Worked at home	3.3	3.6	3.6	3.7	4.1	4.0	4.0	4.3	+0.1%	+3.9%

Source: 2012-2016 American Community Survey 5-Year Estimates, county-level data

Since 2009, Anoka County commuters choosing to drive alone, carpool, and bike to work have slightly declined, while those choosing to use public transit, walk and work from home have slightly increased. From the data, the most notable shift appears to be from those choosing to drive, whether it be alone or carpooling, to using public transit and working from home.

In summary, the trend of shifting from commuting by vehicle to public transit and telecommuting/working from home is expected to continue into the future.



Drivers in Anoka County (Source: Anoka County)

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Traffic congestion on Highway 10 (Source: Star Tribune)

From 2009 to 2016, roughly forty percent of Anoka County residents commute to and from work within the county, while sixty percent work outside the county, and a consistent and unchanged trend over this period.

Seventy percent of Anoka County residents leave home to go to work between 5am and 9am, with the remaining thirty percent going to work throughout the rest of the day. The ACS data reveals a slight 0.2 percent per year shift away from morning commutes, perhaps the result of flexible working hours or the effects of e-commerce, but leaving times during the morning commute remain unchanged, with most residents leaving for work between 6:30am and 7:30am.

Almost 85 percent of Anoka County workers have access to two or more vehicles in their households, while 14 percent have access to one vehicle and 2 percent no vehicles.

Commute times to work are increasing for Anoka County residents 0.7 percent per year, with an average time of 28.2 minutes in 2016. Whether this trend continues or reverses will be determined by if residents choose to live closer to where they work.

Technology Trends

Technology advancements and smartphone software are affecting the transportation network today, and will continue to do so into the future. In many ways, the transportation system is already being automated by:

- Navigation devices and smartphone applications that provide and adjust to real time traffic like Google Maps, TomTom, and Garmin; and
- Ride-sharing applications like Uber and Lyft.

Real-time applications such as Google Maps affect the transportation network today. When congestion occurs on primary routes, users are diverted to alternate routes to avoid the congestion and save travel time. Many of these alternate routes are county and local roadways, and quickly become congested due to the sudden increase in traffic. In the future as the technology develops, roadway authorities such as MnDOT and Anoka County should seek to integrate these real-time private sector applications into the operations of their public facilities, especially traffic signal timings, to better manage their transportation systems. Their use and effect on the system will only increase.

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Autonomous Vehicles

Autonomous vehicles or "self-driving cars" are defined by the U.S. Department of Transportation as "those in which operation of the vehicle occurs without direct driver input to control the steering, acceleration, and braking and are designed so that the driver is not expected to constantly monitor the roadway while operating in self-driving mode."



The Automated Shuttle Bus Pilot Project operating in winter (Source: MnDOT)

MnDOT is testing an automated shuttle bus in cold-weather conditions in the winter of 2017, the first cold-weather conditions test of its kind in the United States.

Considering how quickly smartphone technology developed over the past decade, and how its navigation applications are affecting the transportation network today, government regulators and transportation agencies should start planning for the effects of automated vehicles now. A recent U.S. Government Accountability Office report declared that federal transportation authorities have not done enough to prepare and plan for self-driving cars and trucks. The public also remains skeptical and sometimes fearful of the technology based on polls and surveys.

While it is impossible to predict how quickly autonomous vehicles will enter the marketplace, and when their use becomes ubiquitous, it is fair to conclude that this technology will continue to develop and may start using the transportation network alongside human drivers quicker than expected.

Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) are oriented to the management of large volumes of traffic on regional transportation networks, such as freeway variable message signs and ramp meters. However, numerous ITS technologies could be considered for local applications. Some examples include:

Dynamic Speed Display Signs (DSDS) – These signs display the speed of approaching vehicles and are used to alert motorists when they are exceeding the speed limit. These generally are mobile units that can be moved from one potential problem location to another. Studies suggest that these types of signs can have a significant effect on reducing speeds. These signs are often used in school zones.

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Advanced Traffic Management System (ATMS) – In 2016, the County implemented a Centracs ATMS system that is designed to make traffic signals and traffic progression much more efficient. There are 64 signalized intersections that are currently online in the system.

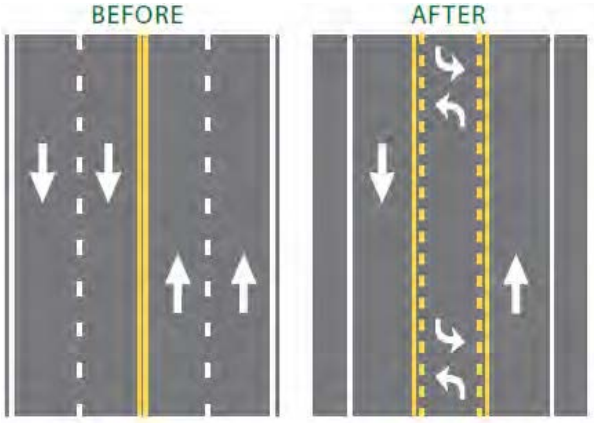


Illustration of the "before" and "after" of a road diet (Source: FHWA)

Roadway Design Trends (e.g., Road Diet)

Four-lane undivided roadways are prevalent throughout Minnesota and the United States. They provide a capacity benefit for moving large volumes of through traffic through an area in constrained right-of-way situations. This design continues to be beneficial if the traffic is primarily from one direction and the other direction has light traffic levels. While there is no protection for left turning vehicles off of the mainline this design continues to work if the directions are imbalanced. This allows left turning vehicles from the mainline to be almost unimpeded in the peak direction and the left most lane in the non-peak direction to be used as a left turn lane. The downside of the design is that as volumes get higher in either direction, the left turning vehicles in the peak direction may begin to be blocked by vehicles in the non-peak direction or the number of vehicles in the peak direction is high enough that any slowdown caused by a left turning vehicle begins to result in an unsafe situation as vehicles behind the left turning vehicle now have to swerve around them or stop. When the volumes get high enough, opposing left turn crashes and rear-end crashes generally increase due to this situation.

As these issues arise, there may be a need to evaluate whether left turn lanes can be provided. In many cases this results in a need to widen the roadway to accommodate the left turn lanes. Another option is to convert the four-lane roadway to a three-lane road with a “road diet”. A road diet introduces a left turn lane along the roadway but reduces the number of through lanes to one in each direction. This does result in a slight reduction in capacity but also generates a substantial safety benefit. The County currently has a road diet project programmed for CSAH 8 (Osborne Road) between Trunk Highway 47 and Trunk Highway 65.

Other road diet benefits include reducing the number of through lanes to provide for bus-only shoulder lanes, parking lanes, or bike lanes, where conditions permit.

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Anoka County State Aid Highway 35 (Source: Anoka County)

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4.2 ROADWAYS

The Anoka County Highway Department prepared average daily traffic forecasts for the year 2040 for the arterial and collector roads in Anoka County. The 2040 forecasts are depicted on Figure 28. The forecast methodology is described in greater detail in Appendix E.

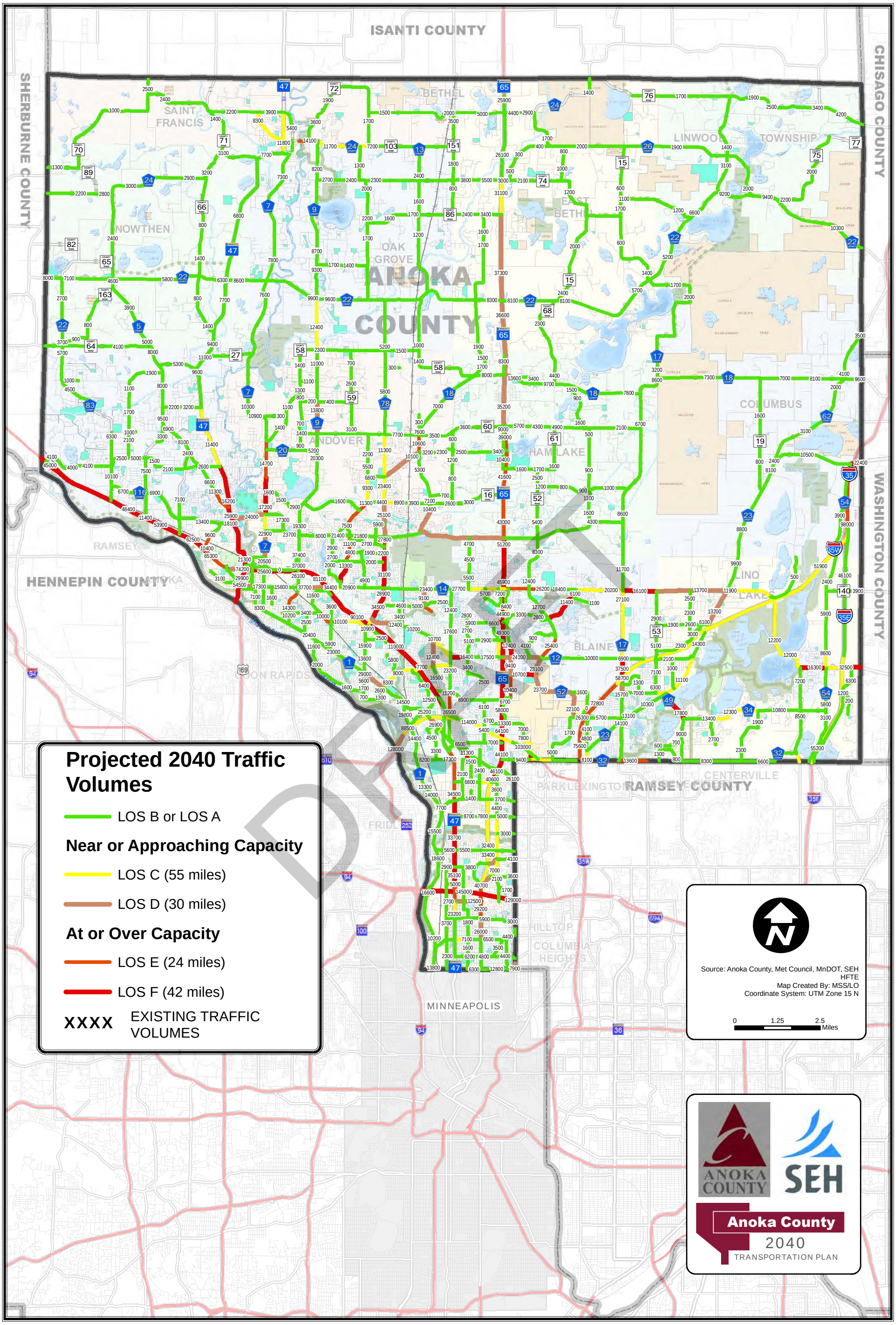
The traffic forecasts are based on land use assumptions and travel behavior including the number of households, population and employment. This data is organized by traffic analysis zones (TAZ's). Table 25 details the County's year 2040 household, population and employment forecasts by community. Anoka County met with each community early in the planning process to review and validate the TAZ data assembled for each community by the Metropolitan Council. One of the areas forecasted to experience substantial growth is the northeastern portion of Blaine. The TAZ boundaries are depicted in Figure 29. The detailed socioeconomic data at the TAZ level is included in Table 11 in Appendix E.

Table 25 – Households, Population and Employment Forecasts

Community	Households				Population				Employment			
	2015	2020	2030	2040	2015	2020	2030	2040	2015	2020	2030	2040
Andover	10,613	11,400	13,501	15,401	32,309	34,005	38,203	41,904	5,041	5,400	5,795	6,200
Anoka	7,481	7,899	8,401	8,900	17,921	18,698	20,001	21,198	13,324	13,800	14,201	14,399
Bethel	182	190	220	230	473	480	520	550	108	130	150	180
Blaine	23,096	25,102	29,201	33,304	61,757	66,304	76,712	87,311	22,241	24,801	27,297	29,900
Centerville	1,358	1,400	1,450	1,499	3,817	3,840	3,929	4,059	476	540	559	590
Circle Pines	2,055	2,101	2,160	2,200	4,960	5,000	5,199	5,301	846	900	950	1,000
Columbia Heights	8,166	8,400	8,899	9,299	20,001	20,501	21,799	23,102	3,884	4,279	4,439	4,600
Columbus	1,511	1,600	1,931	2,199	4,070	4,221	4,951	5,501	1,338	1,499	1,670	1,799
Coon Rapids	24,049	25,501	27,501	29,302	61,938	64,804	68,404	72,101	24,255	27,102	28,900	30,900
East Bethel	4,385	4,702	5,999	7,398	12,016	12,399	15,401	18,399	1,416	1,701	1,950	2,200
Fridley	13,402	12,200	13,300	13,600	31,625	29,300	31,600	32,500	28,238	23,700	24,900	26,100
Ham Lake	5,490	5,800	6,600	7,099	15,754	16,201	17,701	18,701	3,323	3,701	4,010	4,302
Hilltop	415	450	500	550	792	840	960	1,090	387	460	480	500
Lexington	804	820	879	949	2,076	2,101	2,270	2,429	534	600	630	640
Lino Lakes	6,741	7,301	9,000	10,600	21,513	22,800	26,898	31,099	4,013	4,701	5,300	6,003
Linwood Twp.	1,943	2,001	2,000	2,000	5,112	5,099	4,930	4,819	276	329	390	430
Nowthen	1,527	1,601	1,860	2,100	4,520	4,590	5,100	5,500	412	501	590	680
Oak Grove	2,926	3,100	3,598	4,101	8,321	8,600	9,502	10,401	834	921	982	1,003
Ramsey	8,724	9,400	11,302	13,001	25,044	26,402	30,699	34,700	5,496	6,201	6,999	7,603
Spring Lake Park	2,701	2,801	2,900	3,099	6,374	6,510	6,789	7,171	3,068	3,201	3,350	3,498
St. Francis	2,813	3,101	4,102	5,100	7,711	8,198	10,400	12,599	1,872	2,202	2,551	2,899
County Total	130,382	136,870	155,304	171,931	348,104	360,893	401,968	440,435	121,382	126,669	136,093	145,426

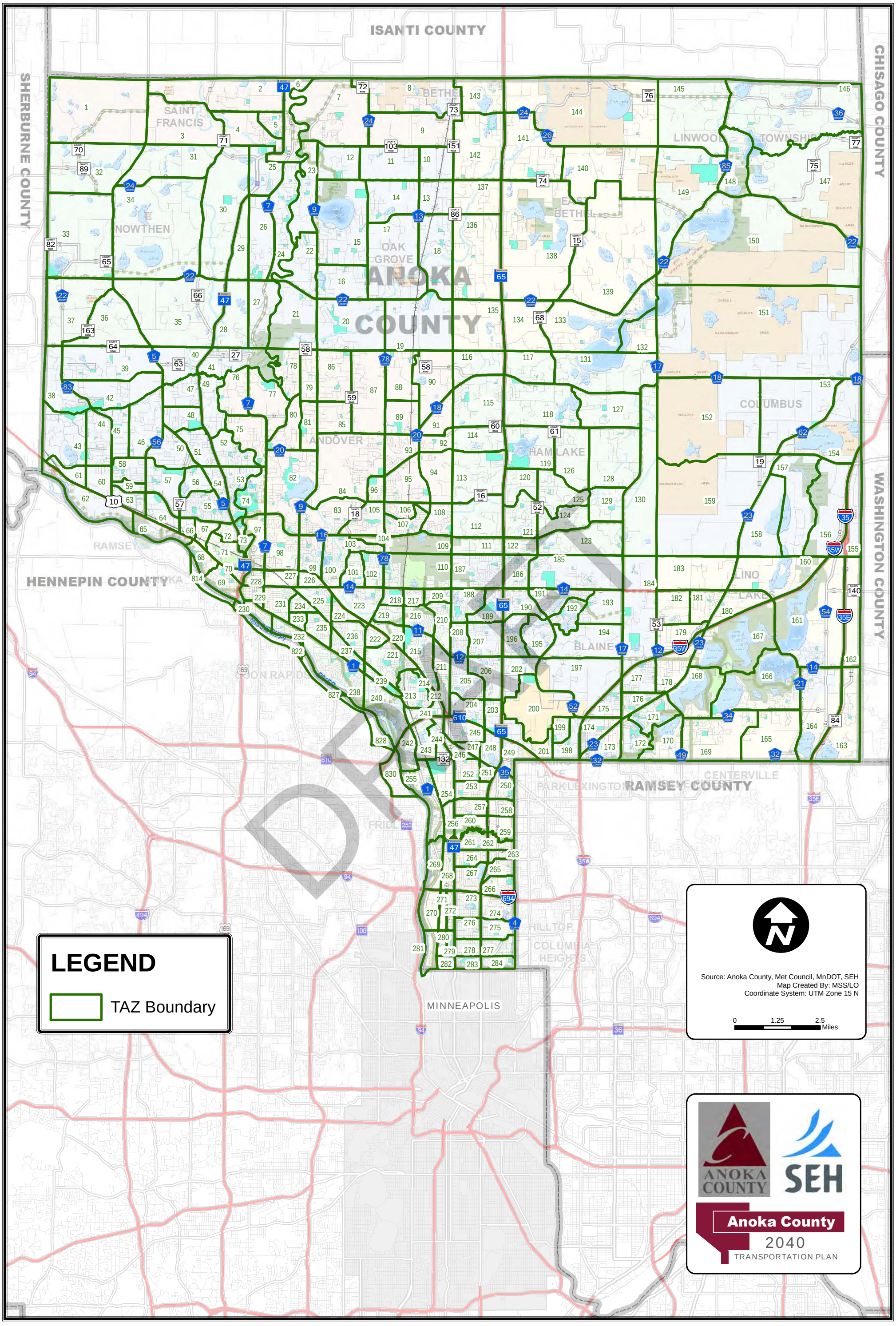
Source: Metropolitan Council

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PROJECTED 2040 ROADWAY DAILY TRAFFIC AND CONGESTION LEVELS

FIGURE **28**



TRANSPORTATION ANALYSIS ZONES

FIGURE 29

Figure 28 also highlights those roadway segments with congestion levels that are approaching or exceeding the roadway's capacity. It should be noted that the regional traffic model included programmed transportation capacity improvement projects, including the addition of a MnPASS managed lane along I-35W.

Table 26 summarizes the miles of congested roadways for year 2040. The existing condition results are included for comparison purposes. The table illustrates that traffic congestion in Anoka County will continue to increase into the future and roughly double by 2040.



Anoka County Highway (Source: Anoka County)

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Table 26 – 2015 and 2040 Roadway Capacity Deficiencies Comparison

Roadway Class	Mileage in Anoka County	LOS	Length (Mile)			
			2015	% Mileage Congested (2015)	2040	% Mileage Congested (2040)
Freeway	38.7	E	4.6	11.9%	5.3	13.7%
		F	5.6	14.5%	10.2	26.4%
		Subtotal	**10.2**	**26.4%**	**15.5**	**40.1%**
Expressway	33.6	E	3.5	10.4	3.9	11.6%
		F	4.4	13.1	12.6	37.5%
		Subtotal	**7.9**	**23.5%**	**16.5**	**49.1%**
Divided Arterial	50.4	E	0.00	0%	3.7	7.3%
		F	2.6	5.2%	2.6	5.2%
		Subtotal	**2.6**	**5.2%**	**6.3**	**12.5%**
Undivided Arterial	219.3	E	4.4	2.0%	5.2	2.4%
		F	6.5	3.0%	12.3	5.6%
		Subtotal	10.9	5.0%	17.5	8.0%
Collector Road	314.2	E	2.2	0.7%	5.5	1.8%
		F	2.4	0.8%	4.6	1.5%
		Subtotal	**4.6**	**1.5%**	**10.1**	**3.3%**
Totals	**656.2**		**36.1**	**5.5%**	**66.0**	**10.1%**
Table Notes: LOS E/F roadways operate at or over capacity.						

Source: Metropolitan Council Travel Demand Model

Assessing congestion growth on roadways by ownership indicates that the vast majority of congestion occurs on state roadways rather than county roadways. Overall, 77 percent of the state highway mileage in the county will be near or over capacity by 2040. By comparison, only 15 percent of county roadway mileage will be near or over capacity by 2040. Given this, it will be essential for the County to continue to work with MnDOT to address substantial congestion issues on the state highway system along the following highways:

- TH 10 in Coon Rapids, Anoka, and Ramsey
- TH 47 in Fridley, Anoka and Ramsey
- TH 65 in Blaine and Ham Lake
- I-35W in Blaine
- I-694 in Fridley

Alternative 2040 Highway Network Scenario

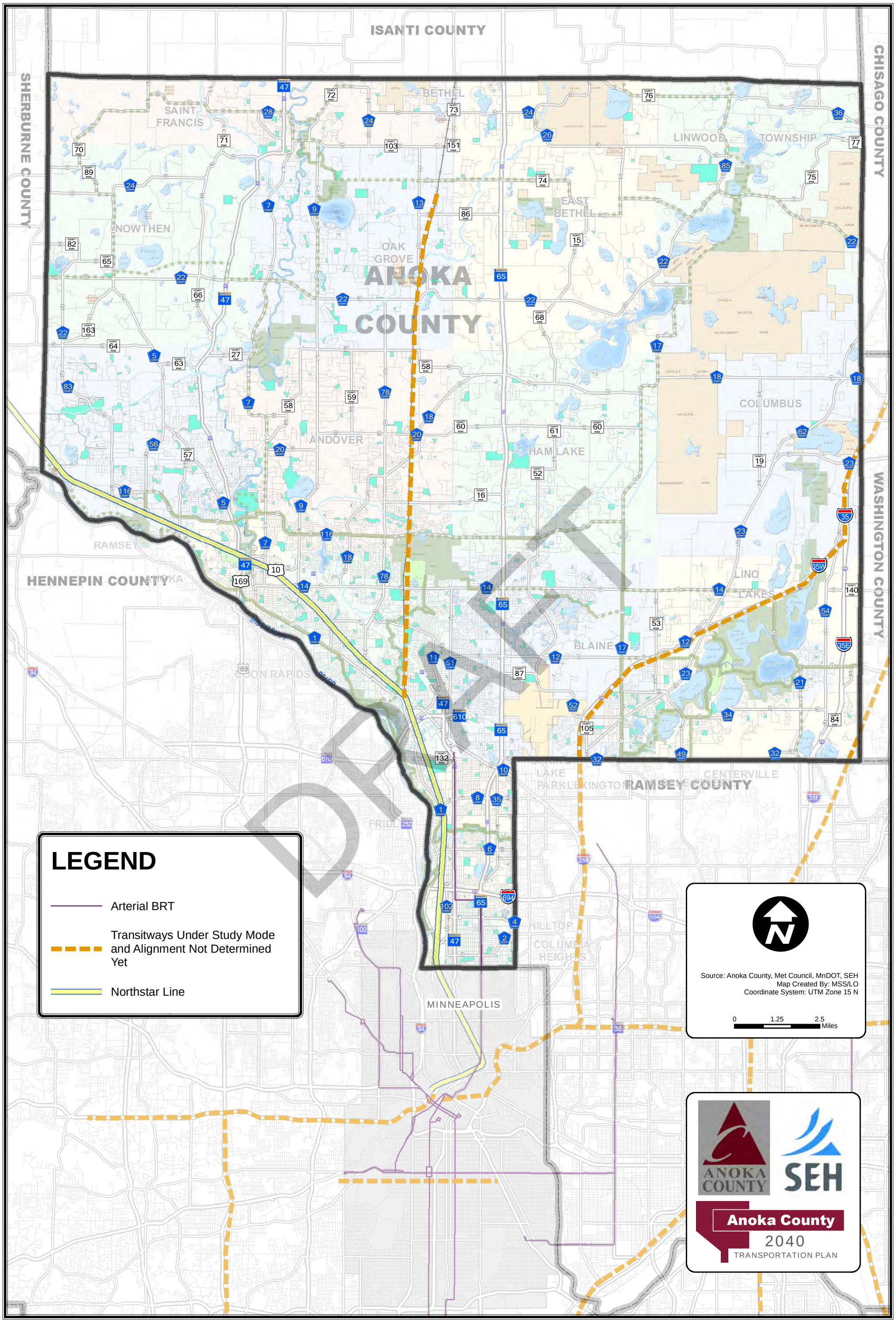
In addition to the 2040 baseline condition, one alternative highway network scenario was analyzed to investigate the effects of network modifications on congestion in the corridor. This scenario assumes that U.S. Highway 10 in Anoka County (5.50 miles) and Trunk Highway 65 between U.S. Highway 10 and Bunker Lake Road (5.6 miles) are converted to freeways. Overall, the evaluation illustrated that with increased capacity provided on U.S. Highway 10 and Trunk Highway 65, a substantial amount of traffic using the adjacent county road system because of congestion on the major highways would switch back to using U.S. Highway 10 and Trunk Highway 65. See Appendix F for details.

4.3 TRANSIT

The region's existing bus and dial-a-ride service described in the "Existing Transit Service" Section on page 35 is anticipated to continue into the future. The Metropolitan Council's 2040 Transportation Policy Plan (TPP) Current Revenue Scenario, which identifies planned investments within reasonably expected revenue assumptions, does not include any new or expanded transit service or transitways in Anoka County, but continues to fund ongoing operations and maintenance for the existing Northstar Commuter Rail transitway as a first priority. Modernization and modest expansion improvements for Northstar addressing operational issues and unmet demand, are also accounted for under this scenario.

In addition to the Current Revenue Scenario, the Metropolitan Council also presents an increased revenue scenario which would build out and expand the transit system. This scenario shows an additional transitway corridor in Anoka County beyond the scope of the plan's adopted and fiscally constrained Transit Investment Plan (the Current Revenue Scenario). This is referred to as the "North Central" Arterial Bus Rapid Transit (BRT) corridor and is shown on Figure 30, and follows University Avenue from the Northtown Transit Center in Blaine south to 53rd Avenue NE, east along 53rd Avenue NE to Highway 65, and south along Highway 65 to Downtown Minneapolis.

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INCREASED REVENUE SCENARIO-TRANSITWAYS

FIGURE 30

4.4 BICYCLING AND WALKING

For years, Anoka County has included the construction of trails adjacent to county roadways as a part of county roadway improvement projects. Above and beyond these efforts, Anoka County has participated in the development of the Metropolitan Council's Regional Bicycle Transportation Network (RBTN). The RBTN is the region's vision for regional bikeways. Many of the trails adjacent to county roadways are either included in or provide connections to the RBTN. As a result, The RBTN for Anoka County is well on its way to being complete.



Trail Signage
(Source: Anoka County)

Metropolitan Council's Regional Bicycle Transportation Network

As described earlier in the plan, the RBTN is made up of a series of specific alignments and broad planning corridors and includes regional destinations the network is intended to connect. The RBTN is illustrated in Figure 13 and includes the following:

- **Tier 1 Corridors** – highest priority subset of the RBTN for regional planning and investment
- **Tier 2 Corridors** – remaining corridors in the RBTN were assigned second tier priority for regional planning and investment
- **Tier 1 and 2 Alignments** – Tier 1 and 2 Corridors where specific route alignments have been designated

As stated previously, the purpose of the RBTN is threefold:

- To establish an integrated/seamless network of on- and off-street bikeways;
- To provide the vision for a "backbone" arterial network for daily bicycle transportation; and
- To encourage cities, counties, park agencies, and the state to plan and implement future bikeways.

The RBTN is currently being modified as part of the Metropolitan Council's 2040 TPP Update process. In 2017, Metropolitan Council staff met with Anoka County officials and compiled a list of proposed changes to the RBTN. These proposed changes (see Table 27) are assumed to be added to the RBTN for Anoka County that is shown in Figure 13.

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Table 27 – RBTN Proposed Changes in Anoka County

Description of Proposed Change/Designation	Planning Rationale
Designate Tier 2 Alignment along 85th Avenue NW between CR 1 (East River Rd) and University Avenue (TH 47).	Consistent with planned future bikeways in county road projects; provides most direct connection within corridor.
Designate East River Road (CR 1) Tier 1 Alignment from just north of I-694 to TH 610.	Has existing trails and/or planned trails through most of corridor; provides most direct route to most destinations within corridor.
Propose extended Tier 2 alignment on 85th Avenue NW from Lexington Avenue west to Spring Lake Road.	Has continuous, existing bike side path.
Propose extended Tier 2 corridor centered along 85th Avenue NW/Sanburnol Drive NE from CR 10 eastward and centered on 85th Avenue NE to Spring Lake Road NE.	Undefined corridor to develop continuous east/west bikeway.
Propose extended Tier 2 alignment along 125th Avenue NE (TH 242) from Lexington Avenue NE west to regional trail crossing about 1 mile west of University Avenue NE.	Would create east/west connection between Blaine/Lino Lakes; consistent with existing and planned local development and planned bikeways.
Propose new Tier 2 corridor along Lake Drive (CSAH 23) from TH 242 southwesterly to Naples Street NE and south to 85th Avenue NE (CR J).	Would serve existing and planned development in Circle Pines/Lino Lakes.
Propose new Tier 2 corridor centered on Central Avenue NE (TH 65) between 85th Avenue NE and Bunker Lake Boulevard (CSAH 116).	Would serve existing and planned local development; is a moderate density corridor.
Remove Tier 1 alignment on University Avenue between CSAH 14 and Bunker Lake Boulevard NE (CSAH 116).	Roadway only exists to access high school on CSAH 116 and no plans to extend road north.

Source: Metropolitan Council

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For years, Anoka County has included the construction of trails adjacent to county roadways as a part of county roadway improvement projects. Many of these trails are either included in or provide connections to the RBTN. As a result, the RBTN for Anoka County is well on its way to being complete. Appendix G includes a detailed table documenting the RBTN alignments and corridors within Anoka County.



Pedestrian crossing an Anoka County crosswalk (Source: Anoka County)

Pedestrian Accessibility

The Anoka County Highway Department also seeks to make its roadways and pedestrian ramps more accessible to residents with disabilities. Anoka County must comply with the Americans with Disabilities Act (ADA) and has developed a Transition Plan detailing how the County will ensure that all facilities within its right-of-way are accessible to all individuals. Anoka County's goal is to provide ADA-accessible pedestrian design features as part of the County's capital improvement projects. These standards and procedures will be kept up to date with nationwide and local best management practices.

Anoka County roadway system ADA improvements are based on projects identified in the County capital improvement projects listing and will be addressed using the following criteria:

- All new construction projects and County reconstruction projects with pedestrian facilities will be designed and constructed to conform with the most current ADA design practices, per the County's ADA Transition Plan;
- ADA improvements on county rehabilitation or resurfacing projects will be addressed on a case-by-case basis; and
- ADA improvements requested by the public will be evaluated by County staff (evaluation criteria will include pedestrian volumes, traffic volumes, condition of existing infrastructure and public safety).

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4.5 AVIATION

This section identifies policies and ordinances that protect regional airspace from obstructions.

According to Federal Aviation Administration (FAA) and MnDOT Aeronautics safety standards, any applicant who proposes to construct a structure 200 feet above the ground level must get appropriate approval. The FAA requires the FAA Form 7460-1 "Notice of Proposed Construction or Alteration", under code of federal regulations CFR-Part 77, be filed for any proposed structure or alteration that exceeds 200 feet. FAA Form 7460-1 can be obtained from FAA headquarters and regional offices.



Aerial of the Anoka County-Blaine Aiport
(Source: Metropolitan Airports Commission)

These forms must be submitted 30 days before alteration/construction begins or the construction permit is filed, whichever is earlier. MnDOT must also be notified (see MnDOT Rules Chapter 8800). The Anoka County-Blaine airport/community zoning board's land use safety zoning ordinance should also be considered when reviewing construction in the county that raises potential aviation conflicts. As required, Anoka County will notify the FAA of any proposed structures.

Several lakes are designated in Minnesota State Rules Chapter 8800.2800 as authorized for purposes of safe seaplane use. Anoka County recognizes that seaplane use on surface waters is designated and regulated by MnDOT.

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Cars waiting at a railroad crossing (Source: Anoka County)

4.6 FREIGHT

The County recognizes that many aspects of freight movement are controlled by the private sector. It is also important to note that there are known roadway issues or problem areas for goods movement in Anoka County that have been identified in the Metropolitan Council's Regional Truck Highway Corridor Study (2017). As part of this study, the Metropolitan Council conducted individual meetings with each of the seven counties in the metropolitan area, including Anoka County. The completed study identifies the University Avenue NE corridor in Fridley as one of the top thirty delay hotspots on key truck corridors in the Twin Cities metropolitan area. Table 28 shows substantial hours of (all-day) delay per day, per month, and per year; minutes of delay per truck (average across the day); as well as hours of peak delay per day (e.g., 6-9am and 4-7pm) for the University Avenue NE Corridor. The study also identified various geometric constraints including street parking and the lack of additional access points to the intermodal facility (CP Rail Shoreham Yard) that contribute to mobility or safety problems along University Avenue NE in Minneapolis/ Fridley.

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Table 28 – Truck Delay by Delay Hotspot (University Ave NE Corridor)

Corridor	Hrs Delay per Day	Hrs Delay per Month	Hrs Delay per Year	Min Delay per Truck	Hrs Peak Delay per Day	% of Delay in AM/PM Peak
University Ave. NE in Fridley	6	145	1,742	0.4	2	22/14

Source: Regional Truck Highway Corridor Study (2017)

5 COLLABORATION WITH COMMUNITIES, AGENCIES, AND THE PUBLIC



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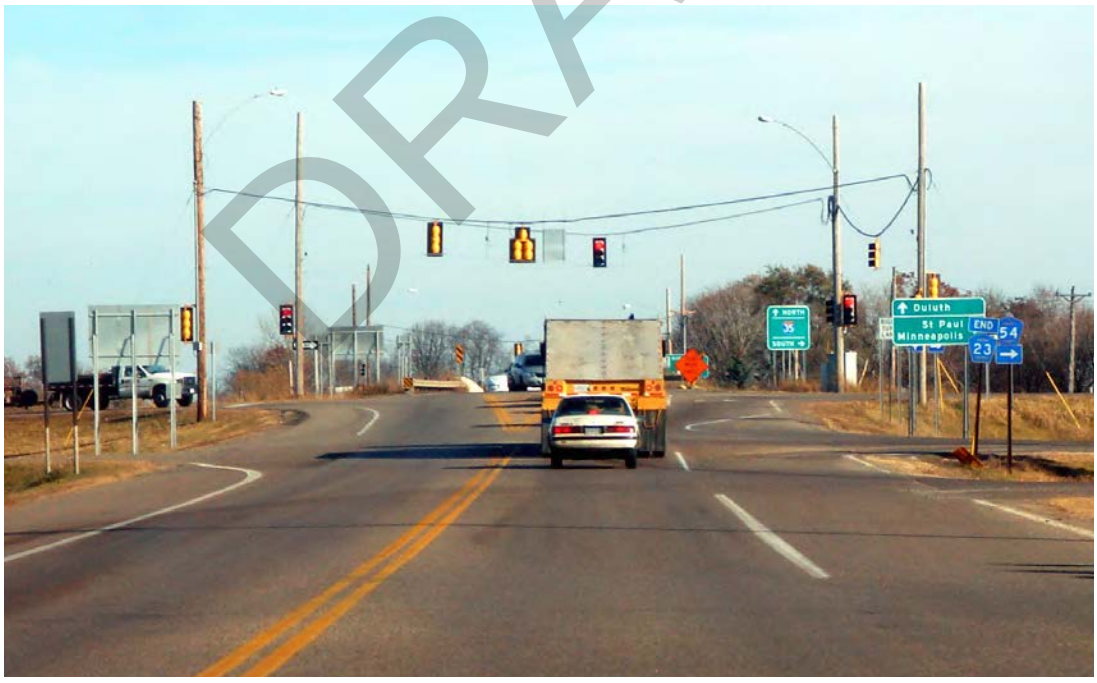
Anoka County's transportation system is affected by many factors within and outside the county. Conversely, decisions regarding the county's transportation system affect transportation in the local communities, surrounding counties, the region, and to some extent, the state. Recognizing the context of this Plan, Anoka County staff collaborated with many different groups during plan development to ensure a final product that best serves the county, the communities within the county, the region and the state. This section provides an overview of this collaboration.

5.1 COORDINATION WITH ANOKA COUNTY COMMUNITIES

Similar to Anoka County, all cities are required to submit updated Comprehensive Plans to the Metropolitan Council. In Anoka County, land use control is the jurisdiction of the cities. This requires cities and the county to work together to facilitate coordinated transportation facility planning.

Recognizing the importance of the interrelationship between the County and local communities, early in the planning process the County arranged meetings with the communities to discuss current transportation issues and priorities and review the TAZ data assembled for each community by the Metropolitan Council. Over 20 meetings were held over a two month period. Table 1 in Appendix H provides a summary of these meetings, including the staff who participated, the status of their TAZ data, and issues and priorities discussed.

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Intersection in Anoka County (Source: Anoka County)

Some of the primary items and issues discussed at these coordination meetings included:

- Development has not occurred as projected during the year 2030 comprehensive planning process – as a result, the trend for continued expansion of the county highway system is not as significant as in the past;
- An increasing trend appears to be conversion of underutilized commercial/retail land to multi-family residential;
- Managing commuter traffic that is using county and city roads to avoid congestion on the major highways;
- Increased demand and expectation for trails;
- Need to enhance capacity on TH 10, TH 65 and TH 47; and
- Need for spot intersection improvements to address congestion and safety concerns (need for traffic signals or roundabouts).

5.2 PUBLIC INVOLVEMENT

An information meeting was held on March 28, 2018 during the development of the 2040 Transportation Plan. This meeting introduced the planning effort, the purpose and goals of the Plan, and the results of the technical analyses completed as part of the process. Comments from attendees at the meetings were also collected and considered by the Project Management Team (PMT).

A web page devoted to the Plan was developed and housed on the study consultant's web site. This page was updated periodically and also provided the opportunity to comment on the Plan. The website link is: www.sehinc.com/online/2040



Anoka County Government Center (Source: Anoka County)

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5.3 PROJECT MANAGEMENT TEAM

Development of the 2040 Transportation Plan Update was guided by a Project Management Team (PMT) that consisted of participants from the following organizations:

- Anoka County Highway Department
- Anoka County Department of Parks and Recreation
- Anoka County Transit
- Metropolitan Council
- MnDOT
- Consultant Team

The PMT met throughout the planning process providing input and perspectives of the departments and disciplines they represented and in reviewing the analysis and documentation. A list of PMT participants is provided in Appendix I.

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6 IMPROVEMENT STRATEGIES AND IMPLEMENTATION



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This chapter summarizes recommendations from recent plans and studies at the local, regional, and state level regarding roadway improvements, changes in land use, and/or access for principal and A-minor arterials and presents the plans, policies, and processes which help guide and facilitate the ongoing operations of the Highway Department. The chapter concludes with a presentation of the needs and deficiencies that have been identified through this planning process and documented in previous sections of this report.



Shoulder bus lane sign in Anoka County (Source: Anoka County)

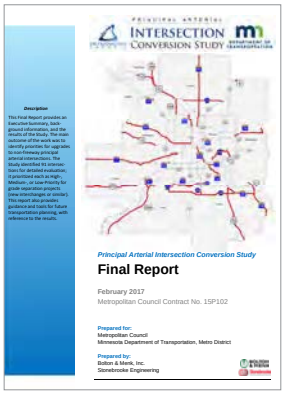
6.1 RECOMMENDATIONS FROM RECENT PLANS AND STUDIES

Regional Plans and Studies

The Metropolitan Council completed several recent studies (listed below) that provide recommendations for improvements to the principal and A-minor arterial network in Anoka County.

- Principal Arterial Intersection Conversion Study (2017)
- Regional Truck Highway Corridor Study (2017)
- Congestion Management Safety Plan 4 Study (2017)
- MnPASS System 3 Study (2018)

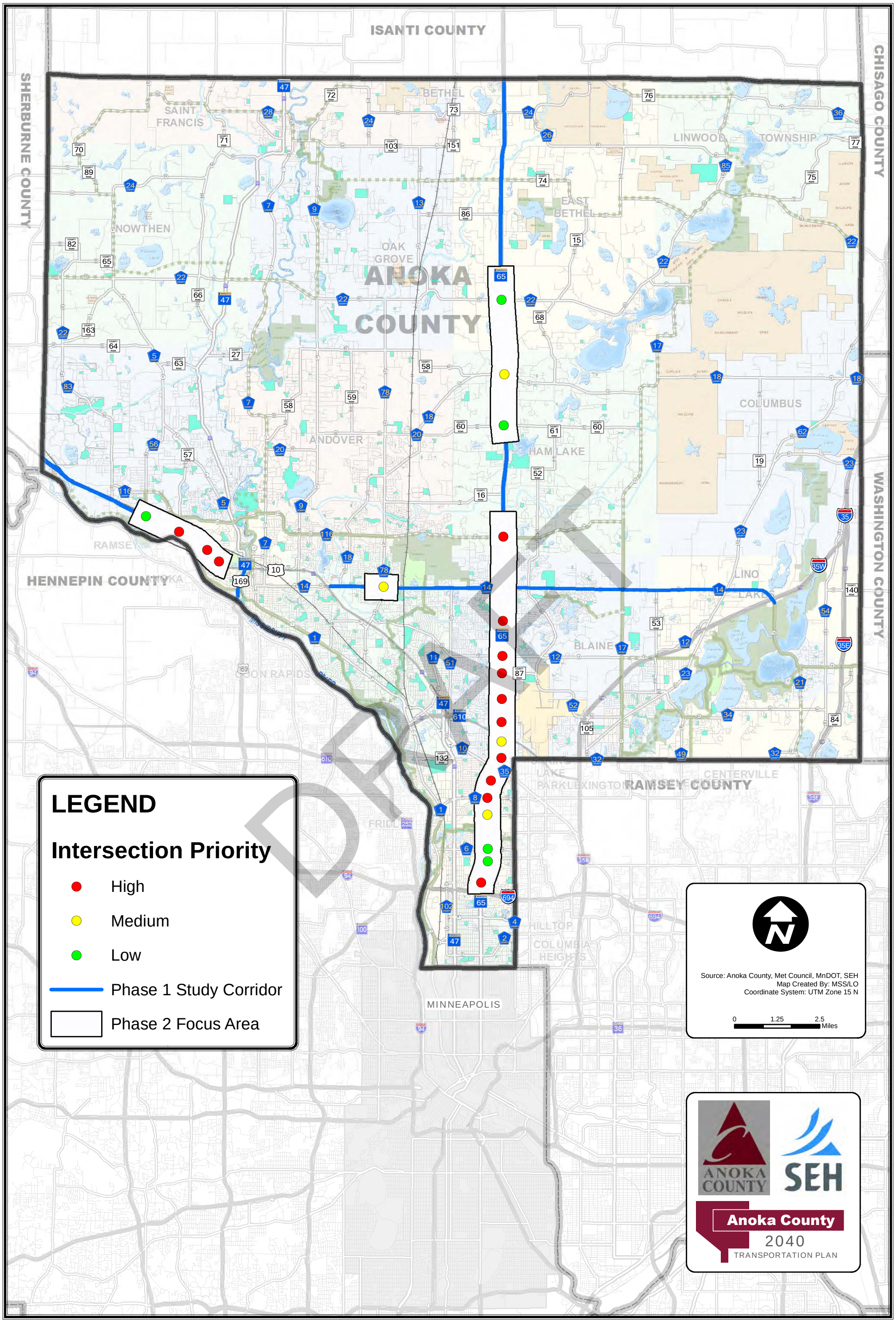
The relevant findings from these regional studies are summarized in the following sub-sections.



Principal Arterial Intersection Conversion Study

The Principal Arterial Intersection Conversion Study used a data-driven approach that considered mobility, safety, and other factors to provide the region with a prioritized list for possible grade separation projects on non-freeway principal arterials. A total of 13 intersections in Anoka County were categorized as high-priority for grade-separation. Four intersections were categorized as medium-priority for grade-separation and five intersections were categorized as low-priority for grade-separation. The study findings are shown in Figure 31 and listed in Table 29.

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PRINCIPAL ARTERIAL INTERSECTION CONVERSION STUDY GRADE-SEPARATION PRIORITIES

FIGURE 31

Table 29 – Principal Arterial Intersection Conversion Study Grade-Separation Priorities

Priority Ranking	Corridor	Intersections
High[1]	TH 10	TH 10 & Sunfish Lake Boulevard
		TH 10 & Thurston Avenue
		TH 10 & Fairoak Avenue
	TH 65	TH 65 & Medtronic Parkway
		TH 65 & Osborne Road
		TH 65 & 81st Avenue
		TH 65 & 85th Avenue
		TH 65 & 93rd Lane
		TH 65 & 99th Avenue
		TH 65 & 105th Avenue
		TH 65 &109th Avenue
		TH 65 & 117th Avenue
		TH 65 & Bunker Lake Boulevard
Medium[2]	CH 14	CH 14 & Hanson Boulevard
	Th 65	TH 65 & 73rd Avenue
		TH 65 & 89th Avenue
		TH 65 & Crosstown Boulevard
Low[3]	TH 10	TH 10 & Ramsey Boulevard
	Th 65	TH 65 & Moore Lake Drive
		TH 65 & Mississippi Street
		TH 65 & Constance Boulevard
		TH 65 & Viking Boulevard

Table Notes:
[1] The high-priority intersections often exhibit needs that can justify high-capacity at-grade improvements or grade-separation. These intersection locations (and the corridors they are within) should be addressed in more detail to determine the right-sized investments.
[2] The medium-priority intersections typically do not need grade-separation projects based on current demand. However, additional studies at these locations could show needs for high-capacity at-grade improvements or limited/emerging needs for grade-separated elements.
[3] The low-priority intersections generally do not need major changes or projects based on current demand and any problems can most likely be addressed with at-grade projects. However, some low-priority intersections are located on corridors near medium- and high-priority intersections or may be in growth areas.

Source: Principal Arterial Intersection Conversion Study (February 2017).

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The Metropolitan Council's highway system investment prioritization factors shown in Table 30 are used in the Principal Arterial Intersection Conversion Study. According to the Metropolitan Council, the results of this study is then used to help make highway system investment decisions in the following ways: Points are awarded in the Regional Solicitation and MnDOT's Transportation Economic Development (TED) Program depending on the prioritization level. The study results also inform Strategic Capacity Enhancement priorities for the Increased Revenue Scenario and the Interchange Approval Process in Appendix F of the 2040 TPP Update.

Table 30 – Principal Arterial Intersection Conversion Study: Investment Prioritization Factors

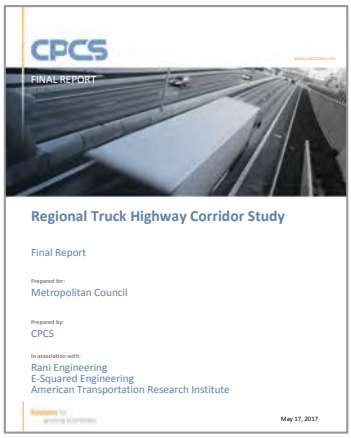
Highway System Investment Prioritization Factor	Solicitation Criteria
Safety and Security; Operate, Maintain, and Rebuild	Critical crash rate index, observed safety deficiencies or concerns, crash frequency, crash severity
Improves Economic Vitality	Need for new infrastructure, HCAADT
Improves Critical Regional Highway System Connectivity	Connection to a principal or A-minor arterials, supportive of Regional Bicycle Transportation Network
Increases Regional Highway System Travel Time Reliability	Priority for mobility in region, volume and capacity factors, volume-capacity ratio for existing and alternatives, supportive of transit
Supports Job/Population Growth Forecasts and Local Comp. Plans	Local planning support, existing land use
Regional Balance of Investments	Serving growth areas

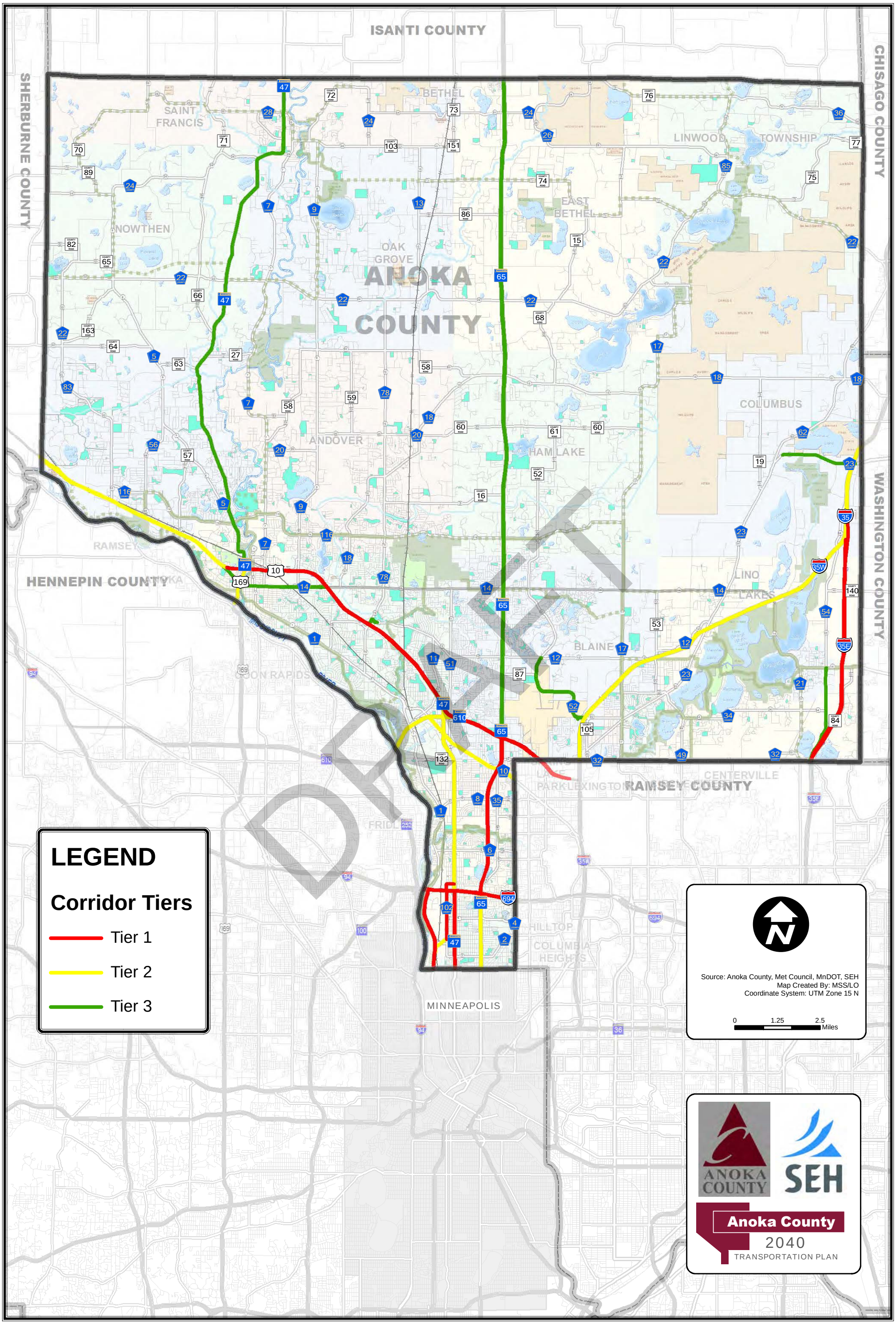
Source: Metropolitan Council

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Regional Truck Highway Corridor Study

The Regional Truck Highway Corridor Study identified the most important highways in the region for freight movement based on truck usage and proximity to freight generating land uses. Corridors were assigned to one of three tiers, using a data-driven scoring procedure. The tiered corridors for Anoka County are shown in Figure 32 and listed in Table 31.





TIERED TRUCK CORRIDORS IN ANOKA COUNTY

FIGURE 32

Table 31 – Summary of Tiered Truck Corridors in Anoka County

Tier	Corridor
1	US 10: CSAH 14 to Ramsey County Line
	I-694: Hennepin County Line to Ramsey County Line
	I-35E: Ramsey County Line to I-35
	East River Road: Hennepin County Line to I-694
	Main Street NE/57th Avenue NE: 44th Avenue NE to TH 47
	TH 47: Hennepin County Line to I-694
	CSAH 6: I-694 to TH 610
2	US 10: Sherburne County Line to CSAH 14
	I-35W: Ramsey County Line to Washington County Line
	TH 610: Hennepin County Line to US 10
	CSAH 10: TH 610 to Ramsey County Line
	TH 47: I-694 to US 10
	44th Avenue NE: East River Road to Main Street NE
	TH 65: Hennepin County Line to I-694
	US 169: Hennepin County Line to US 10
3	TH 47: US 10 to Isanti County Line
	TH 65: US 10 to Isanti County Line
	CSAH 23: CSAH 62 to I-35
	CSAH 52: I-35W to CSAH 12
	CSAH 14: US 10 to US 10

Source: Regional Truck Highway Corridor Study (May 2017)

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The Metropolitan Council's highway system investment prioritization factors shown in Table 32 are used in the Regional Truck Highway Corridor Study. According to the Metropolitan Council, the results of this study is then used to help make highway system investment decisions in the following ways: Points are awarded in the Regional Solicitation and MnDOT's TED Program depending on the prioritization tier identified in the study. Projects are also required to be on one of the three tiers in the study to be eligible to pursue Minnesota Highway Freight Program funds.

Table 32 – Regional Truck Highway Corridor Study: Investment Prioritization Factors

Highway System Investment Prioritization Factor	Solicitation Criteria
Safety and Security; Operate, Maintain, and Rebuild	Crash rates, MnDOT district and county safety plans
Improves Economic Vitality	Truck volumes, percent of total volumes that are trucks
Improves Critical Regional Highway System Connectivity	Daily truck load equivalents entering and exiting a facility or facilities
Increases Regional Highway System Travel Time Reliability	Travel time reliability
Supports Job/Population Growth Forecasts and Local Comp. Plans	Cost effectiveness, proximity to freight land use clusters and key regional freight facilities like intermodal yards
Regional Balance of Investments	--

Source: Metropolitan Council

Congestion Management Safety Plan 4 Study

The Congestion Management Safety Plan (CMSP) 4 Study is currently using safety and mobility performance measures to attempt to find small scale, targeted, high return-on-investment improvements that could be made on MnDOT's highway system within the region. The study is currently in draft form.

The Metropolitan Council's highway system investment prioritization factors shown in Table 33 are used in the CMSP 4 Study.

Table 33 – CMSP 4 Study: Investment Prioritization Factors

Highway System Investment Prioritization Factor	Solicitation Criteria
Safety and Security; Operate, Maintain, and Rebuild	Frequency and severity of crashes
Improves Economic Vitality	Narrowly scoped projects, targeted solutions
Improves Critical Regional Highway System Connectivity	Duration of congestion
Increases Regional Highway System Travel Time Reliability	Travel time reliability
Supports Job/Population Growth Forecasts and Local Comp. Plans	Final evaluation by benefit-cost ratio
Regional Balance of Investments	Small scale solutions allow for broad distribution

Source: Metropolitan Council

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According to the Metropolitan Council, the results of this study is then used to help make highway system investment decisions in the following ways: results are used to select projects for MnDOT's spot mobility set-aside, which continues through 2040. Points are also awarded in the Regional Solicitation for projects at CMSP locations identified in the study.

MnPASS System Study Phase 3

The MnPASS System 3 Study used similar performance measures to develop potential MnPASS corridors that would especially benefit from the transit and High Occupancy Vehicle (HOV) advantages. The I-35W corridor from U.S. Highway 10 to 95th Avenue in Blaine was identified as a funded 2040 TPP Tier 2 MnPASS Corridor (Increased Revenue Scenario).

The Metropolitan Council's highway system investment prioritization factors shown in Table 34 are used in the MnPASS System 3 Study. According to the Metropolitan Council, the results of this study is then used to help make highway system investment decisions in the following ways: study results are used to select projects for MnDOT's $50 million per year set-aside for MnPASS that ends in 2024. The study also helps to identify MnPASS priorities for the Increased Revenue Scenario.

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Table 34 – MnPASS System 3 Study: Investment Prioritization Factors

Highway System Investment Prioritization Factor	Solicitation Criteria
Safety and Security; Operate, Maintain, and Rebuild	Implemented through leveraging preservation investments
Improves Economic Vitality	Proximity to employment centers, construction cost
Improves Critical Regional Highway System Connectivity	Severity of congestion, connections to other MnPASS corridors & major destinations
Increases Regional Highway System Travel Time Reliability	Express commuter bus demand
Supports Job/ Population Growth Forecasts and Local Comp. Plans	2040 mobility benefits
Regional Balance of Investments	Building towards a regional system

Source: Metropolitan Council

Local Plans and Studies

Over the past several years, the Anoka County Highway Department has undertaken a number of studies to aid in the identification of projects that will improve safety and mobility, while keeping capital costs low. These studies are summarized in the following sub-sections.

Anoka County System Preservation Study

This study serves as the primary resource for future jurisdiction transfers in the county. The jurisdiction of roads affects a number of organizational functions and obligations (regulatory, maintenance, construction, and financial). The goal of jurisdiction realignment is to match the management of a roadway with its intended function and with the jurisdiction best suited to maintain it. The result is an efficient and economical use of tax dollars. Proposed jurisdiction transfers, as modified by Anoka County Staff in 2018, are identified in the tables included in Appendix J.

A summary of the mileage impacts associated with the proposed jurisdictional transfers presented in this study is presented in Table 35. Potential opportunities for jurisdictional transfers include:

- When municipalities reach a population of 5,000 and create their Municipal State-Aid (MSA) system;
- When a new roadway segment is constructed that replaces the function of a current roadway; and
- During improvements or major rehabilitation of a facility that is identified as a potential transfer candidate.

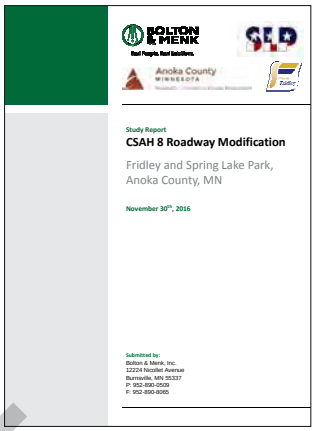
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Table 35 – Impacts of Proposed Jurisdictional Transfers on Anoka County Agencies

Jurisdiction	Mileage Gained (+)	Mileage Lost (-)	Net Change in Mileage (+/-)
City of Andover	8.4	-3.6	4.8
City of Anoka	3.3	0.0	3.3
City of Blaine	1.0	0.0	1.0
City of Columbus	0.7	-1.2	-0.5
City of Coon Rapids	2.5	-1.1	1.4
City of East Bethel	7.9	-7.4	0.5
City of Fridley	1.0	0.0	1.0
City of Ham Lake	5.7	-0.5	5.2
City of Lexington	0.0	0.0	0.0
City of Lino Lakes	1.5	0.0	1.5
City of Nowthen	11.0	-1.4	9.6
City of Oak Grove	1.5	0.4	1.9
City of Ramsey	4.9	0.0	4.9
City of St. Francis	0.0	-2.0	-2.0
Anoka County	54.4	-73.9	-19.5
State of MN	26.8	-11.3	15.5

Source: Anoka County System Preservation Study

CSAH 8 (Osborne Road NE) Roadway Modification Study



In late 2015, Anoka County initiated a study of the one mile section of Osborne Road between TH 47 (University Avenue) and TH 65 (Central Avenue) to evaluate potential transportation improvements to the corridor that would benefit users of the roadway, as well as nearby residents. The corridor study produced a preferred roadway concept and final report in November 2016 that allows the cities and county to pursue planning activities for the proposed one-mile corridor.

Coon Rapids Boulevard/East River Road Corridor Study

This study completed in June 2010 identifies concepts for improving mobility, increasing safety, and enhancing the appearance and economic vitality along the Coon Rapids Boulevard/East River Road corridor. The study corridor included both CSAH 1 and CSAH 3 between 7th Avenue (CSAH 7) and TH 610. The identified concepts will be implemented over time as funding opportunities arise and redevelopment occurs along the corridor.

East River Road (CSAH 1) Corridor Study

In May 2012, Anoka County, Fridley, and Coon Rapids completed a study that identifies concepts for improving safety and mobility on East River Road (CSAH 1) while also considering improvements to enhance its appearance and economic vitality. The study area included the 5.1-mile segment of East River Road between Interstate 694 in Fridley and Trunk Highway 610 in Coon Rapids. The study area also included the area between the Mississippi River and University Avenue. The recommended improvements to East River Road are planned to be implemented in discrete phases over time as funding allows.

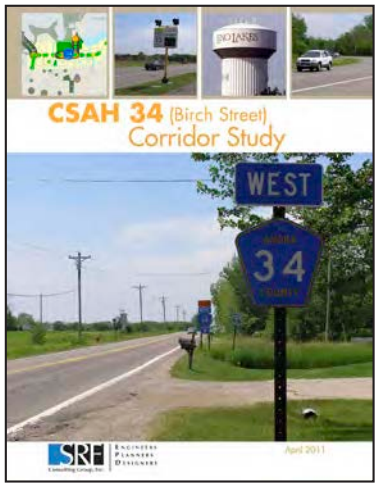
Lake Drive (CSAH 23) at I-35 (Quad 35 Area) Transportation Study

The completed study identifies a recommended interchange alternative for the Interstate 35 interchange at CSAH 23 (Lake Drive) and Trunk Highway 97 in the Cities of Columbus and Forest Lake. The recommended improvement also includes the realignment of CSAH 54 and other local roads. The recommended improvements seek to improve quality of life, promote new development, improve safety, reduce congestion, and better manage access.

Northern Anoka County River Crossing Study

The completed study by Anoka County and the Cities of St. Francis, Oak Grove and Nowthen identifies future improvement needs on the existing Rum River crossings at CSAH 22 (Viking Boulevard) and CSAH 24 (Bridge Street).

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CSAH 34 (Birch Street) Study

The completed study identifies a preferred roadway concept along CSAH 34 (Birch Street) between CSAH 49 (Hodgson Road) and CSAH 54 (20th Street).

State Plans and Studies

The following sub-sections describe recommendations from important state plans and studies regarding roadway improvements and/or access for principal arterials.

Highway 65 Access Management Study

MnDOT completed an access management study on Highway 65 from just north of Bunker Lake Boulevard in Ham Lake to 245th Avenue N. in East Bethel. The study, in cooperation with Anoka County, East Bethel, Ham Lake and the Metropolitan Council, developed an access management plan. The study provided lower cost improvements to improve safety and manage congestion on Highway 65. It is intended to guide decisions on future access changes and access locations in the Highway 65 study area.

U.S. Highway 10 Corridor Management Plan

MnDOT completed the U.S. 10 Corridor Management Plan (CMP) on a 48-mile section of US 10 between I-35W in Ramsey County and Highway 24 in Clear Lake, Minnesota, under the Interregional Corridor Program.

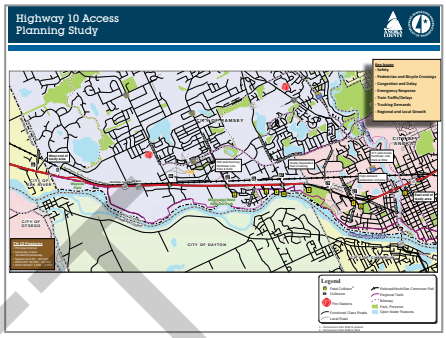
The plan recommended:

- Converting the corridor to a six-lane freeway from CSAH 9/Round Lake Boulevard in Coon Rapids to US 169 in Elk River
- Expanding the corridor to an eight-lane freeway from I-35W in Mounds View to CSAH 9/Round Lake Boulevard in Coon Rapids
- Reducing and/or consolidating a number of access points, or intersections along the corridor; and
- Converting at-grade intersections to interchanges at the following locations within Anoka County:
    - US 10 Interchange at Jarvis Street
    - US 10 Interchange at CSAH 83/Armstrong Boulevard
    - US 10 Interchange at CSAH 56/Ramsey Boulevard

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- US 10 Interchange at CSAH 57/Sunfish Lake Boulevard
- US 10 Interchange at Thurston Avenue
- US 10 Interchange at Main Street
- US 10 Interchange at TH 47

U.S. Highway 10 Access Planning Study



MnDOT and Anoka County, in cooperation with the Cities of Ramsey and Anoka, conducted the Highway 10 Access Planning Study to re-examine and identify the ultimate amount of access, types of access and locations of access to Highway 10 between the Anoka/Sherburne County line and the Rum River. Based upon traffic volumes and safety concerns along this stretch of Highway 10, project partners agree a freeway is the proper vision for this corridor. A final study report was completed in August 2014.

Considering current overall state and federal funding levels, it will be difficult to achieve the vision of a freeway facility on this portion of Highway 10 in the next 20 years. To reduce crashes and improve mobility issues, it is reasonable and responsible to implement lower-cost, interim measures that incrementally improve safety and operations for all users of the Highway 10 corridor.

This study was completed so that high-benefit improvements that are fiscally responsible could be identified so that improvements can be funded, programmed and implemented incrementally to improve the corridor's mobility and safety, for motorists and pedestrians, in a timely manner.

I-35 Corridor Management Plan

MnDOT completed the I-35 Corridor Management Plan in 2005. The plan includes recommendations for improvements for the I-35 corridor from the I-494/I-694 Twin Cities Beltway to TH 48 in Hinckley. The plan recommended the following improvements within Anoka County:

- Expand I-35W from US 10 to Lexington Avenue to eight lanes
- Expand I-35W from Lexington Avenue to CSAH 14/Main Street to six lanes
- Expand I-35 from I-35W/E split to TH 97 to eight lanes
- Expand I-35E from Ramsey CSAH 96/County Highway G to CSAH 14/Main Street to six lanes.

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» Interchange/Overpass Improvements:

- I-35E Interchange at Anoka CSAH 14/Main Street
- I-35W Interchange at CR J/Lake Drive
- I-35 Interchange at TH 97
- CR 53/Sunset Avenue Overpass at I-35W
- New Interchange at Anoka Northerly Bypass (CR 140/80th Street)
- I-35W Interchange at CSAH 23/Lake Drive (completed)
- I-35W Interchange at CSAH 17/Lexington Avenue (completed)

6.2 ANOKA COUNTY HIGHWAY DEPARTMENT PLANS, POLICIES, & PROCESSES

Five-Year Highway Improvement Program

The Anoka County Highway Department Five-Year Improvement Program identifies upcoming projects. The document consists of three parts, as defined below.

» Program Description and Definitions – Describes the various programs used to maintain the county's highway system.

» Five-Year Highway Improvement Plan – Identifies planned and programmed projects that will be built if funding is identified.

» Unmet Needs – Documents the existing conditions on the highway system, including any known deficiencies.

The types of projects included in the plan are identified below.

» Rehabilitation – Includes overlays, crack sealing, bridge maintenance, surface treatments and other miscellaneous roadway repairs.

» Traffic Management and Spot Improvements – Projects such as signal installation and maintenance, signage, striping and pavement messages, access control and school zone safety driver feedback signs.

» Right-of-Way Preservation – Involves purchasing land and property rights owned by private interests through direct purchase.

» Corridor Reconstruction – Reconstruction projects often involve adding lanes to an existing corridor or adding miles (length) to an existing corridor.

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» Planning Studies – Includes corridor studies, environmental studies and long-range studies to better plan for future construction projects.

» Consultant Services – Used in a variety of situations to complement the permanent County Highway Department staff; experts are hired as needed.

The goals and recommendations identified in this 2040 Transportation Plan will form the basis of future five-year improvement program documents.

Development Review Process Manual

This document provides guidelines for communities and developers within Anoka County to follow when developing or redeveloping land in their communities. These guidelines establish a process whereby communities and the county are able to collaborate on anticipated impacts to the county's infrastructure relative to a proposed development or redevelopment. Right-of-way dedications, access spacing, drainage impacts, and in some cases, minor road improvements needed to meet the needs of a development are considered during review. The goal of the development review process is to maintain the safety and capacity of the county's existing highway system, as well as to allow for future improvements.

Access Management

The highways of Anoka County constitute a valuable resource and major public investment. It is essential to operate them safely and efficiently by managing the access to and from adjoining property. The Anoka County Highway Department's access management guidelines provide planned and managed access to land, including residential, commercial, undeveloped, and other land uses for the county highway system. The Access Spacing Guidelines are used by the county to consistently design highways and review development.



Roadway in Anoka County (Source: Anoka County)

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Anoka County has produced access management studies for various highways to maintain or improve travel safety and mobility. These studies can be accessed via the webpage Future Projects & Studies located here: www.anokacounty.us/379/Future-Projects-Studies.

The county-specific access spacing guidelines are provided in Table 36

Table 36 – Anoka County Highway Department Access Spacing Guidelines

Roadway Type	Route Speed (MPH)	Intersection Spacing (Nominal[4])		Signal Spacing	Private Access[1]
		Full Movement Intersection	Conditional Secondary Intersection [2]		
Principal Arterial	50 - 55	1 mi.	1/2 mi.	1 mi.	Subject to conditions for all roadway types and speeds
	40 - 45	1/2 mi.	1/4 mi.	1/2 mi.	
	< 40	1/8 mi.	300 - 660 feet[3]	1/4 mi.	
Arterial Expressway	50 - 55	1 mi.	1/2 mi.	1 mi.	
Minor Arterial	50 - 55	1/2 mi.	1/4 mi.	1/2 mi.	
	40 - 45	1/4 mi.	1/8 mi.	1/4 mi.	
	< 40	1/8 mi.	300 - 660 feet[3]	1/4 mi.	
Collector and Local	50 - 55	1/2 mi.	1/4 mi.	1/2 mi.	
	40 - 45	1/8 mi.	N/A	1/4 mi.	
		1/8 mi.	300 - 660 feet[3]	1/8 mi.	
Specific Access Plan		By adopted plan/agreement/covenant on land			

Table Notes: [1] Private access refers to residential, commercial, industrial and institutional driveways. Reference Anoka County's Development Review Manual for specifics on private access.
[2] Conditional secondary access is defined as right-in/out.
[3] Access spacing may be determined by planning documents approved by the county (e.g., Lino Lakes I-35E AUAR)
[4] Any spacing deviations shall have a detailed traffic study completed by the requesting agency, AND approved by the County Engineer.

Source: Anoka County Highway Department

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MnDOT also has an adopted set of access spacing guidelines that apply to all highways under MnDOT's jurisdiction. Table 37 summarizes MnDOT's intersection spacing and control guidelines.

Table 37 – MnDOT Public Street Spacing Access Guidelines

Functional Classification	Facility Type or Community Designation1	Public Street Spacing		Signal Spacing
		Primary Full-Movement Intersection	Secondary Intersection	
Principal Arterial	Interstate Freeway	Interchange Access Only		None
	Non-Interstate Freeway	Interchange Access Only		None
	Rural	1 mile	1/2 mile	Only at Primary Intersections
	Suburban	1/2 mile	1/4 mile	Only at Primary Intersections
	Urban	300-600 feet, dependent on block length		1/4 mile
Minor Arterial	Rural	1/2 mile	1/4 mile	Only at Primary Intersections
	Suburban	1/4 mile	1/8 mile	Only at Primary Intersections
	Urban	300-600 feet, dependent on block length		
Collector	Rural	1/2 mile	1/4 mile	Only at Primary Intersections
	Suburban	1/8 mile	Not Applicable	1/4 mile
	Urban	300-600 feet, dependent on block length		1/8 mile

Table Notes: This table is a summary of MnDOT Access Guidance for the Metropolitan Area. This chart does not reflect all the MnDOT guidance. Agencies should work with MnDOT, the appropriate county highway authority, and the local land use authority when planning new or modified access.
1 Community Designations are from Thrive MSP 2040, they are not MnDOT designations.

Source: Metropolitan Council 2040 Transportation Policy Plan.

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Right-of-Way

Under federal and Minnesota law, the County may acquire property for public purposes such as construction for highway improvements to reduce traffic congestion and accidents. As the County begins its design work to expand a road, improve an intersection, or construct a new road, it is necessary to determine how much land will be needed to complete the project, both temporarily (during construction) and permanently. In some cases, the land is owned by the County or available to the County from other public entities for road construction. In other cases, the land may be owned by private interests.

As a result, the County is involved in purchasing land and property rights owned by private interests. Through its Right-of-Way Office, the County works to acquire the property needed through direct purchase. There are many steps involved in "direct purchase" of private property.

These include:

- Contacting and negotiating property owners
- Surveying the property for exact dimensions needed
- Appraisal of the value of the land needed
- As needed, payment for the owner's appraisal fees
- Examination of title and recording of documents of conveyance

On occasion, additional steps are involved, such as:

- Complete parcel acquisition
- Relocation of residents or businesses
- Court costs in the event of dispute
- Condemnation proceedings

Throughout this entire process, the property owner has many rights and the County has numerous responsibilities. The County follows the federal "Uniform Real Estate Acquisition and Relocation Act" procedures to ensure that appropriate issues are addressed.

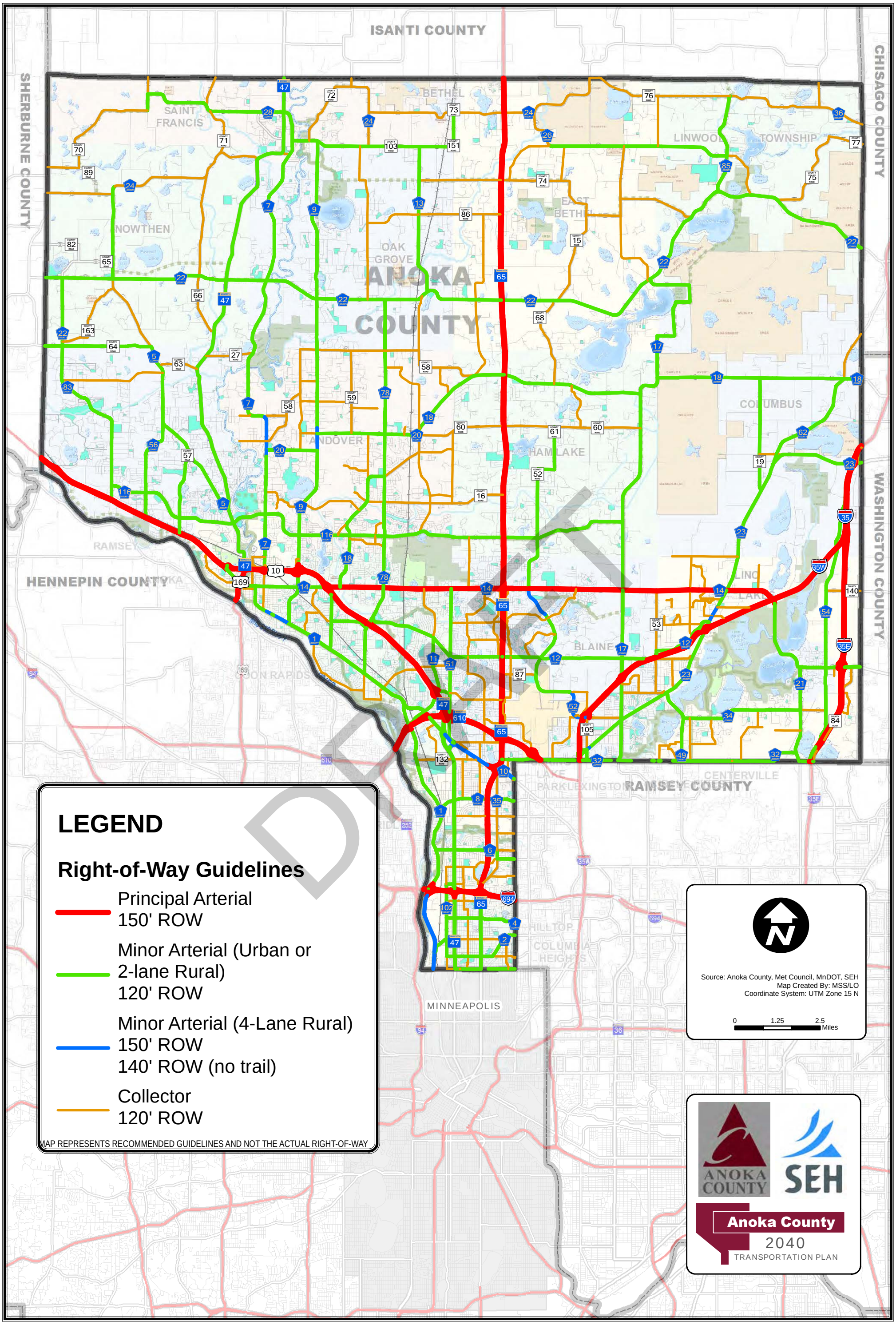
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Table 38 – Anoka County Right-of-Way Guidelines

Right-of-Way Width	Desired Standard	Minimum Standard
Principal Arterial	150 Feet	
Minor Arterial (urban)	120 Feet	
Minor Arterial (2-lane rural)	120 Feet	
Minor Arterial (4-lane rural)	150 Feet	140 Feet (no trail)
Collector	120 Feet	

Source: Anoka County Highway Department Development Review Manual (August 2014).

The County strives to prepare corridor preservation plans to define how big a roadway may need to be in the future. As part of the corridor plan, an analysis is performed to determine future growth of businesses and population. With this information, the County can determine how much capacity a road will need to accommodate in the future and begin working with the City and developers to obtain needed right-of-way for the road. Also, with this information, the County can determine the type of access (number of driveways and entry points) that will provide for safety and mobility along that future road. Table 38 identifies future rights-of-way that need to be preserved for principal and A-minor arterials (see Figure 33 for a visual depiction; not to scale).



MINIMUM RIGHT-OF-WAY REQUIREMENTS

FIGURE 33

6.3 TRANSPORTATION DEFICIENCIES & PROGRAMMED IMPROVEMENTS

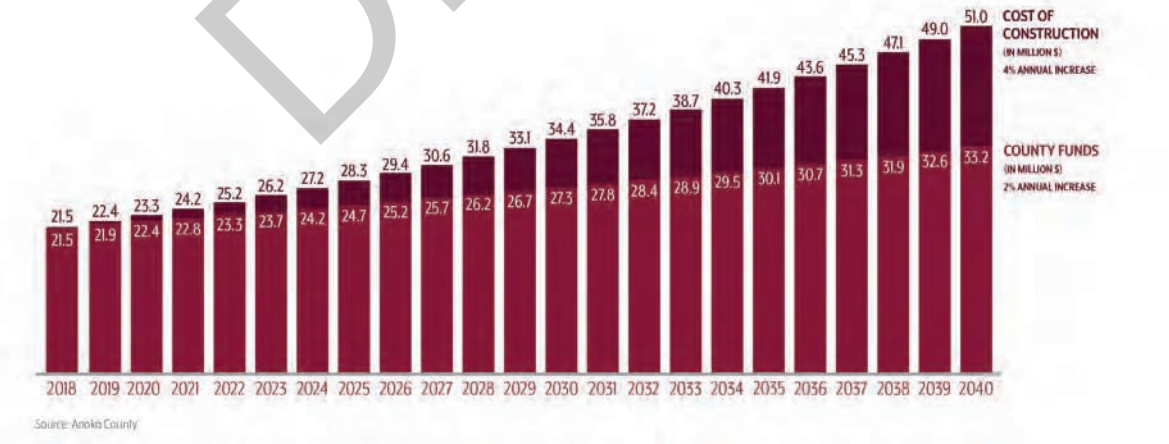
The identification of transportation deficiencies is one of the main elements of a transportation plan. In total, these deficiencies will shape where and how the County will focus a majority of its financial resources in the coming years. The 20-year timeframe of this planning process extends well beyond the typical five-year horizon used by the County to program infrastructure improvements. A five-year horizon represents a timeframe when available funding can be estimated with reasonable certainty. Beyond five years, the financial resources that will be available to the County are uncertain.

Another financial challenge facing the County is the impact of inflation on construction resources. Historically, annual inflation rates for transportation infrastructure projects has outpaced overall inflation indexes. In recent years, consumer inflation has ranged between approximately 1 percent and 2 percent while transportation construction costs typically increase between 3 percent and 4 percent each year. As a result the County's purchasing power for transportation infrastructure projects is decreasing over time. Figure 34 illustrates this challenge.

Assuming the recent highway program annual budget of approximately $21.5 million increases at 2 percent per year while construction inflation increases at 4 percent per year, the County's real dollars available to address system deficiencies will steadily decrease over the 20 year planning horizon. By the year 2040, the $21.5 million annual program would have approximately two-thirds the purchasing power because of the 4 percent construction cost inflation factor.

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Figure 34 - Transportation Finance Challenges



System Deficiencies Audit



Roadway in Anoka County (Source: Anoka County)

A priority of this transportation plan update is to provide the County a manageable document that can be continually referenced in the coming years to facilitate the annual process of updating the County's Five Year Highway Improvement Program. To that end, a comprehensive audit of the County's highway system deficiencies was prepared (see Table 39). The audit is structured to include the following information for each Anoka County roadway:

- Roadway name
- Roadway limits
- 2040 Transportation Goals not met. The goals include system stewardship (preservation and maintenance), safety, and mobility.
- Identified deficiencies; including;
    - Future pavement needs
    - Structurally deficient bridges
    - Potential jurisdictional transfers
    - High frequency crash locations
    - Railroad crossings
    - Future roadway segments at or over capacity
- Any programmed improvements in the 2018-2022 timeframe

As can be seen in reviewing Table 39, there are a substantial amount of system stewardship, safety, and mobility deficiencies that the County will need to assess in the coming years. In summary these include approximately:

- 62.7 miles of county roadways not meeting County pavement quality standards
- 9 structurally deficient County owned bridges

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- 78.5 miles of County roads identified as possible candidates for jurisdictional transfer
- 41 intersections identified as high frequency crash locations
- 17.1 miles of county roadway at or over capacity

Short-Term Plan (2018-2022)

Figure 35 shows the capital transportation investments on the highway network in Anoka County that are included in the Five Year County Highway Improvement Program. These projects are also identified in Table 39 by county roadway facility. A majority of the programmed projects involve pavement reconstruction and intersection improvements. There are also a handful of capacity expansion projects as well as bridge projects.

Mid- to Long-Term Plan (2023-2040)

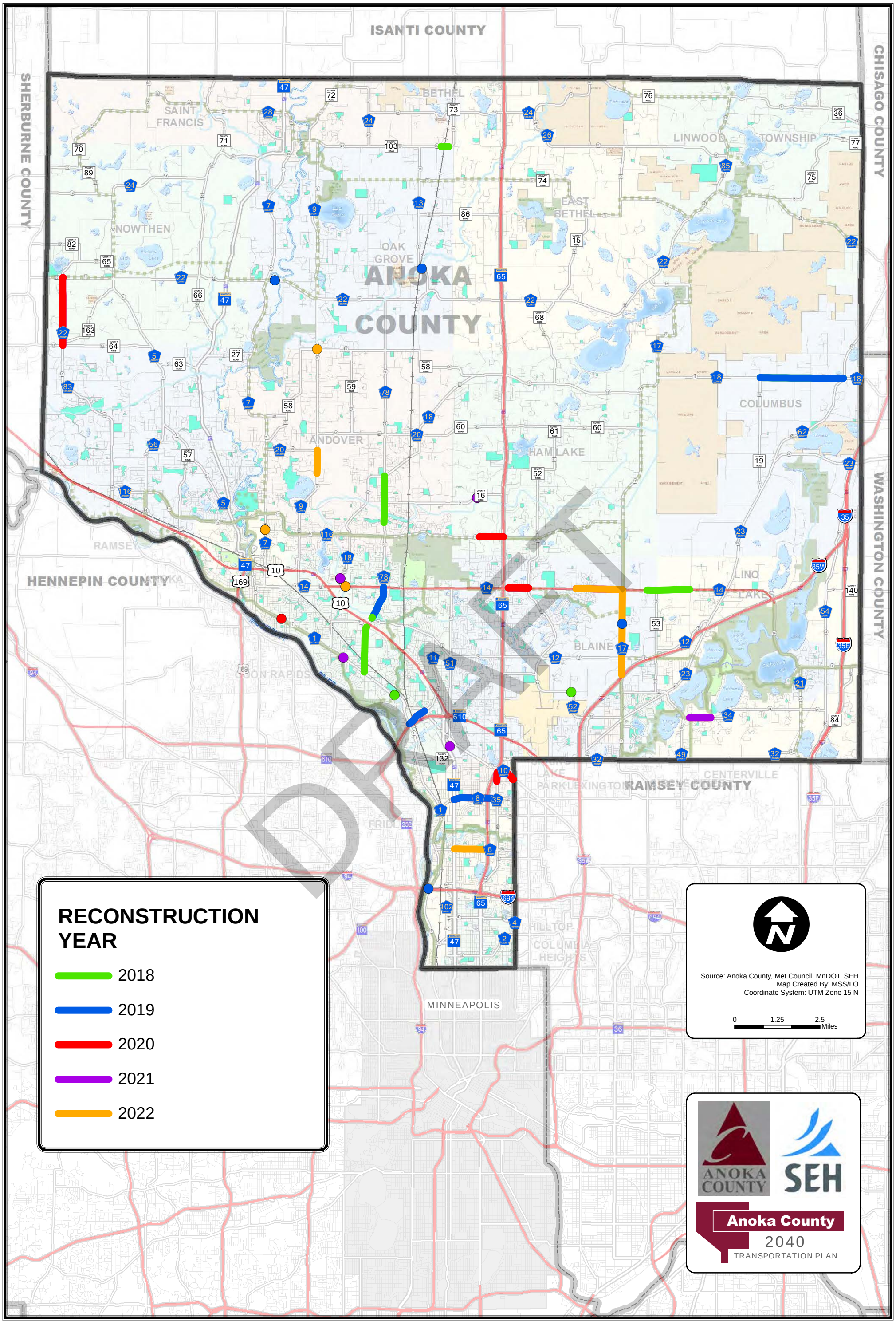
As noted previously, the financial resources available to the County are uncertain extending into the mid and long term planning horizons. Given these funding uncertainties and other challenges associated with implementing transportation improvements, this planning effort does not presume specific improvements to address each of the deficiencies included in Table 39 that are not addressed in the five year program.

Rather than recommending a specific improvement this plan recognizes there are a range of possibilities to address many of the system deficiencies facing the County and that specific improvements to advance to implementation should be identified through more detailed studies. Furthermore, given the continually increasing costs associated with transportation improvement projects, moving forward it will be prudent for the County to assess each deficiency more closely to define solutions that balance mobility needs with costs, environmental impacts, community input, and other competing priorities.



Reconstruction of an Anoka County Roadway (Source: Anoka County)

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CAPITAL INFRASTRUCTURE IMPROVEMENTS

FIGURE 35

Table 39 – County Roadways System Deficiencies Audit

County Route	From / To	2040 Transportation Needs			Identified Deficiencies	County Programmed Improvements (2018-2022)
		System Steward-ship	Safety	Mobility		
CSAH 1 5th Ave. Coon Rapids Blvd. NW East River Rd. NE River Rd. E	CSAH 14 (Main Street) to 37th Avenue (South County Line)	☒	☒	☐	**System Stewardship** Future Pavement Needs (4.9 miles) • Fridley Cl. to 1200' N. of 90th Ave. – 1.3 miles • Yucca St. NW to Dakotah St. NW – 0.3 miles • Charles St. to Rickard Rd. – 2.1 miles • 550' N. of Hanson Blvd. to Crooked Lake Blvd. – 1.2 miles Structurally Deficient County Bridge • Over BNSF RR in Coon Rapids (Br. No. 02521) **Safety** High Frequency Intersection Crash Locations (6 intersections) • CSAH 78 (Hanson Blvd.) in Coon Rapids (62 crashes) • Egret Blvd. in Coon Rapids (53 crashes) • Mississippi Blvd. in Coon Rapids (48 crashes) • Pheasant Ridge Dr. in Coon Rapids (37 crashes) • CSAH 11/SB Highway 610 Ramp in Coon Rapids (36 crashes) Rail/Hwy. Public Crossing w/ Passive Warning Device • BNSF in Fridley (USDOT No. 082711U) • BNSF in Fridley (USDOT No. 082709T)	None
CSAH 2 40th Ave. NE 44th Ave. NE 45th Ave. NE Main St. NE Reservoir Blvd. NE	CSAH 1 (East River Road) to CSAH 4 (Stinson Blvd. / East County Line)	☒	☐	☐	**System Stewardship** Future Pavement Needs (1.1 miles) • East River Rd. to W. End of Bridge No. 02523 – 0.2 miles • TH 65 to Reservoir Blvd./40th Ave. – 0.3 miles • Main St. to 975' S. of 43rd Ave. – 0.4 miles • 40th Ave. to TH 47 – 0.2 miles	None
CSAH 4 49th Ave. NE Fairway Dr. NE Stinson Blvd. NE	TH 47 (University Ave.) to CSAH 2 (45th Ave.)	☒	☒	☐	**System Stewardship** Future Pavement Needs (0.5 miles) • TH 47 (University Ave.) to Monroe St. NE – 0.5 miles **Safety** High Frequency Intersection Crash Location (1 intersection) • TH 65 (Central Ave.) in Columbia Heights (52 crashes)	None
CSAH 5 Nowthen Blvd. NW	TH 47 (St. Francis Blvd.) to CSAH 24 (Norris Lake Road)	☒	☐	☒	**System Stewardship** Future Pavement Needs (0.2 miles) • Viking Blvd. to Old Viking Blvd. – 0.2 miles Potential Jurisdictional Transfer (Long-Term 2030+) • 2.0 miles from CR 57 to TH 47 –> Ramsey **Mobility** Future Roadway Segments At or Over Capacity (0.67 miles) • 0.67 miles NW of TH 47 in Ramsey	None

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Table 39 – County Roadways System Deficiencies Audit (Cont.)

County Route	From / To	2040 Transportation Needs			Identified Deficiencies	County Programmed Improvements (2018-2022)
		System Steward-ship	Safety	Mobility		
CSAH 6 Mississippi St. NE Rice Creek Rd. NE	CSAH 1 (East River Road) to Stinson Blvd. (East County Line)	☒	☐	☐	**System Stewardship** Future Pavement Needs (0.7 miles) • East River Rd. to 5th St. – 0.7 miles Structurally Deficient Bridge • Under BNSF Railroad in Fridley (Br. No. 02524) Proposed Jurisdictional Transfer (Mid-Term 2021-2030) • 0.5 miles from CSAH 35 (Old Central Ave.) to Ramsey County Line –> Fridley	CSAH 6 from TH 47 to TH 65 • 2021 = Consultant Services • 2022 = ROW Acquisition • 2023+ = Reconstruction
CSAH 7 7th Ave./7th Ave. NW Roanoke St. NW Rum River Blvd. NW	CSAH 14 (Main Street) to CSAH 24 (227th Ave.)	☒	☒	☒	**System Stewardship** Future Pavement Needs (2.6 miles) • TH 10 to 530' N. of 38th Ln. – 1.4 miles • 1,130' N. of 165th Ave. NW to Andover Cl. – 1.2 miles Structurally Deficient Bridge • Under BNSF RR in Anoka (Br. No. 02525) **Safety** High Frequency Intersection Crash Location (1 intersection) • CSAH 14 (Main St.) in Anoka (50 crashes) **Mobility** Future Roadway Segments At or Over Capacity (2.35 miles) • 0.20 miles N. of CSAH 30 (Pierce St.) in Anoka • 1.07 miles S. of CSAH 20 (157th Ave. NW) in Andover • 1.08 miles N. of CSAH 116 in Andover	CSAH 7 at 38th Avenue • 2020 = Engineering Services • 2021 = ROW Acquisition • 2022 = Reconstruction CSAH 7 from CSAH 116 to CSAH 20 • 2023+ = Candidate Project
CSAH 8 73rd Ave. NE Osborne Rd. NE	CSAH 1 (East River Road) to Stinson Blvd. (East County Line)	☒	☒	☐	**System Stewardship** Proposed Jurisdictional Transfer (Mid-Term 2021-2030) • 0.5 miles from CSAH 35 (Old Central Ave.) to Ramsey County Line –> Fridley **Safety** High Frequency Intersection Crash Locations (2 intersections) • TH 47 (University Ave.) in Fridley (58 crashes) • TH 65/CSAH 8 in Spring Lake Park (48 crashes)	CSAH 8 from TH 47 to TH 65 • 2019 = ROW Acquisition • 2020 = Reconstruction
CSAH 9 Lake George Blvd. NW Round Lake Blvd. NW	CSAH 14 (Main St.) to CSAH 24 (Bridge St.)	☒	☒	☐	**System Stewardship** Future Pavement Needs (1.5 miles) • 217th Ave. to Oak Grove City Limit – 1.5 miles **Safety** High Frequency Intersection Crash Locations (2 intersections) • Northdale Blvd. in Coon Rapids (63 crashes) • CSAH 14 (Main St.) in Coon Rapids (50 crashes)	CSAH 9 from 152nd Lane to CSAH 20 • 2021 = Consultant Services • 2022 = ROW Acquisition • 2023+ = Reconstruction CSAH 9 at CR 58 Intersection • 2021 = Consultant Services • 2022 = ROW Acquisition • 2023+ = Reconstruction
CSAH 10 County Road 10	TH 47 (University Ave.	☒	☐	☐	**System Stewardship** Future Pavement Needs (0.6 miles) • 750' W. of TH 65 SB ramp to 200' E. of TH 65 NB Ramp – 0.6 miles	None

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Table 39 – County Roadways System Deficiencies Audit (Cont.)

County Route	From / To	2040 Transportation Needs			Identified Deficiencies	County Programmed Improvements (2018-2022)
		System Steward-ship	Safety	Mobility		
CSAH 11 Foley Blvd. NW Hanson Blvd. NW Northdale Blvd. NW,	CSAH 18 (Crooked Lake Blvd.) to CSAH 1 (East River Rd.)	☒	☒	☒	**System Stewardship** Future Pavement Needs (1.5 miles) • 250' N. of 107th Ln. NW to Northdale Blvd./Foley Blvd. – 0.7 miles* • East River Rd. to Coon Rapids Blvd. – 0.6 miles • 1070' W. of Redwood St. NW – 0.2 miles Potential Jurisdictional Transfer (Long-Term 2030+) • 1.1 miles from CSAH 18 to CSAH 78 –> Coon Rapids **Safety** High Frequency Intersection Crash Locations (7 intersections) • South CSAH 78 (Hanson Blvd.)/Robinson Dr. in Coon Rapids (72 crashes) • CSAH 12 (Northdale Blvd.) in Coon Rapids (68 crashes) • Egret Blvd. in Coon Rapids (44 crashes) • Coon Rapids Blvd. in Coon Rapids (44 crashes) • CSAH 18 (Crooked Lake Blvd.) in Coon Rapids (40 crashes) • North CSAH 78 (Hanson Blvd.)/Gateway Dr. in Coon Rapids (37 crashes) • CSAH 1 (East River Rd.)/ SB Highway 610 Ramp in Coon Rapids (36 crashes) **Mobility** Future Roadway Segments At or Over Capacity (0.51 miles) • 0.51 miles E. of CSAH 18 (Crooked Lake Blvd.)	CSAH 11 Reconstruction Project (2016-2017)* • Egret to Northdale Blvd. CSAH 11 RR Grade Separation Project • 2018 = EA • 2019 = ROW Acquisition • 2020 = Reconstruction
CSAH 12 109th Ave. NE Apollo Dr. Sunset Ave. Northdale Blvd. NW	CSAH 11 (Foley Blvd.) to CSAH 23 (Lake Dr.)	☐	☒	☒	**Safety** High Frequency Intersection Crash Locations (2 intersections) • CSAH 11 (Foley Blvd.) in Coon Rapids (68 crashes) • TH 65 (Central Ave.) in Blaine (52 crashes) **Mobility** Future Roadway Segments At or Over Capacity (0.51 miles) • 0.51 miles E. of CSAH 51 (University Ave.) in Blaine	None
CSAH 13 229th Ave. NW Cedar Dr. NW University Ave. Ext.	CSAH 22 (Viking Blvd.) to CSAH 24 (237th Ave.)	☒	☐	☐	**System Stewardship** Future Pavement Needs (4.4 miles) • Viking Blvd. to 229th Ave. – 4.4 miles Structurally Deficient Culvert • Over Ped. Trail in St. Francis (Br. No. 02J19) Potential Jurisdictional Transfer (Long-Term 2030+) • 1.5 miles from T-Extension with Viking Blvd. to New Proposed Extension of CSAH 78 – > Oak Grove	CSAH 13 Bridge Replacement & RR Crossing • 2018 = ROW Acquisition, Consultant Services Bridge Design • 2019 = Reconstruction

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Table 39 – County Roadways System Deficiencies Audit (Cont.)

County Route	From / To	2040 Transportation Needs			Identified Deficiencies	County Programmed Improvements (2018-2022)
		System Steward-ship	Safety	Mobility		
CSAH 14 125th Ave. NE Main St. NW	CSAH 1 (5th Ave.) to East County Line	☒	☒	☒	**System Stewardship** Future Pavement Needs (2.3 miles) • 8th Ave. to 900' W. of Round Lake Blvd. – 0.3 miles • 900' W. of Round Lake Blvd. – 0.2 miles • 330' E. of Lexington Ave. to 350' W. 4th Ave. – 1.8 miles Potential Jurisdictional Transfer (Short-Term 2014 – 2020) • 0.3 miles from CSAH 31 to CSAH 7 –> Anoka **Safety** High Frequency Intersection Crash Location (5 intersections) • CSAH 7 (7th Ave) in Anoka (50 crashes) • CSAH 9 (Round Lake Blvd.) in Coon Rapids (50 crashes) • Northdale Blvd. in Coon Rapids (47 crashes) • CSAH 78 (Hanson Blvd.) in Coon Rapids (45 crashes) • CSAH 18 (Coon Creek Blvd.) in Coon Rapids (35 crashes) **Mobility** Future Roadway Segments At or Over Capacity (3.54 miles) • 1.2 miles E. of TH 65 in Blaine • 0.6 miles E. of CR 84 (22nd Ave. S.) in Lino Lakes • 0.76 miles E. of W. Jct. of CSAH 21 (Centerville Rd.) • 0.98 miles E. of CSAH 17 (Lexington Ave.) in Blaine	CSAH 14 White-Topping from Lexington to 4th Ave • 2018 = Reconstruction CSAH 14 from Aberdeen to CSAH 52 • 2019 = ROW Acquisition • 2020 = Reconstruction CSAH 14 Over Coon Creek Bridge Rehabilitation • 2020 = Engineering Services • 2021 = ROW Acquisition • 2022 = Reconstruction CSAH 14 from Harpers to CSAH 17 • 2020 = Engineering Services • 2021 = ROW Acquisition • 2022 = Reconstruction
CSAH 17 185th Ave. 197th Ave NE Coon Lake Dr. N Lexington Ave. NE	County J (85th Ave.) to CSAH 22 (Viking Blvd.)	☒	☐	☒	**System Stewardship** Future Pavement Needs (0.7 miles) • Lake Dr. to Lovell Rd. – 0.1 miles • Blaine Cl. to Pheasant Ridge Dr. – 0.6 miles Structurally Deficient Culvert • Over Coon Creek in Ham Lake (Br. No. 93674) **Mobility** Future Roadway Segments At or Over Capacity (0.64 miles) • 0.64 miles N. of I-35W in Blaine	CSAH 17 (Lexington Ave.) and CSAH 18 (Broadway Ave.) North Intersection Improvement Project • 2018 = Reconstruction CSAH 17 from I-35W to CSAH 14 (4-lane to 6-lane) • 2021 = Consultant Services • 2022 = ROW Acquisition • 2023+ = Reconstruction

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Table 39 – County Roadways System Deficiencies Audit (Cont.)

County Route	From / To	2040 Transportation Needs			Identified Deficiencies	County Programmed Improvements (2018-2022)
		System Steward-ship	Safety	Mobility		
CSAH 18 Broadway Ave. NE Coon Creek Blvd. NW Crooked Lake Blvd. NW Crosstown Blvd. NE/NW Lexington Ave. NE	CSAH 14 (Main St.) to East County Line	☒	☒	☒	**System Stewardship** Future Pavement Needs (1.7 miles) • 40' W. of Soderville Dr. to East Lake Netta Dr. – 1.7 miles Structurally Deficient Bridge • Over Coon Creek in Coon Rapids (Br. No. 02549) Potential Jurisdictional Transfer (Short-Term 2014 – 2020) • 0.8 miles from CSAH 1 to CSAH 11 (Northdale Blvd.) –> Coon Rapids Potential Jurisdictional Transfer Candidate (Long-Term 2030+) • 2.1 miles from CSAH 78 to 139th Ave. –> Andover **Safety** High Frequency Intersection Crash Locations (2 intersections) • CSAH 11 (Northdale Blvd.) in Coon Rapids (40 crashes) • CSAH 14 (Main St.) in Coon Rapids (35 crashes) **Mobility** Future Roadway Segments At or Over Capacity (2.34 miles) • 0.78 miles S. of CSAH 116 (Bunker Lake Boulevard) • 0.64 miles N. of CSAH 14 (Main St.) in Coon Rapids • 0.92 miles NE of Crosstown Dr.	CSAH 17 (Lexington Ave.) and CSAH 18 (Broadway Ave.) North Intersection Improvement Project • 2018 = Reconstruction CSAH 18 from Potomac to Kettle River • 2018 = ROW Acquisition CSAH 18 from CR 19 to CSAH 62 • 2019 = Reconstruction CSAH 18 Over Coon Creek Bridge Rehabilitation • 2019 = Engineering Services • 2020 = ROW Acquisition • 2021 = Reconstruction
CSAH 20 157th Ave. NW 161st Ave. NW	CSAH 7 (7th Ave.) to CSAH 78 (Hanson Blvd.)	☒	☐	☐	**System Stewardship** Proposed Jurisdictional Transfer (Mid-Term 2021-2030) • 1.0 miles from CSAH 9 to CR 59 (1.0 miles) –> Andover	None
CSAH 21 Centerville Rd.	South County Line to CSAH 14 (Main St.)	☐	☐	☐	None	None
CSAH 22 181st Ave. NW Baugh St. NW Viking Blvd. NE/NW	West County Line to East County Line	☒	☐	☐	**System Stewardship** Future Pavement Needs (0.2 miles) • Lake George Blvd. to 425' W. of Heather St. NW – 0.2 miles Potential Jurisdictional Transfer (Long-Term 2030+) • 26.8 miles from Sherburne County Line to Chisago County Line –> State of Minnesota	CSAH 22 Over Rum River Bridge Rehabilitation • 2019 = ROW Acquisition, Engineering Services • 2020 = Reconstruction CSAH 22 from CR 64 to CR65 • 2019 = Engineering Services • 2020 = ROW Acquisition • 2021 = Reconstruction
CSAH 23 Lake Dr./Lake Dr. NE Naples St. NE	County J (85th Ave.) to I-35	☒	☐	☐	**System Stewardship** Future Pavement Needs (0.6 miles) • 590' E. of Naples to 170' S. of Albert Ave. – 0.3 miles • Dunlap Ave. to Circle Pines Cl. – 0.2 miles • W. Freeway Dr. to SB Ramp I-35 – 0.1 miles	CSAH 23 West of TH 97 • 2018 = Reconstruction CSAH 23 from I-35W to Lexington Ave. • 2018 = Reconstruction

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Table 39 – County Roadways System Deficiencies Audit (Cont.)

County Route	From / To	2040 Transportation Needs			Identified Deficiencies	County Programmed Improvements (2018-2022)
		System Steward-ship	Safety	Mobility		
CSAH 24 227th Ave NW 229th Ave. NW 237th Ave. NE/NW Ambassador Blvd. NW Bridge St. NW Fawn Lake Dr. NE Jarvis St. NW Norris Lake Rd. NW	CR 70 (Jarvis St./West County Line) to CR 76 (Fawn Lake Dr./North County Line)	☒	☐	☒	**System Stewardship** Future Pavement Needs (3.4 miles) • University Ave. Ext. to TH 65 – 1.5 miles • Jarvis St. to Nowthen Blvd. – 1.9 miles **Mobility** Future Roadway Segments At or Over Capacity (0.3 miles) • 0.30 miles W. of W. Junction of CR 72 (Rum River Blvd.)	None
CSAH 26 229th Ave. NE Gopher Dr. NE	CSAH 24 (237th Ave.) to CSAH 85 (Typo Creek Dr.)	☒	☐	☐	**System Stewardship** Future Pavement Needs (6.5 miles) • 237th Ave. to Durant St. – 3.4 miles • Durant St. to Typo Creek Dr. – 3.1 miles Potential Jurisdictional Transfer (Long-Term 2030+) • 2.4 miles from 229th Ave. to CSAH 24 –> East Bethel	None
CSAH 28 Ambassador Blvd. NW Nacre St. NW	North County Line to CSAH 24 (Bridge St.)	☒	☐	☐	**System Stewardship** Future Pavement Needs (2.3 miles) • Seelye Brook Dr. to Nacre St. – 1.8 miles • Ambassador Blvd. to North County Line – 0.5 miles	None
CSAH 30 Pierce St. Pleasant St.	TH 47 (Ferry St.) to CSAH 7 (7th Ave.)	☒	☒	☐	**System Stewardship** Potential Jurisdictional Transfer (Short-Term 2014 – 2020) • 0.6 miles from CSAH 7 to TH 47 –> Anoka **Safety** High Frequency Intersection Crash Location (1 intersection) • TH 47 (Ferry St.) in Anoka (59 crashes)	None
CSAH 31 4th Ave. Grant St.	East Main St. to CSAH 7 (7th Ave.)	☒	☐	☐	**System Stewardship** Potential Jurisdictional Transfer (Short-Term 2014 – 2020) • 1.2 miles from Main Street to CSAH 7 (7th Ave.) –> Anoka	None
CSAH 32 85th Ave. NE Ash St. County Road J W Lincoln St. NE	TH 65 (Central Ave.) to CSAH 21 (Centerville Rd.)	☒	☒	☒	**System Stewardship** Future Pavement Needs (1.6 miles) • TH 65 to Center Dr. NE – 0.1 miles • Lexington Ave. to Blaine Cl. – 0.6 miles • South County Line to Centerville Rd. – 0.9 miles **Safety** High Frequency Intersection Crash Location (1 intersection) • TH 65 (Central Ave.) in Blaine (50 crashes) **Mobility** Future Roadway Segments At or Over Capacity (0.83 miles) • 0.83 miles E. of CSAH 17 & 51 (University & Cord St.)	None
CSAH 34 Birch St.	CSAH 49 (Hodgson Rd.) to CSAH 21 (Centerville Rd.)	☒	☐	☐	**System Stewardship** Future Pavement Needs (3.6 miles) • Hodgson Rd. to Centerville Rd. – 3.6 miles Structurally Deficient Culvert • Over County Ditch #25 in Lino Lakes (Br. No. 94197)	CSAH 34 from Ware Road to W. Shadow Lake Drive • 2019 = Engineering Services • 2020 = ROW Acquisition • 2021 = Reconstruction

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Table 39 – County Roadways System Deficiencies Audit (Cont.)

County Route	From / To	2040 Transportation Needs			Identified Deficiencies	County Programmed Improvements (2018-2022)
		System Steward-ship	Safety	Mobility		
CSAH 35 Old Central Ave. NE	TH 65 (Central Ave.) to CSAH 10 (County Road 10)	☒	☐	☐	**System Stewardship** Future Pavement Needs (0.4 miles) • Mississippi St. to Rice Creek Bridge – 0.4 miles Structurally Deficient Culvert • Over Rice Creek in Fridley (Br. No. 3310)	CSAH 35 from 81st to CSAH 10 • 2019 = Engineering Services • 2020 = ROW Acquisition • 2021 = Reconstruction
CSAH 49 Hodgson Rd.	County J to CSAH 23 (Lake Dr.)	☐	☐	☒	**Mobility** Future Roadway Segments At or Over Capacity (0.92 miles) • 0.92 miles SE of CSAH 23 (Lake Dr.) in Lino Lakes	None
CSAH 51 University Ave. NE	CSAH 10 (County Road 10) to CSAH 14 (Main St.)	☒	☐	☒	**System Stewardship** Future Pavement Needs (2 miles) • 106th Ave. to 300' N. of Northdale Blvd. – 0.4 miles • 92nd Lane to 106th Ave. – 1.6 miles **Mobility** Future Roadway Segments At or Over Capacity (0.82 miles) • 0.82 miles S. of 99th Ave. in Coon Rapids	None
CSAH 52 101st Ave. NE 95th Ave. NE Lovell Rd. Radisson Rd. Radisson Rd. NE		☒	☐	☒	**System Stewardship** Future Pavement Needs (0.4 miles) • 95th Ave. NE to Naples St. NE – 0.4 miles **Mobility** Future Roadway Segments At or Over Capacity (1.15 miles) • 0.75 miles NE of CSAH 12 (109th Ave.) in Blaine • 0.40 miles W. of I-35W in Blaine	None
CSAH 54 20th Ave. N/S Freeway Dr. W	County J (South County Line) to CSAH 23 (Lake Dr.)	☐	☐	☐	None	CSAH 54 Realignment So. of CSAH 23 • 2018 = Reconstruction
CSAH 56 Ramsey Blvd. NW	US 10 to CSAH 5 (Nowthen Blvd.)	☐	☐	☐	None	CSAH 56 Railroad Grade Separation • 2018 = Consultant Services
CSAH 57 Sunfish Lake Blvd. NW	US 10 to CSAH 116 (Bunker Lake Blvd.)	☐	☒	☐	**Safety** High Frequency Intersection Crash Location (1 intersection) • US Highway 10 in Ramsey (75 crashes)	None
CSAH 58 177th Ave. NE 181st Ave. NW Palm St. NW	CSAH 9 (Round Lake Blvd.) to CSAH 18 (Crosstown Blvd.)	☐	☐	☐	None	None
CSAH 62 Kettle River Blvd. NE	CSAH 23 (Lake Dr.) to East County Line	☒	☐	☐	**System Stewardship** Potential Jurisdictional Transfer (Long-Term 2030+) • 4.9 miles from Washington County Line to CSAH 23 (4.9 miles) –> Columbus	None
CSAH 76 Fawn Lake Dr. NE	CSAH 85 (Typo Creek Dr.) to CSAH 36 (Rutgers St.)	☐	☐	☐	None	None

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Table 39 – County Roadways System Deficiencies Audit (Cont.)

County Route	From / To	2040 Transportation Needs			Identified Deficiencies	County Programmed Improvements (2018-2022)
		System Steward-ship	Safety	Mobility		
CSAH 78 Hanson Blvd. NW Flamingo St. NW	CSAH 1 (Coon Rapids Blvd.) to CSAH 22 (Viking Blvd.)	☒	☒	☒	**System Stewardship** Future Pavement Needs (0.9 miles) • Coon Creek Bridge to 470' S. of 150th Ln. NW – 0.9 miles Structurally Deficient Culvert • Over Ped. in Coon Rapids (Br. No. 02J31) **Safety** High Frequency Intersection Crash Locations (6 intersections) • US Highway 10 Ramp in Coon Rapids (103 crashes) • CSAH 11 (Northdale Blvd/Robinson Dr.) in Coon Rapids (72 crashes) • CSAH 1 (Coon Rapids Blvd.) in Coon Rapids (62 crashes) • 121st Ave. in Coon Rapids (49 crashes) • CSAH 14 (Main St.)/CSAH 78 in Coon Rapids (45 crashes) • CSAH 11 (Northdale Blvd./Gateway Dr.) in Coon Rapids (37 crashes) **Mobility** Future Roadway Segments At or Over Capacity (2.51 miles) • 0.48 miles S. of CSAH 116 (Bunker Lake Blvd) • 1.56 miles S. and N. of CSAH 14 (Main St.) in Coon Rapids • 0.47 miles NE of CSAH 11 (Northdale Blvd.)	CSAH 78 from 139th Ave to Crosstown • 2018 = Reconstruction CSAH 78 Railroad Grade Separation • 2018 = Reconstruction CSAH 78 (Hanson Blvd.) from Northdale Blvd. to Main St. • 2018 = ROW Acquisition CSAH 78 from CSAH 11 to CSAH 14 • 2019 = Reconstruction
CSAH 83 Armstrong Blvd. NW Baugh St. NW	US 10 to CSAH 22 (181st Ave.)	☒	☐	☐	**System Stewardship** Potential Jurisdictional Transfer (Long-Term 2030+) • 0.4 miles from US 10 to CSAH 116 –> Ramsey	None
CSAH 85 Typo Creek Dr. NE	CSAH 22 (Viking Blvd.) to CSAH 76 (Fawn Lake Dr.)	☐	☐	☐	None	None
CSAH 102 57th Ave. NE Main St. NE	CSAH 2 (44th Ave.) to TH 47 (University Ave.)	☒	☒	☐	**System Stewardship** Future Pavement Needs (0.2 miles) • I-694 Bridge to 57th Ave. – 0.2 miles **Safety** High Frequency Intersection Crash Locations (1 intersection) • TH 47 (University Ave.) in Fridley (48 crashes)	None
CSAH 116 Bunker Lake Blvd. NE/NW	CSAH 83 (Armstrong Blvd.) to CSAH 17 (Lexington Ave.)	☒	☒	☐	**System Stewardship** Future Pavement Needs (2.9 miles) • Wintergreen St. to 45' W. of Buchanan St. – 2.8 miles • 190' E. of Industry Ave. NW to 270' E. of TH 47 – 0.1 miles **Safety** High Frequency Intersection Crash Locations (2 intersections) • TH 47 (St. Francis Blvd.) in Ramsey (51 crashes) • TH 65 (Central Ave) in Ham Lake (39 crashes)	CSAH 116 from Van Buren to TH 65 • 2019 = Engineering Services • 2020 = ROW Acquisition • 2021 = Reconstruction
CSAH 131 4th Ave. N	CSAH 31 (Grant St.) north	☒	☐	☐	**System Stewardship** Future Pavement Needs (0.5 miles) • Grant St. to 1,550' N. of Grant St. – 0.5 miles Potential Jurisdictional Transfer (Short-Term 2014 – 2020) • 0.5 miles from North Extension to CSAH 31 (Grant St.) –> Anoka	None

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Table 39 – County Roadways System Deficiencies Audit (Cont.)

County Route	From / To	2040 Transportation Needs			Identified Deficiencies	County Programmed Improvements (2018-2022)
		System Steward-ship	Safety	Mobility		
CR 3 Coon Rapids Blvd. NW University Ave. NE	CSAH 1 (East River Road) to TH 47	☒	☐	☐	**System Stewardship** Future Pavement Needs (0.1 miles) • 86th Lane to TH 47 – 0.1 miles	None
CR 15 Durant St. NE East Bethel Blvd. NE	CSAH 22 (Viking Blvd.) to CSAH 26 (229th Ave.)	☒	☐	☐	**System Stewardship** Future Pavement Needs (2.8 miles) • Viking Blvd. to 213th Ave. – 2.8 miles Potential Jurisdictional Transfer (Short-Term 2014 – 2020) • 1.6 miles from 217th Ave. to CSAH 26 –> East Bethel	None
CR 16 Andover Blvd. NE/NW	CSAH 78 (Hanson Blvd.) to TH 65 (Central Ave.)	☒	☐	☐	**System Stewardship** Potential Jurisdictional Transfer (Short-Term 2014 – 2020) • 3.6 miles from CSAH 78 to TH 65 (3.6 miles) –> Andover, Ham Lake	CR 16 "S"-Curves at Jackson Street • 2020 = Engineering Services • 2021 = ROW Acquisition • 2022 = Reconstruction
CR 19 Potomac St. NE	CSAH 23 (Lake Dr.) to CSAH 18 (Broadway Ave.)	☐	☐	☐	None	None
CR 27 179th Ln. NW	TH 47 (St. Francis Blvd.) to CSAH 7 (Rum River Blvd.)	☒	☐	☐	**System Stewardship** Proposed Jurisdictional Transfer (Mid-Term 2021-2030) • 1.4 miles from TH 47 to CSAH 7 –> Ramsey	None
CR 36 Fawn Lake Dr. NE Rutgers St.	North County Line to East County Line	☐	☐	☐	None	None
CR 49 Hodgson Rd. North Rd.	CSAH 17 (Lexington Ave.) to CSAH 23 (Lake Dr.)	☒	☐	☐	**System Stewardship** Future Pavement Needs (0.2 miles) • Lakeview Dr. to Lake Dr. – 0.2 miles	None
CR 52 Radisson Rd. NE	CSAH 116 (Bunker Lake Blvd.) to CR 61 (153rd Ave.)	☐	☐	☐	None	None
CR 53 Sunset Ave.	CR 49 (North Rd.) to CSAH 14 (125th Ave./Main St.))	☒	☐	☐	**System Stewardship** Potential Jurisdictional Transfer (Long-Term 2030+) • 0.1 miles at CSAH 23 –> Lino Lakes	None
CR 57 Sunfish Lake Blvd. NW	CSAH 116 (Bunker Lake Blvd.) to CSAH 5 (Nowthen Blvd.)	☐	☒	☐	None	None
CR 58 181st Ave. NW Tulip St. NW Valley Dr. NW	CSAH 7 (7th Ave.) to CSAH 9 (Round Lake Blvd.)	☒	☐	☐	**System Stewardship** Proposed Jurisdictional Transfer (Mid-Term 2021-2030) • 3.3 miles from CSAH 7 to CSAH 58 Extension –> Andover	None
CR 59 Verdin St. NW	CSAH 20 (161st Ave.) to CSAH 58 (181st Ave.)	☐	☐	☐	None	None
CR 60 Constance Blvd. NE/NW	CSAH 18 (Crosstown Blvd.) to CSAH 17 (Lexington Ave.)	☒	☐	☐	**System Stewardship** Future Pavement Needs (3.0 miles) • 1550' E. of Andover Cl. to TH 65 – 1.2 miles • East Lake Netta Dr. to Lexington Ave. – 1.8 miles	None
CR 61 153rd Ave. NE Xylite St. NE	TH 65 to CR 60 (Constance Blvd.)	☒	☐	☐	**System Stewardship** Potential Jurisdictional Transfer (Long-Term 2030+) • 2.1 miles from TH 65 to East Ham Lake Dr. –> Ham Lake	None

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Table 39 – County Roadways System Deficiencies Audit (Cont.)

County Route	From / To	2040 Transportation Needs			Identified Deficiencies	County Programmed Improvements (2018-2022)
		System Steward-ship	Safety	Mobility		
CR 63 Green Valley Rd. NW	CSAH 5 (Nowthen Blvd.) to TH 47 (St. Francis Blvd.)	☒	☐	☐	**System Stewardship** Potential Jurisdictional Transfer (Long-Term 2030+) • 1.1 miles from CSAH 5 to TH 47 –> Ramsey	None
CR 64 181st Ave. NW	CSAH 22 (Baugh St.) to CSAH 5 (Nowthen Blvd.)	☐	☐	☐	None	None
CR 65 201st Ave. NW Viking Blvd. NW	West County Line to CSAH 5 (Nowthen Blvd.)	☒	☐	☐	**System Stewardship** Future Pavement Needs (1.1 miles) • Tiger St. to Nowthen Blvd. – 1.1 miles Potential Jurisdictional Transfer (Long-Term 2030+) • 1.8 miles from CSAH 22 to CSAH 5 –> Nowthen	None
CR 66 Cleary Rd. NW	TH 47 (St. Francis Blvd.) to CSAH 24 (Norris Lake Rd.)	☐	☐	☐	None	None
CR 68 Greenbrook Dr. NE Xylite St. NE	CSAH 18 (Crosstown Blvd.) to CSAH 22 (Viking Blvd.)	☒	☐	☐	**System Stewardship** Future Pavement Needs (1.0 miles) • Crosstown Blvd. to Ham Lake Cl. – 1.0 miles	None
CR 70 223rd Ave. NW Nacre St. NW Sugarbush Rd. NW Hill N. Dale Dr. NW Jarvis St. NW	CSAH 24 (Norris Lake Rd.) to CSAH 28 (Ambassador Blvd.)	☒	☐	☐	**System Stewardship** Future Pavement Needs (0.5 miles) • Hill and Dale Rd. to Ambassador Blvd. – 0.5 miles Potential Jurisdictional Transfer (Long-Term 2030+) • 4.3 miles from Sherburne County Line to CSAH 28 –> Nowthen	None
CR 71 Bridgestone Rd. NW Seelye Brook Dr. NW	CSAH 24 (Norris Lake Rd.) to CSAH 28 (Ambassador Blvd.)	☐	☐	☐	None	None
CR 72 243rd Ave. NW Verdin St. NW	CSAH 24 (Bridge St.) to North County Line	☒	☐	☐	**System Stewardship** Future Pavement Needs (2.6 miles) • Bridge St. to North County Line – 2.6 miles	None
CR 73 University Ave. Ext.	CSAH 24 (237th Ave.) to North County Line	☐	☐	☐	None	None
CR 74 215th Ln. NE 221st Ave. NE/NW	CSAH 13 (Cedar Dr.) to CSAH 22 (Viking Blvd.)	☒	☐	☐	**System Stewardship** Potential Jurisdictional Transfer (Short-Term 2014 – 2020) • 1.5 miles from Luan Dr. to 217th Ave. –> East Bethel	None
CR 75 Sunrise Rd. NE	CSAH 22 (Viking Blvd.) to CR 77 (Ryan Lake Dr.)	☐	☐	☐	None	None
CR 76 Fawn Lake Dr. NE	CSAH 24 (Fawn Lake Dr.) to CSAH 85 (Typo Creek Dr.)	☐	☐	☐	None	None
CR 77 Ryan Lake Dr. Lyons St. NE	CR 75 (Sunrise Rd.) to CSAH 36 (Fawn Lake Dr.)	☐	☐	☐	None	None
CR 79 North St. Northdale Blvd. NW Riverdale Dr. NW	CSAH 7 (7th Ave.) to CSAH 9 (Round Lake Blvd.)	☒	☐	☐	**System Stewardship** Future Pavement Needs • CSAH 7 to Round Lake Blvd. – 1.0 miles Potential Jurisdictional Transfer (Short-Term 2014 – 2020) • 1.3 miles from CSAH 7 to CSAH 9 –> Anoka, Coon Rapids	None

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Table 39 – County Roadways System Deficiencies Audit (Cont.)

County Route	From / To	2040 Transportation Needs			Identified Deficiencies	County Programmed Improvements (2018-2022)
		System Steward-ship	Safety	Mobility		
CR 82 205th Ave. NW Tiger St. NW	West County Line to CR 65 (201st Ave.)	☒	☐	☐	**System Stewardship** Potential Jurisdictional Transfer (Long-Term 2030+) • 1.4 miles from Sherburne County Line to CR 65 –> Nowthen	None
CR 84 Otter Lake Rd.	County J to CSAH 14 (Main St.)	☐	☐	☐	None	None
CR 86 Sims Rd. NE/NW	CSAH 13 (Cedar Dr.) to TH 65 (Central Ave.)	☒	☐	☐	**System Stewardship** Potential Jurisdictional Transfer (Long-Term 2030+) • 2.4 miles from CSAH 13 to TH 65 –> East Bethel, Oak Grove	
CR 89 Sugar Bush Rd. NW	CSAH 24 (Norris Lake rd.) to CR 70 (Sugar Bush Rd.)	☒	☐	☐	**System Stewardship** Future Pavement Needs (1.0 miles) • Norris Lake Rd. to 223rd Ave. – 1.0 miles Potential Jurisdictional Transfer Candidate (Long-Term 2030+) • 1.0 miles from CSAH 24 to CR 70 –> Nowthen	None
CR 103 229th Ave. NW	CSAH 24 (Nightingale St.) to CSAH 13 (Cedar Dr.)	☐	☐	☐	None	None
CR 104 49th Ave. NE	CSAH 102 (Main St.) to TH 47 (University Ave.)	☐	☐	☐	None	None
CR 106 Mississippi St. NE	CSAH 35 (Old Central Ave.) to East County Line	☒	☐	☐	**System Stewardship** Future Pavement Needs (0.5 miles) • Old Central Ave. to East County Line – 0.5 miles	None
CR 108 Osborne Rd. NE	TH 65 (Central Ave.) to East County Line	☐	☐	☐	None	None
CR 132 85th Ave. NE/NW 86th Ave. NE	CSAH 1 (East River Rd.) to TH 47 (University Ave.)	☒	☒	☐	**System Stewardship** Future Pavement Needs (0.7 miles) • Fridley Cl. to 250' W. of Cottonwood St. – 0.4 miles • East River Rd. to Coon Rapids Cl. – 0.3 miles **Safety** High Frequency Intersection Crash Location (1 intersection) • TH 47 (University Ave.) in Blaine (36 crashes)	None
CR 140 80th St. E	CSAH 54 to East County Line	☐	☐	☐	None	None
CR 158 165th Ave. NW	CSAH 7 (7th Ave.) to CR 58 (Valley Dr.)	☒	☐	☐	**System Stewardship** Proposed Jurisdictional Transfer (Mid-Term 2021-2030) • 1.5 miles from CSAH 7 to CR 58 (Valley Dr.) –> Andover	None
CR 163 Burns Pkwy. NW	CSAH 22 (Baugh St.) to CSAH 5 (Nowthen Blvd.)	☒	☐	☐	**System Stewardship** Proposed Jurisdictional Transfer (Mid-Term 2021-2030) • 2.5 miles from CSAH 22 to CSAH 5 –> Nowthen	None

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ANOKA COUNTY

2040 TRANSPORTATION PLAN UPDATE

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Anoka County
MINNESOTA

SEH

City of RAMSEY

7550 Sunwood Drive NW • Ramsey, MN 55303
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www.cityoframsey.com

August 7, 2018

Anoka County Highway Department
Attn: Jack Forslund, Transportation Planner
1140 Bunker Lake Blvd. NW
Andover, MN 55304

Jack:

Thank you for the opportunity to comment on the Anoka County 2040 Transportation Plan. Ramsey has enjoyed a good relationship with Anoka County, especially as it relates to key transportation issues. We commend Anoka County for leading many priority transportation initiatives, especially the Highway 10 Access Planning Study and Greater MN Gateway Initiative.

Ramsey Vision and Land Use Plan

Ramsey has established five Priority Goals for future land use over the next 20 years. Each of these goals carries equal weight, and there is no priority order.

- A Balance of Rural Character and Urban Growth
- A Connected Community
- An Active Community
- Smart, Citizen-Focused Government
- Financial Stability

Future Growth Forecasts

Ramsey is requesting an amendment to its future growth forecasts as outlined below. These revisions are subject to the approval of the Metropolitan Council and may be revised downward.

	2016	2020	2030	2040
Households	8,973	9,500	11,500	13,500
Population	26,251	27,550	33,350	39,150
Employment	6,334	6,900	7,800	8,400

Future Land Use Plan

As part of Ramsey's ongoing public engagement and land use planning efforts, we have amended our Future Land Use Plan since work commenced on the Anoka County 2040 Transportation Plan. A copy of our Future Land Use Map and TAZ Allocations are attached to this letter. Of particular note, a new business park has been established

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west of Armstrong Boulevard/CSAH 83. This should be reflected in the Freight section of the Anoka County 2040 Transportation Plan.

Highway Projects

U.S. Highway 10/Greater MN Gateway

Ramsey extends its thanks and gratitude to Anoka County for its leadership in Transportation Planning for Highway 10. Ramsey supports the current vision and prioritization for this corridor as laid out in the Highway 10 Access Planning Study and the Anoka Solution.

Ramsey has initiated the Ramsey Highway 10 Plan to set up the corridor for success moving forward and continuing the positive momentum experienced thus far. Our current priorities include, but are not necessarily limited to the following (in no priority order):

- Full Access Grade-Separated Interchange at Sunfish Lake Boulevard/CSAH 57
- Full Access Grade-Separated Interchange at Ramsey Boulevard/CSAH 56
- Reduced Conflict U-Turn Intersection at Bowers Drive
- Reduced Conflict U-Turn Intersection at Alpine Drive
- Removal of uses on north side of U.S. Highway 10/169 west of Ramsey Boulevard
- Pedestrian Bridge on Central Anoka County Regional Trail at Northstar Commuter Rail – Ramsey Station
- Frontage Roads to support interchange and removal of private, direct accesses on U.S. Highway 10/169

Mississippi River Crossing

The Plan is absent any meaningful planning for a Future Mississippi River Crossing. Ramsey acknowledges that this future improvement is absent in Thrive2040, the Regional Development Framework. However, large transportation projects take leadership of local communities to drive priorities.

Armstrong Boulevard/CSAH 83 has been designed to ultimately become the corridor for the future Mississippi River Crossing. With that in mind, Ramsey objects to the potential Jurisdictional Transfer of this corridor south of Bunker Lake Boulevard.

Saint Francis Boulevard/TH 47 Study Revival

On or about 2016, a joint study for Trunk Highway 47 was initiated covering the cities of Ramsey and Anoka. This plan was never fully adopted, and many of these alternatives are no longer valid. Ramsey would recommend refreshing this study to advance the alternatives.

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Ramsey would recommend initiating this study in 2019.

Ramsey acknowledges the STIP Funding Application for the intersection of Bunker Lake Boulevard/CSAH 116 and Saint Francis Boulevard/TH 47. Ramsey commends Anoka County for taking the lead on this initiative and looks forward to supporting this project.

Nowthen Boulevard/CSAH 5 Corridor Study

Within the next ten year planning period, Ramsey desires to jointly complete a Corridor Study for the Nowthen Boulevard/CSAH 5 Corridor. Congestion on Trunk Highway 47/Saint Francis Boulevard is creating significant delays and safety concerns along this corridor. Significant growth and the opening of a new elementary school in 2019 emphasize the need to complete key safety improvements at key nodes.

Ramsey objects to any potential jurisdictional transfer of this corridor south/east of Sunfish Lake Boulevard/CSAH 57 without a long-term plan for both the CSAH 5 and TH 47 corridors.

Ramsey would suggest initiating this study in 2019.

Armstrong Boulevard/CSAH 83

Ramsey desires to study specific spot improvements along the Armstrong Boulevard/CSAH 5 Corridor. Ramsey does not believe a full Corridor Study is warranted along this corridor, but the completion of ICE Reports at key intersections.

- Armstrong Boulevard/CSAH 83 and Alpine Drive
- Armstrong Boulevard/CSAH 83 and 161st Avenue (Ramsey Central Park/Game Fair Entrance)

Ramsey would prioritize Saint Francis Boulevard/TH 47 and Nowthen Boulevard/CSAH 5 Corridor Studies over this corridor. However, given the smaller scope of study, Ramsey hopes that this study can be advanced quicker.

Green Valley Road/CR 63

During Ramsey's Public Engagement for our 2040 Comprehensive Plan Update, we heard several comments about safety along Green Valley Road/CR 63. As Ramsey continues to grow, this general corridor is shaping up to be a major East/West Connection, another key goal of our community. Many of these comments seemed to be focused on pedestrian safety. Ramsey is planning some trail linkages in the general area. However, many of respondents noted that even the addition of paved shoulders would be a relatively low-cost, high-benefit improvement for the corridor.

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181st Avenue/CR 64

Additionally during Ramsey's Public Engagement for our 2040 Comprehensive Plan Update, we heard several comments about safety along 181st Avenue/CR 64. Many of these comments seemed to be focused on pedestrian safety, noting that even the addition of paved shoulders would be a relatively low-cost, high-benefit improvement for the corridor.

Multi-Modal Projects

Northstar Commuter Rail

Ramsey supports the ongoing operation of the Northstar Commuter Rail. As opportunities present themselves and continued growth occurs in Ramsey, we would like to continue to plan for circulator transit service. Additionally, we look forward to the completion of the Mississippi Skyway pedestrian bridge along the Central Anoka County Regional Trail. This pedestrian bridge will serve as a rail station enhancement, adding ridership with access to the south side of Highway 10.

Central Anoka County Regional Trail

Ramsey extends its thanks and gratitude for Anoka County's support of the realignment of the Central Anoka County Regional Trail from the Ramsey Boulevard to Ramsey's Downtown Area. . This will improve safety for pedestrians, bicyclists, and motorists. Ramsey also looks forward to continued support from Anoka County in obtaining funding for this important regional improvement that connects so many regional transportation systems, with a single project.

Rum River Regional Trail

Within the next ten year planning cycle, Ramsey would like to explore a realignment of the planned Rum River Regional Trail. Ramsey believes there are more destinations along Trunk Highway 47, providing better connections to regional facilities. Ramsey would recommend completing this analysis prior to 2023, to be included in the next Regional Development Framework and System Plans.

Regional Trail Search Corridor: Trott Brook Corridor

Within the next ten year planning cycle, Ramsey would like to explore the addition of a Regional Trail Search Corridor, or a relocation of an existing search corridor. Ramsey believes that this corridor provides an excellent opportunity to connect multiple regional facilities. Ramsey would recommend completing this analysis prior to 2023, to be included in the next Regional Development Framework and System Plans

City of RAMSEY

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Sincerely,

CITY OF RAMSEY

Tim Gladhill
Community Development Director

CC: James Dickenson, Andover City Administrator (re: Rum River Regional Trail Alignment)
Joseph Janish, Andover Community Development Director (re: Rum River Regional Trail Alignment)
Bret Heitkamp, Champlin City Administrator (re: Mississippi River Crossing)
John Cox, Champlin Deputy City Administrator (re: Mississippi River Crossing)
Tina Goodroad, Dayton City Administrator/Development Director (re: Mississippi River Crossing)
Katie Walker, Hennepin County Comprehensive Planning Manager (re: Mississippi River Crossing)
Melissa Barnes, Minnesota Department of Transportation (MnDOT) North Area Engineer
Eric Wojchik, Metropolitan Council Senior Planner/Sector Representative
Freya Thamman, Metropolitan Council Senior Planner/Sector Representative
Scott Marek, WSB; Ramsey Consulting Transportation Planner
Breanne Rothstein, WSB; Ramsey Consulting Planner
Eric Maass, WSB; Ramsey Consulting Planner

Enclosures: Ramsey Future Land Use Map
Ramsey TAZ Allocations

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Councilmember introduced the following resolution and moved for its adoption:

RESOLUTION #18-167

RESOLUTION APPROVING RESPONSE TO ANOKA COUNTY TRANSPORTATION PLAN

WHEREAS, once every ten (10), metro area municipalities are required to update Comprehensive Plans, which serves as the long-range vision for land use and systems for the community; and

WHEREAS, jurisdictions impacted by these plans are afforded the opportunity to review plans of adjacent and impacted communities and organizations.

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

1) That the Ramsey City Council hereby approves the response to the Anoka County Transportation Plan.

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 6th day of August, 2018.

_____

Acting Mayor

ATTEST:

City Clerk

Our Mission: To work together to resposibly grow our community, and to provide quality, cost-effective, and efficient government services.

CC Regular Session **7. 5.**

Meeting Date: 08/06/2018

By: Tim Gladhill, Community Development

Information

Title:

Adopt Resolution #18-168 Approving Response to Draft Hennepin County 2040 Comprehensive Plan Update

Purpose/Background:

The purpose of this case is to review and respond to the Draft Comprehensive Plan Update for Hennepin County.

Once every ten years, metro area communities must update their long-term land use plan and vision. As part of that update process, adjacent and impacted jurisdictions are afforded the opportunity to review and comment on adjacent plans.

Notification:

Notification is not required.

Observations/Alternatives:

Attached to this case is a draft response prepared by Staff for Council consideration. There are two topical areas of interest with potential impacts to Ramsey.

1. Transporation Plan - Mississippi River Crossing
2. Mississippi River Corridor Critical Area (MRCCA)

The draft response includes a request to increase prioritization for planning for a Future Mississippi River Crossing. The MRCCA Plan appears to meet the minimum requirements of the DNR with no negative impacts to Ramsey. The proposed detailed response is attached for review.

Funding Source:

This case is being handled as part of normal Staff duties.

Recommendation:

Staff recommends approval of the attached response.

Action:

Motion to adopt Resolution #18-168 approving response to the Draft Hennepin County Comprehensive Plan.

Attachments

Hennepin County Comprehensive Plan

Draft Response

Resolution #18-168

Form Review

Inbox	Reviewed By	Date
Tim Gladhill (Originator)	Tim Gladhill	08/02/2018 09:41 AM
Kurt Ulrich	Tim Gladhill	08/02/2018 09:43 AM
Tim Gladhill (Originator)	Tim Gladhill	08/02/2018 09:50 AM
Kurt Ulrich	Kurt Ulrich	08/02/2018 02:00 PM
Form Started By: Tim Gladhill		Started On: 07/31/2018 10:34 AM
Final Approval Date: 08/02/2018		

Hennepin County

Comprehensive Plan 2040



DRAFT

Last updated: June 12, 2018

Prepared to meet the requirements of the Metropolitan Land Planning Act and the Metropolitan Council's 2040 Regional Development Framework, Thrive 2040.

Adopted by the Hennepin County Board of Commissioners on xx, xx, 2019

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2. Mobility 2040 Transportation System Plan

3. Regional Parks and Trails

4. Water Resources

5. Mississippi River Critical Corridor Area

6. Implementation

Acknowledgements

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Kristine Sundberg
Samantha Vang

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Rosemary Lavin
Dan Patterson
Alisa Salewski
Erica Skinner
Carla Stueve
Kelsey Dawson Walton

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Tawanna Black, Northside Funders Group
Susan Brower, Minnesota State Demographic Center
Ed Ehlinger, Minnesota Department of Health
Yingling Fan, University of Minnesota
Tom Fisher, University of Minnesota
Peter Frosch, Greater MSP
Patrick Hamilton, Science Museum of Minnesota
Sharon Pierce, Minneapolis Community Technical College
Anu Ramaswami, University of Minnesota
Sharon Sayles Belton, Thompson Reuters
Deidre Schmidt, CommonBond
Charlie Zelle, Minnesota Department of Transportation

Introduction

Hennepin County Overview

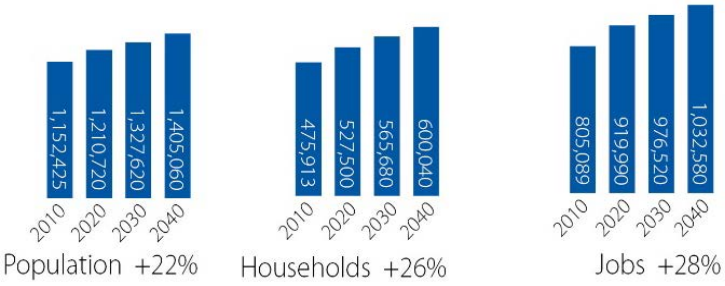
Hennepin County is the largest of Minnesota's 87 counties in terms of population, budget, and estimated market value. It encompasses 611 square miles, more than 100 lakes, 45 cities, 22 school districts, and one unorganized territory (Fort Snelling). Each has varying levels of partnership and jurisdiction with the county.

The diversity of land and communities in Hennepin County makes us unique, as well as a great place to live and work. We have a high-density downtown, growing suburbs, and rural areas where farms, lakes, and open spaces prevail. Residents have a wide variety of choices in housing, transportation, and lifestyle. Almost a quarter of Minnesota's residents have chosen Hennepin County as home.

The county has more than 1.2 million residents, including approximately 40 percent of the state's residents of color. Almost 17 percent of county residents ages five or older speak a language other than English at home, and nearly 13 percent of the county's population is foreign-born. Along with that diversity comes significant disparities by race and ethnicity — some of the largest in the nation — in employment, educational attainment, health, and socioeconomic status.

The county has one-third of the state's jobs and approximately 42,000 businesses including some of Minnesota's largest employers – Allina Health System, Best Buy, Cargill, Carlson Companies, General Mills, Mall of America, Medtronic, Super Valu, United Health Group, University of Minnesota, US Bank, and Target Corporation.

In addition, the county is home to the Minneapolis-St. Paul International Airport, the prestigious University of Minnesota, and the Mall of America — the largest shopping center in the United States.

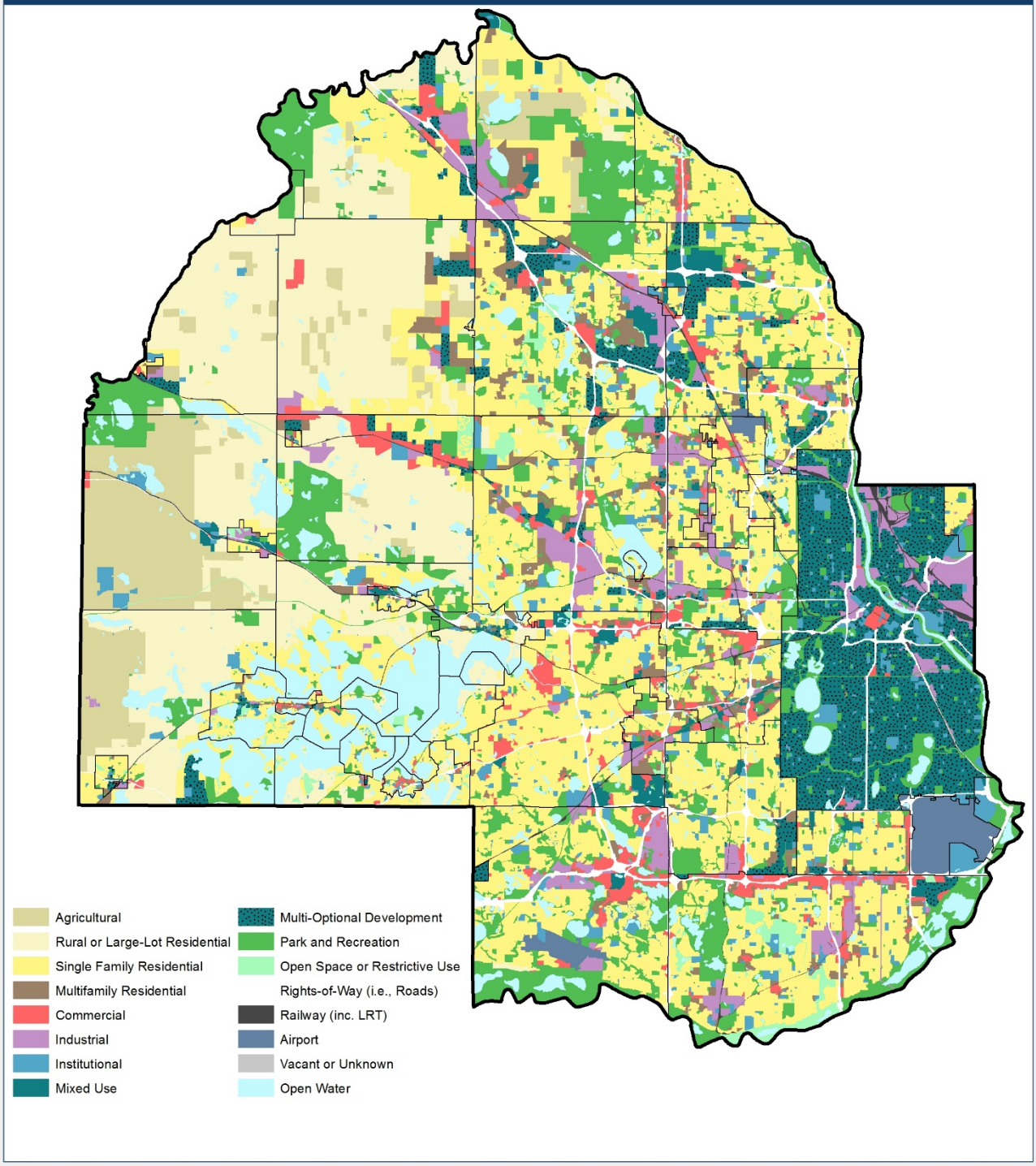


Hennepin County Forecasts 2040
(Source: Metropolitan Council)

Strategic investments and partnerships that leverage geographic diversity, infrastructure, the strength of the local economy, and increasingly diverse human capital are essential to the continued success and wellbeing of Hennepin County and its residents.

Planned Land Use - 2030

HENNEPIN COUNTY
MINNESOTA



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

N

0 5 10 Miles

Publication date: 11/20/2017

Data source: Metropolitan Council

Process

The Metropolitan Council, acting as the designated regional planning agency under the Metropolitan Land Planning Act, every 10 years develops a regional development framework and associated system and policy plans.

Regional development guide

Thrive MSP 2040 was adopted as the regional development guide on May 28, 2014. Thrive identifies five outcomes (stewardship, prosperity, equity, livability, and sustainability) that set the policy direction for the region's system and policy plans.

System and policy plans

The statutory-required system plans for this region include the *2040 Transportation Policy Plan*, *2040 Regional Parks Policy Plan*, and *2040 Water Resources Policy Plan*. The policy plans (the *Housing Policy Plan* and *Master Water Supply Plan*) establish a shared vision for regionally important issues, but are not considered regional systems.

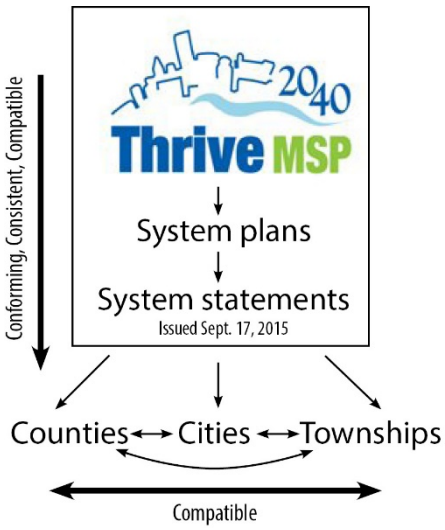
Local comprehensive plans

Local governmental units in the seven-county region are required to develop a comprehensive plan, fiscal devices, and official controls that conform to Thrive 2040 and the related system plans — the *2040 Transportation Policy Plan*, *2040 Regional Parks Policy Plan*, and *2040 Water Resources Policy Plan*.

Metropolitan Council review

The Metropolitan Council reviews comprehensive plans of all local governmental units, focusing on three primary areas:

- **Conformance** with metropolitan system plans
- **Consistency** with adopted policy plans
- **Compatibility** with plans of affected and adjacent jurisdictions



Partner agency review

Each city, township, and county reviews the comprehensive plans of government units adjacent to it or within its borders. Hennepin County reviews comprehensive plans for compatibility:

- plans within the county
- plans from adjacent cities and townships
- plans from adjacent counties: Anoka, Carver, Dakota, Ramsey, and Scott

Hennepin County

As a local unit of government, Hennepin County is required to develop a comprehensive plan that, at a minimum, responds to the system statement provided by the Metropolitan Council. Hennepin County received a system statement from the Metropolitan Council in September of 2015.

Hennepin County does not have land use authority, and as such, is not required to prepare a land use component.

Our sections include:

- Transportation (Mobility 2040 Plan)
- Regional Parks and Trails
- Water Resources
- Mississippi River Critical Corridor Area
- Implementation

Organizational structure

Development of the comprehensive plan was guided by the Hennepin County Comprehensive Plan Policy Advisory Committee (PAC), an external advisory committee with members appointed by Hennepin County commissioners. The PAC met periodically from mid-2016 through 2018.

Outreach and engagement

Outreach and engagement for the comprehensive plan was conducted in two phases. Phase one focused on receiving input and guidance from internal and external thought leaders — experts in regional and local affairs — through hosting of a series of idea forums, roundtables, and targeted interviews. Phase two focused on sharing the draft document and receiving feedback from internal staff, external partners, and the general public.

Timeline

2014	Thrive MSP 2040 comprehensive plan adopted by the Metropolitan Council
2015	Metropolitan Council develops regional system plans — transportation, water resources, and regional parks
	Metropolitan Council distributes system statements to counties, cities, and townships
2016	Hennepin County updates our comprehensive plan
2018	Hennepin County releases our plan for jurisdictional review (six months)
2018	Hennepin County submits plan to Metropolitan Council by 12/31/2018

HENNEPIN COUNTY
MINNESOTA

Mobility 2040

A plan for an integrated, multi-modal transportation system

May 2018



Transportation vision: To promote economic vitality and enhance quality of life by developing and operating a safe, environmentally responsible and multimodal transportation network.

Hennepin County Transportation
1600 Prairie Drive, Medina MN 55340
612-596-0300 | hennepin.us

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- Entering Sight Distance Guidelines
- Typical Roadway Sections
- Turn Lane Needs Guidelines

Acknowledgements

Mobility 2040 was prepared by Hennepin County Public Works with assistance from Short Elliot Hendrickson (S.E.H.) and in coordination with local municipalities and other transportation partners. Mobility 2040 is a component of the Hennepin County 2040 Comprehensive Plan.

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Joseph Gladke
Catherine Gold
Jason Gottfried
Jordan Kocak
Jonathan Krieg
Kristy Morter
Joshua Potter
Paul Przybilla
Joseph Scala
David Sheen
Carla Stueve

The plan and supporting materials can be found at:

https://www.hennepin.us/your-government/projects-initiatives/comprehensive-plan

What Is Mobility 2040

Our transportation system has an enormous impact on our way of life, on the air we breathe, on our health, and on the vitality of our communities. Transportation choices influence decisions about where to live, shop, attend school, work, and enjoy leisure. They affect well-being, budgets, and the time we spend with our families.

We need to think of transportation as more than a means to move people, goods and information, but also a way to build healthy, opportunity-rich communities for all. Our transportation investments can be a vehicle to promote public health, sustainability, equitable opportunity, and economic vitality. When properly designed and maintained, our transportation system can improve safety, provide opportunities for active lifestyles, improve the natural environment, link people to opportunity, connect people to crucial services and social supports, and stimulate economic development.

Transportation System Overview

Valued at over $5.4 billion, our system includes 2,200 lane miles of roadways, 651 miles of bikeways, 379 miles of sidewalks, and 147 bridges. It also has 55 miles of rail corridors, two light rail transit lines, one bus rapid transit line, and one commuter rail line.

Continued investment will ensure that the existing system is well maintained while also improved to provide for the safe and efficient movement of people, goods, and information throughout the county.



Target Field Station in downtown Minneapolis



Washington Avenue using a Complete Streets design



Lowry Avenue Bridge crossing the Mississippi River

Mobility 2040 is Hennepin County's multi-modal long-range transportation plan providing overarching guidance for the county's transportation system.

Mobility 2040 represents our focus on an integrated, seamless transportation system to serve people — all people — efficiently, affordably and safely.

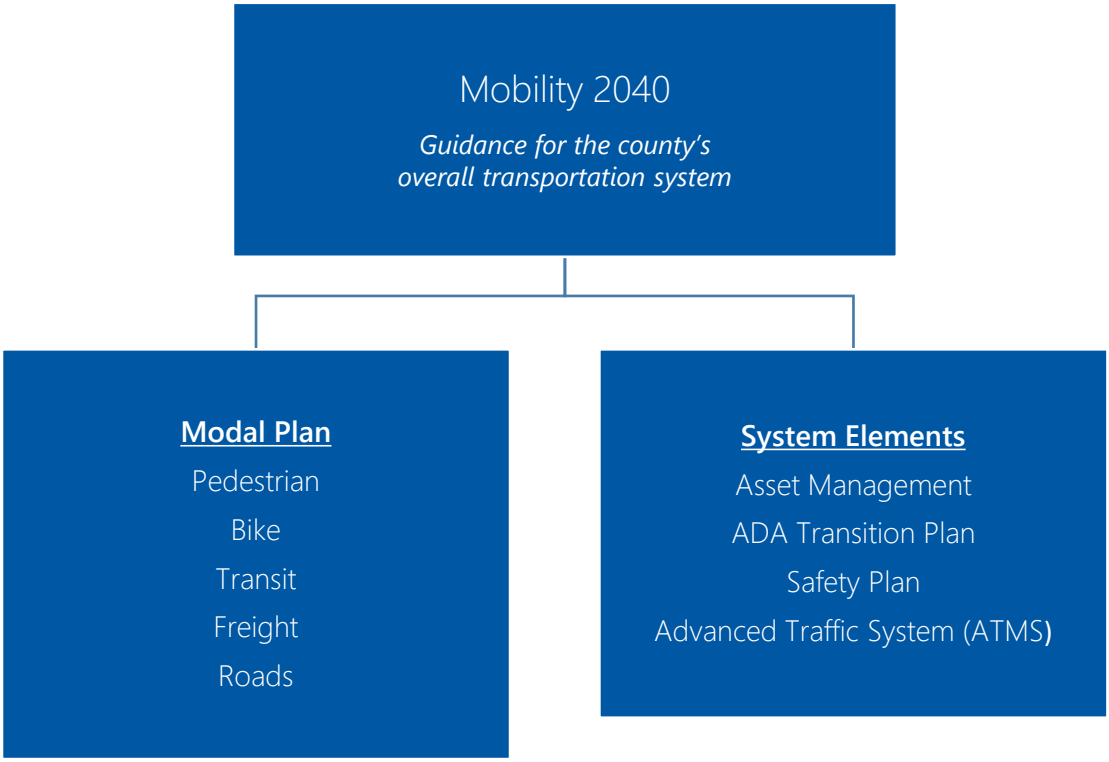
Mobility 2040 provides guidance to enhance and expand transportation access for all while ensuring that transportation investments are efficient and support broader county goals, including growing our economy, reducing disparities, improving health, enhancing livability, and protecting the natural environment.

Mobility 2040 also serves as the transportation component of Hennepin County's Comprehensive Plan as required by Mn Stat. 473, and is consistent with and supports the plans, programs and initiatives of our transportation partners.

Mobility 2040 answers the question, "What are we trying to achieve?" It does not answer the question, "How will we do it?" The "how" is addressed in our modal and supporting elements plans and programs.



Mobility 2040: A Family of Plans Approach



Modal Plans and System Elements

Mobility 2040 follows a family of plans approach where Mobility 2040 provides overarching guidance for transportation decisions that filter down into specific plans and programs for each part of the transportation system. While we are involved in most aspects of the transportation system, our role varies depending upon mode.



Full documents can be found at https://www.hennepin.us/your-government/projects-initiatives/comprehensive-plan

Beyond Transportation

Key Supporting Plans and Initiatives

Through internal and external partnerships, Hennepin County uses multimodal transportation investments to leverage our investments in community and economic development, environment and natural resources, affordable housing, community health, and employment.

Leveraging investments to meet multiple goals will maximize our return on investment and move us towards being a more prosperous, livable, connected, resilient and equitable county.

Land Use

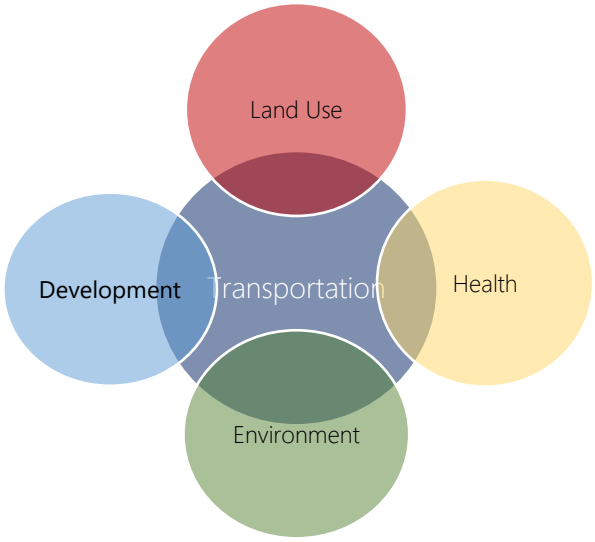
Transportation facilities and services have enormous effects on land use patterns, and the form, function, and location of land use development affects the need for transportation facilities. This is a long-standing relationship evidenced by the history of railroad towns and automobile-oriented suburban development. Strong integration and collaboration between transportation and land use will enable us to better manage growth, improve the efficiency of travel, and contain infrastructure costs.

Transit Oriented Development (TOD)

Established in 2003, the Hennepin County Transit Oriented Development (TOD) program provides needed capital to housing and economic development projects along transit corridors. From 2003 to 2017, over $36 million has been awarded, leveraging over $1 billion in public and private investment.

Community Works

Hennepin County Community Works partners with cities and other agencies, businesses, neighborhood organizations and residents to build the long-term value of communities, create and sustain great places, and make quality investments in redevelopment, transportation, public works infrastructure, parks, trails and the environment. Over $89 million has been invested in Community Works program areas, leveraging $883 million in public and private investment.



Active Living

Active Living provides safe, desirable and convenient opportunities to integrate physical activity into daily routines through biking, walking or taking transit, while building healthier and safer communities. Since 2006, Hennepin County has been a national leader in developing an Active Living program. Success continues to grow through Active Living Hennepin County, a partnership with cities, community organizations and other agencies to address policy change through infrastructure planning, targeted workshops and supportive tools (model policies, guidelines, toolkits).

Health in All Policies

Health in All Policies (HiAP) institutionalizes the consideration of health, eliminating disparities, and sustainability into decision-making across all sectors and at all levels to improve the health of communities and people.

Natural Resources Strategic Plan

Hennepin County's natural resources strategic plan guides the county and its partners in responding to natural resource issues and developing internal and external policies, programs and partnerships that improve, protect and preserve natural resources.

What We Heard

To inform development of the Hennepin County Comprehensive Plan and Mobility 2040, the county invited internal staff and observers of local and regional affairs, or "thought leaders" to share their thoughts and perspectives about the key issues and challenges facing the county. Between September 2016 and January 2017, four special meetings were devoted to panel discussions, or "idea forums" where participants were asked to share key issues and challenges facing Hennepin County over the next 10 to 20 years — as well as what they would recommend Hennepin County do to address these issues and challenges to remain successful. For more information, visit www.hennepin.us/your-government/projects-initiatives/comprehensive-plan

Idea Forum Panelists

Tawanna Black	Northside Funders Group
Susan Brower	MN State Demographer
Ed Ehlinger	MN Health Commissioner
Dr. Yingling Fan	University of Minnesota
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Peter Frosch	Greater MSP
Patrick Hamilton	Science Museum of Minnesota
Dr. Sharon Pierce	MCTC
Dr. Anu Ramaswami	University of Minnesota
Sharon Sayles Belton	Thompson Reuters
Deidre Schmidt	CommonBond
Charlie Zelle	MN Transportation Commissioner

Guidance

Policy Advisory Committee (PAC)

The Hennepin County Board of Commissioners established the Hennepin County Comprehensive Plan Policy Advisory Committee (PAC) to provide guidance and oversight for development of the Hennepin County Comprehensive Plan.

Technical Advisory Committee (TAC)

A technical advisory committee composed of subject matters experts was assembled to provide technical guidance for development of Mobility 2040.

Big Ideas to Explore

Augmented reality – Move service to people, not people to service

New innovative partnerships

3-D printing

Reverse globalization trends impacting logistics

Use waste heat from industry as energy for heating and cooling

With technology and changing demographics, expectations for engagement are changing

Last mile connection

Use TNTs

Drones, inspections and deliveries

Roadside plantings, habitat and biodiversity

Internet of Things (IoT) + shared mobility services = more travel choices

Adopt a Smart Cities model for integrating technology with services

Sharing economy, finding efficiencies and using excess capacity in systems (Uber, Airbnb)

Support local food production and access to reduce GHG emission

Make destinations great – housing, jobs, greenspace, arts/culture – and connect them with transportation

Explore electric vehicle fleets and charging stations

Flexible design – convert parking ramps to housing

Big data – improve service with "real time" information

Autonomous vehicles and sharing economy

Reclaim streets for other uses (greenspace)

Delivery systems, e-shopping + same day delivery = more traffic/freight

Explore district energy concept

Explore new funding mechanisms, user fees, pricing and PPPs

Reimagine infrastructure and use design to connect people, places, and infrastructure

Promote digital equity, provide equitable access to high-speed internet

Create mobility hubs

Address the spatial mismatch between people and jobs – jobs that are transit accessible

How Things Are Changing

Key Trends and Challenges

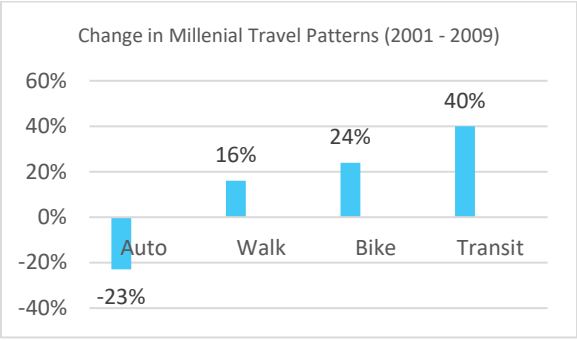
Hennepin County is facing many changes from shifts in travel behavior, demographics, technology, and the environment. These shifts will affect how people, goods, and information move in the future. It is important that we proactively plan to address these changes to achieve our transportation vision.



Changing Transportation Preferences

Transportation preferences are changing. In the region, people are driving less, using a variety of transportation modes and showing a clear preference for living in walkable, transit-accessible neighborhoods.

Challenge: Hennepin County residents expect new and diverse mobility options that are affordable and available throughout the county.



Source: Federal Highway Administration "National Household Driving Trends 2001-2009"

Aging Population

Meeting the needs of an older population will require adjusting our services and infrastructure.

In 1990, 1 in 10 Hennepin County residents were aged 65 or older. By 2040, it is estimated this will increase to 1 in 3.

Challenge: Create a transportation system that provides safe, accessible and affordable transportation options to enable our growing senior population to age in place and remain healthy, active and socially connected.

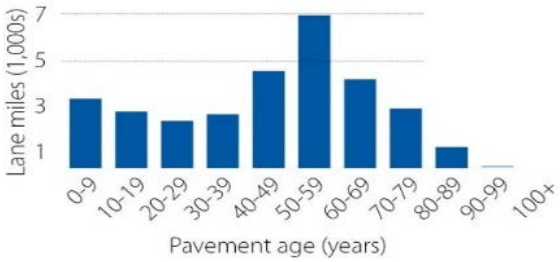
Continued Growth

We are the largest county in the state and projected to lead the region in population, household and job growth through 2040.

Challenge: Accommodating projected growth will place pressure on the county to maintain our existing transportation systems and to provide additional travel choices.

Aging Infrastructure

More than 30% of our roads are more than 50 years old and are nearing the end of their useful life. Ongoing maintenance, rehab and replacement is estimated to cost $2 billion.



Challenge: As we rehab and replace infrastructure, we need to explore new ways to incorporate new technologies, innovations, and adaptations.

Changing Climate

Increased temperature variation, precipitation levels, and the frequency of extreme weather events are impacting design, construction, maintenance and operations of our transportation system resulting in increased lifecycle costs.

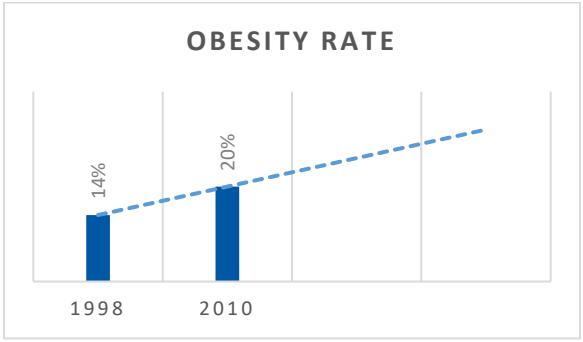


Minnesota historic rain events 1866-2014

Challenge: We will need to explore emerging technologies and employ innovative practices to reduce the impact of the transportation system on the air we breathe, the water we drink, and the natural resources we enjoy.

Increasing Health Concerns

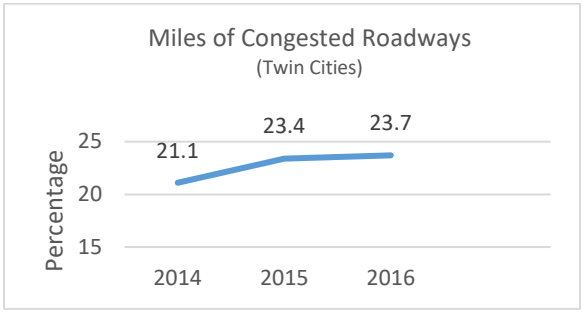
Health is linked to transportation. Investing in bicycle infrastructure, sidewalks, and transit creates opportunities for people to live active lifestyles. Hennepin County through its Activity Living program and Health in All Policies initiative is promoting active multi-modal transportation to help reduce obesity rates.



Challenge: Improve the health of Hennepin County residents by providing opportunities for physical activity, multi-modal access to nutritious, affordable foods, safe places to walk and recreate, and reducing exposure to traffic-related air pollution.

Economy

Economic growth in Hennepin County depends on an efficient, reliable, and affordable transportation system to maintain competitive commute times, retain and attract businesses, and support efficient movement of freight.

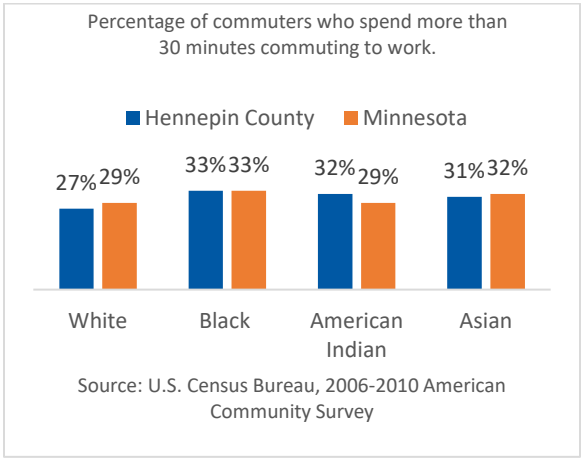


Source: Metropolitan Freeway System Congestion Report

Challenge: Use technology and innovation to support economic growth and personal and freight mobility by making more efficient use of the transportation system and preserving and maintaining our aging infrastructure.

Growing Disparities

People of color in Minnesota and Hennepin County are more likely to use public transportation and are also more likely to spend 30+ minutes commuting to work compared to their white counterparts.



Challenge: Provide a multimodal transportation system that is affordable and accessible to reduce the cost of transportation for cost-burdened households. We also must ensure that shared mobility and other technological advances are available to all residents regardless of economic status.

Technology

Technology is enabling the rise of a sharing economy and is redefining how, where, and when we work, travel and communicate. The transportation sector is relying on data to drive decisions, and on technology to reimagine how we move people and goods. Mobile access to everything from traffic data to transit schedules informs our travel choices.

Technological advances are changing residents' lives and how the county does business and the services we provide.

Challenge: While technological advancements have the potential to improve safety, mobility, and efficiency, we must recognize that without proactive planning and policy interventions, the technologies could result in increasing sprawl, vehicle miles traveled (VMT), and greenhouse gas (GHG) emissions, and limiting access for disadvantaged communities.

For more information on transportation trends, visit https://www.hennepin.us/your-government/projects-initiatives/comprehensive-plan to view the Transportation Trends Report.

How Will We Be Guided

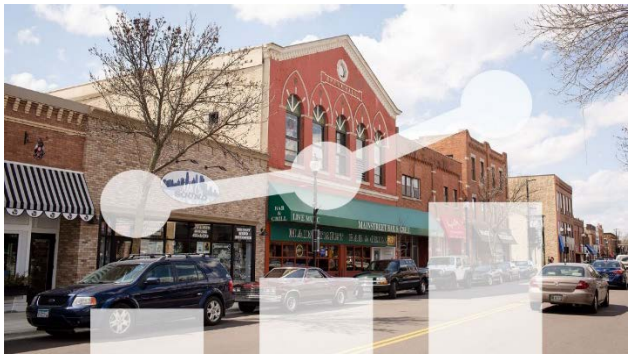
Our goals and objectives will guide investment and policy decisions to achieve our transportation vision, and our established performance indicators will measure and track our progress towards year 2040.

Addressing transportation challenges requires changing the way transportation is planned and managed. Increased focus on system performance, continuous improvement, innovation, and stronger partnerships is necessary to further integrate transportation elements to meet communities' mobility needs.

Transportation Vision

Hennepin County's transportation network promotes economic vitality and enhances quality of life by developing and operating a safe, environmentally responsible and multimodal transportation network.

Our transportation system is part of an integrated network of facilities that are owned, funded, and managed by federal, state, regional, and local entities. It is critical that these systems work together in a seamless fashion. The goals and objectives contained in this plan serve Hennepin County, but are also consistent with those of our primary partners at the federal, state and regional levels.



Federal – MAP 21 and FASTACT

- Improves mobility on America's highways
- Creates jobs and supports economic growth
- Accelerates project delivery and promotes innovation

State – MN Go Guiding Principles

- Leverage public investments to achieve multiple purposes
- Ensure accessibility
- Build to a maintainable scale
- Ensure regional connections
- Integrate safety
- Emphasize reliable predictable options
- Strategically fix the system
- Use partnerships

Regional – Transportation Policy Plan

- Transportation System Stewardship
- Safety and Security
- Access to Destinations
- Competitive Economy
- Healthy Environment
- Leveraging Transportation Investments to Guide Land Use

Hennepin County Transportation Goals

- Preserve and modernize our transportation system
- Improve safety, reliability, and comfort for all transportation users
- Provide affordable transportation choices and convenient access to destinations
- Improve our transportation system to enhance our quality of life, health, livability, and competitiveness
- Create a transportation system that protects and enhances the environment

Goals, Objectives and Performance Indicators

The adopted goals from the Hennepin County Transportation System Plan (TSP) 2030 were refined to reflect changes in policy, new initiatives, and needs of residents and businesses.

Our goals and objectives are intended to guide investment and policy decisions. A *goal* is a broad statement that describes a desired end state. An *objective* is a specific measurable statement that supports achievement of a goal. A *performance indicator* monitors progress towards the long-term goal and objectives.



Goal: Preserve and modernize our transportation system

Objectives

- Preserve and maintain the existing system to ensure it is in a state of good repair
- Prioritize preservation and maintenance of the existing system over system expansion
- Consider life-cycle costs to ensure we can maintain what we build
- Maximize the efficiency and effectiveness of our system through technological innovation
- Utilize right-of-way to expand access to communications and improve the movement of information, goods, people, and services



Performance Indicators

Indicator	Definition	Desired Trend	Baseline (2017)	Target (2040)
Preservation	Bridge Sufficiency Rating	⇩	5.4%	4% with sufficiency rating less than 50
	Pavement Serviceability Rating (PSR)	⇧	63.2%	67% of pavements with PSR > 3.0
	Overlay lane miles	⇩	149	110
Modernization	% of signals connected	⇧	TBD	100%
	Complete streets	⇧	TBD	100%

Supporting plans, programs and partnerships

Americans with Disabilities Act (ADA) Transition Plan
2040 Bicycle Transportation Plan
Pedestrian Plan
Bridge Maintenance Program
Advanced Traffic Management System (ATMS)
Complete Streets Policy
Capital Improvement Program (CIP)

Goal: Improve safety, reliability and comfort for all transportation users

Objectives

- Improve safety and comfort for all system users, especially the disabled, elderly and youth
- Safely integrate modes through design, education, and enforcement
- Reduce congestion and improve travel time predictability and reliability for all system users to ensure the on-time delivery of goods and most efficient use of time
- Reduce the transportation system's vulnerability to natural and man-made incidents and threats



Performance Indicators

Indicator	Definition	Desired Trend	Baseline (2017)	Target (2040)
Safety	Crash rates (per million vehicle miles)	⇩	3.35 per mvm	1.68 per mvm
Reliability	Hours to Plow	⇩	4:19hrs Rural-4:30hrs Urban	5hrs
	Average Commute Time	⇩	22.2 minutes	Below national average
Congestion	Volume to capacity ratio (all roadways)	⇩	TBD	v/c < 1
	Intersection (county) LOS	⇧	TBD	LOS D or better

Supporting plans, programs and partnerships

County Roadway Safety Plan

2040 Bicycle Transportation Plan

Pedestrian Plan

Advanced Traffic Management System (ATMS)

Capital Improvement Program (CIP)

Travel Demand Management programs

Goal: Provide affordable transportation choices and convenient access to destinations



Objectives

- Expand multi-modal travel options for people of all ages and abilities to connect to jobs and other opportunities
- Operate our system to efficiently and cost-effectively connect people and freight to destinations
- Provide a transportation system that is affordable and available to all users, regardless of mode of choice, ability or economic status
- Create connectivity within and between transportation modes to improve mobility
- Reduce transportation costs, especially for people in areas of poverty

Performance Indicators

Indicator	Definition	Desired Trend	Baseline (2017)	Target (2040)
Affordability	Housing + Transportation Cost Index	⇩	44%	45% or less
Choices	% bike to work	⇧	1.8% (2016)	3.4%
	Walk to work	⇧	3.4% (2016)	N/A
	Regional Transit Ridership	⇧	27 million	Double
	Vehicles miles traveled (VMT)	⇩	2 billion	Reduce to 2000 levels
	Mode split (downtown Minneapolis)	⇩	60% SOV	Less than 60% SOV
Access	# of households within ½ mile of transitways (FTA New Starts)	⇧	TBD	TBD

Supporting plans, programs and partnerships

Americans with Disabilities Act (ADA) Transition Plan
2040 Bicycle Transportation Plan
Pedestrian Plan
Sales and Use Transportation Tax Plan
Transit Oriented Development (TOD) Program
2040 Bicycle Transportation Plan
AHIF, HOME, CBDG

Goal: Improve our transportation system to enhance quality of life, health, livability, and competitiveness



Objectives

- Create healthy and livable communities by including pedestrian, bicycle, and transit facilities in roadway projects
- Strengthen the connection between land use planning and transportation to promote orderly growth and development
- Target our transportation investments to create opportunities for people to live active and healthy lifestyles
- Link transit, bicycle, pedestrian and road projects to housing, jobs and recreational opportunities
- Provide convenient, affordable access to destinations, especially for residents experiencing high transportation and housing cost burden
- Implement context-sensitive projects that respect cultural, historic and natural resources
- Use transportation investments to support broader county goals including growing our economy, reducing disparities, improving health, enhancing livability, and protecting the natural environment

Performance Indicators

Indicator	Definition	Desired Trend	Baseline (2017)	Target (2040)
Quality of Life Livability	Change in per-parcel estimated market value	⇧	TBD	TBD
	ADA pedestrian ramps in compliance	⇧	53%	100%
Health	# of mile of bicycle facilities built	⇧	18 miles	20 miles/year
Competitiveness	# of jobs	⇧	919,990 (2020)	1,032,580 (2040)

Supporting plans, programs and partnerships

Americans with Disabilities Act (ADA) Transition Plan
2040 Bicycle Transportation Plan
Pedestrian Plan
Sales & Use Transportation Tax Plan
Transit Oriented Development (TOD)
AHIF, HOME, CBDG
Natural Resources Strategic Plan
Complete Streets Policy

Goal: Create a transportation system that protects and enhances the environment



Objectives

- Reduce energy use and/or use alternative power to reduce emissions and benefit air and water quality
- Decrease the risk of flooding for facilities through location and adaptive design
- Minimize exposure to natural and man-made hazards
- Mitigate the negative stormwater impacts that degrade the region's valuable gray and green infrastructure
- Use transportation projects as opportunities to restore or improve natural resource features and habitat
- Promote the installation of stormwater BMPs, sustainable landscapes and improve the tree canopy in transportation corridors
- Explore and implement road salt reduction strategies
- Improve air quality by encouraging alternate modes of transportation and shorter commutes

Performance Indicators

Indicator	Definition	Desired Trend	Baseline (2017)	Target (2040)
Environment	Wetland acres preserved/restored	⇧	TBD	TBD
	Roadway salt use	⇩	TBD	TBD
	Trees planted versus removed	⇧	N/A	Planted > Removed
	National Ambient Air Quality Standards (NAAQS)	⇧	Attained	Attainment
	Vehicle mile traveled (VMT)	⇩	2 billion	Reduce to 2000 levels

Supporting plans, programs and partnerships

Natural Resources Strategic Plan

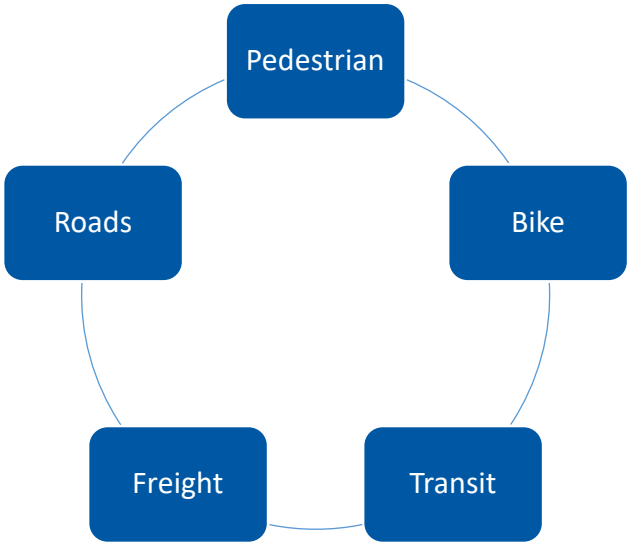
Sustainable Landscape Guidelines

Our Transportation System

To remain a competitive county with a high quality of life, we need to invest in transportation infrastructure that maximizes mobility, accessibility, public health benefits, social interaction, and community cohesion. We also need to improve transportation networks in ways that offer competitive travel choices for people and goods, promote clean energy, create better balance and connectivity among modes, and enhance affordability.

Integrated Multimodal System

People and goods move easily and safely throughout the county and the region, via an integrated system of transportation.



The county collaborates with partners to provide an integrated multimodal transportation system that is designed, built, operated, and maintained in a manner that provides mobility options for a wide range of users, contributes to safe communities for all, promotes economic competitiveness, and helps to safeguard and enhance our natural resources and environment. We do this by:

- Delivering a multimodal transportation system that is integrated, connects people to places, and leverages other investments to maximize return on investment
- Maintaining and preserving infrastructure that facilitates the efficient movement of people, goods, and information
- Employing technology and innovation
- Coordinating with cities to support density and growth in the urban area and meet the diverse transportation needs of our residents and businesses
- Providing opportunities for people to make active transportation choices by increasing the convenience, accessibility, safety, and comfort of taking transit, walking and biking
- Providing transportation choices and modes that use less energy, produce fewer pollutants and reduce greenhouse gas emissions
- Monitoring and measuring performance to continuously improve our transportation system



Transportation modes

The current modes composing the transportation system in Hennepin County include pedestrian, bicycling, transit, freight (trucks, rail, air and water), and roads. These modes are discussed later in this chapter.

Future considerations

Emerging modes include autonomous and connected vehicles and mobility as a service (Maas).

Vehicle technologies are advancing rapidly with a trend toward vehicles that are zero-emission, autonomous, and connected, which will cause us to rethink the way in which roads, sidewalks, and curb space are allocated, and can potentially help to facilitate a more comprehensive implementation of Complete Streets concepts that provide safe space for everyone and every mode.

An autonomous vehicle (AV), also known as a self-driving car, is a vehicle that is capable of sensing its environment and navigating without a human. The potential benefits of AVs include increasing mobility for the elderly, the disabled, and the transit-dependent; eliminating many vehicle accidents; improving bicycle and pedestrian safety; revolutionizing delivery services and logistics; and reducing parking.



Connected vehicles (CVs) can communicate with each other through in-vehicle and wireless technology and can communicate with smart infrastructure and other connected devices like smartphones or wearable technology. CVs can further improve safety across modes and transportation system operations.

Mobility as a Service (MaaS) is providing people with on-demand access to a wide range of public and private shared mobility services where access can be purchased as needed. While shared mobility is not a new concept, technology has allowed for explosive growth in recent years with on-demand rideshare, dynamic carpooling, ridehailing, bikeshare, carshare, and microtransit.

System Elements

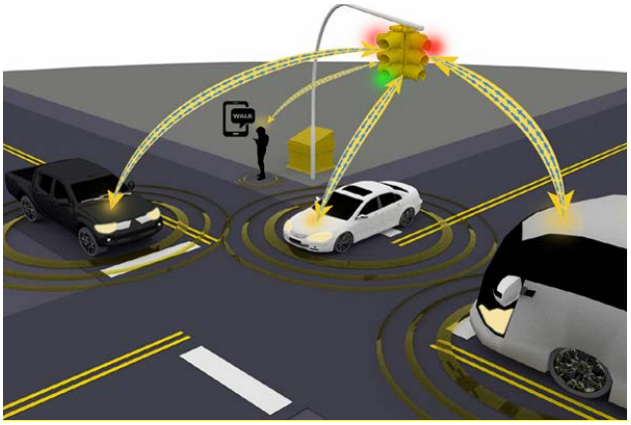
We are committed to using resources wisely to effectively manage and increase the efficient operations of our transportation system.

For an integrated multimodal transportation system to function well, it must be appropriately managed and operated. We do this primarily through focusing on what we call system elements — Asset Management, System Safety, Advanced Transportation Management System (ATMS), Functional and Jurisdictional Classification, Right-of-Way Preservation, Access Management, and Travel Demand Management. These system elements are discussed later in this chapter.

Future Considerations

As we look to the future, we need to consider the impact of rapidly changing technology on the operations and management of our transportation system. Historically, the solution to congestion and capacity issues has been to expand or build new facilities. This is not likely the optimal strategy for the future, as transportation financing becomes more constrained, and as technological infrastructure and "big data" are better at facilitating new approaches to address capacity issues.

Recently, we have seen the evolution of "smart cities," which are connected cities that use technology to enhance the quality and performance of public services, such as energy and transportation, in order to reduce resource consumption and increase responsiveness and overall efficiency of operations.



An example are "smart intersections" that combine advances in technology to increase capacity, improve safety, and reduce fuel consumption and emissions. Strategies can include corridor signal timing coordination, predictive/adaptive arterial signal timing, and multi-modal intelligent traffic signal systems.

In order to continue to increase the carrying capacity of our system, we need to be thinking about how technological infrastructure and "big data" can facilitate new approaches to address capacity issues.

While there is a great deal of uncertainty about how these technology trends will evolve, there is no doubt that they have the potential to provide great benefits for Hennepin County. Proactive planning, policy interventions, and investment decisions can guide the integration of technology and new mobility services toward an equitable and sustainable transportation future.

Future updates of this plan will include an analysis and recommendations for integration of AVs/CVs, Maas, Drones, "big data" and other innovations into our transportation system.

Pedestrians

Everyone is a pedestrian

Hennepin County recognizes that walking and pedestrian infrastructure provide numerous benefits to residents and communities. Walkable communities have a high quality of life, improve personal and environmental health, and promote strong and connected communities and economies.

Every person is a pedestrian at some point in their day, although the role of walking in the daily lives of county residents varies widely. For some residents, their walk is a short stroll from their parking space to their office building. Others walk one mile or more from their home to school or work. Some use a wheelchair to travel from their home to their bus stop. Others walk to exercise, socialize, and experience their neighborhood or park. Despite the diversity of pedestrians and the purpose of their trips, people share a common desire for a safe, comfortable, and convenient pedestrian experience.

406 miles of sidewalk

102 miles of multi-use trail

(along county roads in 2012)

According to the 2010 MSP Region Travel Behavior Inventory pedestrian trips (walking) has increased by sixteen percent as a percentage of all trips in the Twin Cities Metropolitan Area. Hennepin County will continue to be involved with providing pedestrian accommodations through roadway construction projects and coordination with other agencies to assist in spanning major barriers to pedestrian movements.

Role and Partners

Historically, the cities within Hennepin County have been primarily responsible for providing pedestrian facilities. Hennepin County has supported pedestrian movements by incorporating provisions into the design of county roadway facilities.

Often, individual cities within the county and Three Rivers Park District participate in the costs of new sidewalk and trail construction, and once constructed, these jurisdictions assume responsibility for the on-going maintenance and operation of these facilities.



https://metrocouncil.org/Transportation/Planning/Transportation-Behavior-Inventory.aspx

Plans, Programs and Initiatives

Hennepin County Pedestrian Plan, 2016

The Hennepin County Pedestrian Plan, includes strategies that support walking and pedestrian movements through infrastructure, facilities, enforcement, education and evaluation.

Figure 4-01, illustrates the priority locations for future pedestrian infrastructure throughout Hennepin County.

American with Disabilities Act (ADA) Transition Plan, 2015

We seek to make our roadways and pedestrian infrastructure more accessible to individuals with disabilities. In 2015, we developed a county-wide ADA Transition Plan, detailing how we will ensure that all facilities are accessible to all individuals.

ADA Accessible Ramps

Our goal is to provide ADA-accessible pedestrian design features as part of all projects included in the capital improvement program (CIP) making it easier for everyone of all ages and abilities to safely and efficiently use the pedestrian system as a means of transportation

Traffic Signals

County traffic signals are being upgraded with accessible pedestrian signals that audibly and visibly communicate to pedestrians with "WALK" and DON'T WALK" phases. The signal upgrades are scheduled based on priority and available funding in areas where improvements are needed.



Complete Streets Policy

Hennepin County has adopted a Complete Streets policy that complements pedestrian movements and solidifies the County's commitment to develop and maintain a safe, efficient, balanced and environmentally sound county transportation system that supports the County's Active Living initiatives.

Sidewalk Participation Program

The Sidewalk Participation Program was established in 2012 to expand and enhance the network of sidewalk along Hennepin County roads. Since the program began, 23 sidewalk projects at a total cost of $1.1 million have been implemented.

Southwest and Bottineau Community Works

Last mile connections, including sidewalks, were identified for implementation prior to open day of these transitway projects.

Pedestrian Education

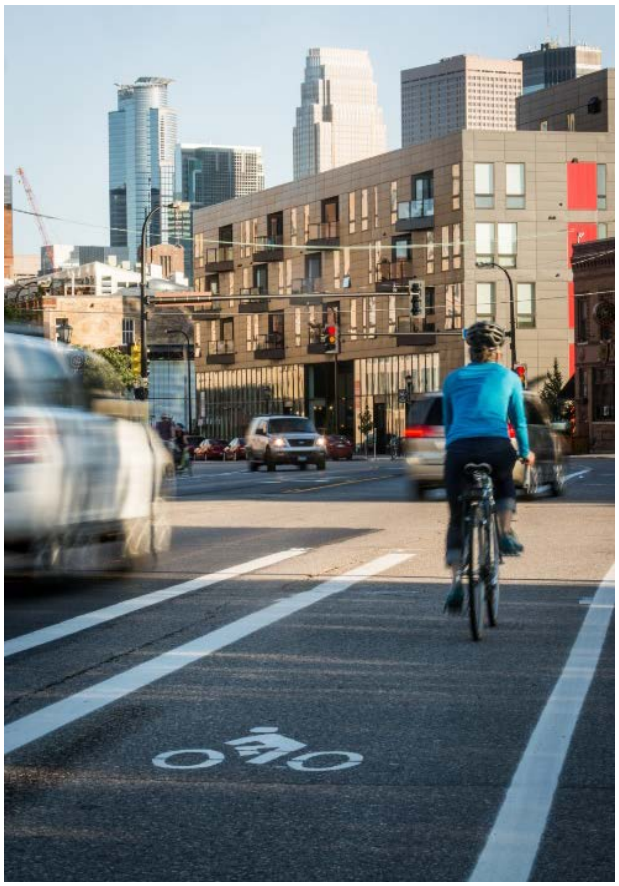
Hennepin County administers Heath@Work, Step To It, Safe Routes to School, and Active Living Hennepin County to support pedestrian activity and educate users of our system.

Bicycling

A vehicle where passengers are also the engines

Bicycling is an integral component of a balanced, sustainable and efficient multi-modal transportation system. Bicycles provide an extremely efficient means of transportation, requiring less right of way space than vehicles. Bicycles also extend the reach of the non-motorized network, maximizing geographic coverage without emitting greenhouse gases.

Bicyclists utilize paved shoulders and designated bike lanes on existing roadways. These non-motorized trips are not only growing in total number as more and more people bike as a mode of transportation, but bicycle trips are becoming more common during all seasons of the year. As a result, there is a growing need to maintain safe bicycling conditions even during snowy winter months.



673 bikeway miles in Hennepin County

Biking accounts for nearly 2% of all trips in Hennepin County

2 x the national average

Currently, there are 775 miles of bikeways on the Hennepin County Bicycle Network, which includes some bikeways not on county roads. Of the 775 miles, 517 miles are off-street facilities and 258 miles are on-street.

Also, within this system, the Three Rivers Park District operates approximately 135 regional trail miles, with 55 of these miles on Hennepin County Regional Railroad Authority right of way. These facilities provide access to regional and local parks and give residents safe and comfortable non-motorized transportation options for work, shopping and other trips by providing safe and comfortable connections to destinations.

Role and Partners

Hennepin County has been an active participant in planning, promoting, designing, and constructing bicycle facilities. The county has continued a collaborative effort with communities and other agencies to develop an interconnected system of bikeways. The Hennepin County roadway network serves many on-street bicycle trips. As a result, the county is responsible for ensuring the safe and comfortable use of these facilities for non-motorized users.

Key partners include the Three Rivers Park District , the Minneapolis Park and Recreation Board, and local communities. The communities located in Hennepin County also have non-motorized (bicycle) facilities that interconnect to and enhance the system of trails throughout the county.

Plans, Programs and Initiatives

2040 Bicycle Transportation Plan, 2015

In 2015, Hennepin County and the Three Rivers Park District collaborated to update the Hennepin County 2040 Bicycle Transportation Plan as well as the park district's regional trail master plans. A primary goal of the Hennepin County bikeway network is to develop an integrated bicycle system that allows users of all ages and varying skills to safely, efficiently and comfortably connect to and between job centers, commercial centers, recreational amenities, schools, transit facilities and other important destinations.

The Plan goals include:

- *Ridership Goal* – promote the bicycle as a mode of transportation that is practical, convenient, and pleasant for commuting, health and exercise, and outdoor recreation.
- *Bikeway System Goal* – Collaboratively build an integrated county bicycle system that allows bicyclists of varying skills to safely, efficiently and comfortably connect to and between all destinations within the county.
- *Safety and Comfort Goal* – Create a safe and comfortable county bikeway system.
- *Sustainability Goal* – Implement bikeways and support facilities as an essential tool in realizing environmental, social and economic sustainability.
- *Maintenance Goal* – Protect the county's and the park district's investments.

By 2040 the Hennepin County bikeway network is planned to include 540 miles of additional bikeways, both on and off-street facilities.

Figure 4-02 depicts the existing and planned bikeway system in Hennepin County.

Hennepin County Bicycle System Gaps

In 2002, Hennepin County completed a bicycle gaps study that identified 110 system gaps and prioritized the top 25 system gaps. To date, about half of the critical gaps have been addressed and more than 60 total gaps have been closed.

Figure 4-03 illustrates the remaining system gaps as of March 2015.

By 2040, the county intends to work with partners to close the remaining gaps in order to realize the County's vision of an interconnected system that eliminates gaps and barriers in order to maximize safety and mobility of the system.

Southwest and Bottineau Community Works

Last mile connections, including bike facilities, were identified for implementation prior to opening day of these transitway projects.

Metropolitan Council's Regional Bicycle Transportation Network (RBTN)

In 2014, the Metropolitan Council completed the Regional Bicycle System Study , which was intended to address how the region's bikeways and trails connect and work together to serve regional bicycle trips. The study developed a vision for the regional bicycle network called the Regional Bicycle Transportation Network (RBTN), illustrated in Figure 4-04.

Transit

Moving people where they want to go

Public transportation is crucial to providing personal mobility and an affordable travel option for residents in Hennepin County. Transit services and facilities provide people with mobility and access to employment, community resources, medical care, education, and recreational opportunities



Public transit systems also help create economically thriving communities and offer location advantages to businesses and individuals choosing to work or live in them.

Transit facilities and services have the potential to guide compact, mixed-use, walkable development patterns that can lower housing and transportation costs

Transit options help reduce congestion on our roadway, reduce travel times, improve air quality, and reduce energy and oil consumption, all of which benefit both riders and non-riders.

Role and Partners

The primary responsibility for construction and operation of transit facilities and services in Hennepin County lies with the Metropolitan Council, Metro Transit and our suburban transit providers - Maple Grove Transit, Plymouth Metrolink, and Southwest Transit.

While we do not own, operate, maintain or provide transit services and facilities, Hennepin County plays a critical role in working with partners to build out the regional transit system.

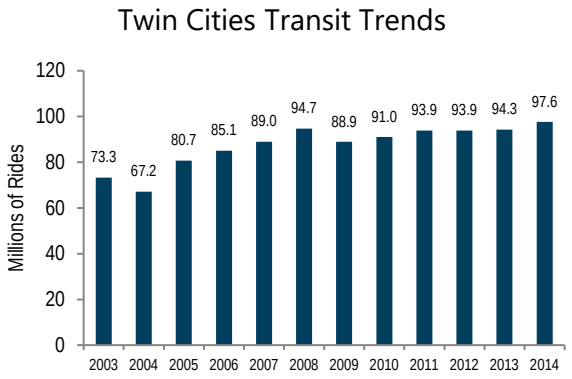
Bus transit lines today and future BRT lines will be located in county roads, which requires close coordination to ensure that our roadways are designed and operated to ensure safe, effective, and accessible transit service.

Hennepin County is also actively engaged through the work of the Hennepin County Regional Railroad Authority (HCRRA) in progressing, in partnership, transitways which compose the county's future vision. In addition, the HCRRA was also responsible for early preservation of rail rights-of-way for future LRT use. The railroad authority currently owns 55 miles of former railroad corridors for potential future transit use. In the interim, bicycle commuter trails have been constructed on all 55 miles – increasing transportation and recreational opportunities for residents. These trails are maintained by the City of Minneapolis or Three Rivers Park District. For more information, visit https://www.hennepin.us/transit

Through Southwest and Bottineau Community Works, Hennepin County works with partners to maximize return on investment from LRT by focusing "beyond the rails" to integrate transit oriented development, jobs, housing, and natural systems. Targeted development along these corridors increases attractiveness for businesses and enhances equity by improving affordable access. Station area planning and infrastructure investment planning are two key activities of these partnerships to connect people to places.



Hennepin County took the lead role in planning and funding Target Field Station, recognizing as far back as 2008 the need for larger facilities at Target Field to accommodate crowds that would use multiple rail transit lines on Minnesota Twins game days. In addition to its role as a transit hub, Target Field Station serves as a public space for everyday use by residents and visitors, and for special events. Working in partnership with Minneapolis Downtown Council and the Minnesota Twins, over 70 events were held in 2016, in addition to events supporting 81 home baseball games and the broadcast of 81 road games on the 29 ft. x 16 ft. video board.



Twin Cities Transit ridership has increased by 24 million rides since 2003.

Plans, Programs and Initiatives

Metropolitan Council's Transportation Policy Plan (TPP)

The 2040 Transportation Policy Plan (TPP) presents the region's policies and plans to maintain and enhance existing transportation facilities, better connect people and communities, and provide more transportation choices that will make the region a better place to live.

The TPP also includes two future scenarios for transit service in the region, the Current Revenue Scenario and the Increased Revenue Scenario. The Current Revenue Scenario, is fiscally constrained to currently projected future revenues. The Increased Revenue Scenario is not fiscally constrained, but includes a reasonable assumption for potential increased future revenues.

Current Revenue (Fiscally Constrained) Scenario

- METRO Green Line (Southwest) Extension
- METRO Blue Line (Bottineau) Extension
- METRO Orange Line (I-35W BRT)
- C Line (Penn BRT)

Increased Revenue Scenario

- I-394/Hwy 55 Highway BRT
- US 169 Highway BRT
- Riverview and Midtown Modern Streetcar
- W. Broadway and Nicollet ABRT or Modern Streetcar
- Chicago Emerson-Fremont, Lake – Marshall, American Boulevard and Central NE ABRT

See Figure 4-05 for the existing and planned transit services and facilities in Hennepin County and the Twin Cities area.

Hennepin County staff participate in technical advisory committees for the projects included in the Metropolitan Council's TPP.

Hennepin County Regional Railroad Authority

Hennepin County Regional Railroad Authority (HCRRA) was established in 1980 to preserve rail corridors and conduct rail transit planning in the county. HCRRA provides funding via a property tax levy for up to 10% of the capital costs for designated light rail transit projects.

Hennepin County

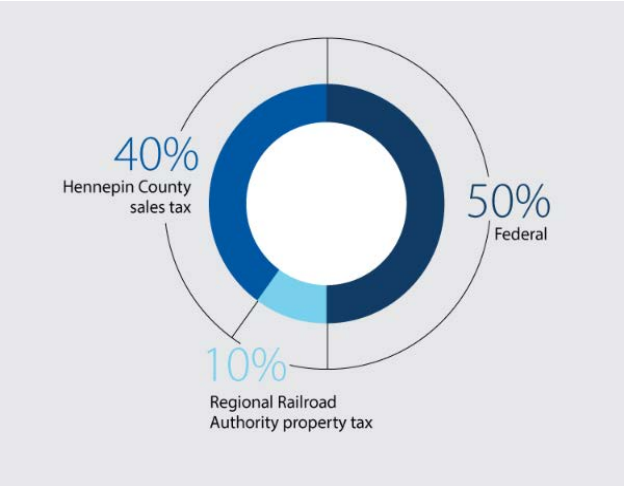
Recently the County's role in financing the development and operation of transit services changed with the disbanding of the Counties Transit Improvement Board (CTIB).

Sales and Use Transportation Tax Implementation Plan

In 2017, the Hennepin County Board adopted the Sales and Use Transportation Tax Implementation Plan and enacted the Sales and Use Transportation Tax to provide a reliable source of locally generated funds to strategically target transitway and other transportation investments.

The estimated annual revenue from the sales and use tax are anticipated to be sufficient to cover the capital and operating costs of the Sales and Use Transportation Tax Implementation Plan projects through 2036.

By 2040, the METRO Green Line (Southwest) extension, the METRO Blue Line (Bottineau) extension are assumed to be operational expanding the LRT system to four lines.

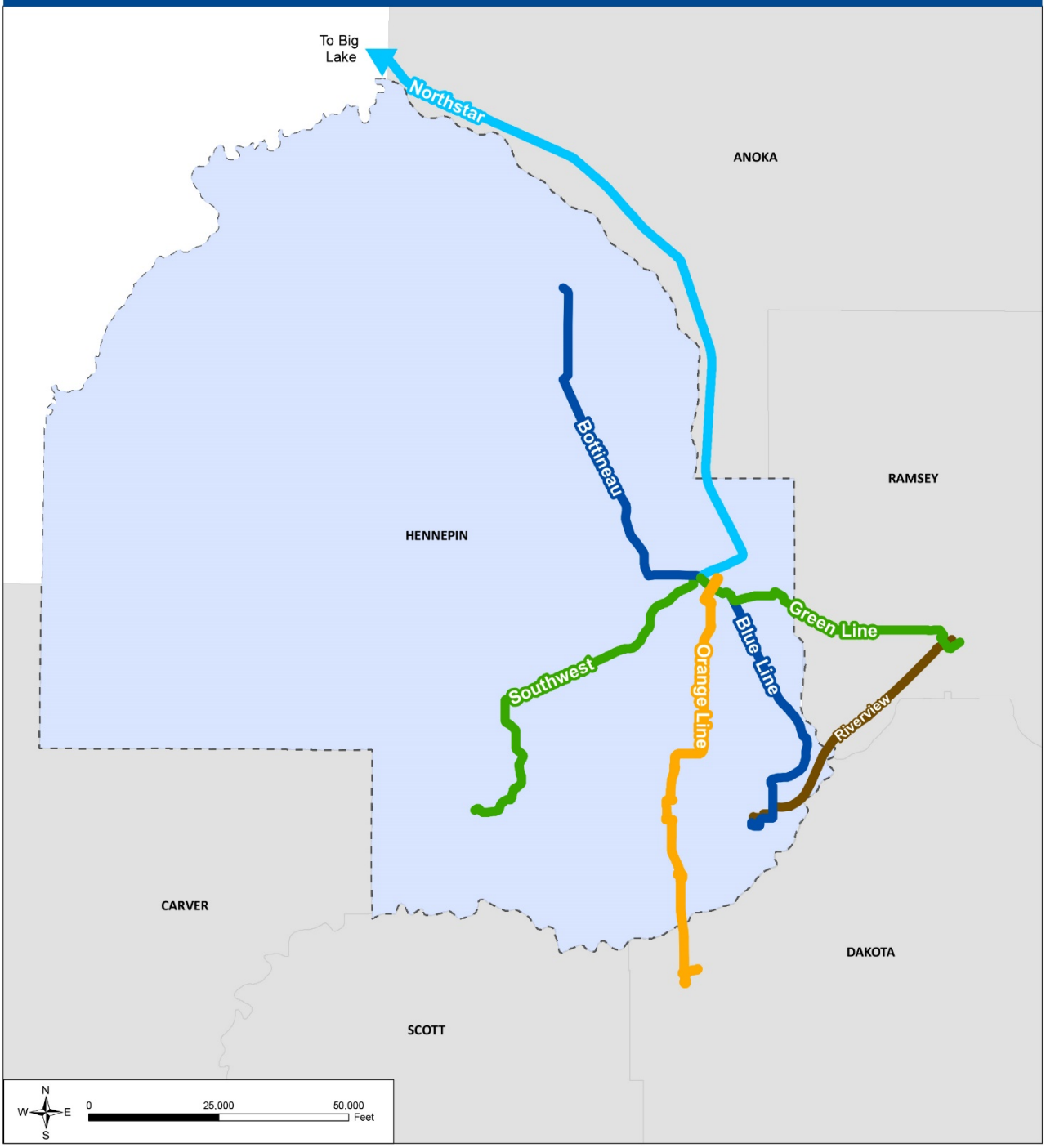


Typical funding of a new line

Projects eligible to be funded include:

- Capital costs of the Green Line Extension (Southwest LRT), Blue Line Extension (Bottineau LRT), Riverview Corridor and Orange Line (bus rapid transit) projects;
- Operating costs of the Green Line (including any extensions), the Blue Line (including any extensions), Riverview Corridor, Orange Line, and Northstar projects;
- Capital costs associated with other transportation or transit projects or improvements, as identified in Hennepin County's Capital Improvement Program (CIP), and operating costs, to the extent designated in the future by the County Board after a public hearing.

Transportation Tax Projects



Map version date:5/19/2017

Data source: Hennepin County, Met Council

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

Hennepin County Public Works

Transit Oriented Development (TOD)

Transit Oriented Development supports both redevelopment and new construction that enhances transit usage. Support projects and developments that generally: enhance transit usage, increase density along transit corridors, reinforce both the community and the transit system, exhibit a compact and efficient use of available space, rather than auto-oriented sprawl, contain a diversity and mix of uses with daily conveniences and transit at the center, support pedestrian-friendly physical design that encourages walking, bicycling and access for people with physical disabilities, and are within a comfortable walking distance to transit

Southwest and Bottineau Investment Frameworks

Investment frameworks identifying infrastructure (roads, sidewalks, bicycle facilities, sewer and water) needs by opening day of service were developed for the METRO Green Line (Southwest) extension and the METRO Blue Line (Bottineau) extension. The purpose was to identify infrastructure requirements to aid in transitioning the station areas into transit oriented development (TOD) districts.

Freight

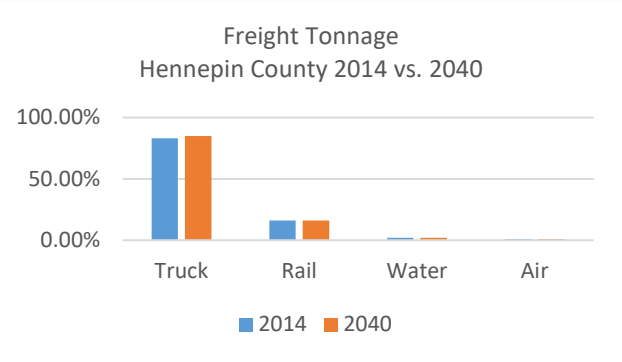
Moving goods efficiently and effectively

The efficient movement of freight by truck, rail, air and water is vital to the economic health of Hennepin County. The Twin Cities region, including Hennepin County, is the primary freight hub for Minnesota and the upper Midwest. Freight-intensive industries for the region include agriculture, mining, construction, wholesale and retail trade, manufacturing, and transportation and warehousing.

Transportation is a critical consideration for many of our businesses. Congestion, lack of good connections from major highways to freight warehouses and distribution centers, and deteriorating roads are all factors that affect commercial transportation costs and the attractiveness of Hennepin County.

Freight-intensive industries account for 33% of Hennepin County jobs in 2014.

In 2014, over 828 million tons of freight traveled within, to, or through Hennepin County via truck, rail, water (Minnesota River), and air. By 2040, total tonnage is expected to increase to over 1.1 billion tons, an increase of 37%. The bulk of that increase will be transported on roadways.



$230 million annually in congestion delay costs for trucks
(Twin Cities, Texas Transportation Institute)

Several industry changes are shaping the future of freight transportation. Technology and innovation are better managing truck fleets, rail operations and other freight logistics. Dispatching and freight routing software are improving fleet utilization and are accelerating the speed at which products move throughout the market (e.g. emergence of same-day-delivery service).

The growth of last-mile delivery and demand for next- and same-day service is pushing freight logistics beyond traditional hub and spoke models to regional options, crowdsourcing, digital, and smart automation. The potential impacts over time for changing consumer preference from brick and mortar retail locations to home delivery may be significant for transportation.

The impact of these trends is still emerging, and future updates of this plan will reflect any changes in our transportation system.

Role and Partners

Keeping the freight transportation system running in good order requires collaboration and coordination among many partners. While the private sector owns and operates most of the freight transportation system, public sector agencies have important roles in planning for the future of the system, setting overall policy direction for transportation, funding projects that benefit goods movement, and owning and maintaining transportation infrastructure.

Hennepin County's primary role in freight transportation is ensuring the county road and bridge networks are maintained in a state of good repair and managed to reduce congestion, which negatively impacts freight delivery. Freight moves along Hennepin County roadways and a portion of freight rail track in Minneapolis owned by the Hennepin County Regional Railroad Authority (HCRRA). Hennepin County incorporates truck freight movement on county roads as part of the planning, design, construction, operations, and maintenance of the roadway system.

Key partners include the private sector, the Minnesota Department of Transportation, and the Metropolitan Council.

Trucking

The primary mode of transportation for freight to, from, within, and through Hennepin County is the roadway system. Trucks move 83 percent of goods in Hennepin County by weight and 65 percent by value (excluding through traffic), and also provide first- and last-mile connections for goods moving in and out of rail and air terminals. The County State Aid Highway System (CSAH) provides through or bypass routes connecting other roadways, and first- and last-mile connections to local customers and businesses.



Figures 4-06 and 4-07 depict regional truck corridor and existing truck volumes on state highways and several county roadways.

Intermodal Facilities

Intermodal terminals provide the opportunity for freight to transfer from trucks to and from rail, barges, pipelines, and airplanes. These terminals relieve the highway system of truck trips by allowing for the movement of freight by other modes for at least a portion of the trip.

The two largest rail yards in Hennepin County are Humboldt and Shoreham, both owned by Canadian Pacific. Humboldt Yard is primarily a switching and transloading yard handling forest products, plastics, and aggregates. Shoreham Yard is one two major intermodal facilities in the Twin Cities region.

In many cases, local roadways provide the "last-mile" connection between intermodal terminals and the metropolitan highway system, which is part of the National Highway System (NHS). The only freight intermodal terminal within Hennepin County currently served by an NHS intermodal connector, CSAH 153/Lowry Ave., is the Shoreham Yard.

Hennepin County supports truck freight movement by developing a system of 10-ton routes and connecting them to major intermodal freight terminals. Roadway design considerations to support freight movement include lane widths, intersection turning radii, intersection control type (stop control, signalization, and roundabouts), bridge sufficiency – clearance height and/or width, and locations with unprotected road crossings of active rail lines.

Freight Rail

Freight traffic is growing nationally and locally in Hennepin County. At the same time that freight traffic is growing, due to rail mergers and abandonments more freight traffic is being concentrated on fewer routes.

The growth in freight traffic is expected to continue due to its ability to offer distinct advantages over other options in terms of fuel efficiency, carbon footprint, and congestion.



The vast majority of goods handled by rail travel through the County without stopping. In 2014, 95 percent (4.3 million units and 122 million tons) of rail freight in the County was through movements. Much of this traffic was comprised of crude oil, ores, and grain travelling from the Upper Midwest and Great Plains to Chicago and Eastern markets. About 6 million tons of rail freight (194 thousand units) originated and/or terminated in Hennepin County facilities, including CP's Humboldt and Shoreham yards.

There are approximately 172 track miles of freight rail infrastructure in Hennepin County.

Railroad	Miles	Percentage
Class 1 (Canadian Pacific, Burlington Northern Santa Fe, & Union Pacific)	155	90%
Class II (Twin Cities & Western Railroad, Minnesota Commercial Railway, & Progressive Rail Inc.)	15	7%
Hennepin County Regional Railroad Authority (HCRRA)	2	1%

Figure 4-08 illustrates freight facilities and rail infrastructure ownership across Hennepin County.

Plans, Programs and Initiatives

Twin Cities Regional Truck Highway Corridor Study
In 2017, the Metropolitan Council conducted the Regional Truck Highway Corridor Study to identify and prioritize regional truck highway corridors. Of the 30 top truck delay hotspots identified, nine are located within Hennepin County.

Table 4-01 lists the nine roadway segments located in Hennepin County and provides the corresponding delay by corridor.

State Rail Grade Crossing Safety Project Report
In 2016, the Minnesota Department of Transportation conducted a 10-year crash analysis (2004 to 2013) for all Minnesota counties and identified Hennepin County as having the highest number of total crashes (55) and the second highest number of fatal plus injury crashes (9) at rail grade crossings.

Currently, there are 272 public at-grade rail crossings for vehicles and pedestrians in Hennepin County and 49 of those are located on the Hennepin County roadway network. Safety at these crossing remain a high priority for Hennepin County and we will continue to pursue high benefit-low cost at-grade rail crossing improvements and expanded educational programs to improve safety.

Hennepin County Freight Study, 2016
In 2016, Hennepin County conducted the Hennepin County Freight Study to understand how the County's transportation networks are being used for the handling of freight.

As a first step to actively collect and monitor freight data, county staff have strategically selected 60 existing Hennepin County traffic count stations to upgrade counter equipment, utilizing advanced technology to better distinguish commercial truck traffic from general automobile traffic. Our enhanced data will help better determine specific needs and priorities along our system.

Cargo Oriented Development
Hennepin County staff participate in a regional task force on 'Cargo Oriented Development' (COD). COD is an initiative by the Center for Neighborhood Technology which among other goals, seeks to match regionally preferred industrial land which has potential for redevelopment with the need to provide for greater worker access to jobs in the region. The COD initiative has recently been awarded a grant through the McKnight Foundation for a two-year study of feasibility in the Twin Cities.

Aviation

Air transportation, both for passengers and cargo, plays a key role in our economic competitiveness by providing access to global markets and enhancing links within and between businesses. In addition, the aviation industry is a major industry in its own right, employing large numbers of highly skilled workers.

The Minneapolis – St. Paul (MSP) Airport Long-Range Plan, forecasts that air cargo operations and tonnage is expected to increase at an average rate of 1.6 percent between 2008 and 2030.



86,900 jobs

$2.5 billion in annual spending by visitors

$15.9 billion in total economic output annually

Role and Partners

Hennepin County's primarily role in aviation is to provide transportation facilities for access to the regional aviation facilities.

Key partners include the Federal Aviation Administration (FAA), the Metropolitan Airports Commission (MAC), the Minnesota Department of Transportation (MnDOT), the Metropolitan Council, and local municipalities.

Three Metropolitan Airports Commission (MAC) facilities, the Minneapolis –St. Paul International (MSP) Airport, the Crystal Airport, and the Flying Cloud Airport are located in Hennepin County (see Figure 4-09).

Minneapolis – St. Paul International (MSP) Airport

The Minneapolis-St. Paul International (MSP) Airport serves as a commercial air service hub and provides Twin Cities passengers with non-stop and direct service to over 100 domestic destinations and over 10 international markets. The MSP Airport is the 17th busiest international airport in the United States.

Crystal Airport

Crystal Airport, located in the cities of Crystal, Brooklyn Center and Brooklyn Park is a general aviation reliever and the closest MAC airport to downtown Minneapolis. Access to Crystal Airport is provided by Hennepin County State Aid Highway (CSAH) 81/Bottineau Boulevard, CSAH 10/Bass Lake Road and CSAH 8 (63rd Avenue North.

Flying Cloud Airport

Flying Cloud Airport is a business jet reliever within the MAC system, and is located approximately 14 miles from downtown Minneapolis in the city of Eden Prairie.

Access to Flying Cloud Airport is provided by Hennepin CSAH 61/Flying Cloud Drive, CSAH 1/Pioneer Trail and CSAH 4/Spring Road.

Water Ports/Barges

There are currently no operating water ports in Hennepin County since commercial navigation along the stretch of the Mississippi River in the City of Minneapolis ceased operation in late 2014.

Roads

Safely and efficiently moving people, goods and information

The Hennepin County roadway system, including bridges, is one of the most important public assets that the County owns and operates. The system includes, but is not limited to, items such as road rights of way, pavements, bridges, drainage features (culvert, ditches, ponds), traffic signal systems, and safety features (e.g., signage, guardrails).

Our roadway system is a multimodal network serving different transportation users including motorists, freight carriers, transit passengers, bicyclists and pedestrians. Roads and bridges connect these users to other transportation systems, such as transit networks, as well as state and city roadways. The efficiency and connectedness of a roadway system also plays a crucial role in economic development and growth and provides many important social benefits.

Figure 4-10 illustrates existing average annual daily traffic (AADT) volumes and heavy commercial truck volumes on the state highway and county highway systems.

Largest county system in the state

2,200 lane miles

1,100 retaining walls

147 bridges800 traffic signals

2,609 culverts

43,450 signs

Role and Partners

Hennepin County is responsible for the planning, design, construction, maintenance and operations of the County State Aid Highway (CSAH) system and County Road system.

Key partners include the Federal Highway Administration (FHWA), the Minnesota Department of Transportation (MnDOT), the Metropolitan Council, other counties, and cities and townships.

Plans, Programs and Initiatives

Metropolitan Council's Transportation Policy Plan (TPP)

The 2040 Transportation Policy Plan (TPP) presents the region's policies and plans to maintain and enhance existing transportation facilities, better connect people and communities, and provide more transportation choices that will make the region a better place to live.

The TPP includes identification of transit projects for implementation by 2040. The planned projects include a number of bus rapid transit (BRT) projects planned to be housed with county roadways, including Penn Avenue, Chicago Emerson-Fremont, W. Broadway Avenue, Nicollet Avenue, and Hennepin Avenue. This will require collaboration with Metro Transit to ensure that our county roadway design and operations can accommodate the proposed BRT projects.

Complete Streets Policy

Hennepin County was the first Minnesota County to adopt a Complete Streets policy. Adopted in 2009, it solidifies the County's commitment to plan, design, and operate roads to enable safe access for all users of all ages and abilities. Complete Streets also support the county's Active Living initiatives.

Hennepin County Capital Improvement Program (CIP)

The Hennepin County Five-Year Capital Improvement Program (CIP) identifies upcoming projects. The types of projects included in the plan are identified below.

- Traffic Management and Spot Improvements – Projects such as signal installation and maintenance, signage, striping and pavement messages, access control and school zone safety driver feedback signs.
- Corridor Reconstruction – Reconstruction projects often involve adding lanes to an existing corridor or adding miles (length) to an existing corridor.
- Right-of-Way Preservation – Involves purchasing land and property rights owned by private interests through direct purchase.
- Planning Studies – Includes corridor studies, traffic analysis studies, environmental studies and long-range system planning studies to better identify future construction projects.

To select projects for inclusion in the Hennepin County CIP, an annual review of transportation project needs is conducted. Project Needs are submitted both internally, and externally by local agencies. The full project needs list is evaluated in the Technical Review (quantitative), analyzing current conditions that looks at infrastructure deficiencies and uses, with supporting data to review the following:

- Safety: review of crash rates along the project corridor in comparison to the county averages
- Roadway usage: vehicle throughput along the project corridor
- Infrastructure age: year of last reconstruction activity completed along the project corridor
- Mobility and mode choice: review of existing bicycle, pedestrian and ADA accommodations

Projects scoring well undergo the Comprehensive Review (qualitative) that looks at the completed project, evaluating the benefits and outcomes based on these six criteria:

- Safety: potential to enhance safety, security, and comfort level of all transportation modes
- Mobility: anticipated impacts to overall level of service for all transportation modes
- Asset condition: expected improvement to address infrastructure deficiencies
- Project readiness and feasibility: assessment of project risk
- Environment: expected impact to the quality of environment
- Community and economic development: influence on local community and businesses

Projects yielding the highest scores and aligning with the county's current priorities will be recommended for funding consideration in the current Capital Improvement Program.

Figure 4-11 illustrates the projects included in the Hennepin County 2018-2022 Capital Improvement Program (CIP).

Twin Cities Transportation Improvement Program (TIP)

The Transportation Improvement Program (TIP) for the Twin Cities Metropolitan Area is the multimodal program of highway, transit, bicycle, and pedestrian projects and programs proposed for federal funding throughout the metropolitan planning area over a four year period. The projects listed in the TIP are consistent with and implement the region's transportation plan and priorities.

Figure 4-12 illustrates the highway projects located in Hennepin County that are included in the current Transportation Improvement Program (TIP).

Future Needs (2023-2040)

To determine future road needs, Hennepin County considers achievement of the adopted transportation goals, conducts travel demand forecasts, and works with our transportation partners.

Transportation Vision and Goals

Hennepin County's transportation network promotes economic vitality and enhances quality of life by developing and operating a safe, environmentally responsible and multimodal transportation network.

- Preserve and modernize our transportation system
- Improve safety, reliability, and comfort for all transportation users
- Provide affordable transportation choices and convenient access to destinations
- Improve our transportation system to enhance our quality of life, health, livability, and competitiveness
- Create a transportation system that protects and enhances the environment

Provisional Projects

Working with our local agency partners to understand highest priority project needs, a prioritization process is held annually to put each project need through a two tiered criteria driven review, scoring each project independently. The results of this process reveal top candidates for programming in the CIP. The remainder of the projects not selected for CIP programming reside on a list of "provisional projects". This list identifies projects for consideration should additional funding become available. These projects reside on the list and are re-evaluated annually along with new projects submitted in the next review cycle. Provisional projects may fall off the list in the next evaluation process based on new project scores. The provisional projects listed provide no guarantee that they will be funded by the county. Table 3-2 lists the current Provisional Projects.

Travel Demand Forecasts

To better understand potential long-term future transportation needs, Hennepin County conducted a process to estimate future, defined as year 2040, travel demands.

Travel demand forecasting is used to estimate the future demand to use a transportation facility based upon future growth projections. The results of the process are used to identify areas that are anticipated to approach or exceed capacity thresholds or potentially create safety issues. Identifying these areas is intended to set the stage for future action (e.g. further monitor situation, conduct detailed study, or design)

Hennepin County conducted a comprehensive travel demand forecasting analysis primarily utilizing the regional activity based model provided by the Metropolitan Council. The Hennepin County forecasts are based on a combination of socio-economic and land use assumptions for future growth. The future transportation network was assumed to include projects identified in the regional Transportation Improvement Program (TIP) and the Hennepin County Capital Improvement Program (CIP).

Figure 4-13 depicts the 2040 forecast traffic volumes and existing average daily traffic volumes.

Exhibit 4-14 illustrates the county's envisioned future roadway system. The exhibit is a comparison utilizing information from current 2040 traffic forecasts, the anticipated future roadway configurations, and right-of-way needs. The envisioned roadway system has been developed over many years based on previous traffic forecasts and roadway related needs. Roadway needs have been evaluated in collaboration with individual cities as part of their property plat and site plan reviews.

Typical roadway sections have been established for various configurations that include trails & sidewalks, utility & sign placements, and urban / rural storm water drainage needs. Examples of common configurations are contained in the support documentation of the 2040 Roadway Plan.

A comparison of the 2040 traffic forecasts to the current envisioned roadway system identified segments that potentially could exceed capacity thresholds. Exhibit 4-15 illustrates the locations of the potentially deficient corridor segments. These segments will be studied further during corridor or routine traffic studies completed in conjunction with safety or capital improvement projects.

For more detail on the travel demand forecasting process, see the Road Plan Support Documents in the appendices.

Table 3-3 Anticipated Changes in the Hennepin County Roadway System (Centerline Miles)

Existing			Next 15 Years		Ultimate Build Out	
	Miles	%	Miles	%	Miles	%
County State Aid (CSAH)	531	93 %	536	93 %	547	94 %
County Road	40	7%	40	7 %	35	6 %
	571		576		582	
2 Lane Rural	247	43 %	175	30 %	107	18 %
2 Lane Urban	92	16 %	105	18 %	120	21 %
3 Lane Urban	26	5 %	105	18 %	175	30 %
4 Lane Rural	1	0 %	3	1 %	5	1 %
4 Lane Urban Undivided	76	13 %	45	8 %	15	3 %
4 Lane Urban Divided	105	18 %	115	20%	125	21 %
5+ Lane Urban	10	2 %	14	2 %	20	3 %
One-way	14	2 %	14	2 %	15	3 %
	571		576		582	

Base existing data is current as of December 2016 – sources: Operations Asset Mgmt and Crash System Databases

CSAH mileage expansion based on 2030 HC-TSP "Map E" anticipated Mn/DOT trunk highway turnbacks (10.3 miles)

- University Avenue / TH-47 (4.0 miles)
- Central Avenue / TH-65 (3.5 miles)
- TH-5 in Eden Prairie (2.8 miles)

County Road mileage assumed to ultimately designate all available mileage in the State Aid mileage bank (currently 5.7 miles) Likely jurisdictional considerations affecting mileages:

- Blake Road / CSAH-20 (turnback to Hopkins)
- Maple Grove Pkwy / Fernbrook / Elm Creek Blvd (exchanges in Maple Grove)
- Fletcher Bypass / Main Street / County Road 159 (exchanges and turnbacks in Rogers)
- CSAH-10 and CSAH-50 realignments (Corcoran)

System Elements

Effectively preserve and manage to increase the efficiency and capacity of our transportation system

The following system elements are employed by the county to maintain our system in a state of good repair and to manage our system to improve traffic flow, safety, accessibility, air quality, and the movement of goods, people and information.

- Asset Management
- System Safety
- Advanced Traffic Management System (ATMS)
- Functional Classification
- Jurisdictional Transfers
- Right-of-Way Preservation
- Access Management
- Travel Demand Management (TDM)

Transportation asset management is a process of evaluating, maintaining and improving our transportation assets in a cost-effective manner to maximize their useful life. How we operate our system impacts how frequently as asset needs to be replaced. Asset Management provides a solid foundation from which to monitor the transportation system and optimize the preservation, upgrading and timely replacement of highway assets through cost-effective management, programming and resource allocation decisions

Continuous monitoring of assets enables us to make proactive, data-driven decisions about how to use available resources for maximum benefits to our system.

The health of our county transportation system is currently ranked at fair to good, which means most of our assets are operating as they should, with some maintenance needed to increase their overall service life.

While our current ranking is fair to good, roughly one third of our system is more than 50 years old, requiring an estimated $2 billion to maintain, upgrade or replace.

Asset Management Program

Hennepin County has established an asset management program that is intended to evaluate, maintain, and improve the transportation system in a cost-effective manner throughout the life-cycle of the infrastructure. Transportation assets are divided into five groups used for analyzing, reporting and programming improvements and/or maintenance. The five groups include: 1) roadway pavement; 2) traffic; 3) drainage; 4) roadside; and bridges. Within the groups there are 28 asset categories that have specific attributes used to evaluate the condition and remaining service life of a particular asset. Details of the program are contained in the Asset Management Report, 2017







System Safety

Safety is a primary concern for people when they choose a mode of travel, especially for children

Travelling to school, or seniors who are dependent upon public transportation. Streets that are designed for the safety of multiple users-including pedestrians of all ages, bike riders, people with disabilities, buses, and cars-have been shown to reduce the risk of pedestrian and bike rider injuries.

Every year, the number of users on our roads continues to increase for all modes – walk, bike, transit, freight, and vehicular. Motorists alone travel more than 2.1 billion miles per year on county owned/operated roads.

There are numerous factors that cause crashes on the roadway system, including driver behavior, weather and roadway design.

To improve roadway design, we use data collection and analysis to identify where changes are needed. Examples of improvements made include: changing how road users access the road, moving, modifying, and enhancing crosswalks, extending curbs and medians, using wider and more durable pavement markings, altering turn lanes, adding bicycle and pedestrian facilities, and traffic signal enhancements.

Roadway Safety Plan

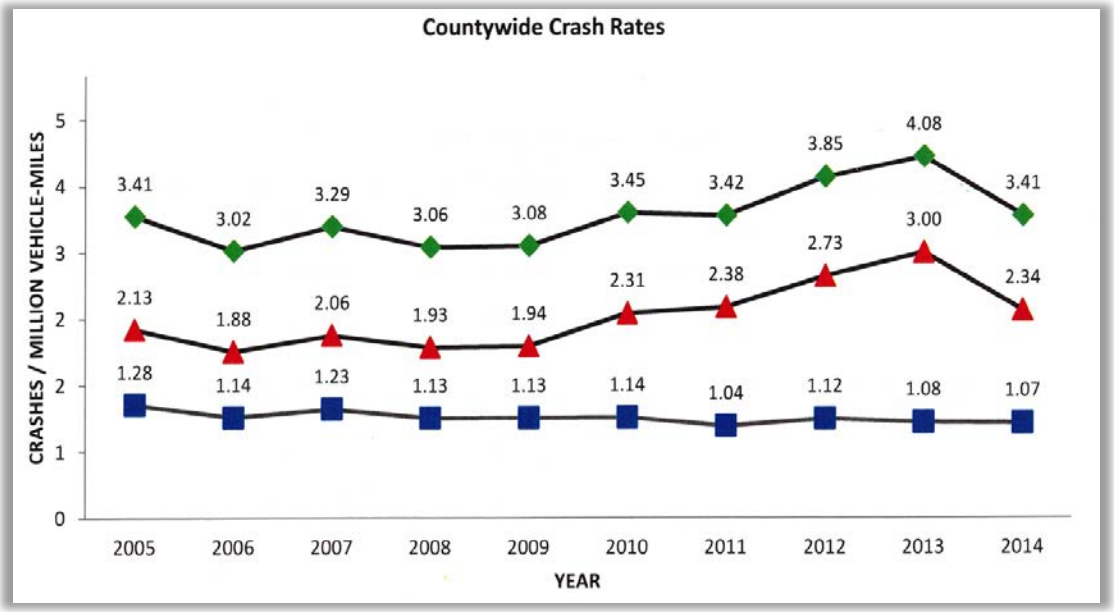
The County Roadway Safety Plan takes a proactive approach, reviewing intersections that show potential for future fatal and serious injury crashes. These intersections have like risk characteristics of other intersections that experience high fatal or serious injury crashes.

The plan identifies locations and costs for safety investments for all travel modes, specifying safety strategies for specific high-risk locations.

Serious injury crashes on Hennepin County roadways have decreased by 45% in the last 10 years. A proactive approach lends to a continued downward trend, with aspiration to positively influence the statewide goal:

Future Challenges

- Safety conflicts between modes
- Impact of technology on improving safety
- Forging partnerships for education and enforcement



ATMS

Advanced Transportation Management System (ATMS) applies modern technology to traffic management throughout our transportation system. It uses transportation management cameras and wireless communications to improve the flow of vehicle traffic and transportation system efficiency.

Transportation Management

- Deployment of real-time / adaptive signal control and network signals
- Dynamic message signage
- Advanced bicycle and pedestrian counting systems
- Bicycle detection at traffic signals

Information Management

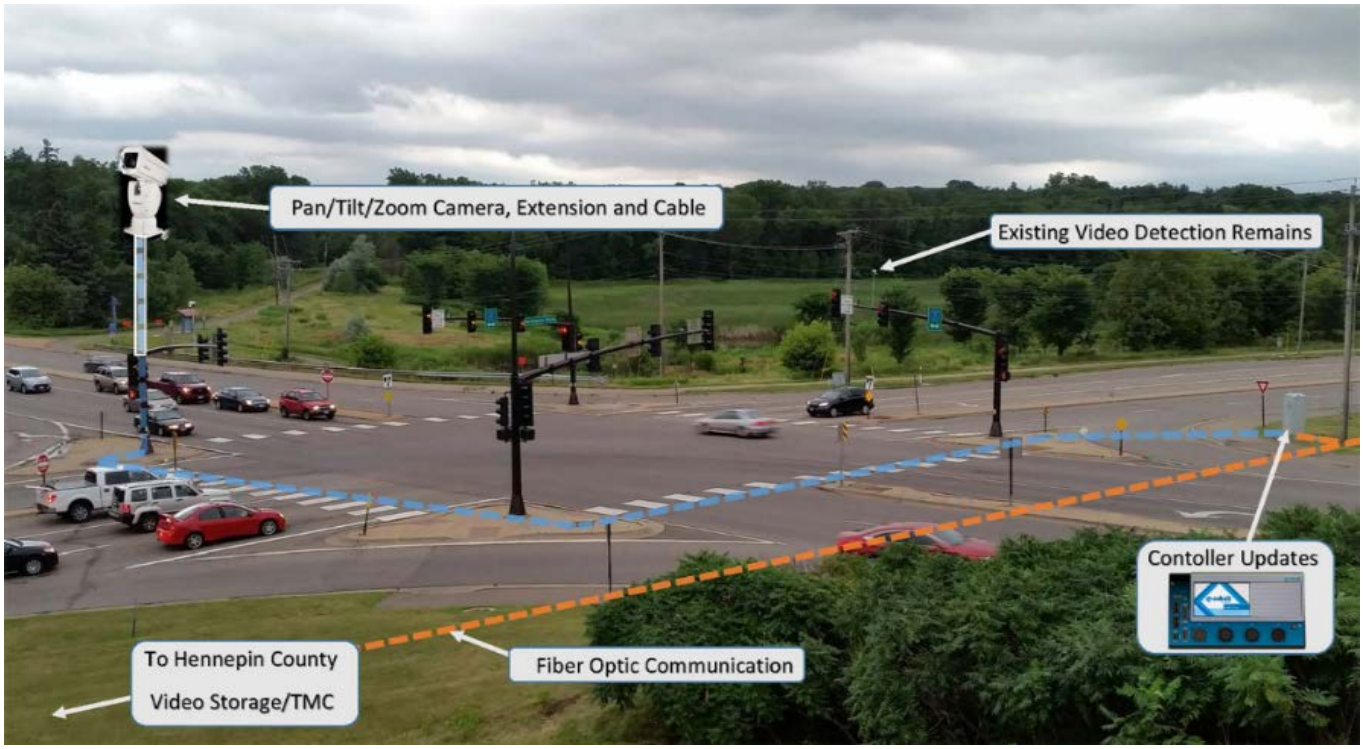
- Expansion of fiber optic networks
- Connecting monitoring and control infrastructure to county network

Emergency Management

- Integrate Dynamic Messaging with the Public Alert Warning System
- Improve Emergency Operations Center access to Dynamic Messaging

The benefits of ATMS include reduced travel times, reduced fuel consumption and emissions, reduced crashes, and improved customer service,

In efforts to provide safe and efficient transportation infrastructure for hundreds of thousands of travelers each day, we will continue to invest in our advanced traffic management system. Future upgrades to the traffic management center (TMC) are anticipated in order to better coordinate county-wide intelligent transportation systems. We will also continue to improve traffic signal synchronization, increase the use and effectiveness of our traffic camera system, and add variable message signs that provide real-time traffic information to motorists and real-time information sharing with other jurisdictions (e.g. MnDOT) through an expanded fiber-optic communication network.



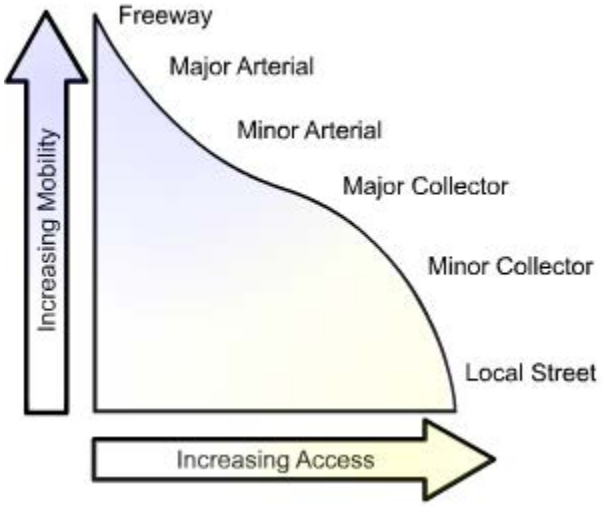
Functional Classification

Roadways are placed into classifications based upon the function they serve in the transportation network. The primary purpose of classification is to ensure that each roadway in the network serves its proper function, primarily defined as providing mobility or access or a combination of the two.

For the purpose of functional classification, mobility is defined as the ability to travel within or along the roadway network, while access is defined as the ability to reach a development or land parcel.

Functional roadways classifications identify what function roadways should perform before determining street widths, speed limits, intersection control or other design features. Functional classification ensures that non-transportation factors, such as land use and development, are considered in planning and design of streets and highways.

The classifications also determine which routes should be part of the metropolitan highway system and which should receive regionally-allocated federal funds.



The functional classification of roadways in the Twin Cities metropolitan area is managed by the Metropolitan Council in cooperation with MnDOT, metro counties and cities. Exhibit 4-16 illustrates the existing and future functional classification system for Hennepin County.

Jurisdictional Transfers

Roadway jurisdiction determines which governmental unit, state, county or city, owns a roadway. Ideally, there is alignment between the functional classification of roadways and the jurisdiction charged with managing its operations. Due to changing circumstances this is not always the case and when this happens, jurisdictions will consider transfers of roadways with the ultimate goal of proper alignment between function and jurisdiction.

The Hennepin County Board has been reviewing a proposed Jurisdictional Transfer Policy that outlines the conditions under which a jurisdictional transfer would be pursued.

- A proposed transfer should be consistent with the proper jurisdictional hierarchy and identified long-range expectations of the County Transportation Plan
- The impact of a proposed transfer should be evaluated with the context of the county's Asset Management Program to ascertain county resources required to maintain the proposed new facility
- Any proposed transaction involving a County State Aid Highway (CSAH) must have the support of MnDOT's State Aid Office for consistency with CSAH and Municipal State Aid (MSA) requirements
- Transfers must include a formal agreement between the county and affected city(ies) and/or state, with mutually agreed terms between the parties
- The County Board of Commissioners must approve all proposed jurisdictional transfers and financial agreements between the county and affected city(ies) and/or state

Figure 4-17 identifies candidate roadways for jurisdictional transfer. The identified roadway segments appear to meet the criteria for transferring, however the map does not constitute implicit support by the affected agencies. Some segments have been under discussion for many years, and others have been added due to recent evaluations or city input. It is anticipated that additional evaluation, and agency discussion/negotiation will be necessary to resolve which transfer candidates will ultimately be recommended to the County Board as part of the implementation of the 2040 Mobility Plan.

Right of Way Preservation

The acquisition and preservation of right-of-way is an important component to the county's long-range transportation planning. As the county grew over time, more width has been necessary to accommodate traffic growth, geometric improvements (turn lanes, medians, shoulders), trails & sidewalks and storm drainage needs.

Property purchases for impending county projects

Right-of-way is purchased following land acquisition procedures once a project is programmed in the county's Capital Improvement Program (CIP) and detailed design plans are developed.

Corridor Studies

We partner with cities and MnDOT to study future needs for longer segments of our roadways. These studies usually result in a concept plan which identifies a recommend design concept and future right-of-way needs. The studies then become reference documents that are used with on-going development reviews and county projects.

Ghost Platting

Ghost platting is a process of considering how the pattern of adjacent properties might develop long-term in order to ensure that adequate local street systems and connections are provided. City and county staffs consider the locations of major county road access points and anticipated right-of-way needs in an informal process to help guide future decisions. This process works well to anticipate issues relating to development coordination and the provisions for exception parcels.

Dedication from Adjacent Developments

As part of the preliminary plat review process, the county has an opportunity to recommend that a city require developers to dedicate additional highway right-of-way and/or easements.

The county's Plat Review Committee typically reviews over 100 plats and site plans each year. In a comparison study done a few years ago, it was found that for the period 1999-2008, almost 42 acres of land had been dedicated through the plat review process for related roadway purposes with a value of almost $11 million dollars.

In some cases, it may not be possible to immediately obtain right-of-way during the platting process. In these situations, county staff often will negotiate the creation of outlot parcels adjacent to the county roadway which limit development and provide for future dedication and / or purchase. County staff also encourages the setback of structures from the right-of-way and supports the placement of open space or parking areas instead.

One of the most important information sources that the Plat Review Committee uses during its reviews is the map of the Envisioned Roadway System (Figure 4.2.4). This map puts together the information from functional classification, access management, future traffic forecasts and combines these elements with a consideration of impending CIP projects, corridor studies, and the results of previous development reviews and discussions.

Today, roadways are planned to provide the following basic right-of-way widths based on the context and function of the roadway:

Facility Type	Functional Classification	Projected ADT	Posted Speed	Right-of-Way Width
Two-Lane Rural Section	Collector or Minor Arterial	1,500 – 10,000	45+ mph	100 ft. to 120 ft.
Two-Lane Suburban	Collector or Minor Arterial	1,500 – 10,000	35 – 40 mph	80 ft. to 100 ft.
Three-Lane Urban (center 2-way left turn lane)	Collector or Minor Arterial	5,000 – 16,000	30 – 35 mph	90 ft. – 110 ft.
Four-Lane Urban (Divided)	Principal or Minor Arterial	8,000 – 25,000	35 – 45 mph	110 ft. to 130 ft.

Access Management

Access Management is the proactive management of access to land parcels adjacent to roadways. Good access management promotes the safe and efficient use of the transportation network. Through our access management program, we strive to achieve an optimal balance between property owner needs for access with operating a safe and efficient transportation system.

Proper access management will minimize or manage the number of potential conflict point along a roadway and result in increased capacity, reduced crashes, and reduced travel times.

10 to 15 percent of all crashes can be attributed to driveway conflicts

Connecting driveways and streets also affect the efficiency and capacity of the county roadway system. Ideally, access to a county roadway should only be via other minor arterial roads or collector streets. Direct driveway access should be oriented to the collector and local street system.

Access Management strategies include:

- Minimizing direct driveway access points to decrease turn movement conflicts
- Spacing street and driveways further from major intersections
- Proper network spacing for intersecting roadways and streets
- Providing optimal signal spacing for coordinated traffic flow
- Ensuring desired entering sight distance guidelines are met
- Use of channelization to preclude selected conflicting turning movements

These methods are implemented by the county through its review and comment authority on preliminary plats and via its access permitting authority. County reviews are coordinated through the Plat Review Committee described in the following section.

The county has developed access management guidelines as a reference document for our partners.

Travel Demand Management (TDM)

Travel demand management (TDM) focuses on understanding how people make their transportation decisions and helping people efficiently use the infrastructure in place for transit, ridesharing, walking, biking and telecommuting. TDM strategies are cost effective in guiding the design of the county's transportation and physical infrastructure so that alternatives to single-occupant driving are naturally encouraged and the county systems are better balanced.

The county actively supports Transportation Management Organizations such as the I-494 Corridor Commission http://www.494corridor.org/494-Corridor-Commission.php and Move Minneapolis http://moveminneapolis.org/. These organizations were established to address increasing traffic congestion by promoting and educating workers, residents and visitors regarding transportation options (transit, carpooling, telecommuting, biking and walking).

Transportation Workplan (2019-2023)

Transparent Capital Improvement Program (CIP) Process

Develop a process for capital improvement programming that is clear, transparent, and inclusive of our primary transportation partners.

Long-range Capital Plan

Create a capital plan beyond the five-year capital improvement program to inform project development, project programming, and funding decisions.

Reducing Disparities

Incorporate upcoming work on the intersection of transportation and disparities to incorporate the goal of reducing disparities into our transportation decisions.

Emerging Technologies

Monitor, track and conduct research to better understand the impact of emerging technologies (AVs/CVs., drones, augmented reality). Activities will include an assessment of impact on existing and planned infrastructure, integration with existing modes and systems, and legal and regulatory issues.

Strategic Outreach/Engagement

Engagement strategies to respond to our changing demographics will be explored and piloted to develop a set of best practices.

Performance Indicators Report

Include the Mobility 2040 Performance Indicators in periodic updates to the Hennepin County Board to monitor and track progress towards achieving the adopted transportation goals. Employ a continuous improvement process to evaluate and implement modifications to the performance indicators as necessary.

Environment

Continue to explore opportunities to improve environmental quality through transportation partnerships, including but not limited, to the use of native roadside plantings to provide pollinator habitats, tree plantings to strategically located tree canopies, (add something on wetlands and water) – natural resources strategic plan.

Asset Management

Build off of the current asset management plan to add more categories of infrastructure with the long-term goal of including all Hennepin County assets to account for the full life-cycle cost of our infrastructure.

Risk Assessment

Identifying vulnerabilities before they become emergency situations allows us to adapt and plan for appropriate responses. Conduct vulnerability assessments (landslides, flooding related to climate change), and evaluate strategies to reduce or eliminate vulnerabilities.

Plan Alignment

The supporting modal and system element plans will be evaluated and modified to ensure there is alignment with this plan and between the supporting plans. An update to this plan will be conducted every five years or in 2023.

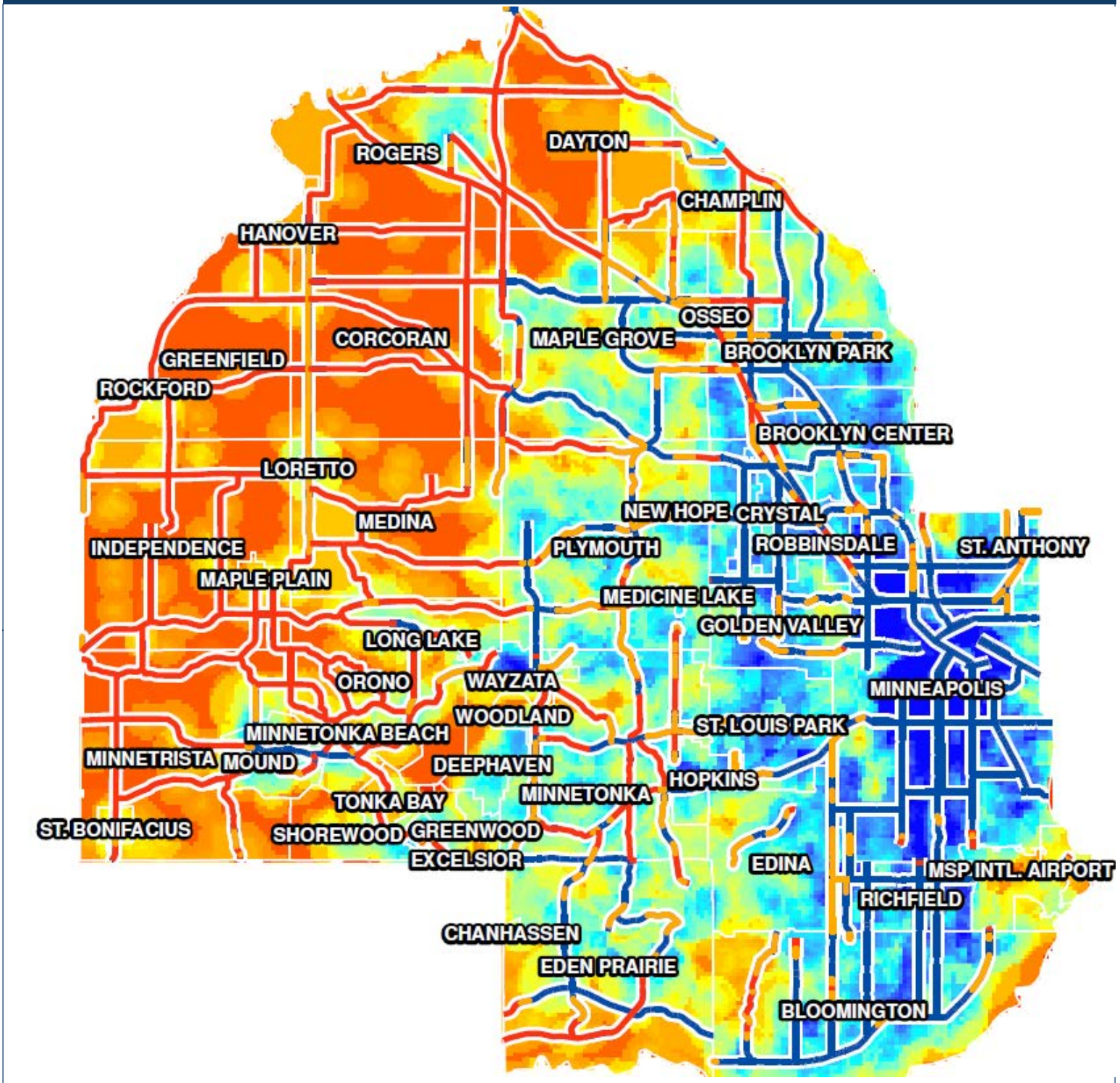
UMN Research Partnership

Continue to partner with University of Minnesota researchers to explore emerging issues, ideas, and technologies affecting transportation.

Pedestrian Plan Implementation Priorities

HENNEPIN COUNTY
MINNESOTA

Figure 4-01 | Public Works



Legend

- County roads without sidewalk or trail
- County roads with sidewalk or trail on one side
- County roads with pedestrian facilities on both sides

High Priority (65)

Low Priority (1)

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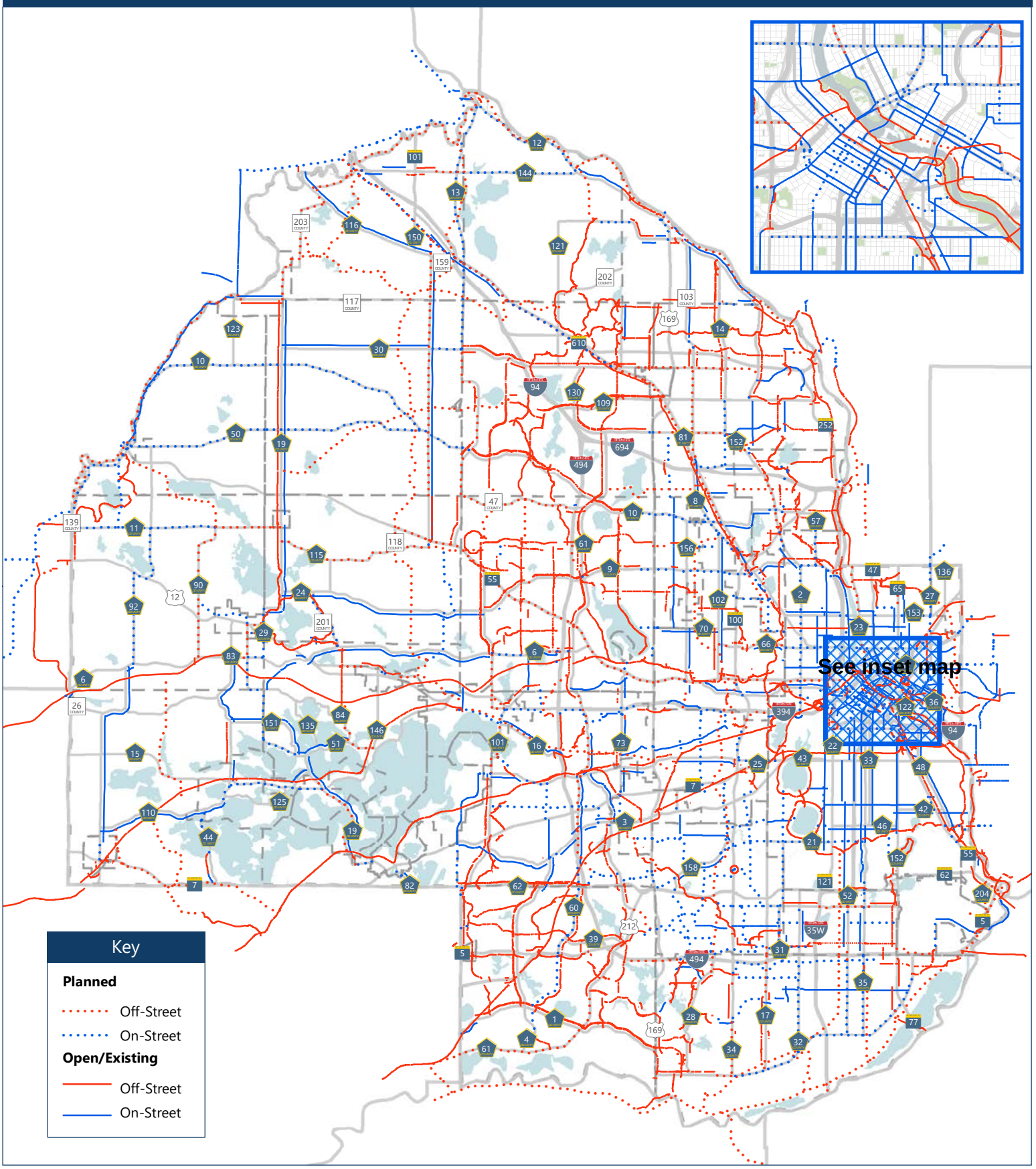
0 5 10 Miles

Publication date: 8/5/2013

Existing and Planned Bikeway System

Figure 4-02 | Public Works

HENNEPIN COUNTY
MINNESOTA



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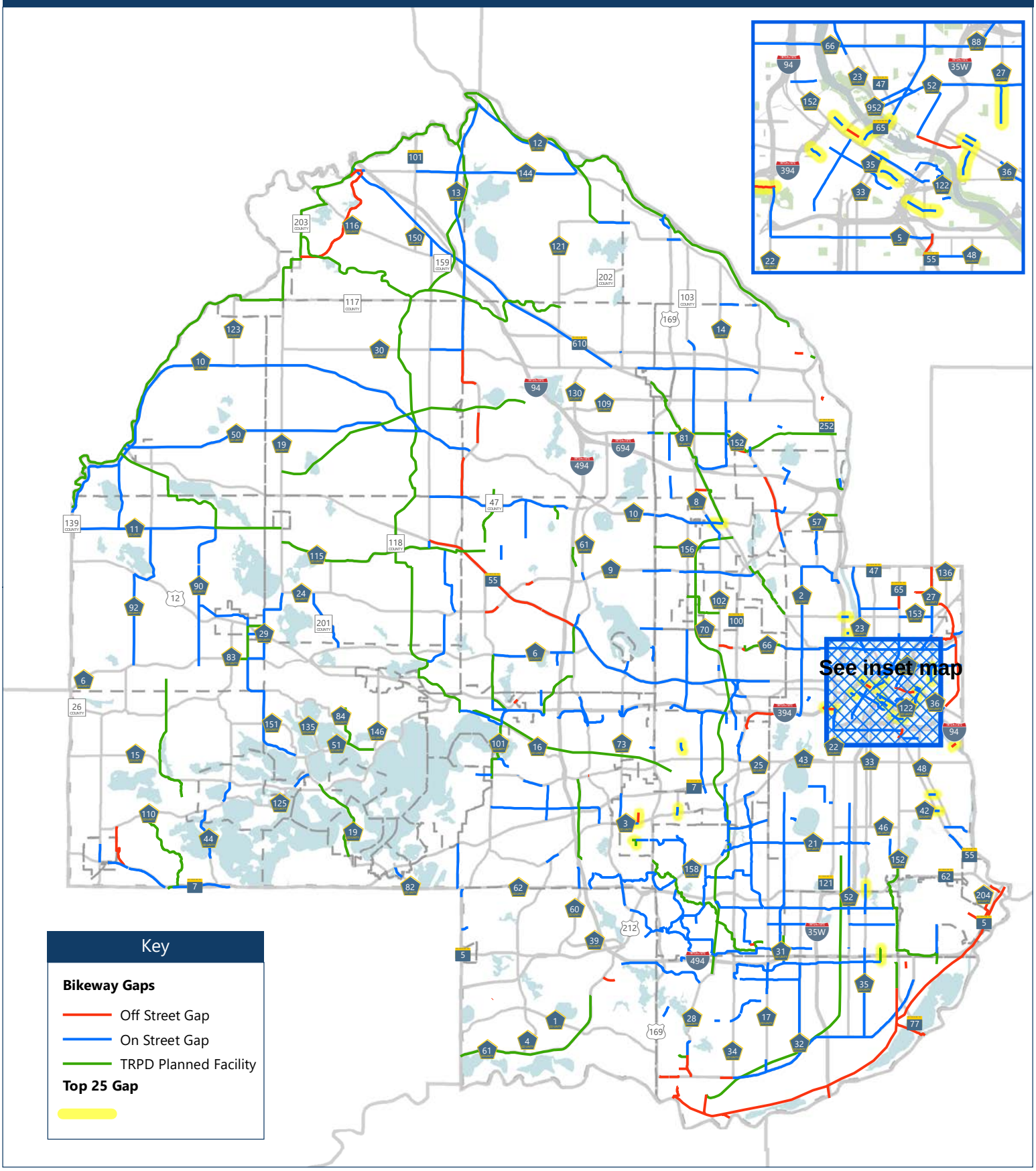
0 5 10 Miles

Publication date: 5/9/2018

Bikeway System Gaps

Figure 4-03 | Public Works

HENNEPIN COUNTY
MINNESOTA



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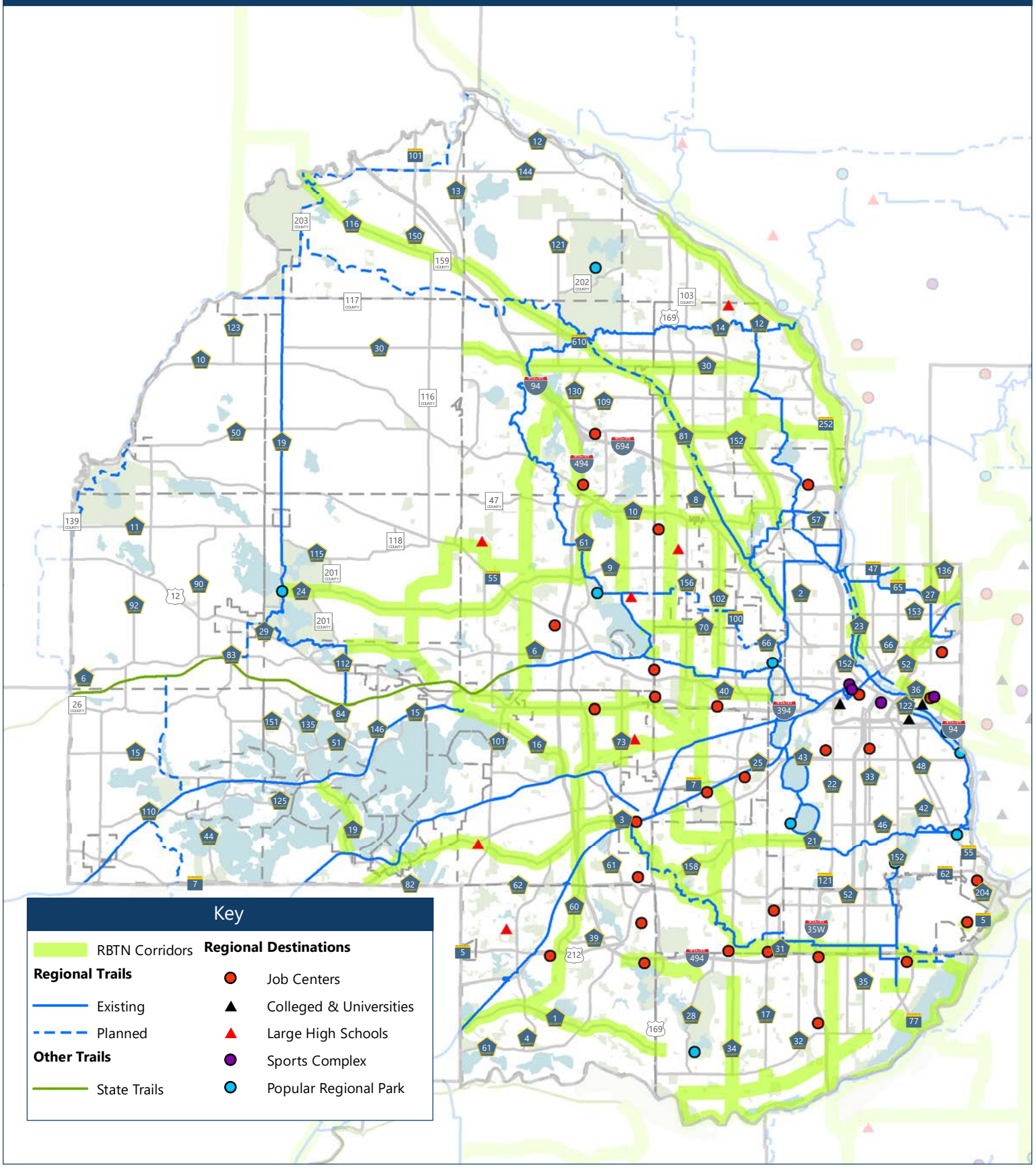
0 5 10 Miles

Publication date: 5/9/2018

Regional Bicycle Transportaion Network

Figure 4-04 | Public Works

HENNEPIN COUNTY
MINNESOTA



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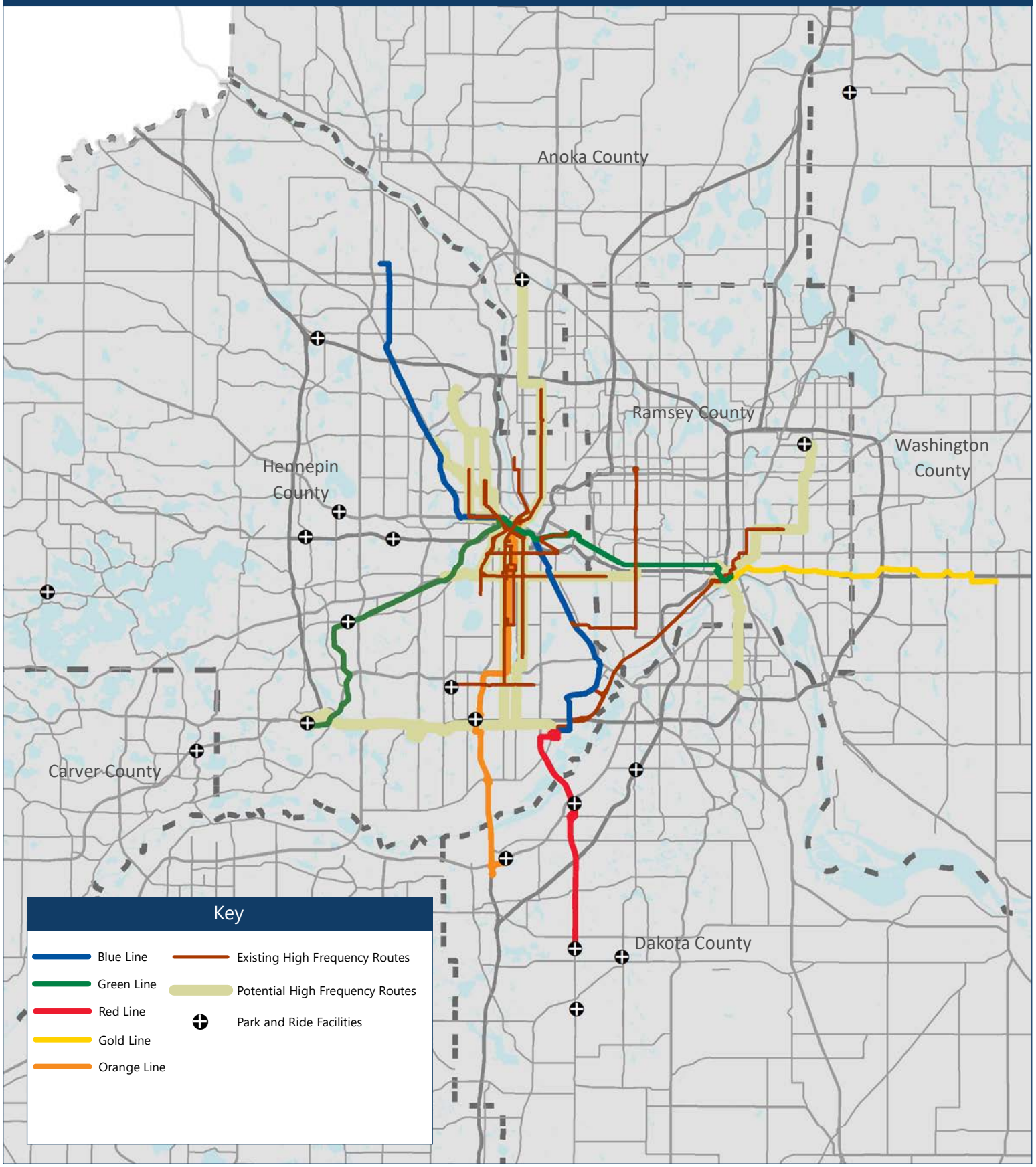
0 5 10 Miles

Publication date: 5/9/2018 Data Source: Metropolitan Council

Existing and Planned Transit Services and Facilities

Figure 4-05 | Public Works

HENNEPIN COUNTY
MINNESOTA



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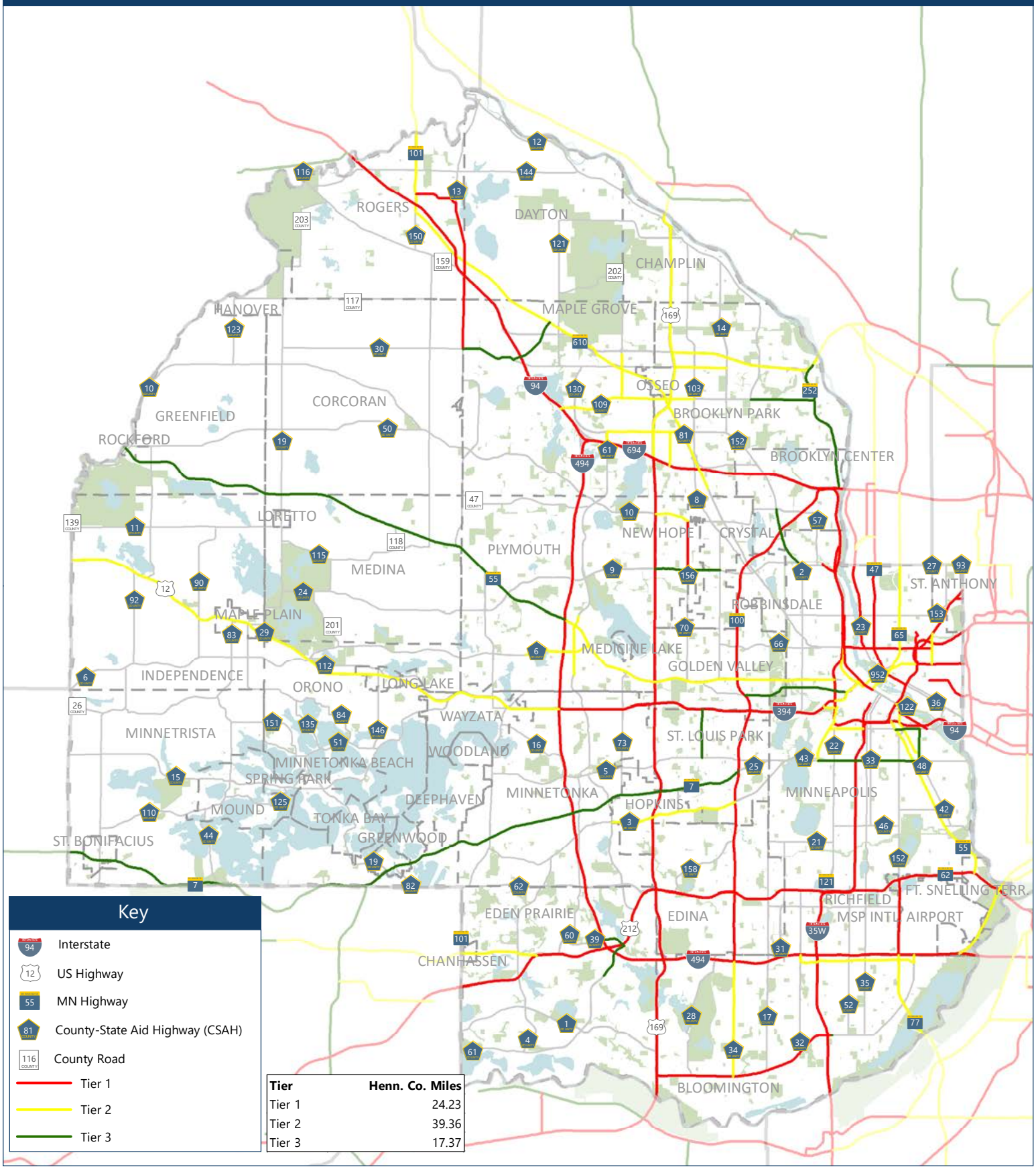
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Publication date: 5/9/2018 Data Source: Metropolitan Council

Regional Truck Corridors

Figure 4-06 | Public Works

HENNEPIN COUNTY
MINNESOTA



Key

- Interstate
- US Highway
- MN Highway
- County-State Aid Highway (CSAH)
- County Road
- Tier 1
- Tier 2
- Tier 3

Tier	Henn. Co. Miles
Tier 1	24.23
Tier 2	39.36
Tier 3	17.37

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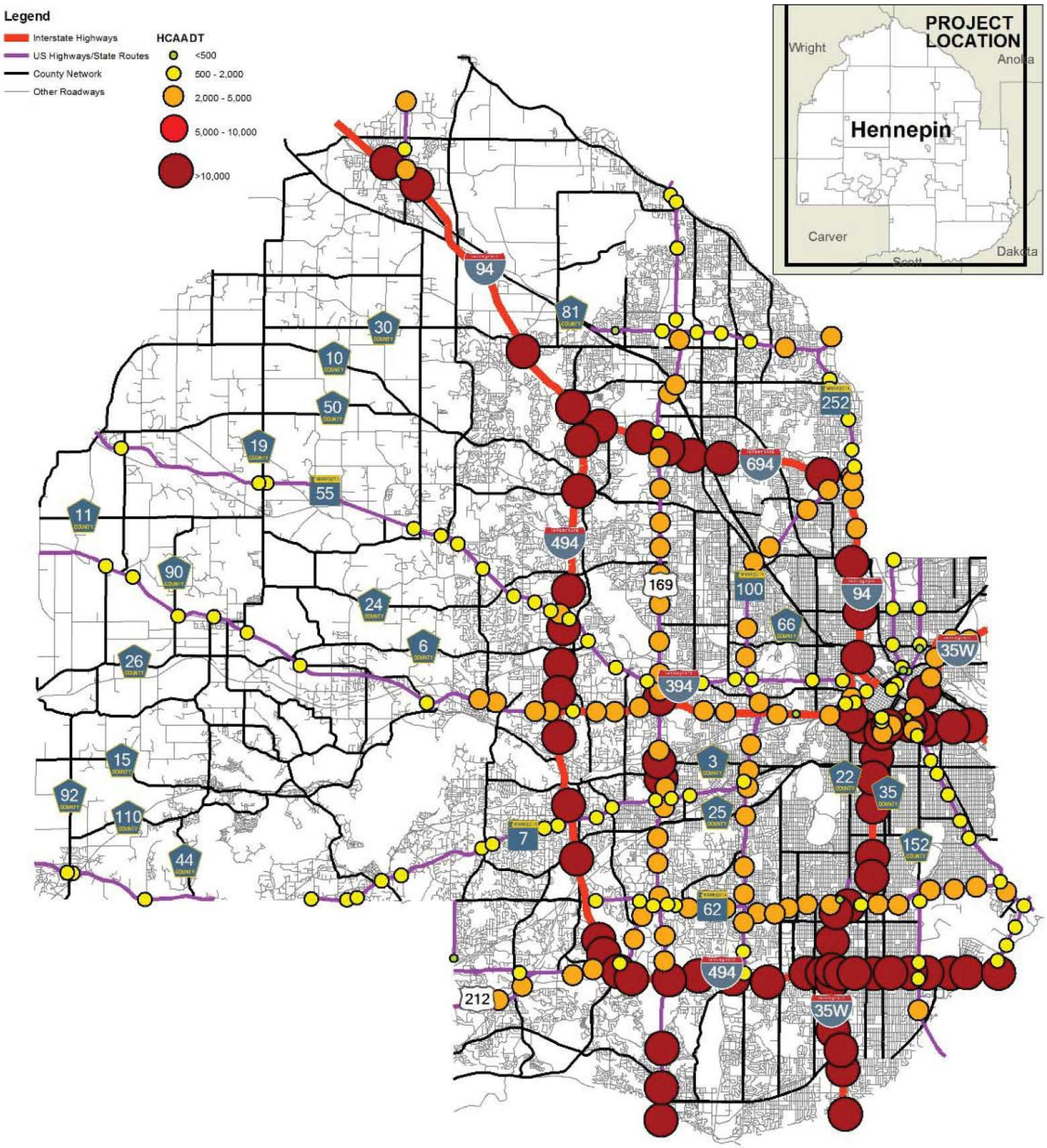
Publication date: 5/9/2018

Data sources: Metropolitan Council

Heavy Commercial Truck Volumes

Figure 4-07 | Public Works

HENNEPIN COUNTY
MINNESOTA



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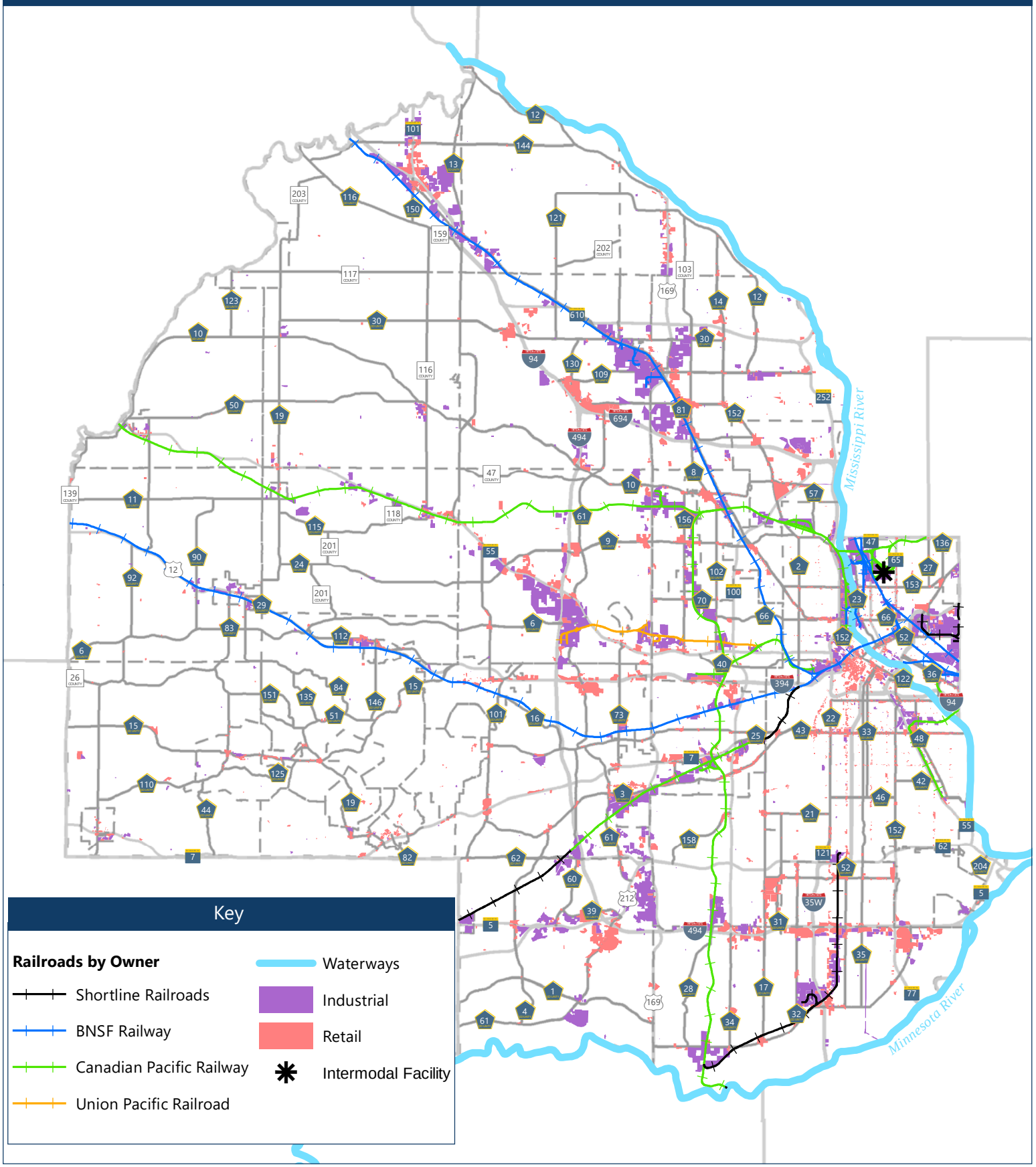
0 5 10 Miles

Publication date: 6/20/2016

Freight Facilities

Figure 4-08 | Public Works

HENNEPIN COUNTY
MINNESOTA



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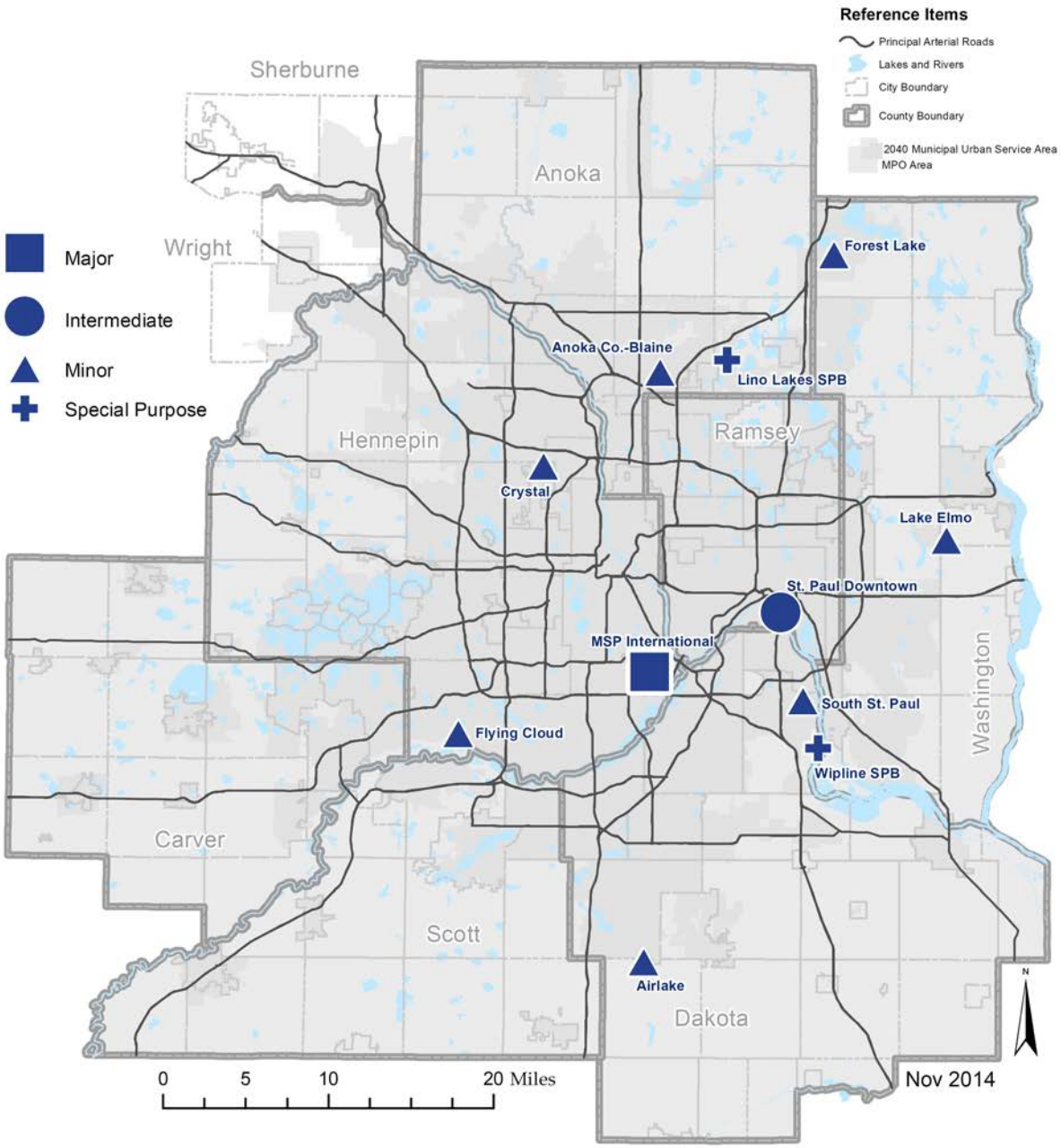
Publication date: 5/9/2018

Data Source: Hennepin Co Freight Study

Regional Aviation System

Figure 4-09 | Public Works

HENNEPIN COUNTY
MINNESOTA



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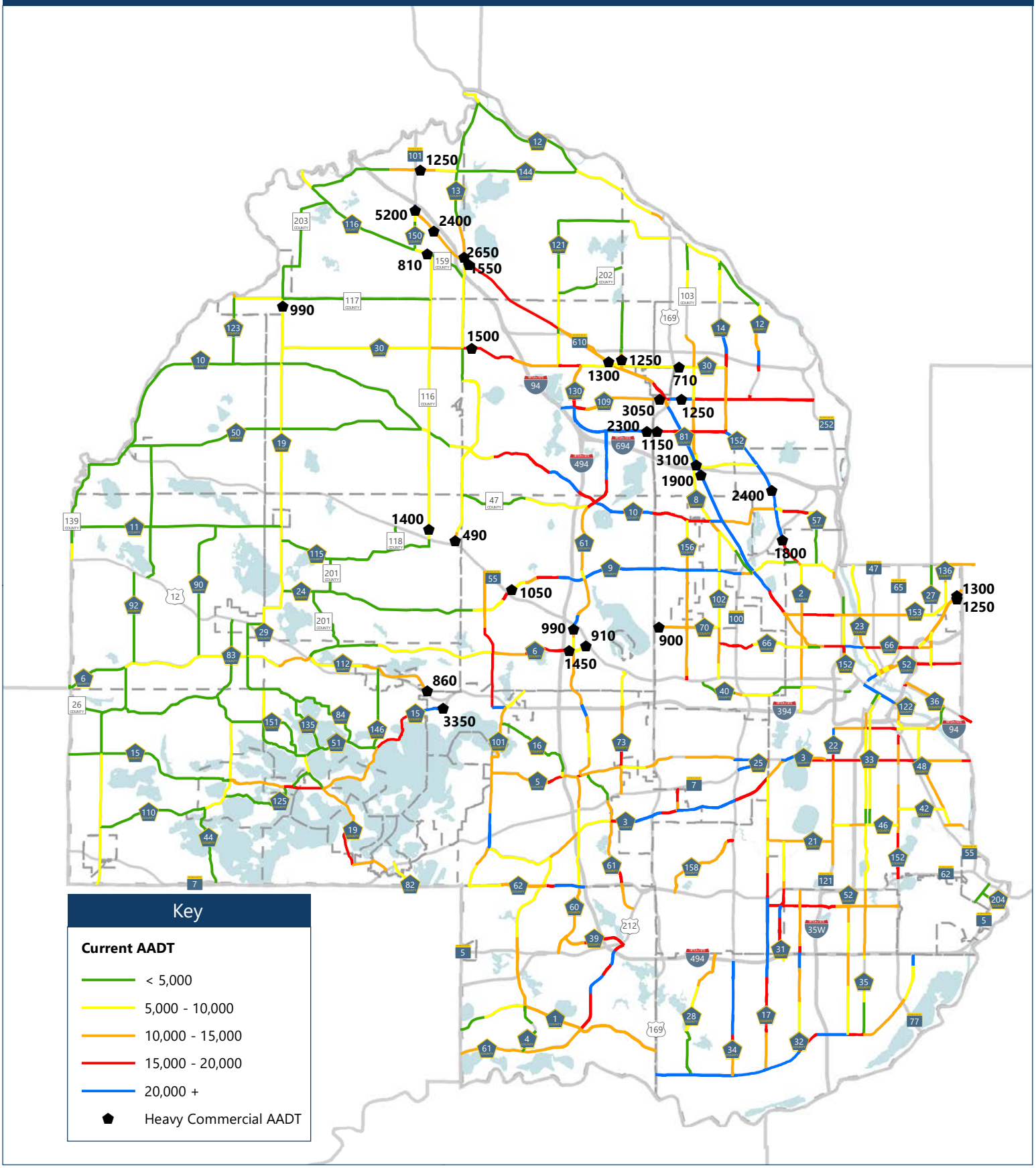
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Publication date: 5/9/2018 Data Source: Metropolitan Council

Existing & Heavy Commercial Average Annual Daily Traffic (AADT)

HENNEPIN COUNTY
MINNESOTA

Figure 4-10 | Public Works



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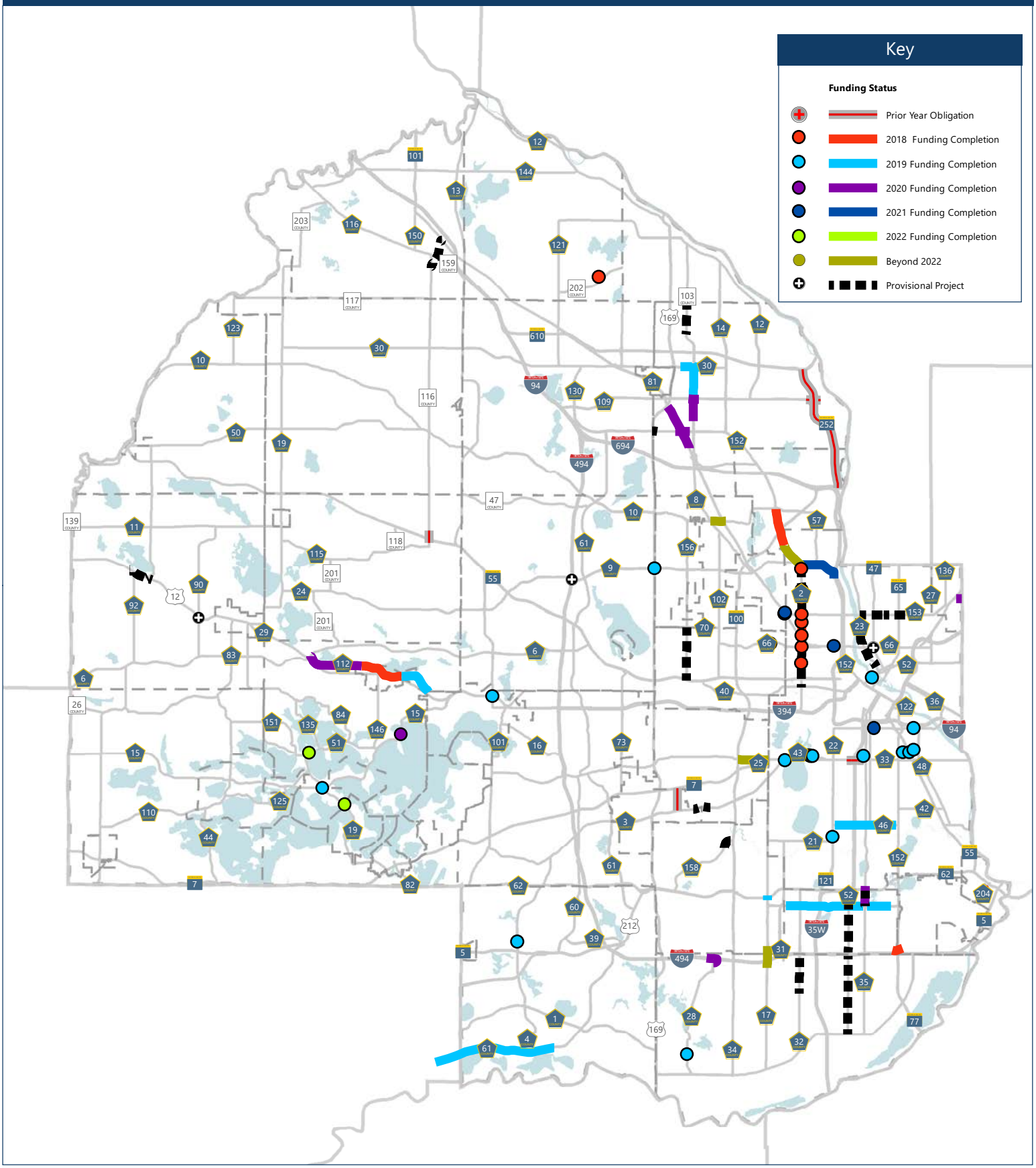
0 5 10 Miles

Publication date: 5/30/2018

2018-2022 Transportation Capital Improvement Program

Figure 4-11 | Public Works

HENNEPIN COUNTY
MINNESOTA



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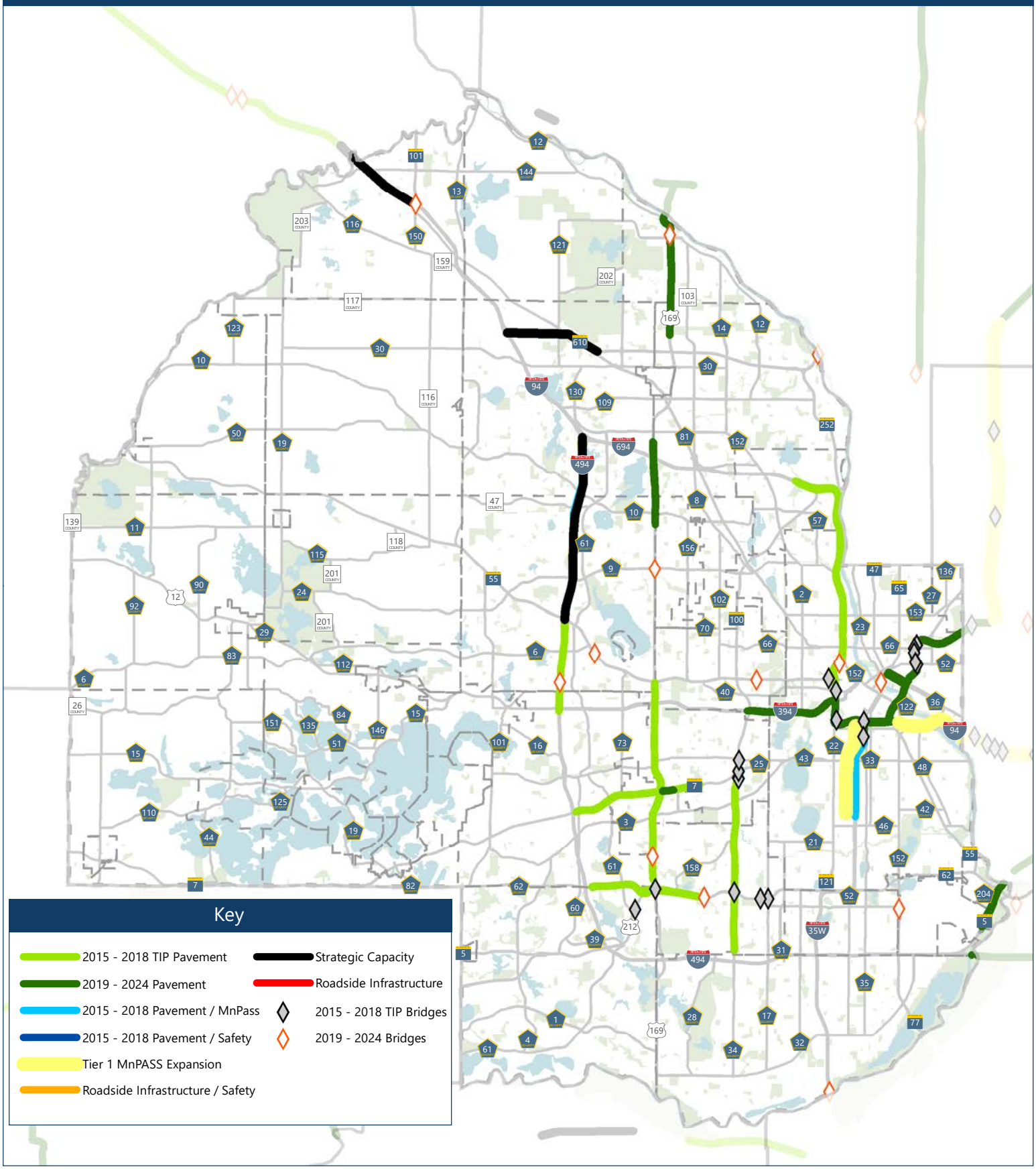
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Publication date: 5/30/2018

Highway Current Revenue Scenario

Figure 4-12 | Public Works

HENNEPIN COUNTY
MINNESOTA



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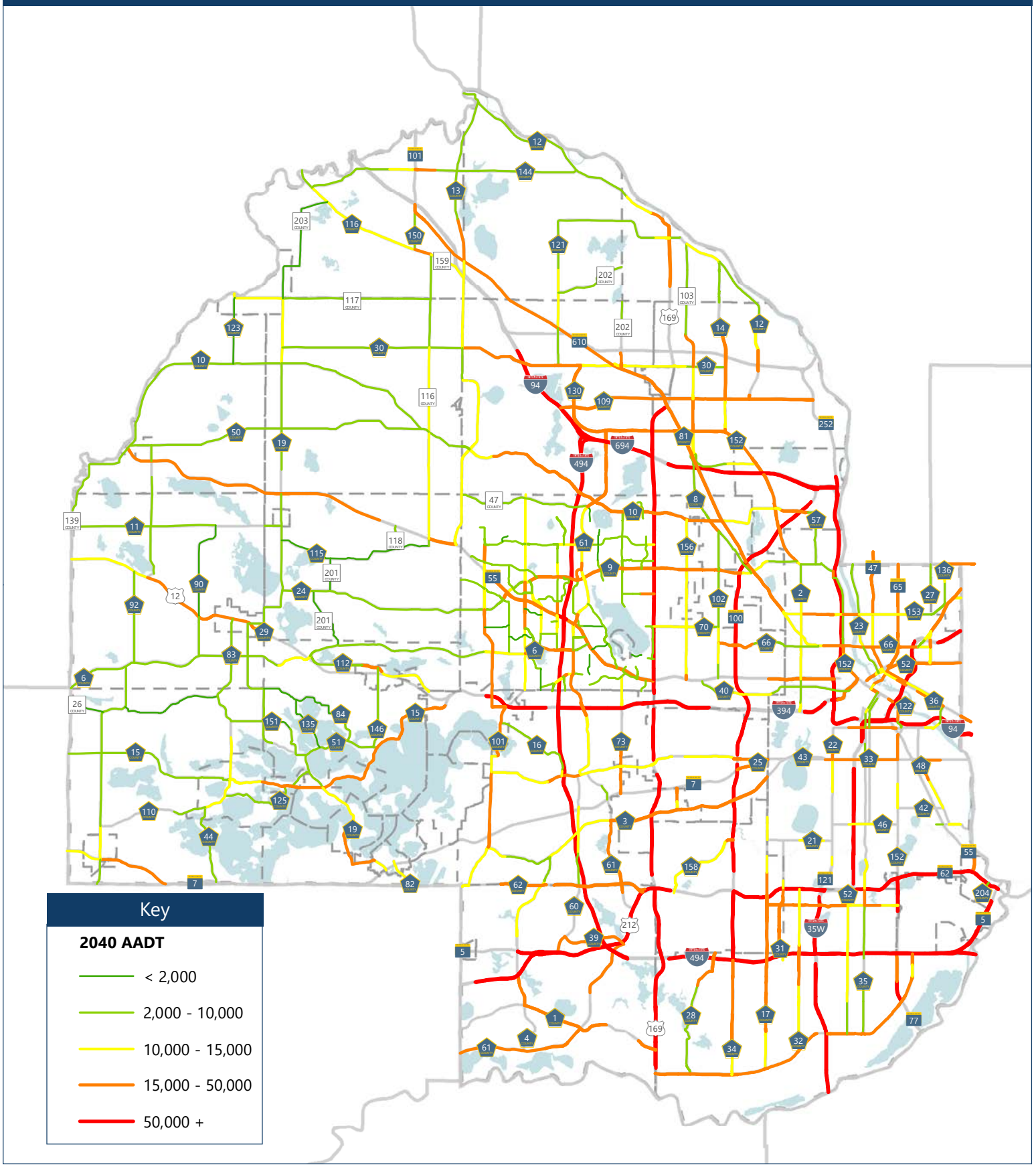
0 5 10 Miles

Publication date: 5/9/2018 Data Source: Metropolitan Council

Forecasted Year 2040 Average Annual Daily Traffic (AADT)

HENNEPIN COUNTY
MINNESOTA

Figure 4-13 | Public Works



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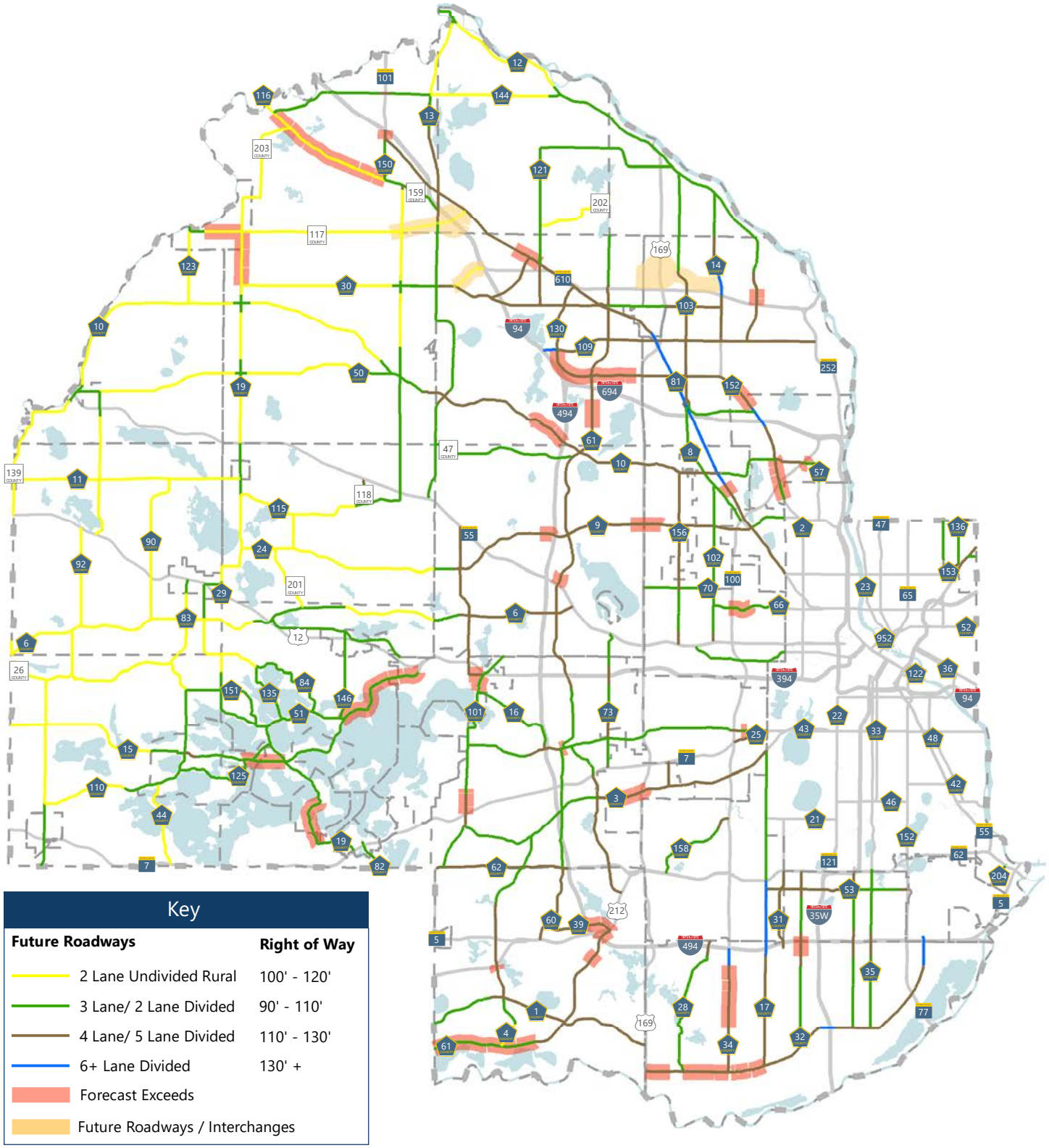
Publication date: 5/30/2018

Data Source: SRF Consulting

2040 Deficient Roadway Segments

Figure 4-14 | Public Works

HENNEPIN COUNTY
MINNESOTA



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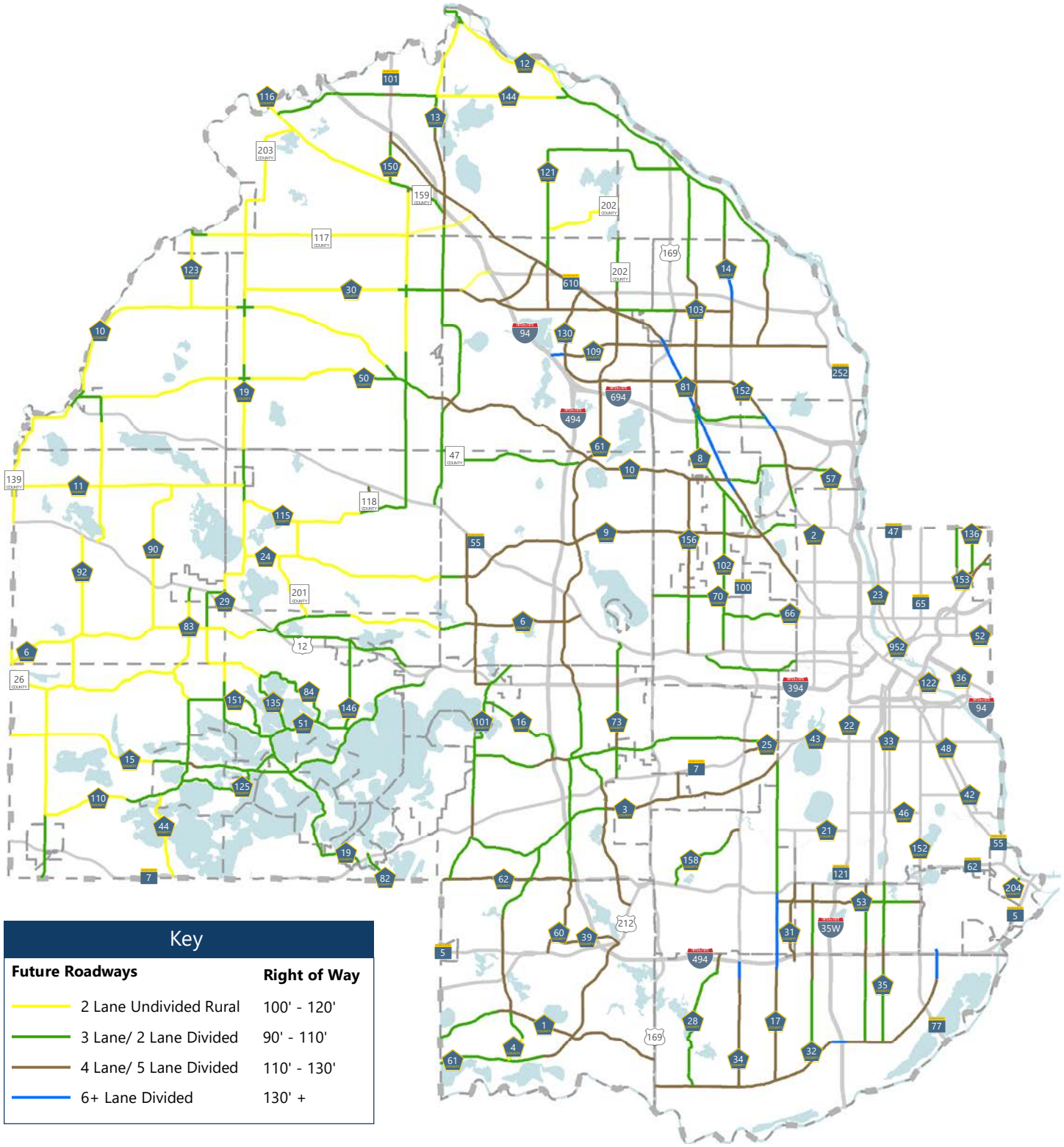
0 5 10 Miles

Publication date: 5/30/2018 Data Sources: SRF Consulting

Envisioned Roadway System and Right-of-Way Needs

Figure 4-15 | Public Works

HENNEPIN COUNTY
MINNESOTA



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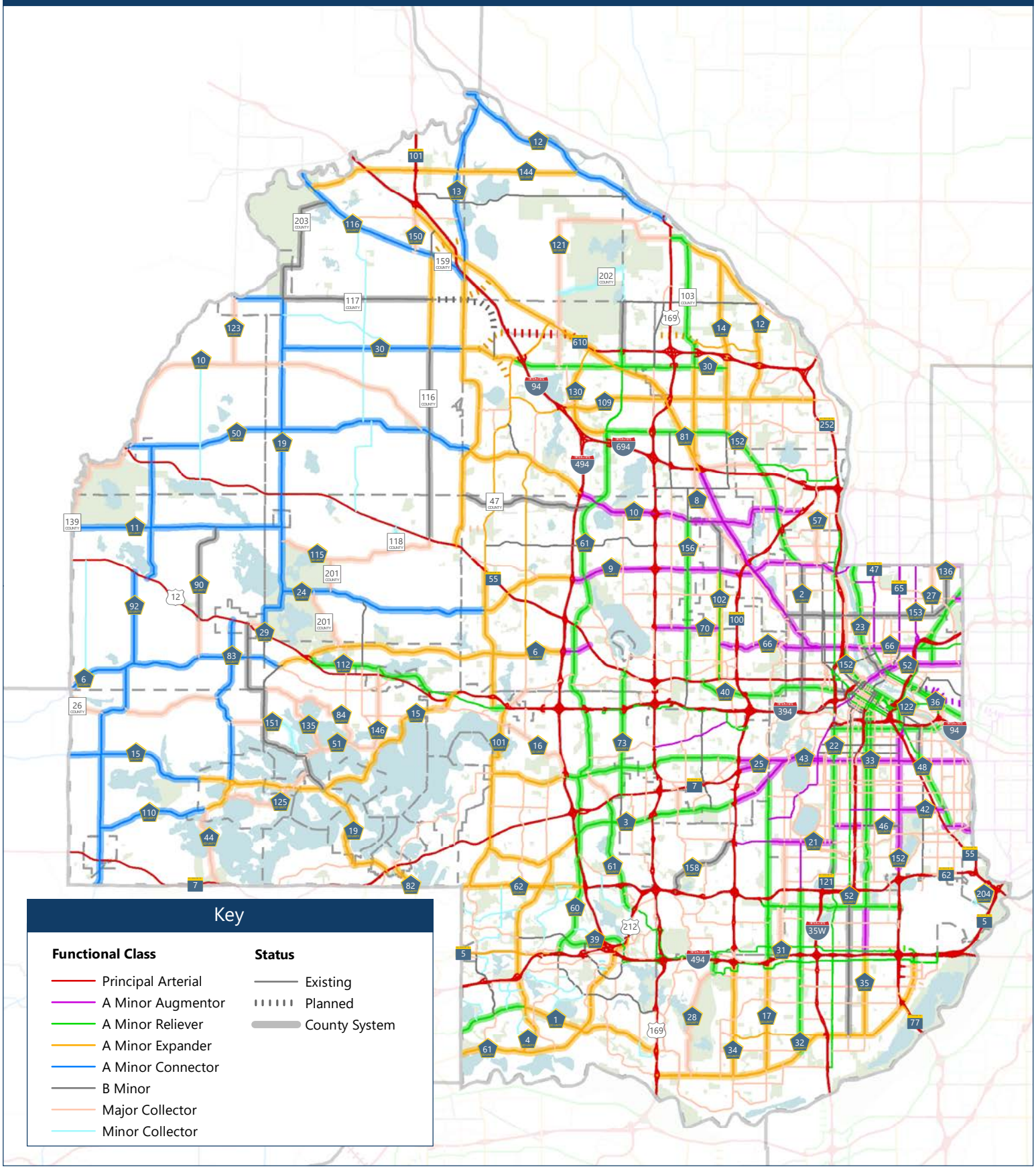
Hennepin

Publication date: 5/30/2018

Functional Classification

Figure 4-16 | Public Works

HENNEPIN COUNTY
MINNESOTA



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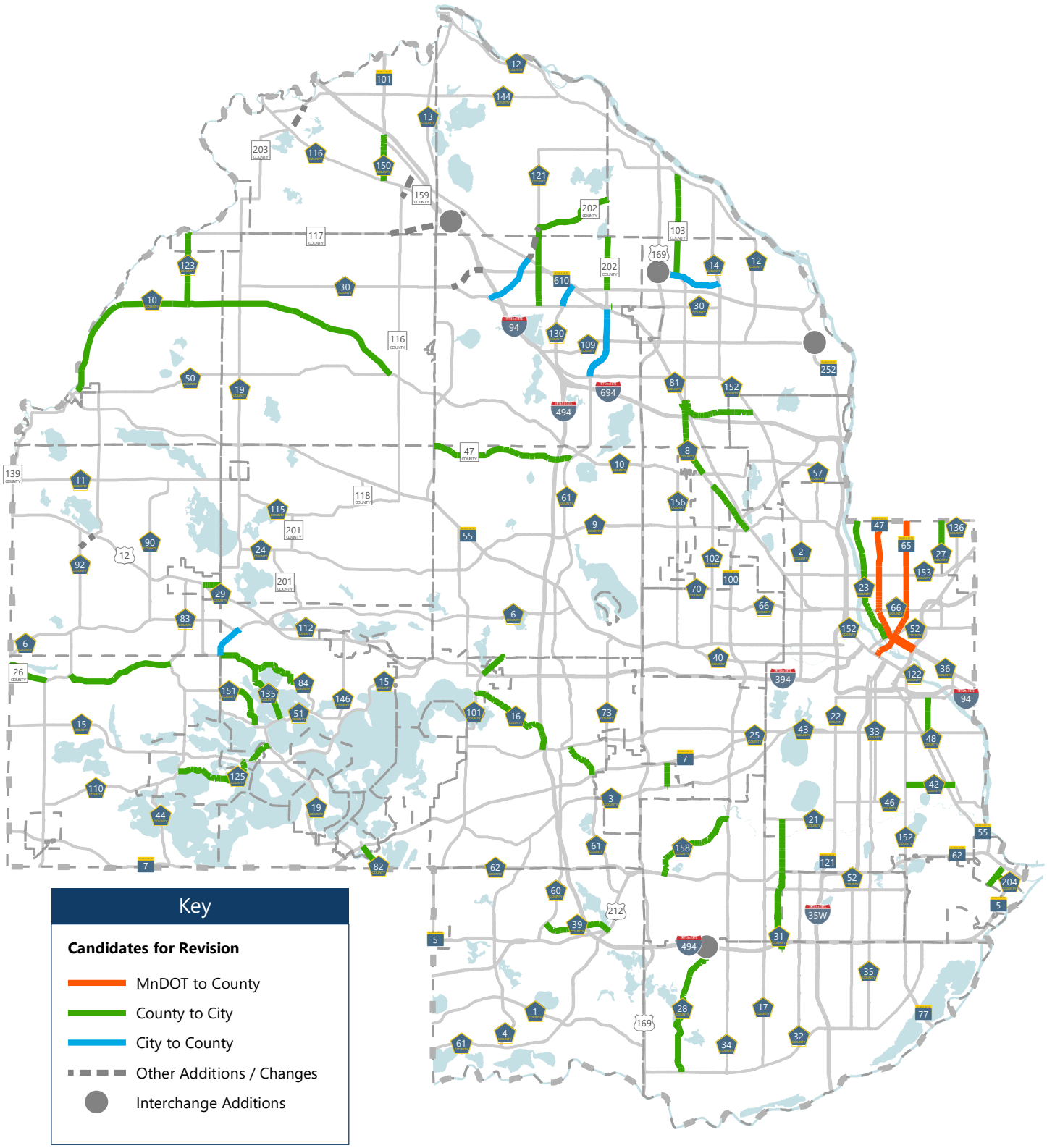
0 5 10 Miles

Publication date: 5/9/2018 Data Sources: Metropolitan Council

Jurisdiction Transfer Candidates

Figure 4-17 | Public Works

HENNEPIN COUNTY
MINNESOTA



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0 5 10 Miles

Publication date: 5/30/2018

Regional Parks and Trails

*Adopted by the Metropolitan Council in February 2015, the **2040 Parks Policy Plan** is the metropolitan system plan for regional parks with which local comprehensive plans must conform.*



Winter recreation area at Theodore Wirth Regional Park in Minneapolis

Hennepin County is graced with many beautiful parks and trails that showcase the unique landscapes of our area and provide year-round recreational opportunities. Some of the best-known and most-visited include the Minneapolis Chain of Lakes, Elm Creek Park Reserve, and Hyland Lakes Park Reserve.

- Parks and trails used for recreation positively influence our environment, health, and economy.
- Parks preserve our natural landscapes, provide animal and plant habitats, and play a vital role in community storm water infiltration.
- Parks support a healthy community by providing opportunities to connect with nature, which has proven physical and mental health benefits, for example: making it easier to be physically active regularly, reducing risk of preventable chronic disease, and strengthening family relationships and community connections by providing formal and informal gathering places.
- Parks positively influence property values and make areas more attractive for development and redevelopment.

Hennepin County's role

Hennepin County does not plan for, own, or operate the parks and trails within its borders. These are the responsibility of cities and special park districts. Some are part of the regional park system, and regional parks are supported by planning, funding, and marketing from the Metropolitan Council.

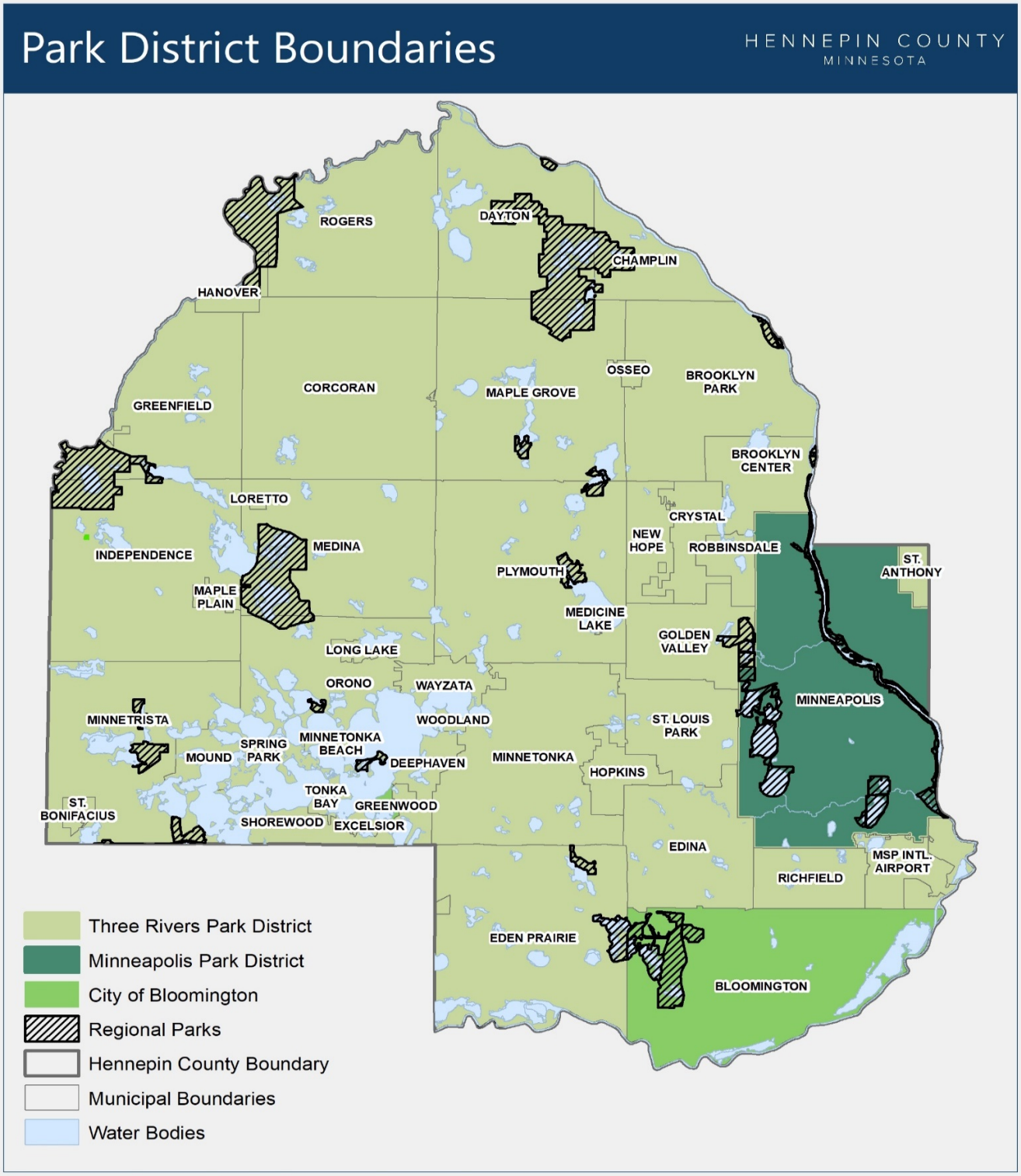
The cities or districts that operate regional parks are designated as Regional Parks Implementing Agencies. The Regional Parks Implementing Agencies in Hennepin County are Three Rivers Park District, the Minneapolis Park and Recreation Board, and the City of Bloomington. District boundaries, regional parks and regional trails are depicted on maps P-1, P-2 and P-3.

The county supports parks by making physical connections to parks with roads and trails and by providing, supporting, and funding various environmental, health, social and education programs.



NatureFest, an environmental education field day offered by Hennepin County and Three Rivers Park District

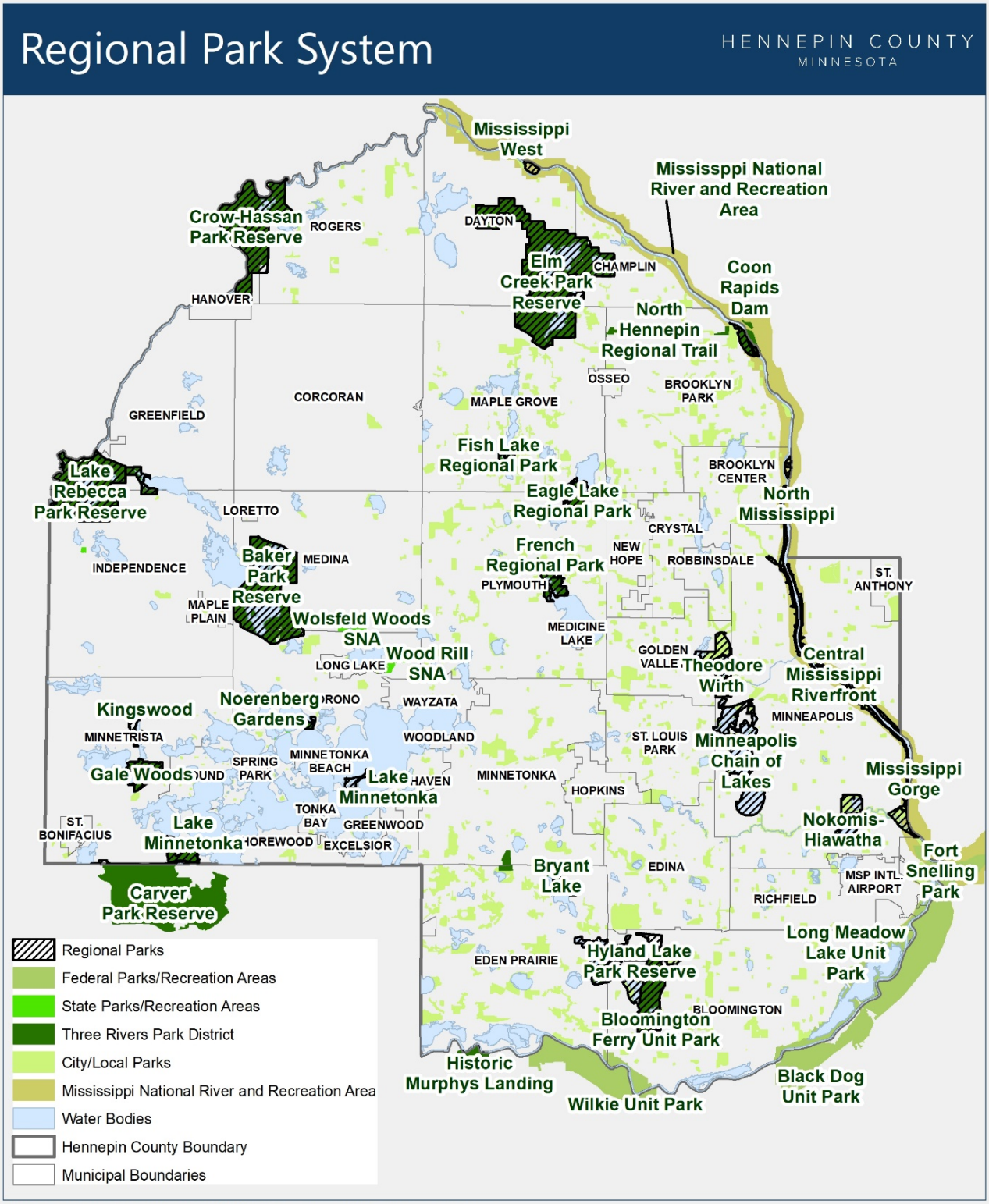
Map P-1



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Publication date: 2/14/2018
Data sources: Hennepin County, Metropolitan Council, Minnesota DNR

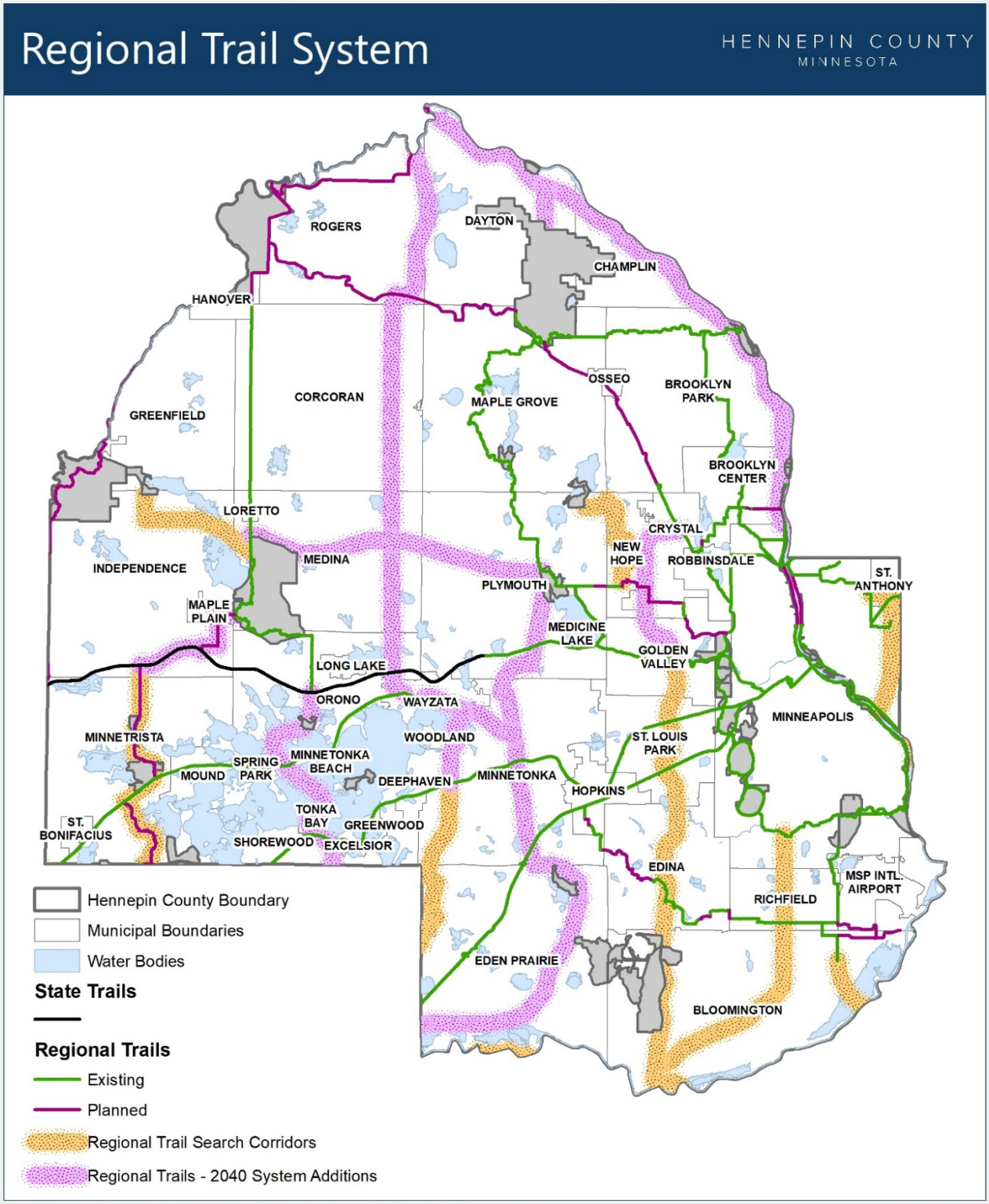
Map P-2



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Publication date: 2/6/2018
Data sources: Hennepin County, Metropolitan Council, Minnesota DNR

Map P-3



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Publication date: 1/3/2018
Data sources: Hennepin County, Metropolitan Council, Minnesota DNR

Three Rivers Park District

Three Rivers is the largest parks agency in the county, with 18,167 acres of parks and 140 miles of trails. Named after the three rivers in Hennepin County — the Mississippi, the Minnesota, and the Crow — Three Rivers Park District owns and manages 21 regional parks within the county.

Goals of Three Rivers Park District:

- Protect the region's water and natural resources
- Inspire people to recreate
- Connect people to nature
- Create vibrant places
- Collaborate across boundaries

Outdoor recreation activities in Three Rivers Park District parks and trails include camping, hiking, cross country and downhill skiing, tubing, bicycling, in-line skating, horseback riding, nature interpretation, golfing, fishing, and swimming. Three Rivers Park District also operates a natural resources management program, which administers the restoration and perpetuation of both native wildlife and plants in order to provide opportunities for a high-quality recreational experience for park visitors.

Regional parks within Three Rivers Park District:

Baker Park Reserve

Bryant Lake Regional Park

Carver Park Reserve

Clifton E. French Regional Park

Coon Rapids Dam Regional Park

Crow Hassan Park Reserve

Eagle Lake Regional Park

Elm Creek Park Reserve

Fish Lake Regional Park

Gale Woods Farm Special Recreation Feature

Hyland-Bush-Anderson Lakes Park Reserve

Kingswood Special Recreation Feature

Lake Minnetonka Islands Regional Park

Lake Minnetonka Regional Park

Lake Rebecca Park Reserve

Lake Sarah Regional Park

Murphy-Hanrehan Park Reserve

Noerenberg Gardens

North Mississippi Regional Park

Three Rivers Parks have seen tremendous growth in use over the past decade, nearly doubling the number of visits between 2006 and 2016.

Regional trails of Three Rivers Park District:

Bassett Creek Regional Trail

Cedar Lake LRT Regional Trail (Hennepin County Regional Railroad Authority corridor)

Cedar Lake Regional Trail (Hennepin County Regional Railroad Authority corridor)

Crystal Lake Regional Trail

CP Rail Extension

Dakota Rail Regional Trail (Hennepin County Regional Railroad Authority corridor)

Dakota Rail Extension

Lake Independence Extension

Lake Sarah Extension

Lake Independence Regional Trail

Lake Minnetonka LRT Regional Trail (Hennepin County Regional Railroad Authority corridor)

Luce Line Regional Trail

Minnetrista Extension

Medicine Lake Regional Trail

Minnesota River Bluffs LRT Regional Trail (Hennepin County Regional Railroad Authority corridor)

Nine Mile Creek Regional Trail

Nokomis-Minnesota River Regional Trail (or Intercity Regional Trail)

North Cedar Lake Regional Trail

Northeast Diagonal Regional Trail (Hennepin County Regional Railroad Authority corridor)

Rush Creek Regional Trail

Shingle Creek Regional Trail

Twin Lakes Regional Trail

West Mississippi River Regional Trail

In addition to the existing and planned trails of the Three Rivers Park District, there are a number of trail corridors, referred to as search corridors, that have not been master planned and/or have not been approved by the Metropolitan Council. These future regional trail

proposals need to be evaluated within the comprehensive, region-wide framework of the Regional Bicycle Transportation Network to ensure that regional facilities are not duplicated.

Because the tentative alignments of these trails have not been approved by the Metropolitan Council as part of a master plan, they are identified on the maps as regional trail search corridors and are not yet eligible for Regional Parks System funding for acquisition and development.

Search corridors identified by the Metropolitan Council within Three Rivers Park District:

- CP Rail Extension Regional Trail Search Corridor
- Crow River Regional Trail Search Corridor
- Dakota Rail Extension Regional Trail Search Corridor
- Eagle Lake – Bassett Creek Regional Trail Search Corridor
- Grand Rounds Missing Link Regional Trail Search Corridor
- Highway 101 Regional Trail Search Corridor
- Intercity Extension Regional Trail Search Corridor
- Lake Independence Extension Regional Trail Search Corridor
- Lake Sarah Extension Regional Trail Search Corridor
- Lake Sarah Regional Trail Search Corridor
- Minnetrista Extension Regional Trail Search Corridor
- Minnetrista Regional Trail Search Corridor
- North – South 1 Regional Trail Search Corridor
- North – South 2 Regional Trail Search Corridor
- South Hennepin East Regional Trail Search Corridor
- South Hennepin West (CP Rail) Regional Trail Search Corridor
- West Mississippi River Regional Trail Search Corridor

To view the Three Rivers Park District Vision Plan, July 2010
https://threerivers-drupal.s3.us-east-2.amazonaws.com/public/pdfs/Mission/Mission-Copy-2010-vision-plan.pdf.

Minneapolis Park System (Minneapolis Park and Recreation Board)

The Minneapolis Park System, governed by the Minneapolis Park and Recreation Board, spans 6,804 acres of parkland and water, and features 179 park properties. The system includes the 55-mile Grand Rounds National Scenic Byway, 102 miles of Grand Rounds biking and walking paths, 22 lakes, 12 formal gardens, seven golf courses and 49 recreation centers. Together these properties annually receive approximately 23 million visits. The 20-Year Neighborhood Park Plan provides funding through 2036 to maintain and revitalize existing parks.

Regional parks within the Minneapolis Park System include:

- Above the Falls Regional Park
- Central Mississippi Riverfront Regional Park
- Kenilworth Regional Trail
- Minneapolis Chain-of-Lakes Regional Park
- Minnehaha Regional Park
- Mississippi Gorge Regional Park
- Nokomis-Hiawatha Regional Park
- North Mississippi Regional Park (with Three Rivers Park District)
- Theodore Wirth Regional Park

Regional trails of the Minneapolis Park System include:

Kenilworth Regional Trail

Grand Rounds National Scenic Byway

- Cedar Lake Regional Trail
- Columbia Parkway Regional Trail
- Dean Parkway
- East River Parkway
- Minnehaha Parkway
- Theodore Wirth Parkway
- Victory Memorial Drive
- West River Parkway
- William Berry Parkway
- Ridgway Parkway Regional Trail
- St. Anthony Parkway

The Metropolitan Council identified the following regional trail search corridors within the Minneapolis Parks and Recreation Board District: Grand Rounds Missing Link Regional Trail Search Corridor

For more, see the Minneapolis Park and Recreation Board Comprehensive Plan, 2007-2020: https://www.minneapolisparks.org/_asset/9h52lq/comprehensive_plan.pdf.

City of Bloomington

The City of Bloomington has one park reserve that is part of the metropolitan regional parks and open space system: Hyland-Bush-Anderson (HBA) Regional Park Reserve. The 2,565 park reserve is jointly managed by the City of Bloomington and Three Rivers Park District.

In 2010, Three Rivers and the City of Bloomington adopted the *Hyland-Bush-Anderson Lakes Regional Park Reserve; Joint Master Plan*. The plan affirms the policy of retaining 80 percent of the upland area for restoration and preservation in a natural state.

To see a copy of the Hyland-Bush-Anderson Lakes Regional Park Reserve; Joint Master Plan, visit https://www.bloomingtonmn.gov/pr/hyland-bush-anderson-lakes-regional-park-reserve-master-plan.

Regional trail search corridors within Bloomington include:

Intercity Extension

South Hennepin East (CP Rail)

South Hennepin West (CP Rail)

State of Minnesota Operated Parklands and Trail

The Minnesota Department of Natural Resources (DNR) manages state parks, lands, and trails in the region, including:

Fort Snelling State Park

Luce Line State Trail

Minnesota Valley State Trail

Robina Lake Wildlife Management Area

Schendel Wildlife Management Area

Wolsfeld Woods Scientific and Natural Area

Wood-Rill Scientific and Natural Area

There are six state water trails and their attendant system of boat and canoe launches that travel through Hennepin County along the Crow, Minnesota, and Mississippi rivers. The DNR and its local unit of government partners actively manage the state water trails for canoeing, kayaking, boating, and camping. Additionally, 72 miles of the Mississippi River and four miles of the Minnesota River have been designated as the Mississippi National River and Recreation Area Water Trail, a national water trail.

National Parks and Federal Lands

Hennepin County is also home to the Minnesota Valley National Wildlife Refuge and the Mississippi National River and Recreation Area (MNRRA). The Minnesota Valley National Wildlife Refuge is a corridor of land and water along the Minnesota River that stretches from Bloomington to Henderson and is managed by the U.S. Fish and Wildlife Service. The refuge was established in 1976 to provide habitat for a large number of migratory waterfowl, fish, and other wildlife species threatened by commercial and industrial development, and to provide environmental education, wildlife recreational opportunities, and interpretive programming for Twin Cities residents.

The 54,000-acre Mississippi National River and Recreation Area was established in 1988 and is a unit of the National Park Service. The National Park Service owns very little land within its borders but partners with local governments, state agencies, and organizations to protect the significant resources along the 72-mile stretch of river running through the region. Several regional parks and trails, which are owned and operated by regional park implementing agencies, are located within the MNRRA corridor. (Source: Metropolitan Council Park Plan).

Water Resources

Adopted by the Metropolitan Council in May 2015, the 2040 Water Resources Policy Plan is the metropolitan system plan for metropolitan wastewater services with which local comprehensive plans must conform.

The 2040 Water Resources Policy Plan includes policies and strategies to achieve the following goal: To protect, conserve, and utilize the region's groundwater and surface water in ways that protect public health, support economic growth and development, maintain habitat and ecosystem health, and provide for recreational opportunities, which are essential to our region's quality of life.

Wastewater

Hennepin County's role

Hennepin County provides a septic permitting, inspection, and enforcement program to protect ground and surface waters, provide consistent regulation across city boundaries, and prevent waterborne illness. Hennepin County Ordinance 19 adopts Minnesota Rules Chapter 7080, which governs individual sewage treatment systems (less than 10,000 gallons/day) and describes the authority of the types of septic systems the county regulates. The ordinance was last amended in 2014 to reflect the changes in Minnesota Rules Chapters 7080-7084.

The county's subsurface sewage treatment system (SSTS) program is administered by the Public Health department, Environmental Health division.

Hennepin County has no land use authority and thus partners with cities to incorporate Hennepin County's septic system permitting process into their planning and zoning approval processes. Septic systems regulated by cities and Hennepin County are depicted on map W-1.

The county has the following responsibilities in administering its SSTS program:

- Review all applications for SSTS.
- Issue all required permits.
- Conduct construction inspections and perform all necessary tests to determine conformance with the ordinance.
- Investigate complaints regarding SSTS.
- Perform compliance inspections and issue certificates of compliance or notices of noncompliance where appropriate.
- Issue stop work orders and notices of violation.
- Take complaints to the municipal or county attorney for violations of this ordinance.
- Maintain all records for SSTS.
- Maintain and update data including the location of all known septic system sites in the Hennepin County jurisdiction. All known documentation related to each septic system will be available through the county's natural resources interactive map as attached PDF documents that include designs, inspections, documented issues/problems, etc.
- Submit annual reports to the Minnesota Pollution Control Agency (MPCA) to demonstrate enforcement of the ordinance.



Crystal Lake near Robbinsdale

Ordinance 19

Summary of Ordinance 19 adopting Minnesota Rules, Chapter 7080:

- There is no requirement for inspection of the septic system for property transfer in Hennepin County's ordinance. State law requires that information regarding the septic system must be properly disclosed to the buyer. A well-informed buyer will want a thorough inspection, and many lending agencies require a compliance inspection on the existing system before providing a mortgage.
- Hennepin County inspects new septic systems and repairs existing septic systems that are the subject of a complaint investigation. Hennepin County does not perform compliance inspections for existing septic systems. There are many inspectors licensed by the MPCA. A list of licensed inspectors is available on the MPCA website.
- The following building permits are subject to septic permit approval or compliance inspection: all building permits for new commercial or new residential structures, any permits for bedroom(s) additions, any additions/remodeling of commercial facilities where water usage will be increased, any permits within designated shoreland areas, and any permits within designated wellhead protection areas.
- Existing systems built before January 23, 1996, are considered in compliance if two feet of soil separation is provided and it is not classified as an imminent health threat* (excludes shoreland areas; food, beverage, lodging facilities; wellhead protection areas; and new construction).
- Certificates of compliance for existing systems remain valid for three years unless identified as an imminent health threat.*
- Certificates of compliance for new systems remain valid for five years unless identified as an imminent health threat.*
- Systems receiving a notice of noncompliance, that are not an imminent health threat* have a three-year upgrade requirement.
- There is a general setback of 50 feet to a wetland.
- Warrantied systems (MN Statutes Chapter 115.55) are prohibited.

* Imminent health threat means that sewage is surfacing on the ground, backing up into the home, or discharging to surface or groundwater.

Map W-1: Septc systems regulated by cities and Hennepin County

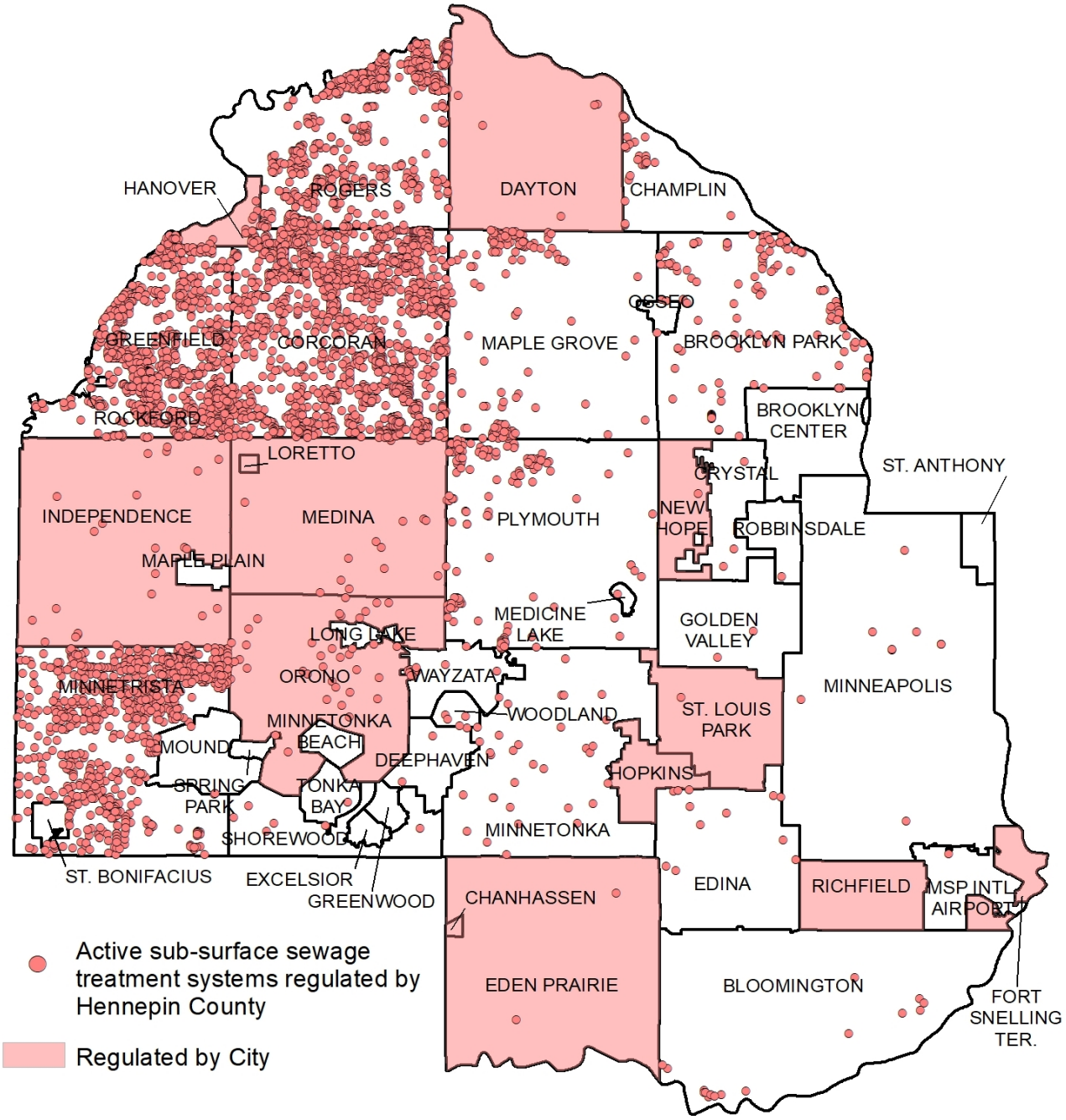


Figure W-1: MPCA Confirmation of Ordinance Amendment Completion Letter



Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300
800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us | Equal Opportunity Employer

May 28, 2014

Hennepin County
Human Services/Public Health Dept
Duane Hudson
1011 First Ave So, Ste. 215
Hopkins, MN 55343

RE: Confirmation of Ordinance Amendment Completion

Dear Mr. Hudson:

This letter acknowledges the completion of the Subsurface Sewage Treatment System (SSTS) ordinance amendment requirement by Hennepin County. The Minnesota Pollution Control Agency (MPCA) appreciates the work that Hennepin County put into meeting this requirement, and your county's continued administration of an effective SSTS program. A copy of this signed letter will be loaded into BWSR's eLINK system as a record of this work having been completed.

In the future, MPCA staff will continue be on hand if you have questions or concerns and to provide assistance when needed in administration of your SSTS program. Please do not hesitate to contact any MPCA staff in this regard.

Sincerely,

Gretchen Sabel
SSTS Coordinator
SSTS Section
Municipal Division

GS:wgp

Surface Water

Hennepin County's water resources, which include lakes, streams, groundwater, and wetlands, are an important component to our quality of life and the overall health of our environment. Hennepin County has 200 lakes, 640 miles of streams, and more than 45,000 acres of wetlands.

Protecting our water resources is not only important to human health, it is also vital to preserving wildlife habitat and providing economic and recreational value. Many water pollutants come from human activities on the land. During the last few decades, state and federal regulations have limited point source discharges of waste water and sewage pipes into our waterways. Today the majority of our water pollution comes from nonpoint sources, which includes runoff from yards, roads, farms, and farm tiles.



Prairie near Hennepin County Public Works Facility in Medina

As more county land is developed, there is an increase in impervious surfaces (see map W-2) and a reduction in vegetated surfaces that capture runoff and filter water. When it rains or snows, much of the stormwater that falls on these hard surfaces runs off instead of soaking into the soil. As it travels, stormwater picks up pollutants like sediments, fertilizers, grass clippings, pet droppings, oil, and pesticides and delivers them directly into storm sewers. Eventually, some of this water ends up in lakes, streams, or rivers without filtration or treatment (see map W-3 to visualize water flow throughout Hennepin County).

All water in Hennepin County flows to the Crow River, Mississippi River, or Minnesota River and contributes to the water quantity and quality. By properly managing yards, roads, and farms, all residents play an important role in preventing pollution of water resources.

Emerging issues

Hennepin County's water resources are a critical and valuable asset to all residents. To sustain and improve them for years to come, it is necessary to understand the future issues that may arise and threaten lakes, rivers, wetlands, and underground infrastructure.

The impacts of climate change will put more stress on natural resources. Temperature and moisture patterns will change faster than plant and animal communities can adapt, resulting in changes to ecosystems, habitat loss, and spread of invasive species. Climate change can stress plants and animals, making them more vulnerable to disease and less competitive with invasive species. Additionally, an increased frequency of both flooding and droughts will put additional pressure on our stormwater management infrastructure and groundwater resources.

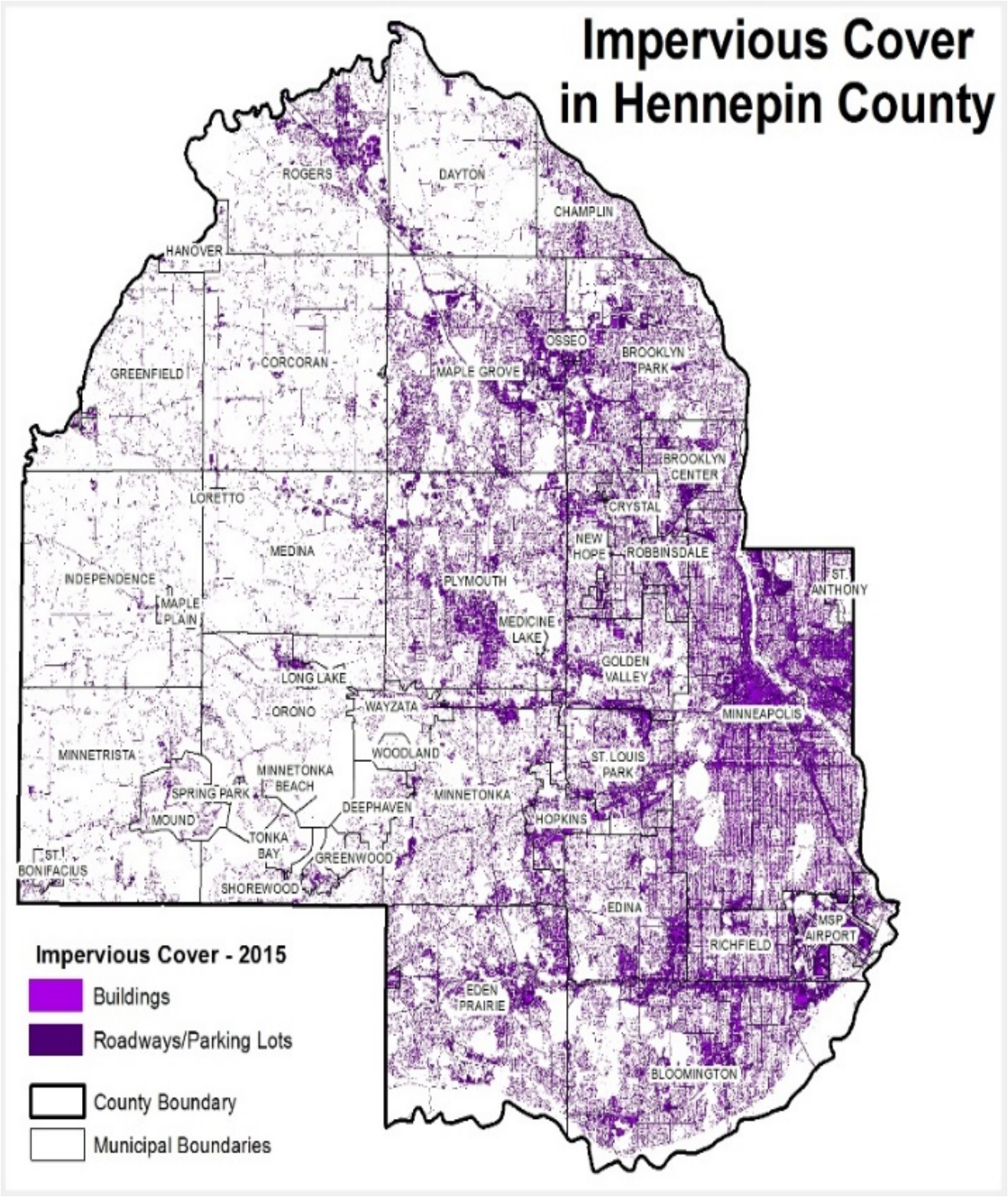
Land use is projected to shift in the county through 2030 with more land being developed and less land being open space or agricultural.

Development is accompanied by additional stormwater infrastructure that often speeds water off the landscape, through systems of pipes, and to nearby water bodies much more quickly than water would move naturally through lakes, rivers, and streams. The increased rate at which water reaches streams and rivers contributes to bank and stream channel erosion, a significant water quality concern for Hennepin County and downstream communities.

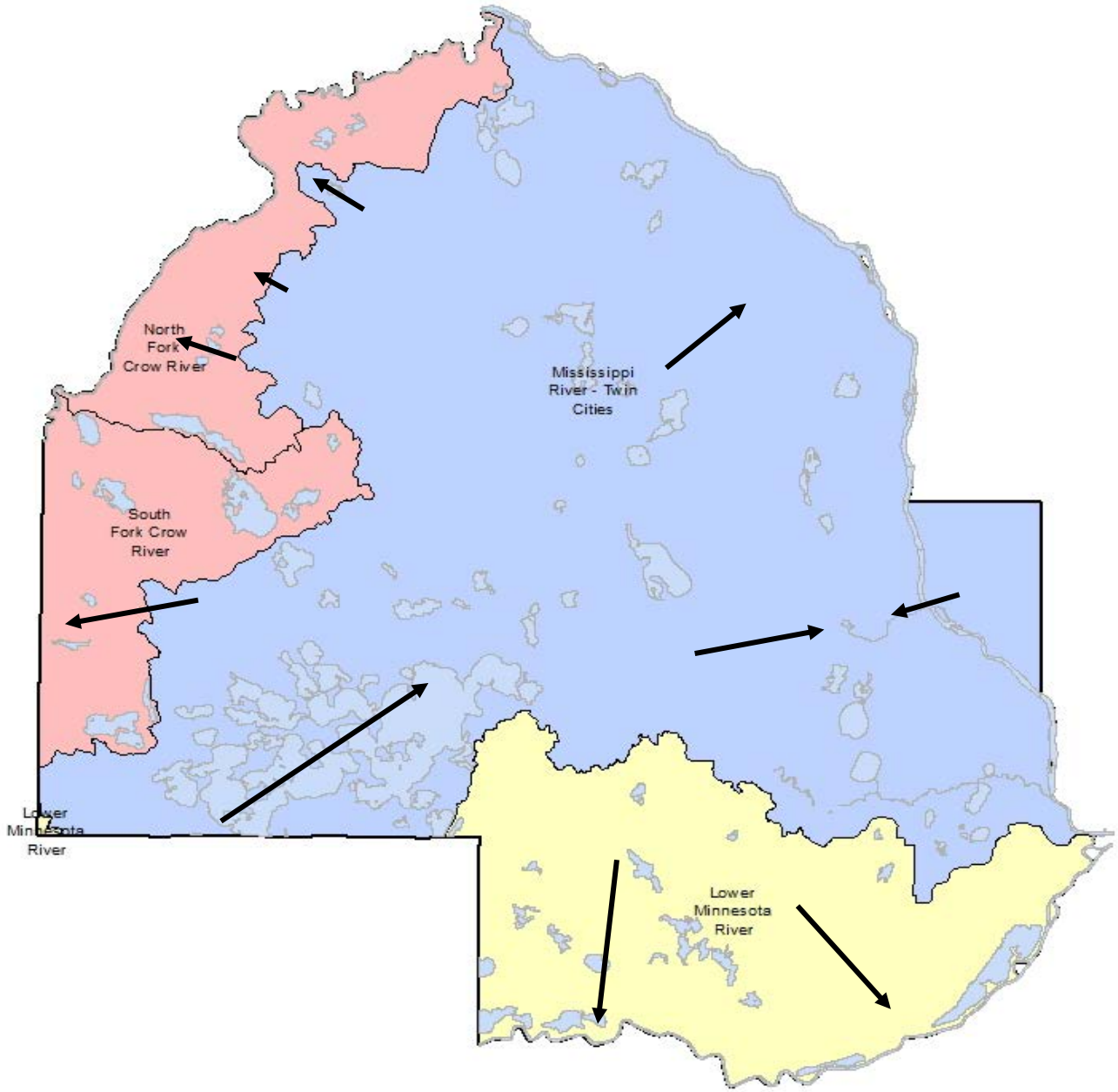
Identifying strategies for both mitigating and communicating about this emerging water quality concern — one that is not a pollutant but a human-made alteration in hydrology — is one of the most challenging issues facing water resource managers today

Map W-2: Impervious surfaces throughout Hennepin County in 2015

(Data used is 1-meter resolution land cover classification provided by the Remote Sensing and Geospatial Analysis Laboratory at the University of Minnesota.)



Map W-3: Watersheds for the Crow, Mississippi, and Minnesota Rivers, and direction of water flow in Hennepin County



Involvement from others

Many entities are involved with water resources, including the county's 45 municipalities, 11 watershed management entities, and two park districts. Additionally, state-level governance regulates water quality throughout Hennepin County. The Minnesota Board of Water and Soil Resources (BWSR) is responsible for working with partners to improve and protect local water quality. The Minnesota Pollution Control Agency (MPCA) helps protect water resources by monitoring water quality, setting standards, and controlling what may go into water.

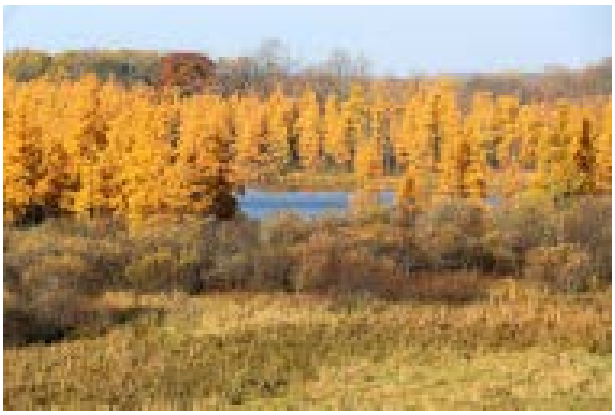
At the federal level, the Clean Water Act requires each state to adopt water quality standards to protect waters from pollution. Many partners and stakeholders create a complex structure for the management and regulation of water throughout Hennepin County.

Hennepin County's role

In 2016, Hennepin County adopted a Natural Resource Strategic Plan. This plan is intended to guide the county and its partners in responding to natural resource issues and developing internal and external policies, programs, and partnerships that improve, protect, and preserve natural resources.

Internally, Hennepin County promotes the implementation of low-impact development and green infrastructure for newly developed and redeveloped properties, agricultural best practices, wetland restorations, and innovative stormwater management practices where applicable. The county will also continue to research and implement state-of-the-art methods of applying chloride to reduce water pollution while maintaining safe roads. These practices will help the county adapt to changing future conditions, reduce impacts from stormwater runoff and work toward the remediation of impaired waters.

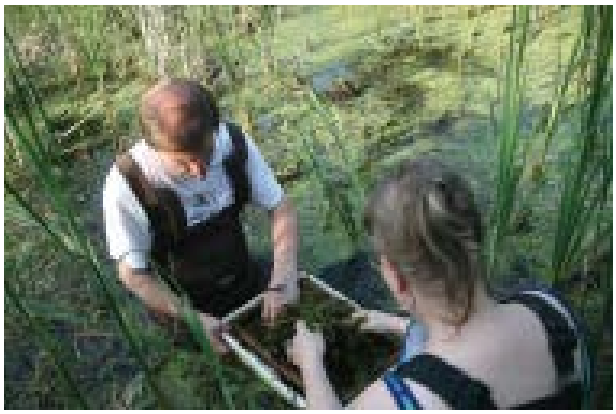
Additionally, as the only county in the state with the duties and authorities of a soil and water conservation district, Hennepin County takes the lead in delivering critical assistance in soil and water conservation to land managers. As the conservation district, the county is a member of the Technical Evaluation Panel for administering the Wetland Conservation Act, oversees stewardship of 40 conservation easements, distributes conservation cost-share funds to private landowners, and provides assistance to landowners seeking to comply with the state's buffer law.



Hennepin County and the Minnesota Land Trust established a 44-acre conservation easement at Camp Kingswood in Minnetrista in 2011.

Hennepin County provides technical assistance to watershed organizations and serves on technical advisory committees for the Minnesota Pollution Control Agency's Watershed Restoration and Protection Strategies (WRAPS) and for total maximum daily load (TMDL) studies for impaired waters.

Hennepin County also manages volunteer wetland and stream monitoring programs dedicated to obtaining quality data and promoting wetland and stream stewardship. The county provides financial and technical assistance to landowners and local governments to implement best management practices that preserve and restore critical habitats, reduce erosion, and protect and improve water quality.



Citizen scientist volunteers with the Hennepin County Wetland Health Evaluation Program gather data to assess the health of the county's wetlands.

Perhaps most critically, Hennepin County partners with watershed districts and joint-powers watershed management organizations to add value to their activities by convening groups around issues that span watershed boundaries and to lead by example through careful and considerate stewardship of natural resources in all county activities.

In Hennepin County, watersheds are managed by either a watershed management organization or a watershed district. Both are separate units of government governed by a board of commissioners. Watershed district board members are appointed by the Hennepin County Board, while watershed management organization board members are appointed by city councils.

The watershed management organizations in Hennepin County are:

- Bassett Creek Watershed Management Commission
- Elm Creek Watershed Management Commission
- Lower Minnesota River Watershed District
- Minnehaha Creek Watershed District
- Mississippi Watershed Management Organization
- Nine Mile Creek Watershed District
- Pioneer-Sarah Creek Watershed Management Commission
- Richfield-Bloomington Watershed Management Organization
- Riley Purgatory Bluff Creek Watershed District
- Shingle Creek Watershed Management Commission
- West Mississippi River Watershed Management Commission

Impaired waters

Water quality in lakes is affected by the amount of pollutants entering the lake, lake size, and depth. Similarly, river and stream water quality is affected by the amount of pollutants and the rate and volume of flow through the channel. The amount of pollutants depends on the size of the watershed, the types of land use occurring in the watershed, and annual precipitation. Common pollutants are plant nutrients and fertilizer, which contain phosphorus and nitrogen; sediment; road salt; oil; and heavy metals. Other pollutants of special concern are persistent bioaccumulative toxics (PBTs), which are highly toxic, long-lasting substances that can build up in the food chain to levels that are harmful to humans and wildlife. These toxics are released through the production of energy; motor vehicle use and other air emissions; or when products like electronics, pesticides, and other consumer and industrial products are disposed of improperly.

The primary tool for addressing impaired waters is a pollution reduction plan called a total maximum daily load (TMDL). A TMDL is the maximum amount of a pollutant that a water body can receive without violating water quality standards. The TMDL process identifies all sources of the pollutant and determines how much each source must reduce its contribution in order to meet the quality standard. Using this information, a pollution reduction plan is developed. Once the U.S. Environmental Protection Agency (EPA) approves a completed TMDL plan, the city or watershed management organization implements the plan (see table W-1 for a list of completed TMDL plans in Hennepin County). The MPCA has oversight of this process.

Every two years, the Minnesota Pollution Control Agency creates a list of impaired waters (see map W-4) that do not meet water quality standards. According to the federal Clean Water Act, water quality standards consist of the following categories:

- Beneficial uses: Identify how people, aquatic communities, and wildlife use our waters
- Numeric standards: Amounts of specific pollutants allowed in a body of water while maintaining beneficial uses
- Narrative standards: Statements of unacceptable conditions in and on the water
- Antidegradation protections: Extra protection for high-quality or unique waters and existing uses

In 2018, two lakes in Hennepin County are currently slated to be removed from the Impaired Waters List — Bryant Lake and Mitchell Lake. Both were on the list for nutrient impairments, but restoration activities have improved water quality to the point that they are consistently meeting water quality standards for their size and depth. In addition, Lake Rebecca (listed for nutrient impairments) is also being considered for delisting in 2018, but the data was not compiled in time for the initial review.

Since 2010, nine other lakes and streams have been delisted in Hennepin County, which is an important indicator that conservation work based on TMDLs is having a measurable positive impact on water quality.

TMDLs in Hennepin County

Hennepin County staff serve on technical advisory committees that develop total maximum daily load (TMDL) plans for impaired waters. Currently, there are 21 approved TMDLs in Hennepin County (16 entirely within the county, one statewide, one metrowide, and five in basins that are shared with other counties).

Map W-4: 2018 proposed impaired waters

(Data from Minnesota Pollution Control Agency)

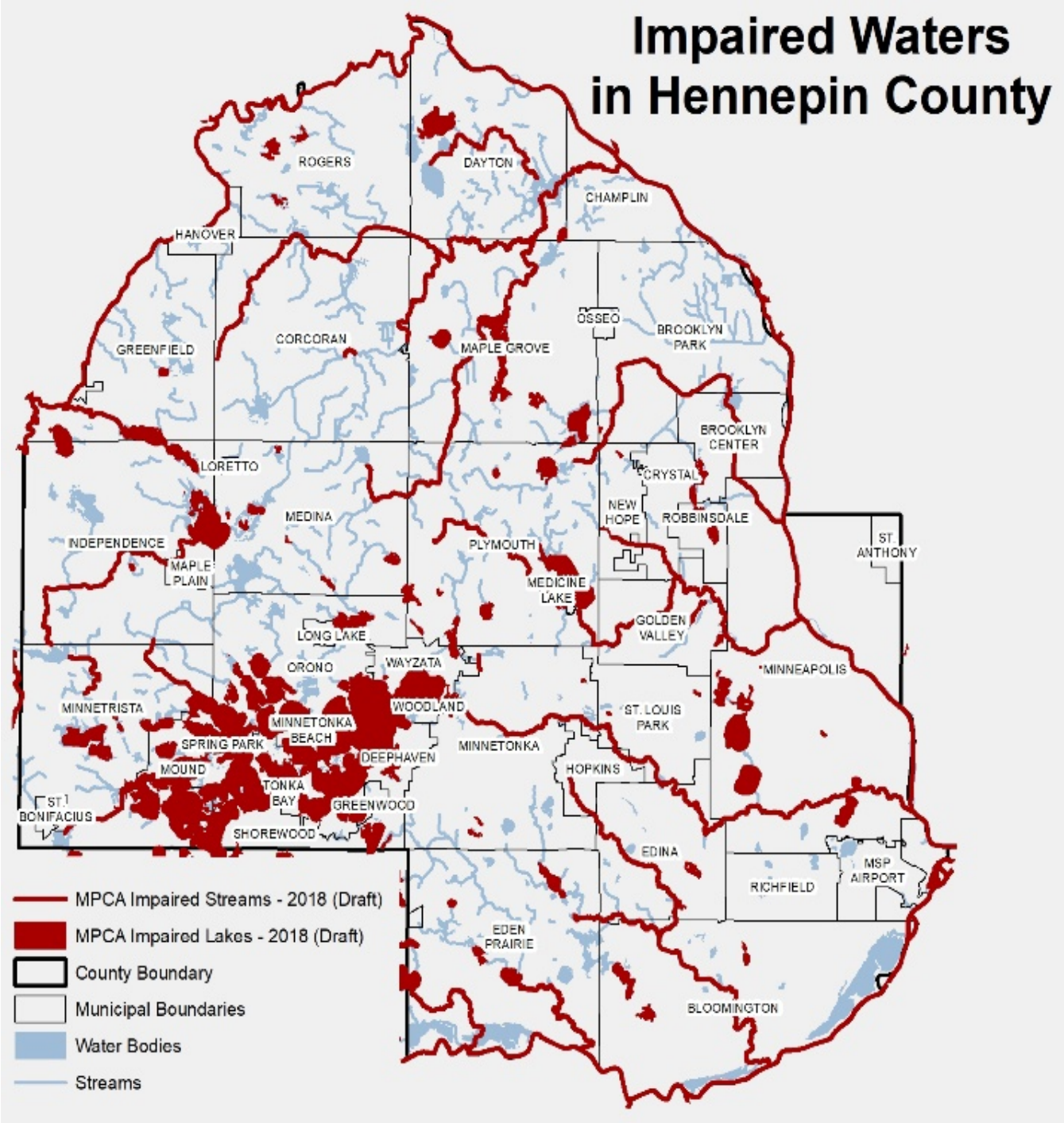


Table W-1: Total Maximum Daily Load (TMDL) plans in Hennepin County

Waterbody/Stream	Reason	Approved	Location in county	Watershed Management Organization
Cedar Island, Pike, and Eagle lakes	Excess Nutrients	2010	Maple Grove, Plymouth	Shingle Creek Watershed Management Commission
Crystal Lake	Excess Nutrients	2009	Robbinsdale, Minneapolis	Shingle Creek Watershed Management Commission
Elm Creek Watershed	DO, Biota, Mercury, Excess Nutrients	2017	Maple Grove, Medina, Rogers, Champlin, Dayton, Corcoran, Greenfield, Plymouth	Elm Creek Watershed Management Commission
Lake Hiawatha	Excess Nutrients, Bacteria	2014	Minneapolis	Minnehaha Creek Watershed District
Lake Independence	Excess Nutrients	2007	Independence, Medina, Loretto	Pioneer-Sarah Creek Watershed Management Commission
Lake Sarah	Excess Nutrients	2011	Independence, Greenfield	Pioneer-Sarah Creek Watershed Management Commission
Lower Crow River	DO, Turbidity, Bacteria	2010	Rogers, Rockford, Greenfield, Carver/Wright Counties	Crow River Organization of Water
Magda Lake	Excess Nutrients	2010	Brooklyn Park	Shingle Creek Watershed Management Commission
Meadow Lake	Excess Nutrients	2010	New Hope	Shingle Creek Watershed Management Commission
Medicine Lake	Excess Nutrients	2011	Plymouth	Bassett Creek Watershed Management Organization
Minnehaha Creek Watershed	Excess Nutrients, Bacteria	2011	Lake Minnetonka Area, Carver County, Minnetonka, Hopkins, St. Louis Park, Minneapolis	Minnehaha Creek Watershed District
Nine Mile Creek	Turbidity, Biota, Chloride	2010	Bloomington	Nine Mile Creek Watershed District
Pioneer-Sarah Creek Watershed	Excess Nutrients, Bacteria, DO	2017	Greenfield, Loretto, Medina, Independence, Maple Plain, Minnetrista	Pioneer-Sarah Creek Watershed Management Commission
Shingle Creek	Chloride	2007	Brooklyn Park, Brooklyn Center, Minneapolis	Shingle Creek Watershed Management Commission
Shingle and Bass Creeks	DO/Biota	2012	Brooklyn Park, Brooklyn Center, Plymouth, Crystal, Robbinsdale, Minneapolis, Maple Grove, Osseo, New Hope	Shingle Creek Watershed Management Commission
Statewide Mercury	Mercury	2009	Entire county	ALL WMOs
Twin Cities Metro	Chloride	2016	Entire county	ALL WMOs
Twin Lakes Chain & Ryan Lake	Excess Nutrients	2007	Brooklyn Center, Crystal, Minneapolis, Robbinsdale	Shingle Creek Watershed Management Commission
Upper Minnehaha Creek and lakes	Excess Nutrients, Bacteria	2014	Lake Minnetonka Area, Part of Carver County	Minnehaha Creek Watershed District
Upper Mississippi River	Bacteria	2014	Entire county	West Mississippi River Watershed Management Commission
Wirth Lake	Excess Nutrients	2010	Minneapolis, Golden Valley	Bassett Creek Water Management Organization

Mississippi River Critical Corridor Area

The Mississippi River Corridor Critical Area (MRCCA) is a joint state, regional and local program that provides coordinated planning and management for the 72-mile stretch of the Mississippi River through the seven-county metropolitan area and for 54,000 acres of surrounding land across 30 local jurisdictions. The MRCCA shares a boundary with the Mississippi National River and Recreation Area (MNRRA), a unit of the National Park Service.



Mississippi River from Br. 2441 (Franklin Avenue, CSAH 5) in Minneapolis

The MRCCA was designated a state critical area in 1976 to protect its many unique natural and cultural resources and values. These resources and values are protected through development standards and criteria implemented via local land use plans and zoning ordinances.

The MRCCA is home to a full range of residential neighborhoods and parks as well as river-related commerce, industry, and transportation. Though the river corridor has been extensively developed, many natural areas remain, including bluffs, islands, floodplains, wetlands, riparian zones, and native aquatic and terrestrial flora and fauna.

In January 2017, the State of Minnesota adopted new rules for MRCCA. These rules (see Minnesota Rules, chapter 6106) updated standards for protecting natural, scenic, cultural, recreational, and economic resources within MRCCA and laid out standards for updating local MRCCA plans for complying with these standards.

The new rules were the result of a four-year rulemaking process that focused on developing standards to be implemented through city and township zoning ordinances. However, there are a number of standards that must be implemented by jurisdictions such as counties that own and operate land and facilities within the corridor. Counties are specifically required by the rules (see 6106.0060, subp. 7) to prepare or amend MRCCA plans consistent with the rules.

Hennepin County's role

Hennepin County prepares or amends Mississippi River Critical Corridor Area plans, as required under Minnesota Rules, chapter 6106.0060, subp.7.

MRCCA management

MRCCA is operated through the Minnesota Department of Natural Resources (DNR) and is intended to enhance the management and use of land and water within the corridor. The DNR provides guidelines for how development should be managed in order to protect resources and the scenic qualities of the river corridor.

Corridor districts

Six districts are defined in the MRCCA rules (see Minnesota Statutes, section 116G.15, subdivision 3). The districts are established based on the natural and built character of different areas of the river corridor. All include diverse land uses, including parks and open space and scenic, natural, and historic areas.

Rural and open space district

The rural and open space district (CA-ROS) is characterized by rural and low-density development patterns and land uses. This includes land that is riparian or visible from the river as well as large, undeveloped tracts of high ecological and scenic value, floodplains, and undeveloped islands. Many primary conservation areas exist in the district. Primary conservation areas are defined in the MCRRA rules

(6106.0050, subp. 53) as key resources and features, including shore impact zones (SIZ), bluff impact zones (BIZ), floodplains, wetlands, gorges, areas of confluence with tributaries, natural drainage routes, unstable soils and bedrock, native plant communities, cultural and historic properties, significant existing vegetative stands, tree canopies

The CA-ROS district must be managed to sustain and restore the rural and natural character of the corridor and to protect and enhance habitat, parks and open space, public river corridor views, and scenic, natural, and historic areas.

River neighborhood district

The river neighborhood district (CA-RN) is characterized by primarily residential neighborhoods that are riparian or readily visible from the river or that abut riparian parkland. The district includes parks and open space, limited commercial development, marinas, and related land uses.

The CA-RN district must be managed to maintain the character of the river corridor within the context of existing residential and related neighborhood development, and to protect and enhance habitat, parks and open space, public river corridor views, and scenic, natural, and historic areas. Minimizing erosion and the flow of untreated stormwater into the river and enhancing habitat and shoreline vegetation are priorities in this district.

River towns and crossings district

The river towns and crossings district (CA-RTC) is characterized by historic downtown areas and limited nodes of intense development at specific river crossings, as well as institutional campuses that predate designation of the Mississippi River Critical Corridor Area and that include taller buildings.

The CA-RTC district must be managed in a manner that allows continued growth and redevelopment in historic downtowns and more intensive redevelopment in limited areas at river crossings to accommodate compact walkable development patterns and connections to the river. Minimizing erosion and the flow of untreated stormwater into the river, providing public access to and public views of the river, and restoring natural vegetation in riparian areas and tree canopy are priorities in this district.

Separated from river district

The separated from river district (CA-SR) is characterized by its physical and visual distance from the Mississippi River. The district includes land separated from the river by distance, topography, development, or a transportation corridor. The land in this district is not readily visible from the river.

The CA-SR district provides flexibility in managing development without negatively affecting the key resources and features of the river corridor. Minimizing negative impacts to primary conservation areas and minimizing erosion and flow of untreated stormwater into the Mississippi River are priorities in this district.

Urban mixed district

The urban mixed district (CA-UM) includes large areas of highly urbanized mixed use that are a part of the urban fabric of the river corridor, including institutional, commercial, industrial, and residential areas and parks and open space.

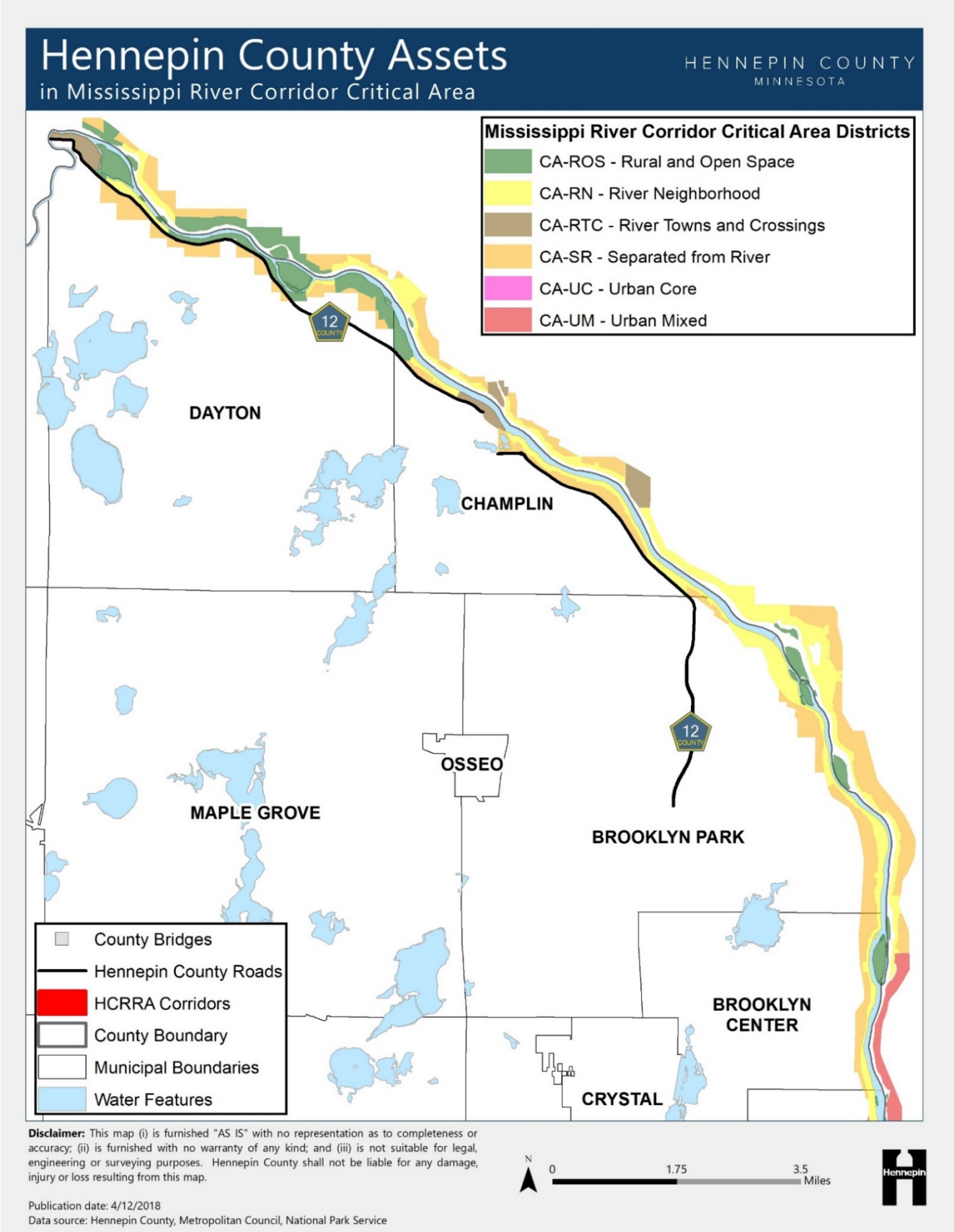
The CA-UM district must be managed in a manner that allows for future growth and potential transition of intensely developed areas that does not negatively affect public river corridor views and that protects bluffs and floodplains. Restoring and enhancing bluff and shoreline habitat, minimizing erosion and flow of untreated stormwater into the river, and providing public access to and public views of the river are priorities in this district.

Urban core district

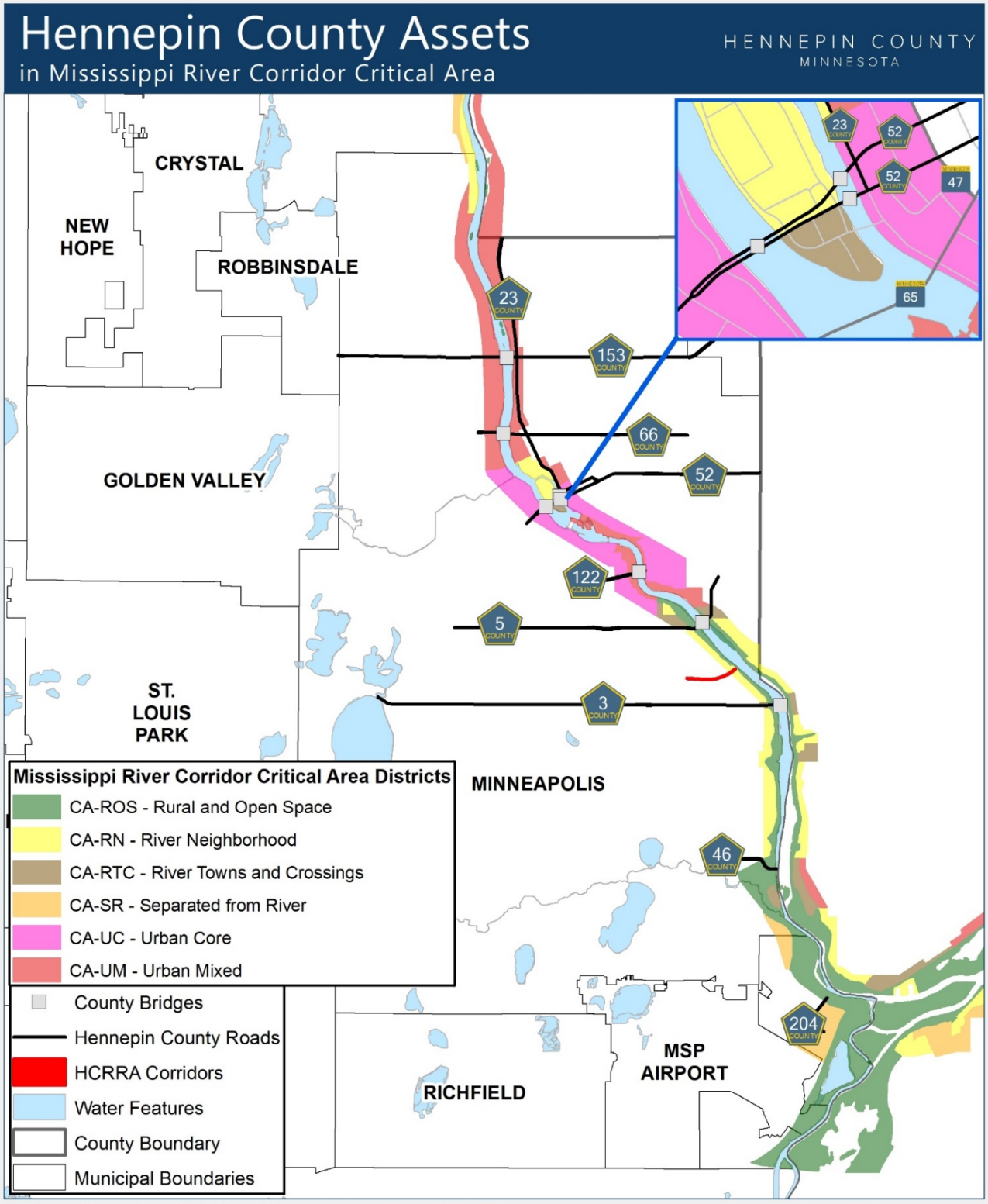
The urban core district (CA-UC) includes the urban cores of Minneapolis and St. Paul

The CA-UC district must be managed with the greatest flexibility to protect commercial, industrial, and other high-intensity urban uses while minimizing negative impacts to primary conservation areas and minimizing erosion and flow of untreated stormwater into the river. Providing public access to and public views of the river are priorities in this district.

Map M-1: Hennepin County Assets in MRCC (North)



Map M-2: Hennepin County Assets in MRCCA (South)



Hennepin County MRCCA plan

Hennepin County is required under Minnesota Rules, chapter 6106.0060, subp.7, to prepare a MCRRA plan.

Hennepin County's role in MRCCA stems from ownership and operation of transportation facilities that are located within MRCCA as depicted on map M-1 and M-2, and listed below.

County roads

- CSAH 3 – Lake Street
- CSAH 5 – Franklin Avenue
- CSAH 12 – Dayton River Road, E Hayden Lake Road, West River Road
- CSAH 23 – Marshall Street NE
- CSAH 46 – 46th Street E
- CSAH 52 – Hennepin Avenue, 1st Avenue NE (the old 952)
- CSAH 66 – Broadway Street NE
- CSAH 152 – Washington Avenue
- CSAH 153 – Lowry Avenue
- CSAH 204 – Bloomington Road

County bridges

- Br. 62082 (Lake Street, CSAH 3)
- Br. 2441 (Franklin Avenue, CSAH 5)
- Br. 27636 (Hennepin Avenue, CSAH 52)
- Br. 27537 (Hennepin Avenue, CSAH 52)
- Br. 27538 (Hennepin Avenue, CSAH 52)
- Br. 27608 (Broadway Street, CSAH 66)
- Br. 9360 (Washington Avenue, CSAH 152)
- Br. 27B60 (Lowry Avenue, CSAH 153)

Property

- Hennepin County Regional Railroad Authority – Midtown Greenway

Hennepin County recognizes that transportation facilities can have impacts on scenic views, habitat, and soil erosion and that development of these facilities should be conducted in a manner that minimizes impacts to the MRCCA.

Hennepin County will employ the following procedures consistent with MRCCA guidance:

- Work with the DNR, local municipalities and other relevant entities when planning and implementing programs and projects within the MRCCA to protect and/or minimize impacts to primary conservation areas on facilities owned by the county.
- Coordinate with cities and townships to ensure the county is aware of public river corridor views identified on county owned and operated facilities.
- Consider provision for scenic overlooks, safe pedestrian crossings, and public riverfront access when planning and designing construction and reconstruction of county transportation facilities.
- Where feasible, minimize the impacts to primary conservation areas and public river corridor views from county transportation projects.
- Plan and implement county programs and projects in the MRCCA in a manner consistent with the purposes of the Critical Area Act (see Minnesota Rules, chapter 6106).
- Conduct annual bridge maintenance activities, including bridge flushing maintenance.
- Follow a five-year cycle for bridge surface sealing maintenance where bridge surfaces will be sealed with Methyl Methacrylate (MMA) and protect all bridge deck drains to contain the MMA.
- Contain any bridge maintenance work involving concrete repairs in a preplanned containment system.
- Remove and haul away snow from bridges.
- Sweep county roads twice a year.
- Reduce salt use for snow and ice removal.
- Use a spraying system with biodegradable potassium acetate for deicing on Lowry Bridge.
- Include the identification of projects that lie within the MCRRA in the county's capital improvement program (CIP).

Implementation

The Metropolitan Council requires that comprehensive plans include a description of all public programs, fiscal devices, and other actions that communities will use to implement their plans.

This implementation section is a companion to the other required sections in our Hennepin County comprehensive plan. While each of the other sections describes *what* the county intends to do, the implementation section describes *how* the county will use its official controls, primary county funding sources, and capital improvement program to carry out the work. Implementation includes:

- Official controls: Related ordinances, fiscal devices and other actions the county uses to implement the comprehensive plan.
- Primary county funding sources: Wheelage tax, property tax, and sales and use transportation tax
- Capital Improvement Program (CIP): The county's plan for investments in capital improvement

Official controls

Ordinance 19

Hennepin County Ordinance 19 adopts Minnesota Rules Chapter 7080, which governs individual sewage treatment systems (less than 10,000 gallons/day) and describes the authority of the types of septic systems the county regulates. The ordinance was last amended in 2014 to reflect the changes in Minnesota Rules Chapters 7080-7084.

Ordinance 22

Hennepin County Ordinance 22 was adopted by the Hennepin County Board of Commissioners on November 14, 2000. Hennepin County holds the rights-of-way within its geographical boundaries as an asset in trust for its citizens. Under Minnesota law, the county is to manage the use of the right-of-way and other uses for public purposes, including use by public utilities.

To provide for the health, safety, and well-being of its citizens and to ensure the structural integrity of its roads and the appropriate use of rights-of-way, the county strives to keep its rights-of-way in a state of good repair and free from unnecessary encumbrances.

County funding sources

Wheelage tax

Minnesota statutes (MS 163.051 subd. 1) allow a county to impose a wheelage tax on each motor vehicle housed in its jurisdiction. The statute requires that revenues from the tax be used for road and bridge projects. Hennepin County passed resolution 13-0248R1, which established the Hennepin County wheelage tax with funding to be focused on preservation, efficiency, safety, and modernization.



Hennepin County property tax

Hennepin County uses property tax to fund items that are ineligible for other funding, examples being feasibility studies or burial of power lines.



Regional Railroad Authority property tax

Hennepin County Regional Railroad Authority (HCRRA) was established in 1980 to preserve rail corridors and conduct rail transit planning in the county. HCRRA provides funding via a property tax levy for up to 10% of the capital costs for designated light rail transit projects.

Sales and use transportation tax

In 2017, the Hennepin County Board adopted the sales and use transportation tax implementation plan and enacted the sales and use transportation tax to provide a reliable source of locally generated funds to strategically target transitway and other transportation investments.

Projects eligible to be funded include:

- Capital costs of the Green Line Extension (Southwest LRT), Blue Line Extension (Bottineau LRT), Riverview Corridor, and Orange Line (bus rapid transit) projects;
- Operating costs of the Green Line (including any extensions), Blue Line (including any extensions), Riverview Corridor, Orange Line, and Northstar projects;

Capital costs associated with other transportation or transit projects or improvements, as identified in Hennepin County's Capital Improvement Program (CIP), and operating costs, to the extent designated in the future by the County Board after a public hearing.

The estimated annual revenue from the sales and use transportation tax is anticipated to be sufficient to cover the capital and operating costs of the sales and use transportation tax implementation plan projects through 2036.

See the sales and use transportation tax implementation plan.

Capital Improvement Program (CIP)

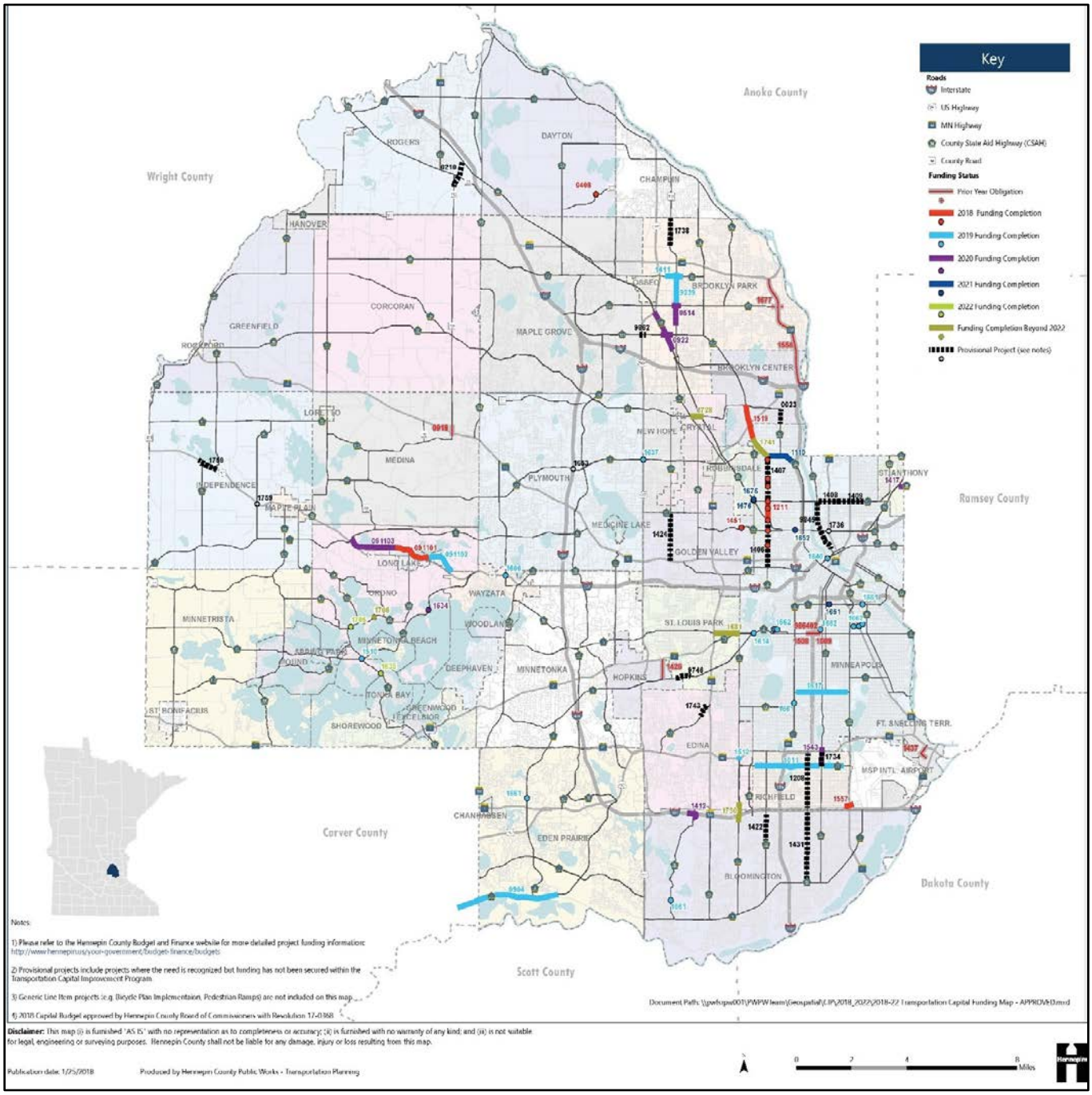
The Hennepin County Capital Improvement Program (CIP) includes a five-year plan for needed transportation improvements. The first year in the CIP is programmed, with approved dollars to spend on projects. A provisional project list is refreshed annually listing high-priority projects that lack funding or need further vision and design work before moving forward.

Map N-1 illustrates projects included in the Hennepin County 2018-2022 Transportation Capital Improvement Program (CIP).





Map N-1: Hennepin County 2018-2022 Transportation Capital Improvement Program



City of RAMSEY

7550 Sunwood Drive NW • Ramsey, MN 55303
City Hall: 763.427.1410 • Fax: 763.427.5543
www.cityoframsey.com

August 7, 2018

Hennepin County
Attn: Katie Walker, Long-range Comprehensive Planning Manager
701 Fourth Avenue South, Suite 400
Minneapolis, MN 55415

Katie:

Thank you for the opportunity to comment on the Hennepin County 2040 Comprehensive Plan. We look forward to future collaboration on regional planning issues, especially as it relates to future transportation planning across the Mississippi River.

Ramsey Vision and Land Use Plan

Ramsey has established five Priority Goals for future land use over the next 20 years. Each of these goals carries equal weight, and there is no priority order.

- A Balance of Rural Character and Urban Growth
- A Connected Community
- An Active Community
- Smart, Citizen-Focused Government
- Financial Stability

Future Growth Forecasts

Ramsey is requesting an amendment to its future growth forecasts as outlined below. These revisions are subject to the approval of the Metropolitan Council and may be revised downward.

	2016	2020	2030	2040
Households	8,973	9,500	11,500	13,500
Population	26,251	27,550	33,350	39,150
Employment	6,334	6,900	7,800	8,400

Future Land Use Plan

As part of Ramsey's ongoing public engagement and land use planning efforts, we have amended our Future Land Use Plan since work commenced on the Anoka County 2040 Transportation Plan. A copy of our Future Land Use Map and TAZ Allocations are attached to this letter.

7550 Sunwood Drive NW • Ramsey, MN 55303
City Hall: 763.427.1410 • Fax: 763.427.5543
www.cityoframsey.com

Highway Projects

U.S. Highway 10/Greater MN Gateway

Ramsey' top transportation priority is improving safety and reducing congestion along Highway 10. Highway 10 is a parallel route to Interstate 94 in Hennepin County, so construction planning and staging is key to successful projects for both corridors. Ramsey has initiated the Ramsey Highway 10 Plan to set up the corridor for success moving forward and continuing the positive momentum experienced thus far.

In the spirit of collaboration, Ramsey supports the Brockton Interchange along I94 in the City of Dayton.

Mississippi River Crossing

The Plan is absent any meaningful planning for a Future Mississippi River Crossing. This is a key transportation priority for Ramsey. Ramsey acknowledges that this future improvement is absent in Thrive2040, the Regional Development Framework. However, large transportation projects take leadership of local communities to drive priorities.

Ramsey's Draft Transportation Plan aligns Armstrong Boulevard/CSAH 83 to serve as the corridor for the future Mississippi River Crossing. The future alignment of this corridor coincides with Zanzibar Lane in the City of Dayton.

Sincerely,

CITY OF RAMSEY

Tim Gladhill
Community Development Director

CC: Jack Forslund, Anoka County Transportation Planner
Bret Heitkamp, Champlin City Administrator
John Cox, Champlin Deputy City Administrator
Tina Goodroad, Dayton City Administrator/Development Director
Melissa Barnes, Minnesota Department of Transportation (MnDOT) North Area Engineer
Eric Wojchik, Metropolitan Council Senior Planner/Sector Representative
Freya Thamman, Metropolitan Council Senior Planner/Sector Representative
Scott Marek, WSB; Ramsey Consulting Transportation Planner
Breanne Rothstein, WSB; Ramsey Consulting Planner
Eric Maass, WSB; Ramsey Consulting Planner

Enclosures: Ramsey Future Land Use Map

Ramsey TAZ Allocations

Councilmember introduced the following resolution and moved for its adoption:

RESOLUTION #18-168

RESOLUTION APPROVING RESPONSE TO HENNEPIN COUNTY COMPREHENSIVE PLAN

WHEREAS, once every ten (10), metro area municipalities are required to update Comprehensive Plans, which serves as the long-range vision for land use and systems for the community; and

WHEREAS, jurisdictions impacted by these plans are afforded the opportunity to review plans of adjacent and impacted communities and organizations.

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

1) That the Ramsey City Council hereby approves the response to the Hennepin County Comprehensive Plan.

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 6th day of August, 2018.

_____

Acting Mayor

ATTEST:

City Clerk

Our Mission: To work together to resposibly grow our community, and to provide quality, cost-effective, and efficient government services.

CC Regular Session **7. 6.**

Meeting Date: 08/06/2018

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, a draft response letter has been prepared 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. The intent of this comment 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 is reviewing this case at their regular meeting on August 2. Staff will provide a verbal update regarding their recommendation at the meeting.

Action:

Motion to adopt Resolution #18-169 approving the response to the North Dayton Development AUAR.

Attachments

North Dayton Development Draft AUAR

DRAFT Response Letter

Resolution #18-169

Form Review

Inbox	Reviewed By	Date
Tim Gladhill	Tim Gladhill	08/02/2018 12:04 PM
Kurt Ulrich	Kurt Ulrich	08/02/2018 01:54 PM
Form Started By: Chris Anderson		Started On: 07/31/2018 08:27 AM
Final Approval Date: 08/02/2018		

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.
- 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.

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

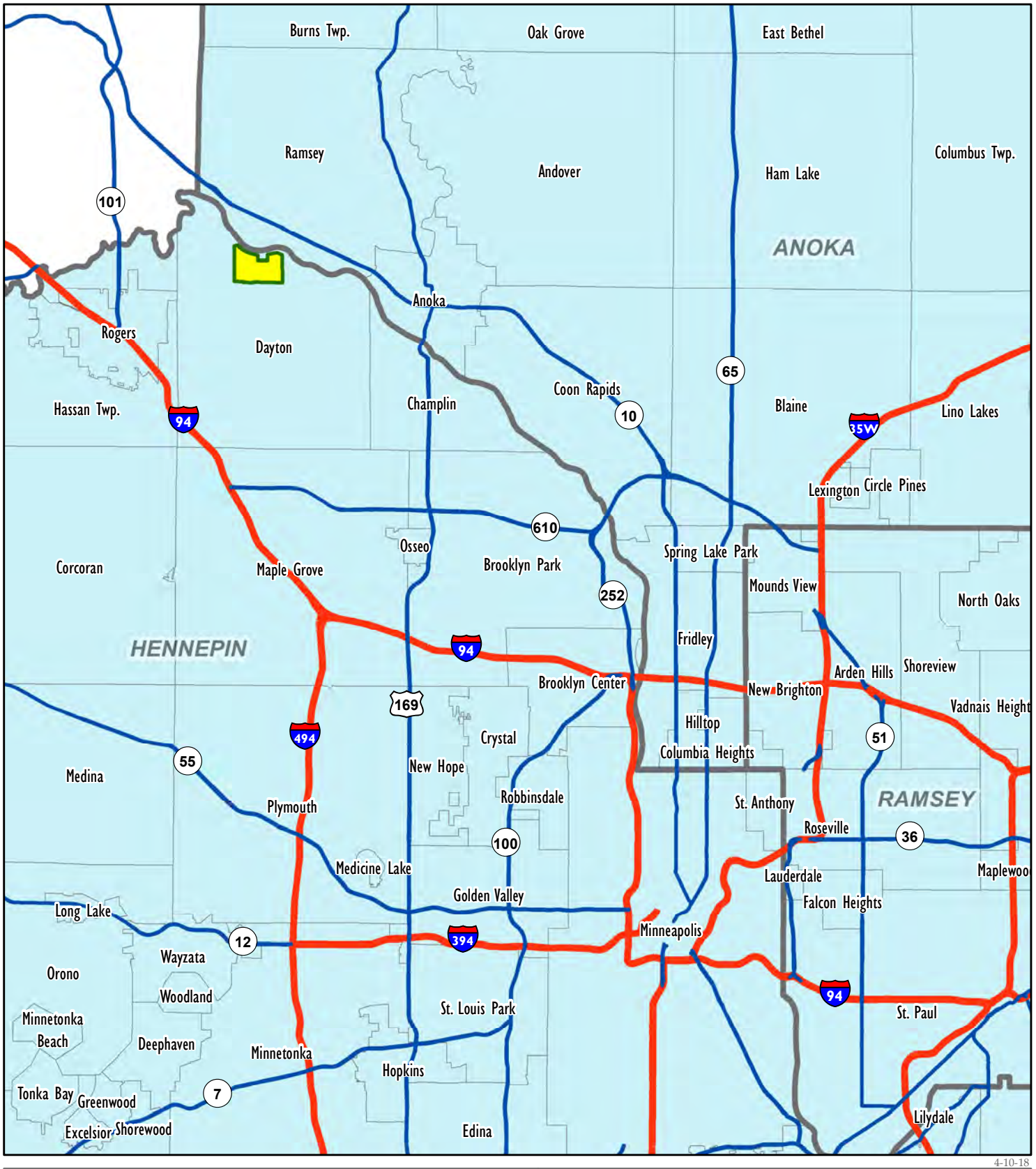
APPENDIX

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

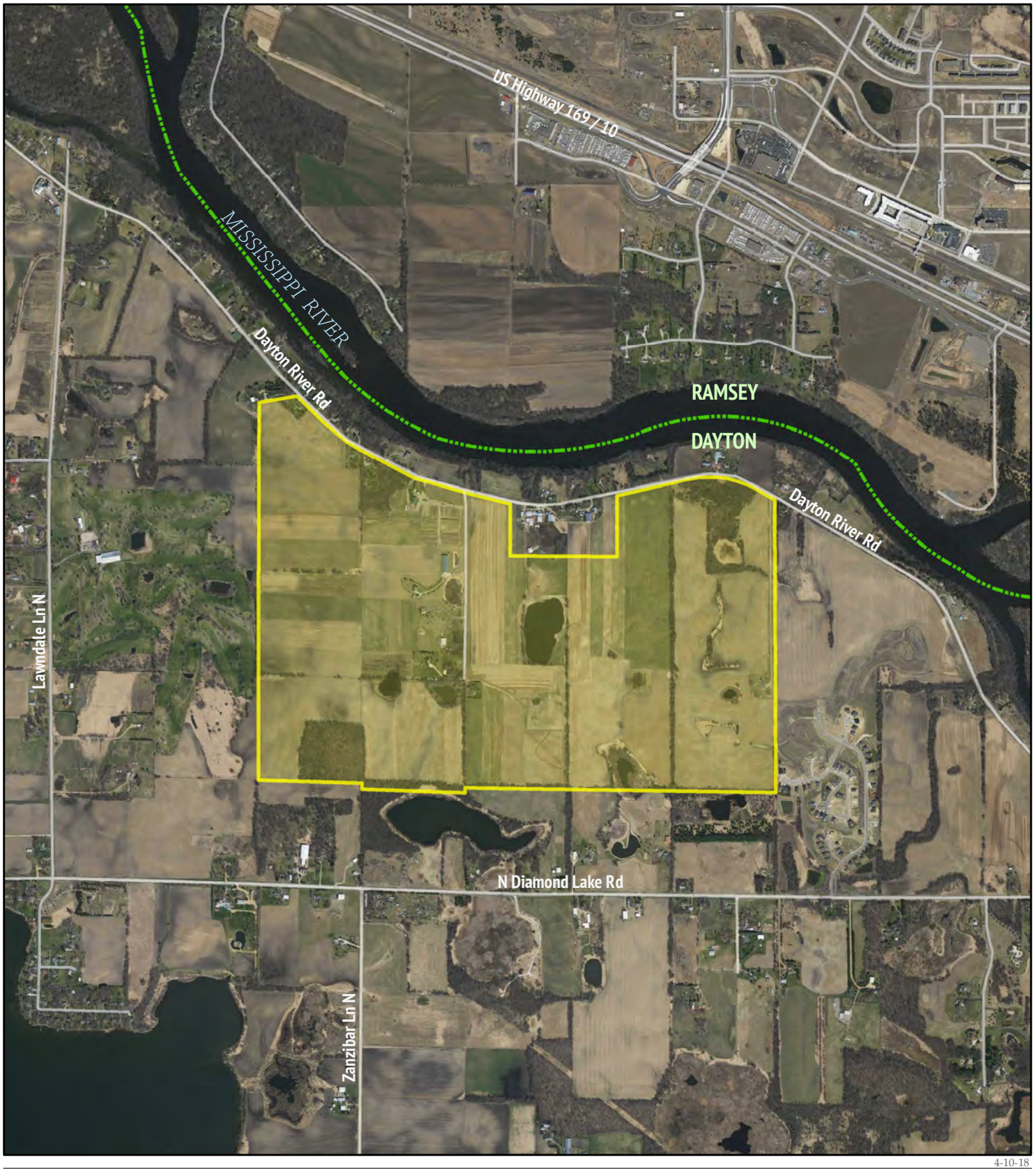
- US or State Highway
- Interstate
- AUAR Study Area
- County Lines

N

Sources: MetroGIS, MnDOT

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.

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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FIGURE 4



4-10-18

AUAR Boundary

North Dayton Development

Dayton, MN

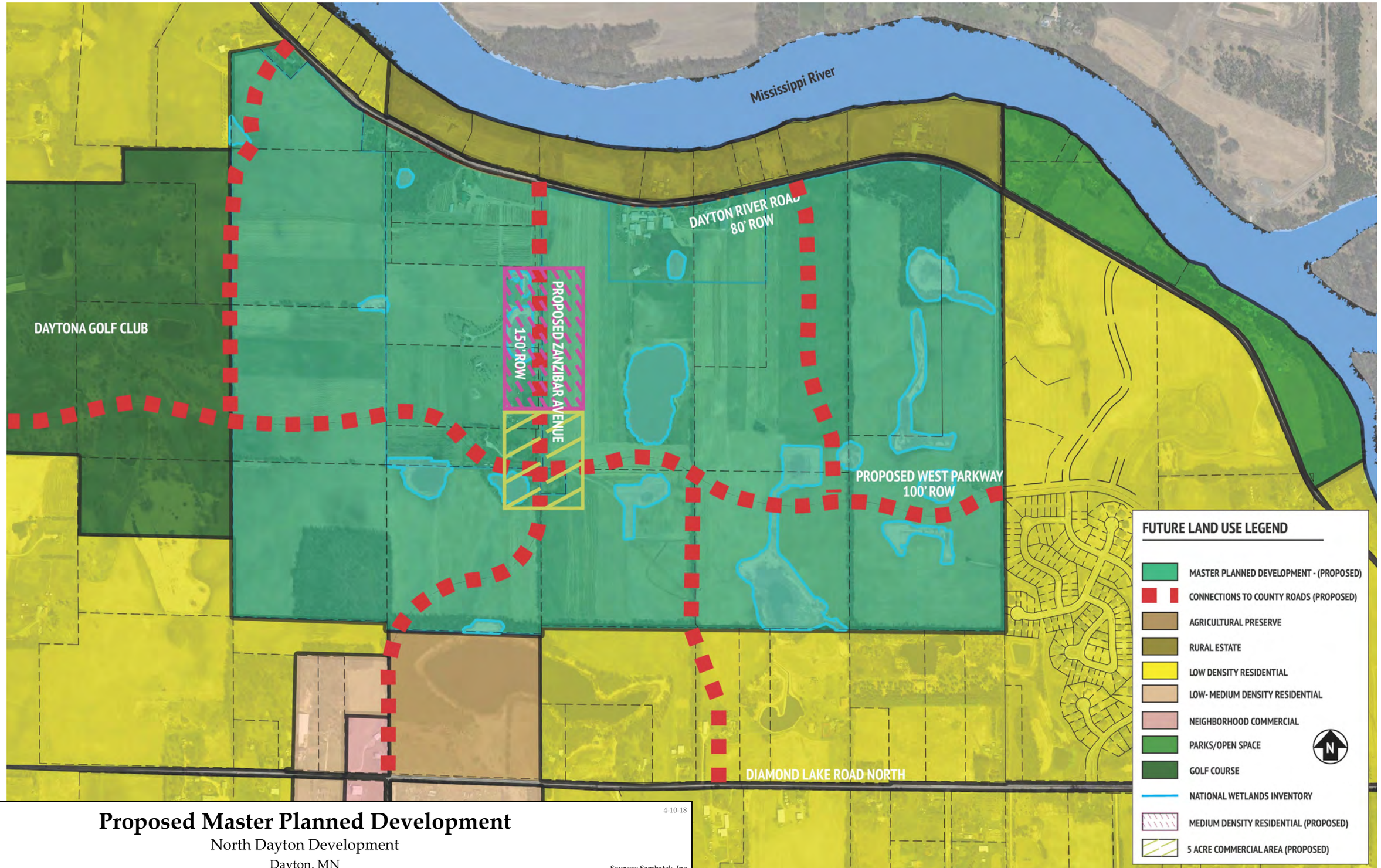
Legend

AUAR Study Area

Municipal Boundary Line

Sources: MetroGIS, MnDOT

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.



Proposed Master Planned Development

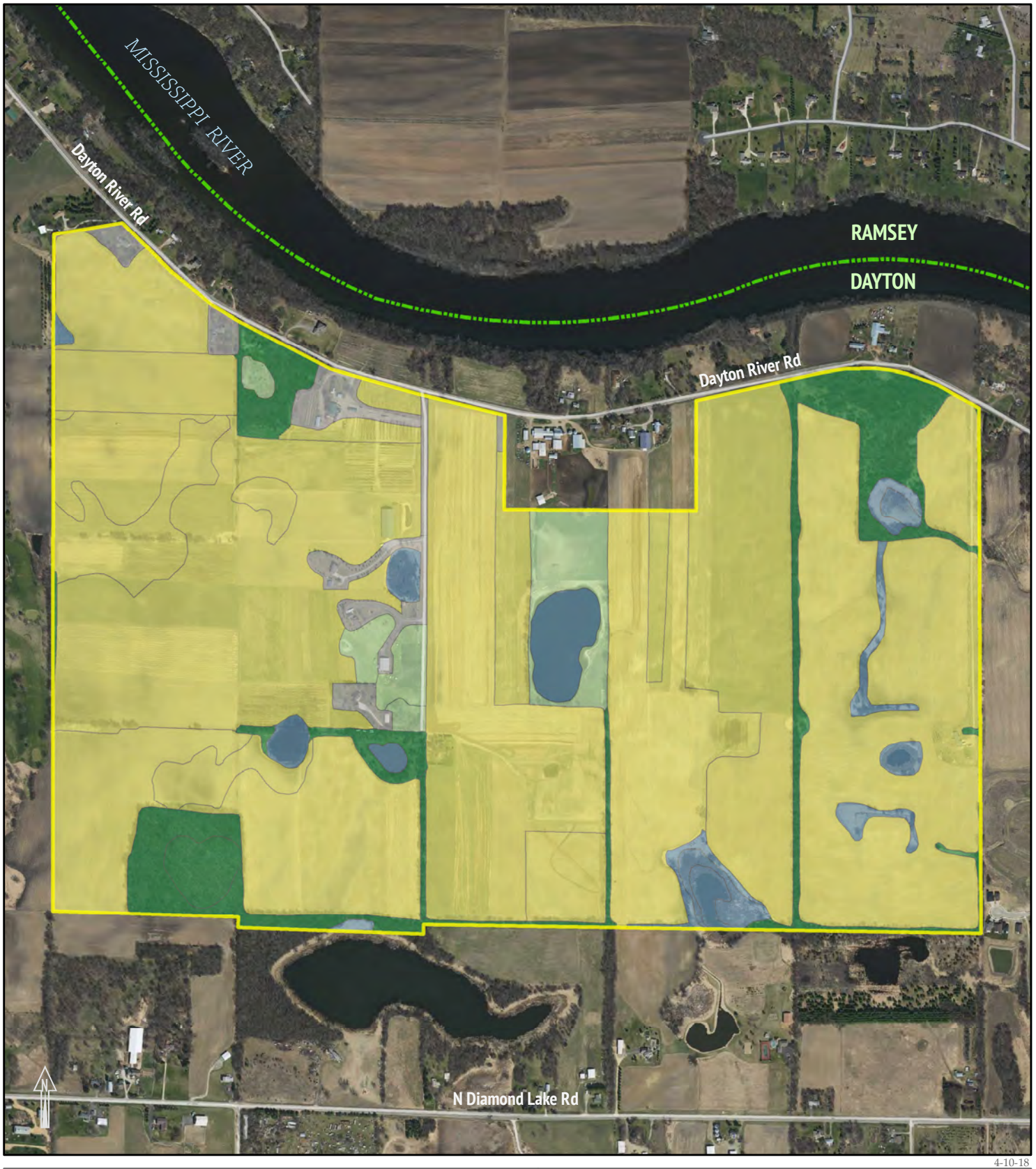
North Dayton Development

Dayton, MN

4-10-18

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

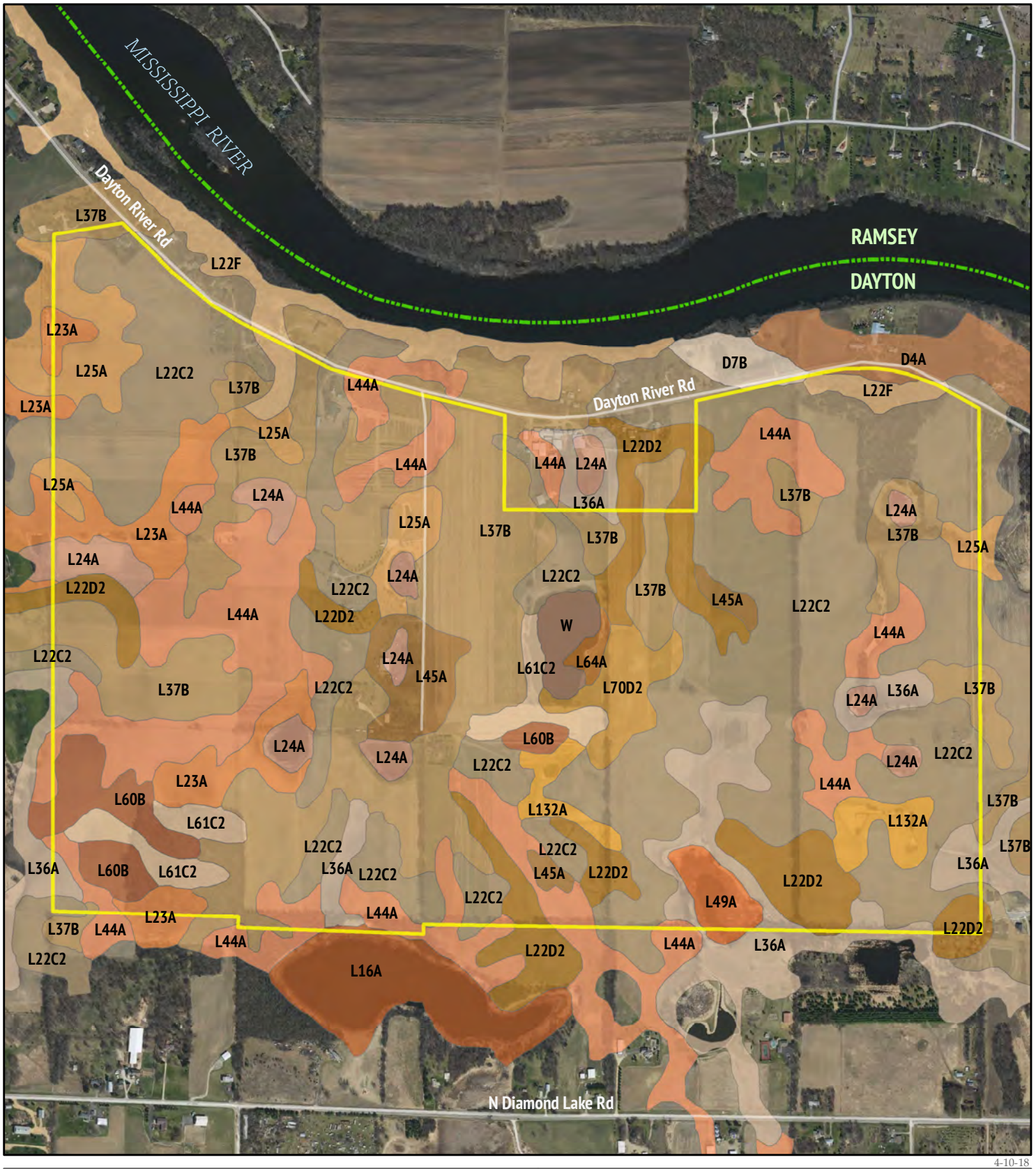
Dayton, MN

Generalized MLCCS Cover Types

Sources: MetroGIS, MnDOT, USFWS

- Wetland
- Developed Land 20% to 50% Impervious
- AUAR Study Area

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.



4-10-18

Soils

North Dayton Development

Dayton, MN

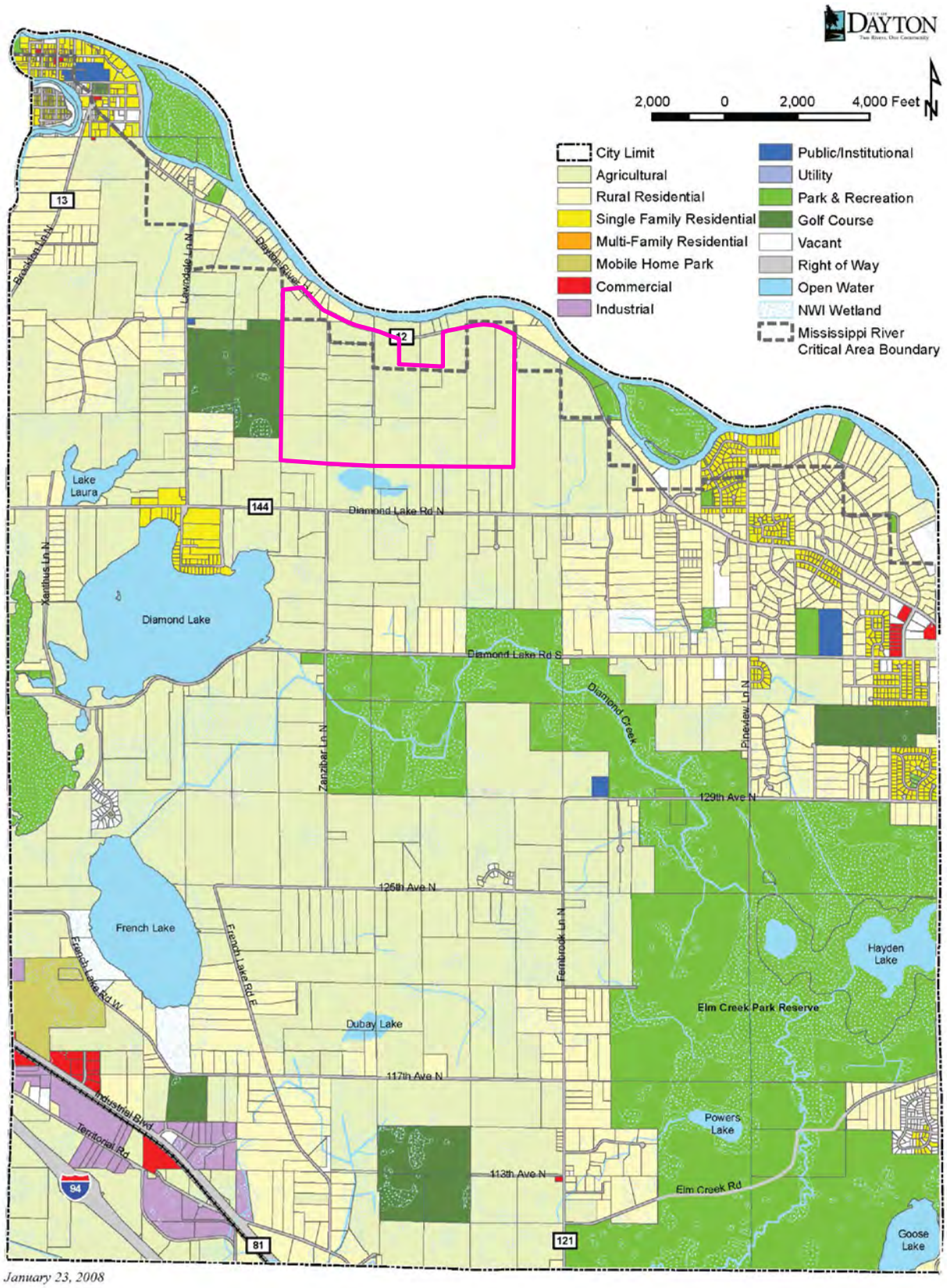
Legend

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

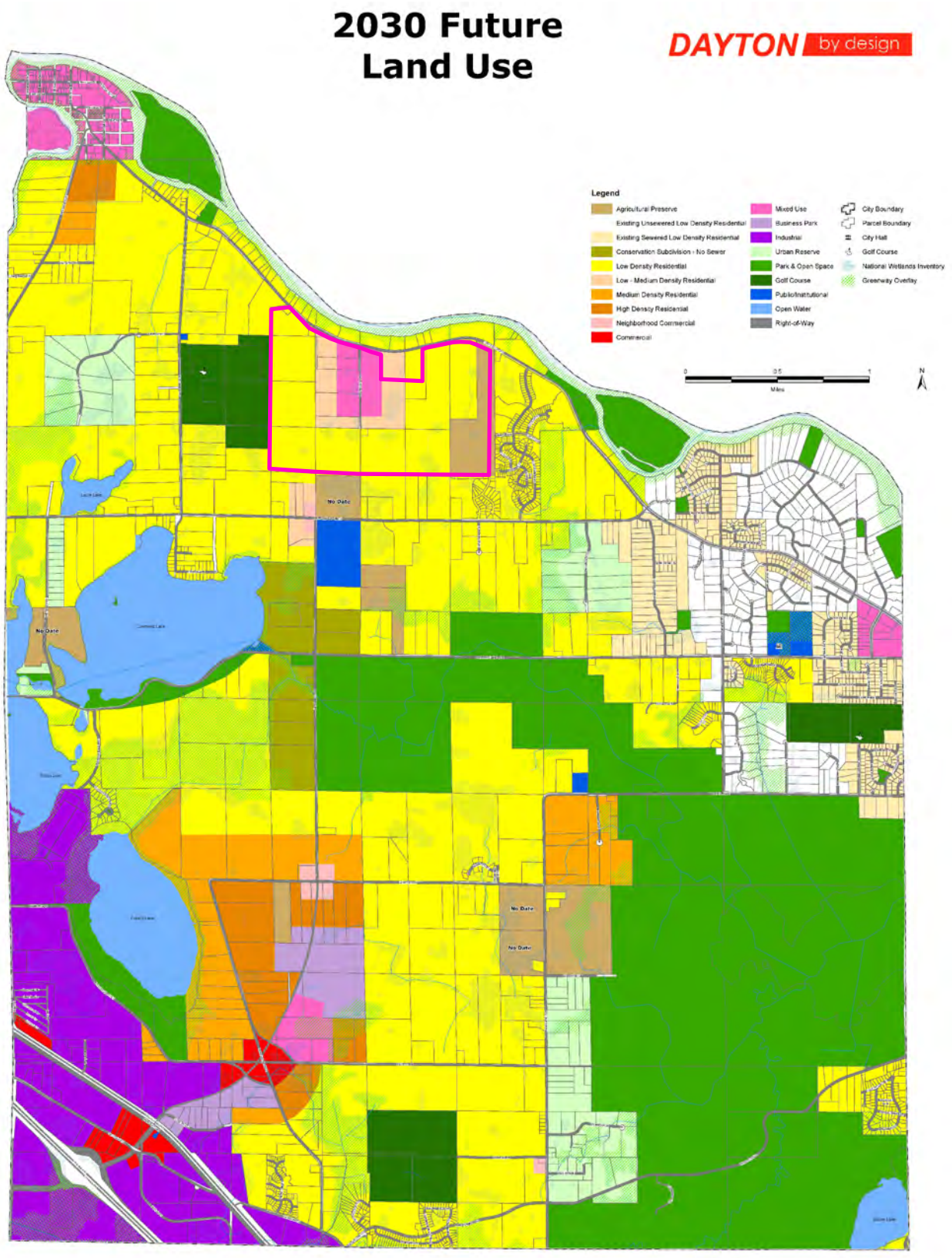
Dayton, MN

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

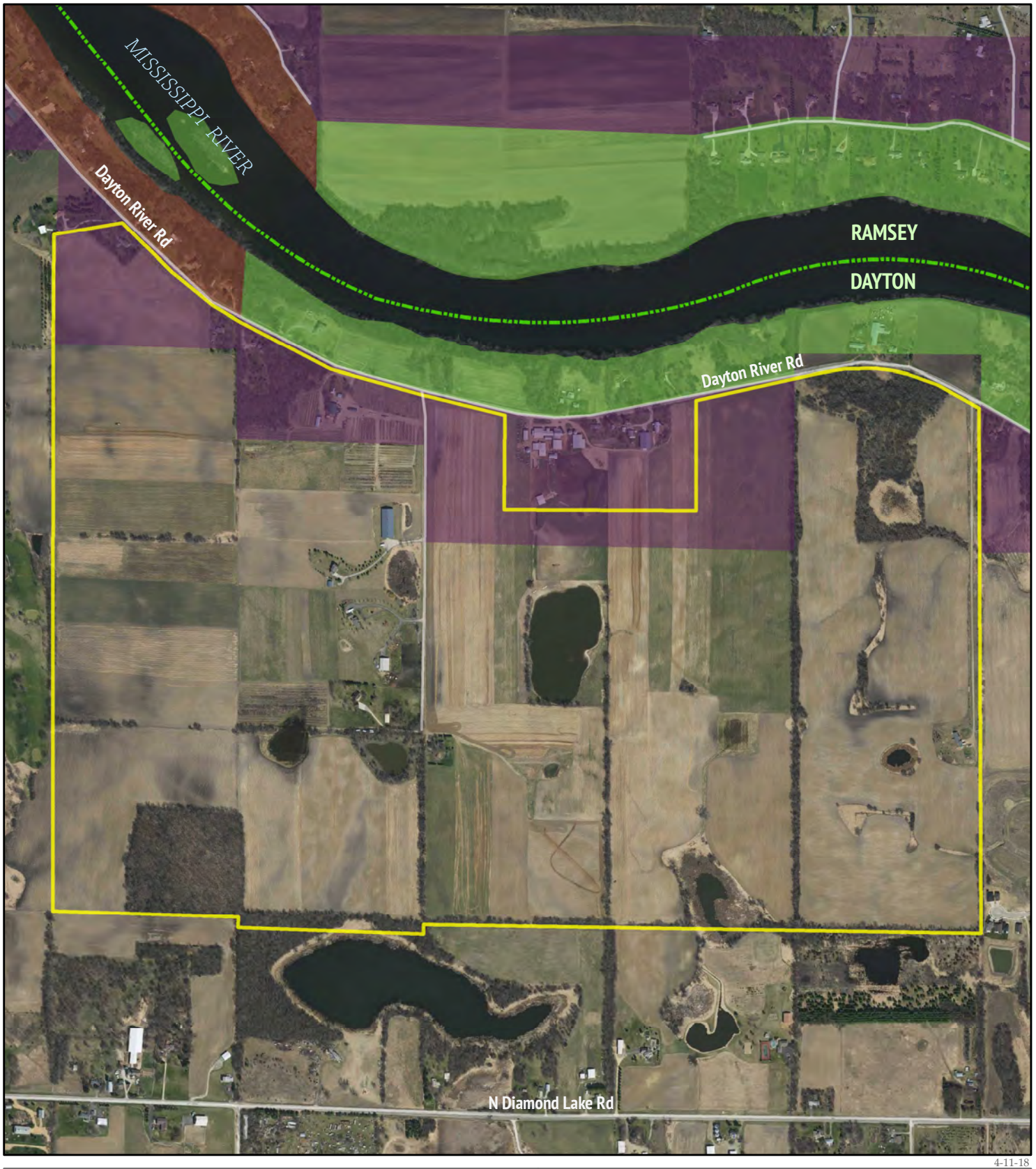
Legend

AUAR Study Area

Sources: MetroGIS, MnDOT

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FIGURE 11



4-11-18

Mississippi River Critical Area Districts

North Dayton Development

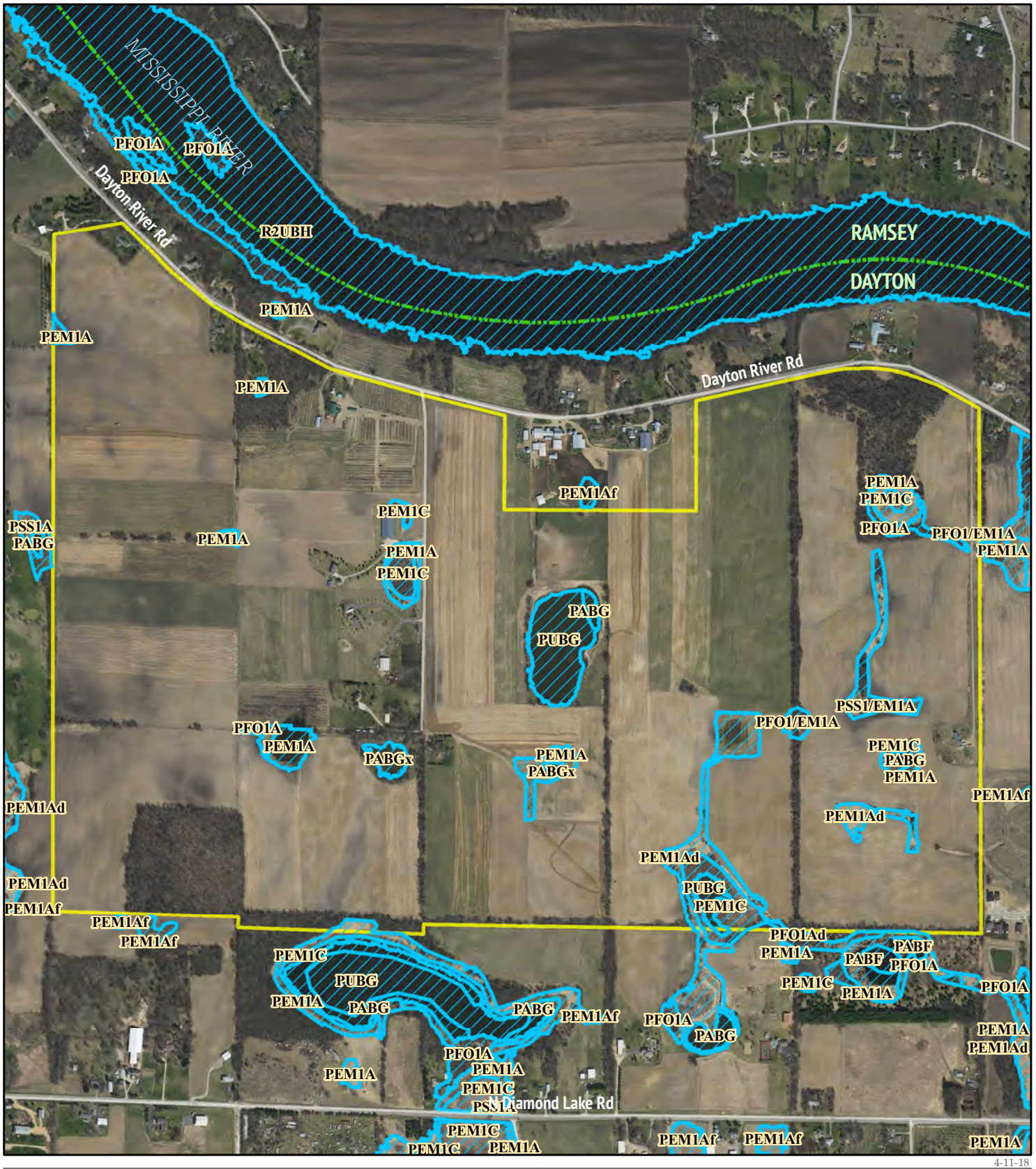
Dayton, MN

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

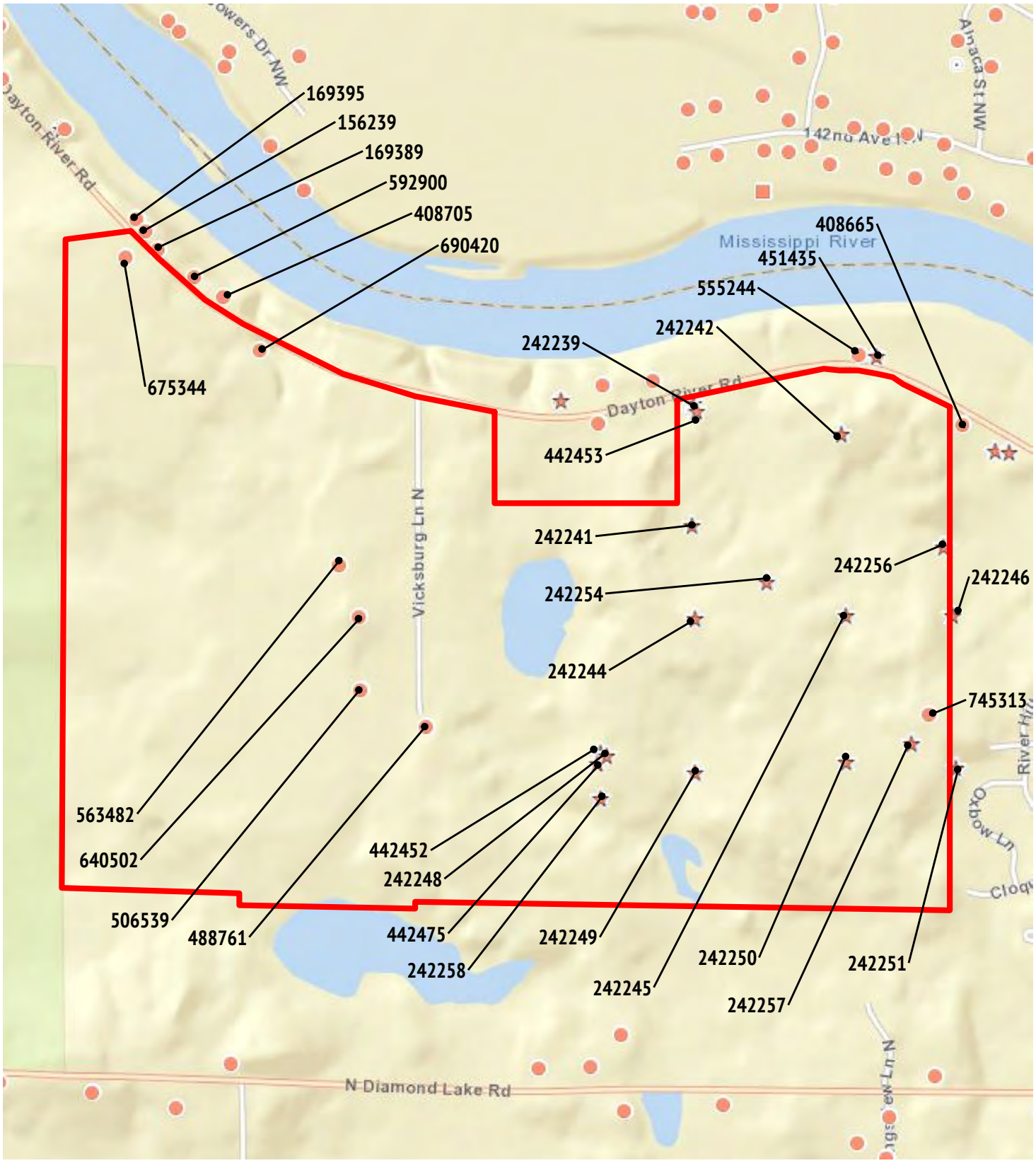
Dayton, MN

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

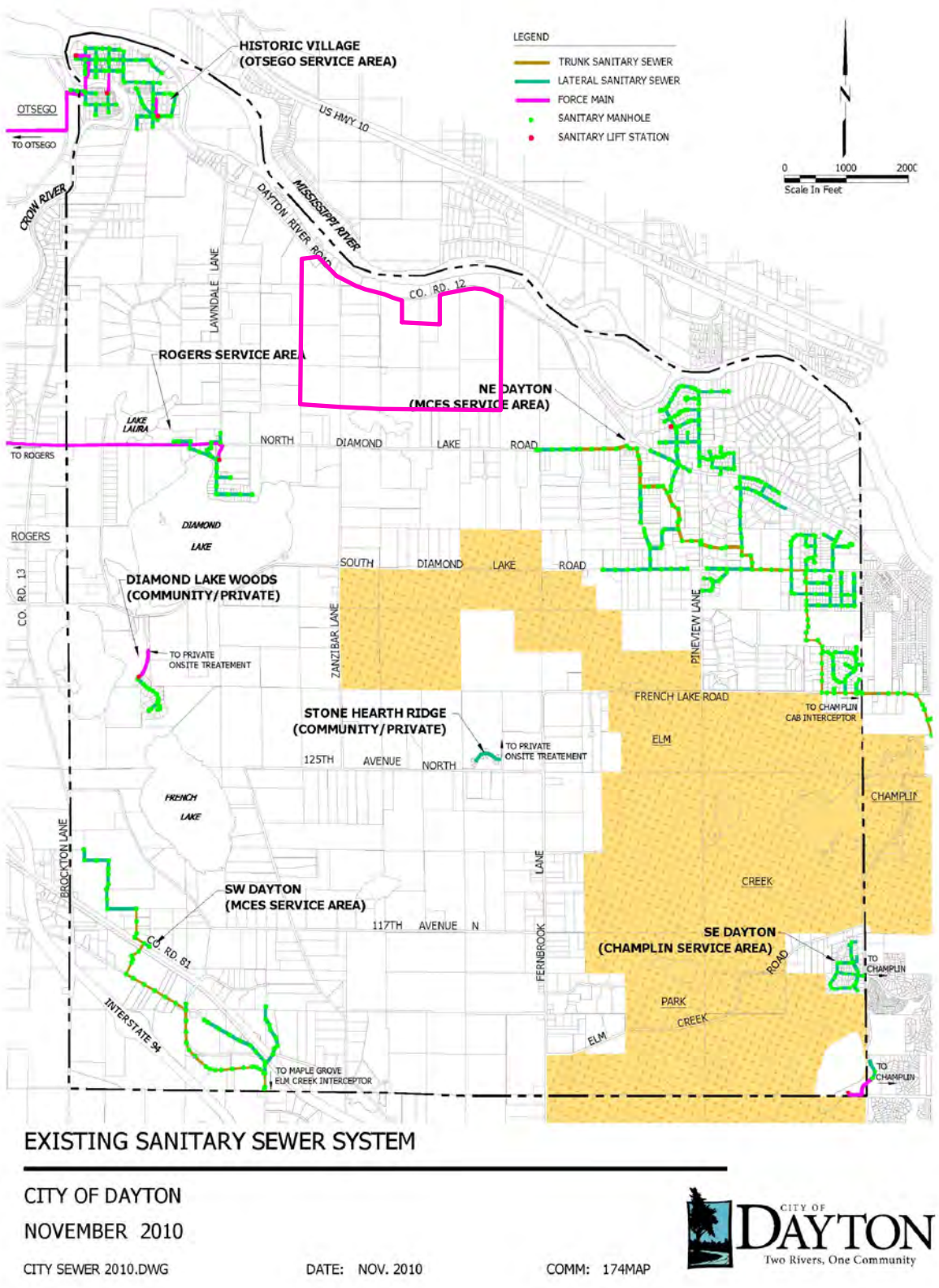
Legend

AUAR Study Area

Municipal Boundary Line

Sources: Minnesota Well Index

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4-11-18

Dayton 2010 City Sewer Service Areas

North Dayton Development

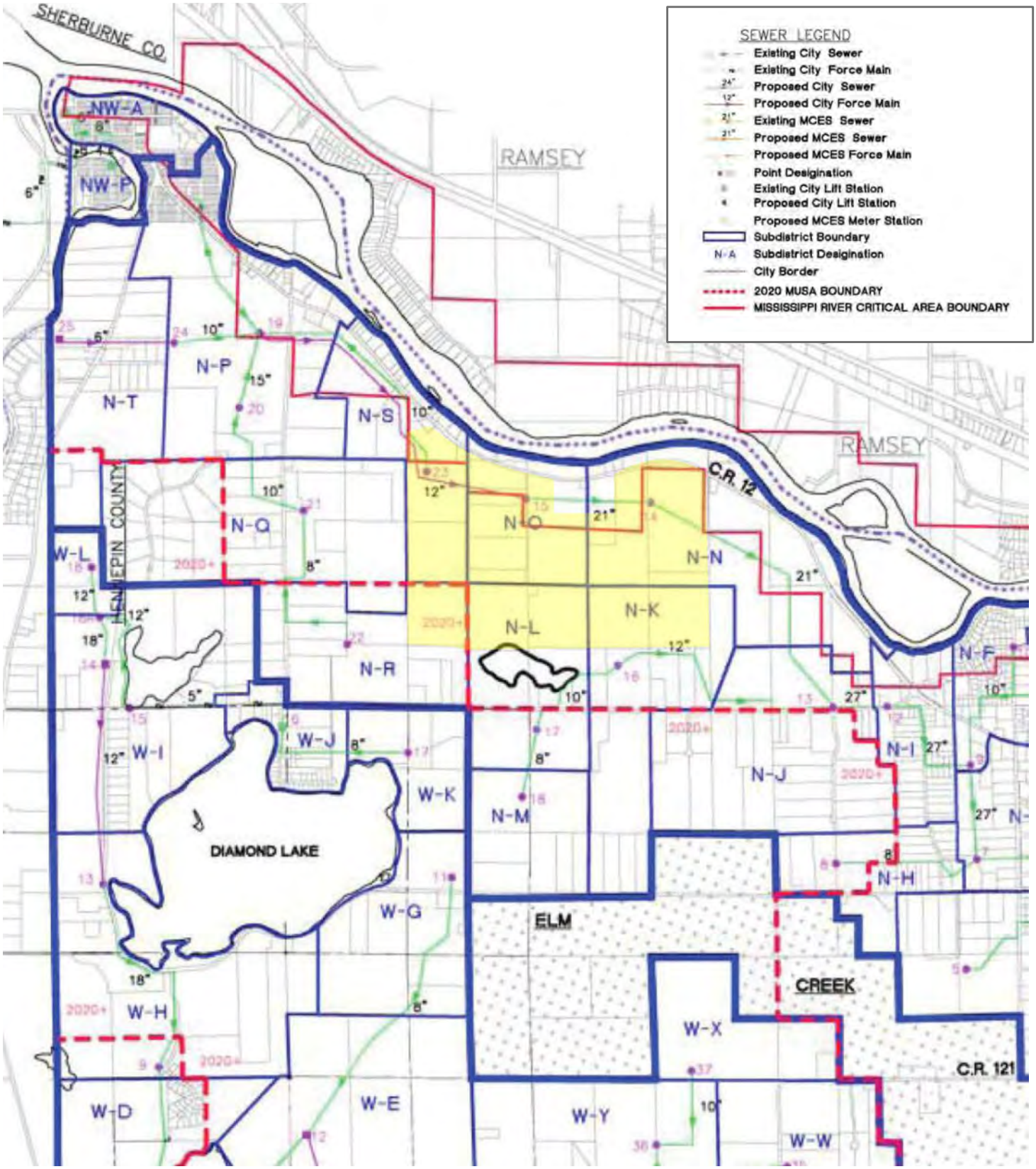
Dayton, MN

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

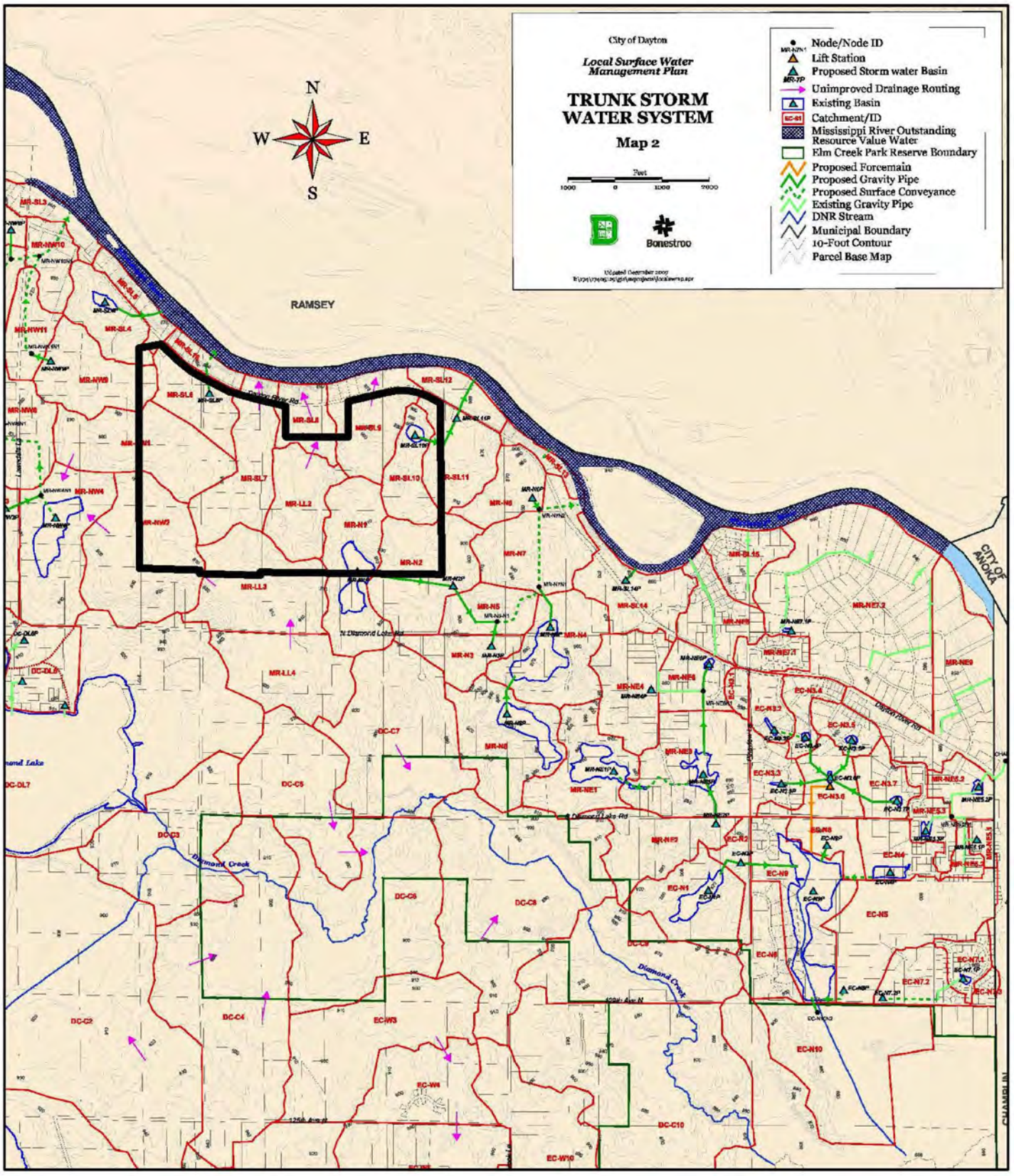
Dayton, MN

Legend

AUAR Study Area

Sources: City of Dayton 2010 Comprehensive Plan

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4-11-18

Dayton 2010 Trunk Stormwater Plan

North Dayton Development

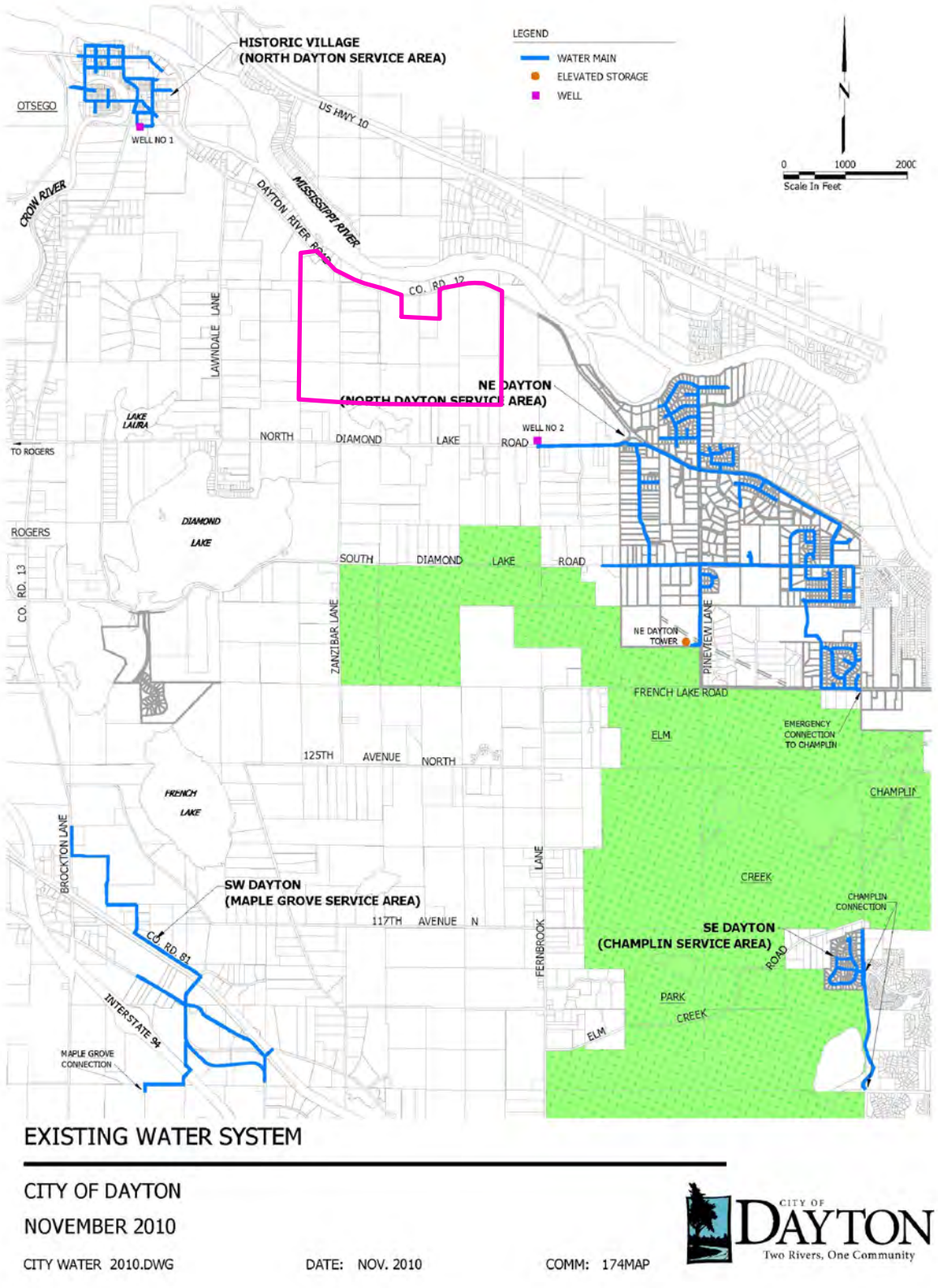
Dayton, MN

Legend

AUAR Study Area

Sources: City of Dayton Local Surface Water Managment Plan

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4-11-18

Dayton 2010 City Water Service Areas

North Dayton Development

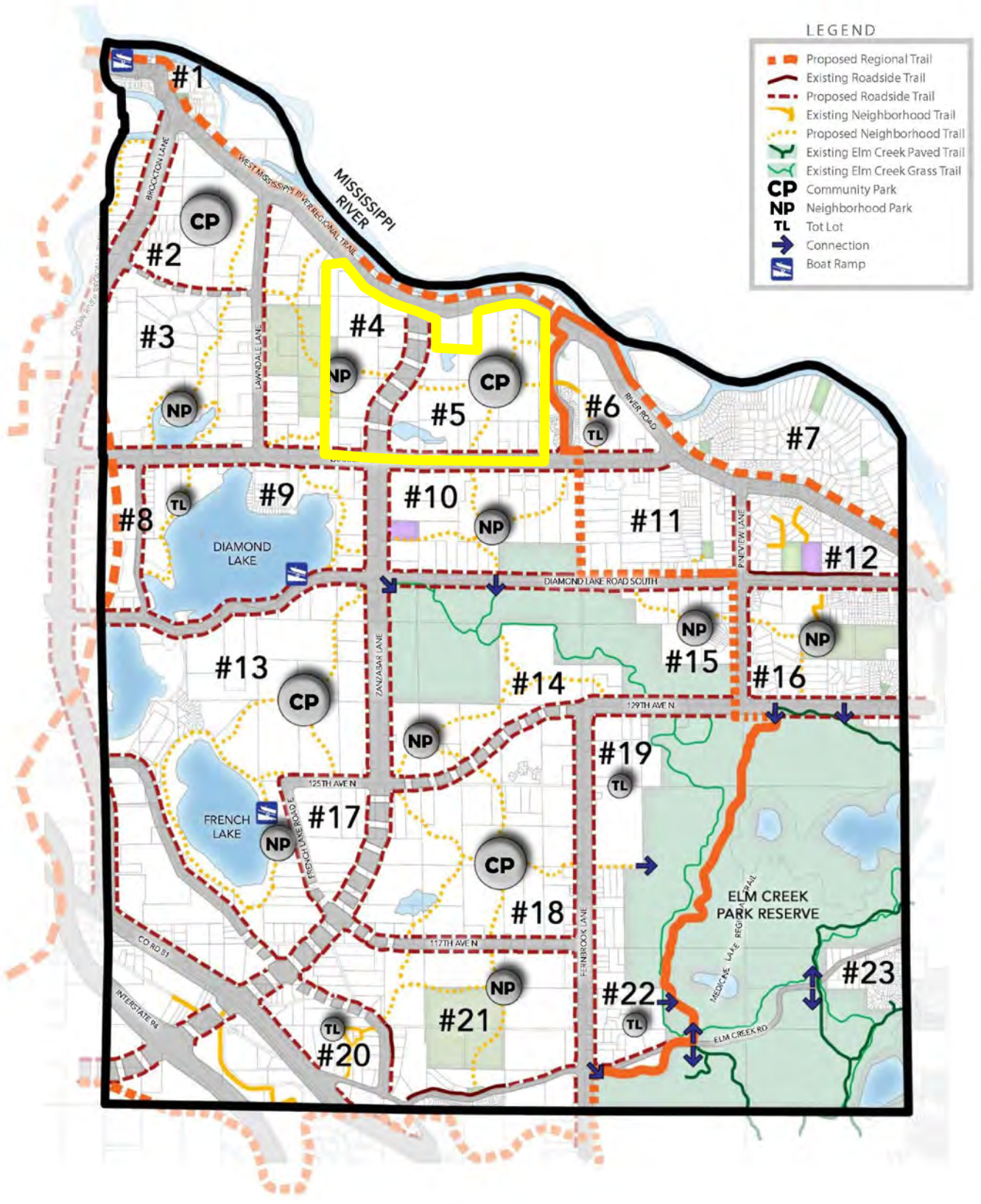
Dayton, MN

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

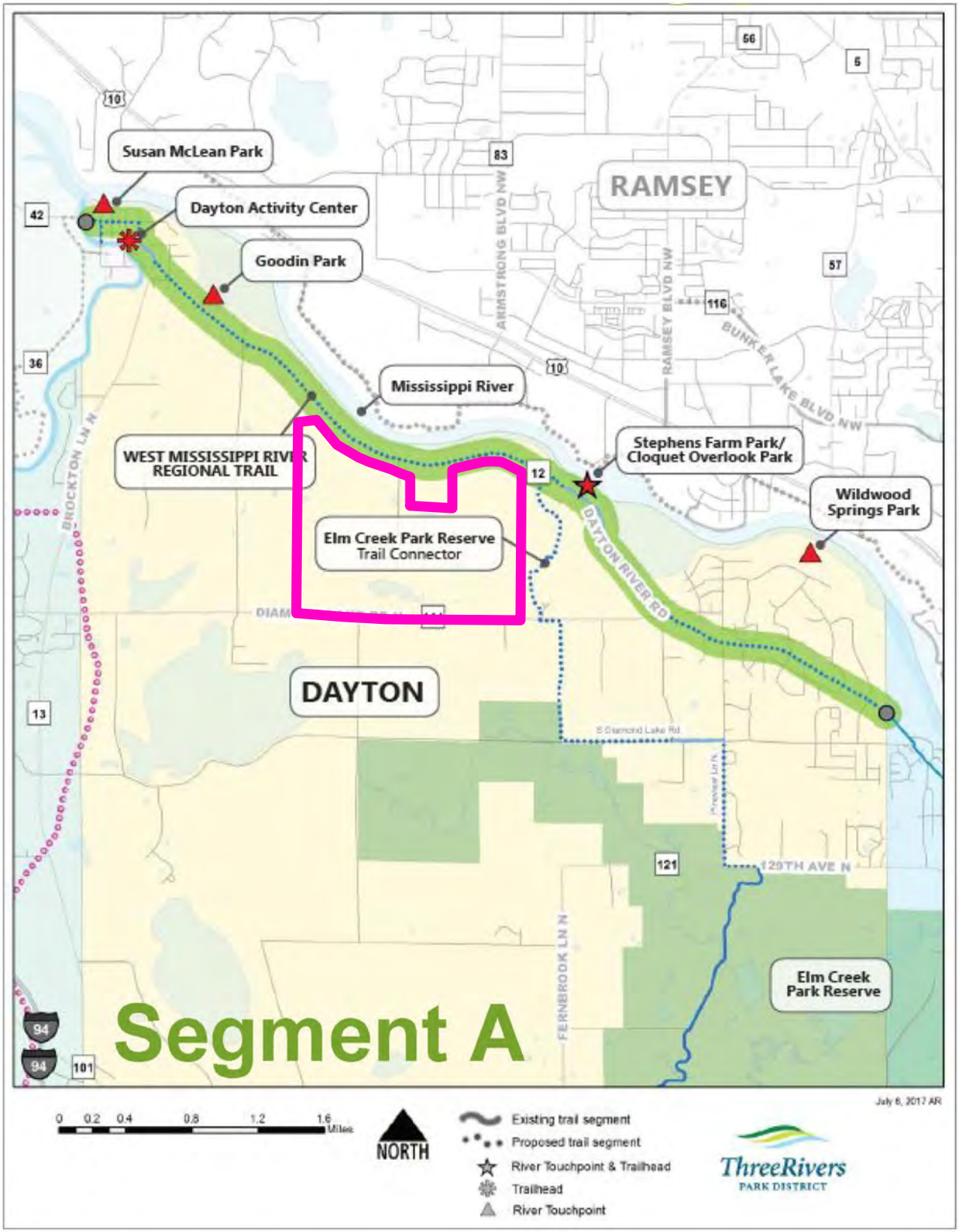
Dayton, MN

Legend

AUAR Study Area

Sources: Loucks Associates, Comprehensive Trail Plan

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6-15-18

West Mississippi River Regional Trail Search Corridor

North Dayton Development

Dayton, MN

Legend

AUAR Study Area

Sources: Three Rivers Park District

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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.

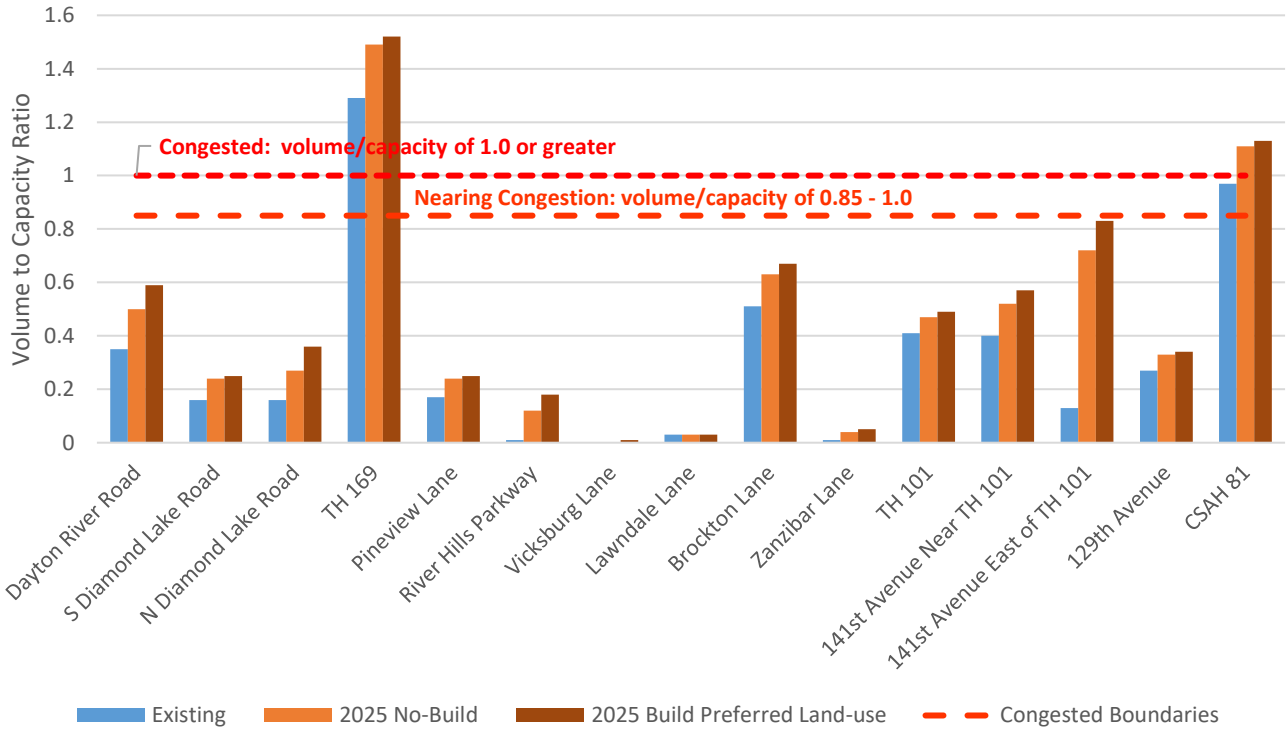


Chart 1 – Study Corridor Volume to Capacity

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.

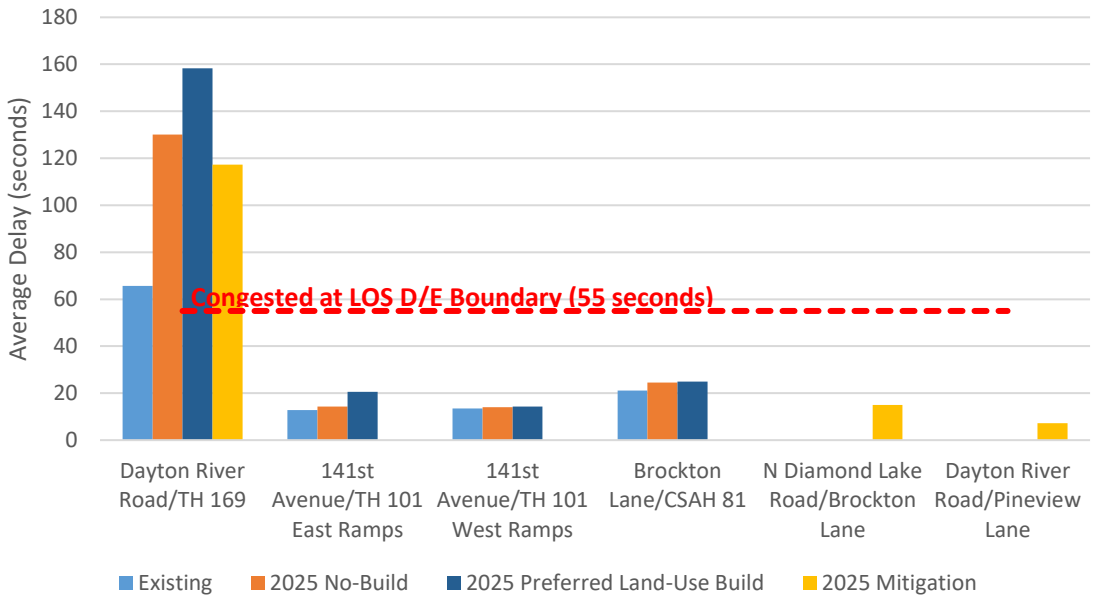


Chart 2 – A.M. Peak Hour Delays: Signal Controlled Intersections

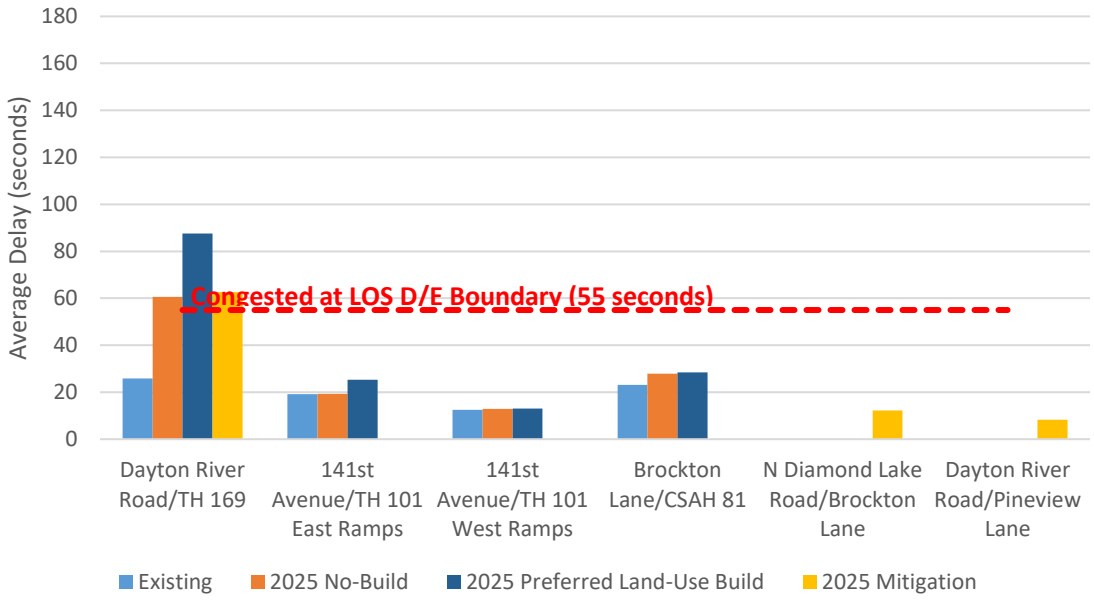


Chart 3 – P.M. Peak Hour Delays: Signal Controlled Intersections

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.

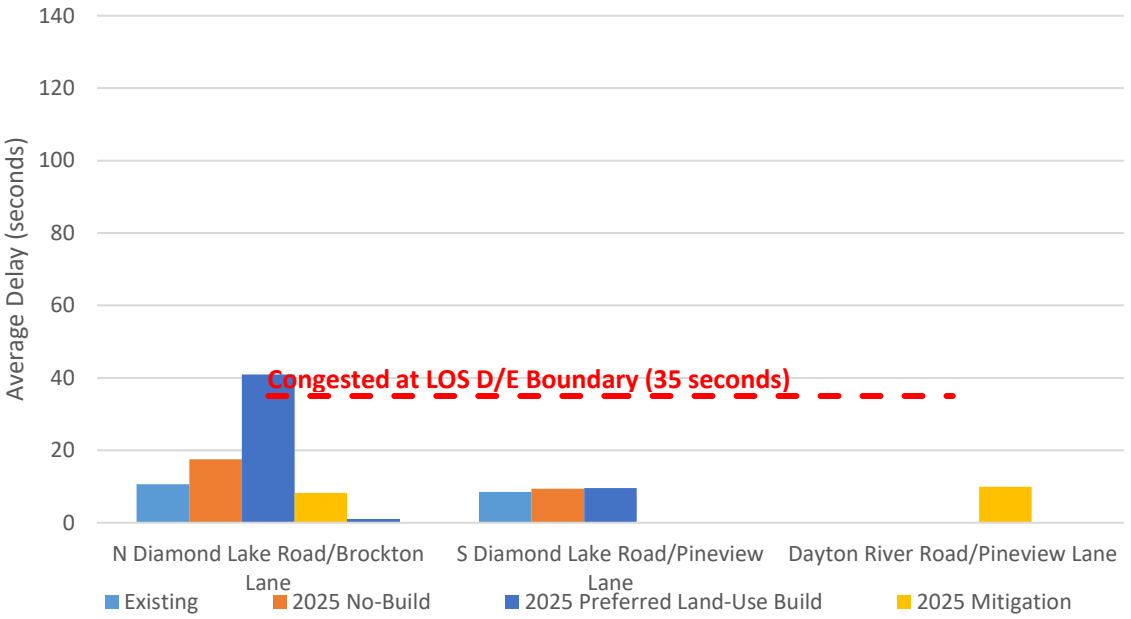


Chart 4 – A.M. Peak Hour Delays: All-Way Stop Sign/Roundabout Controlled Intersections

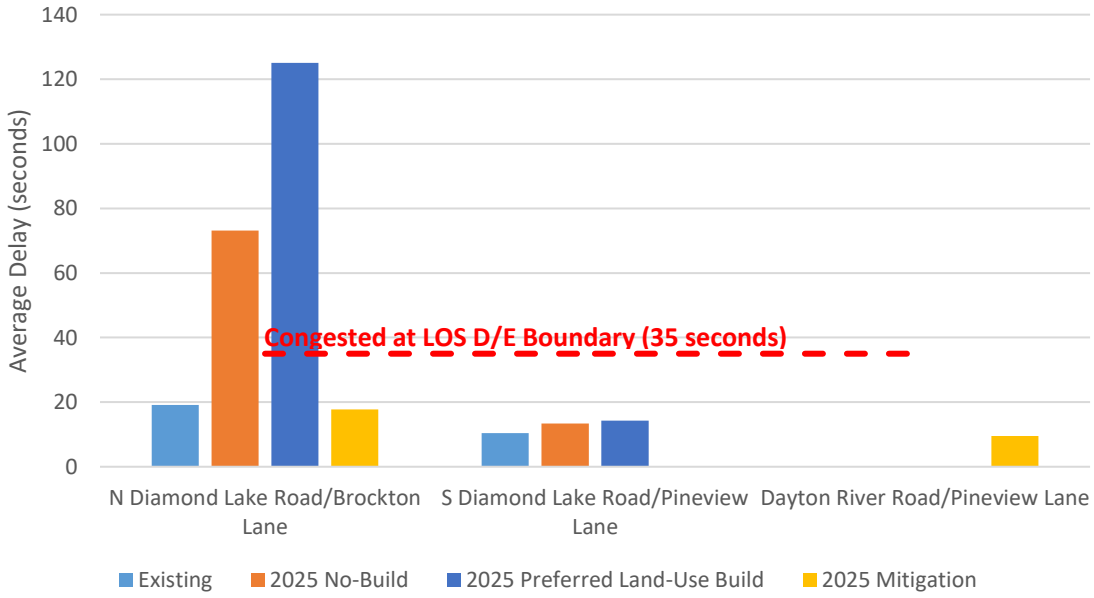


Chart 5 – P.M. Peak Hour Delays: All-Way Stop Sign/Roundabout Controlled Intersections

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.

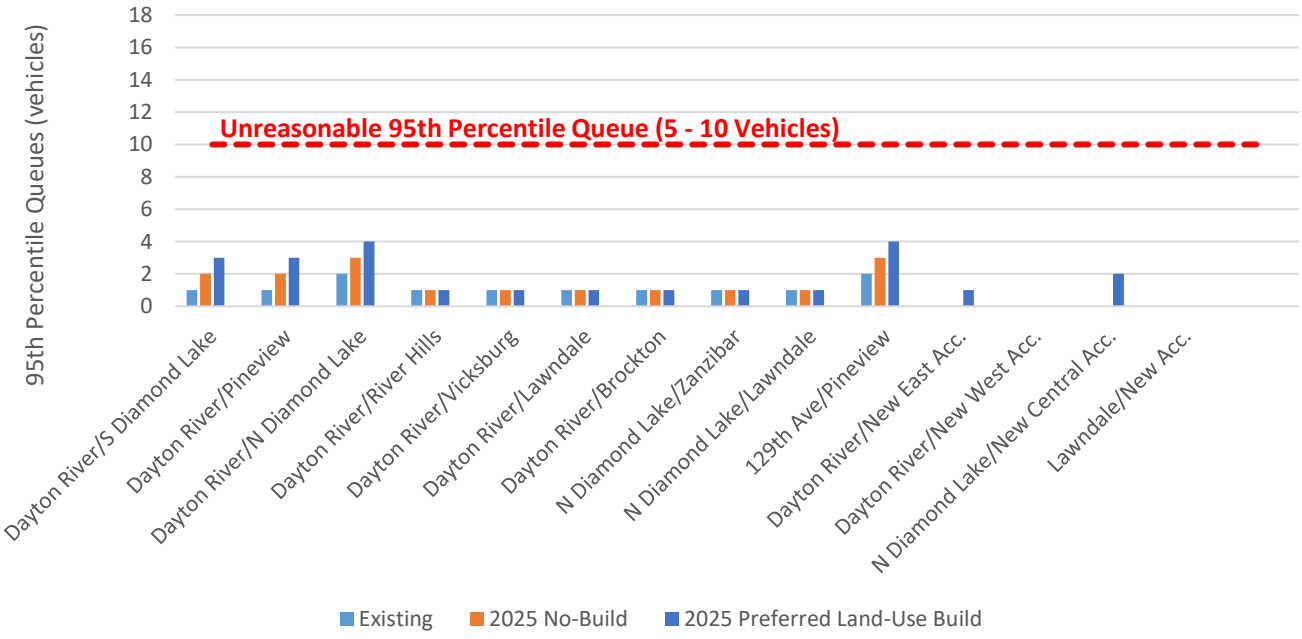


Chart 6 – A.M. Peak Hour Queues: Side Street Stop Sign Controlled Intersections

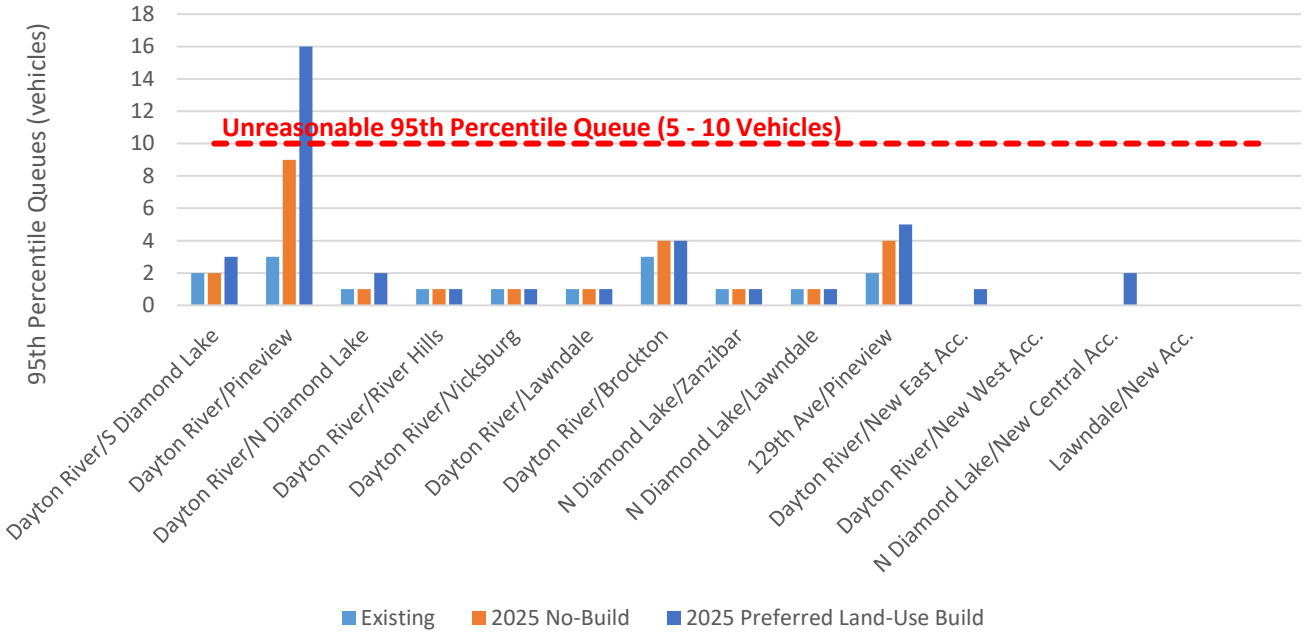


Chart 7 – P.M. Peak Hour Queues: Side Street Stop Sign Controlled Intersections

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.

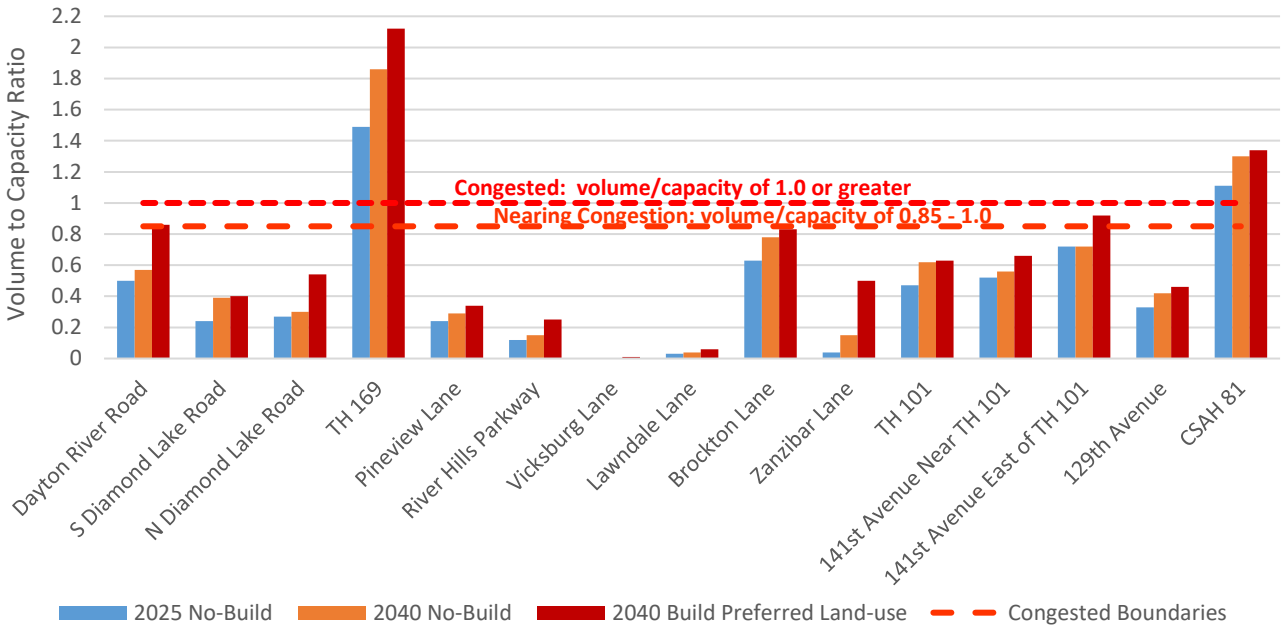


Chart 8 – 2040 Study Corridor Volume to Capacity

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.

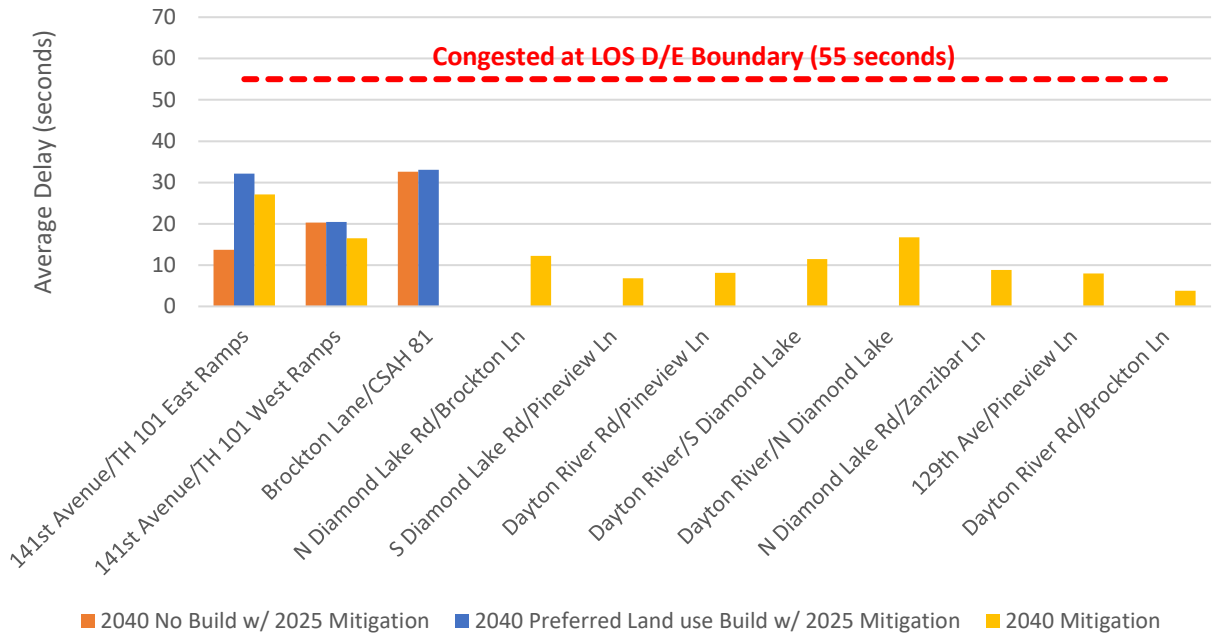


Chart 9 – A.M. Peak Hour Delays: Signal Controlled Intersections

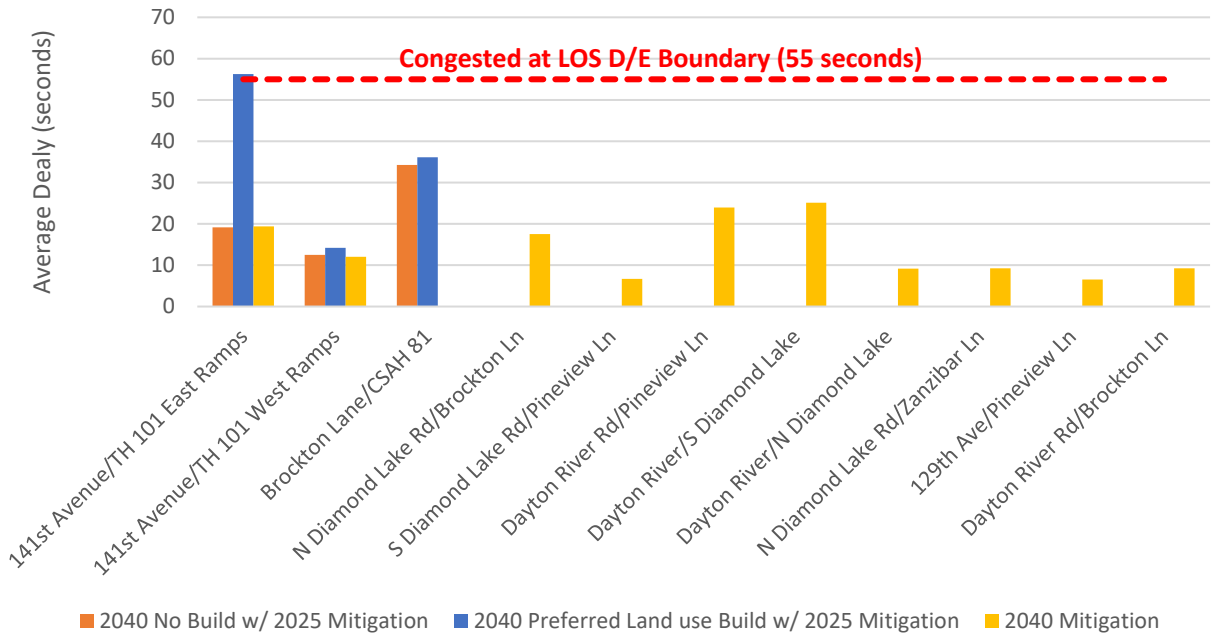


Chart 10 – P.M. Peak Hour Delays: Signal Controlled Intersections

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.

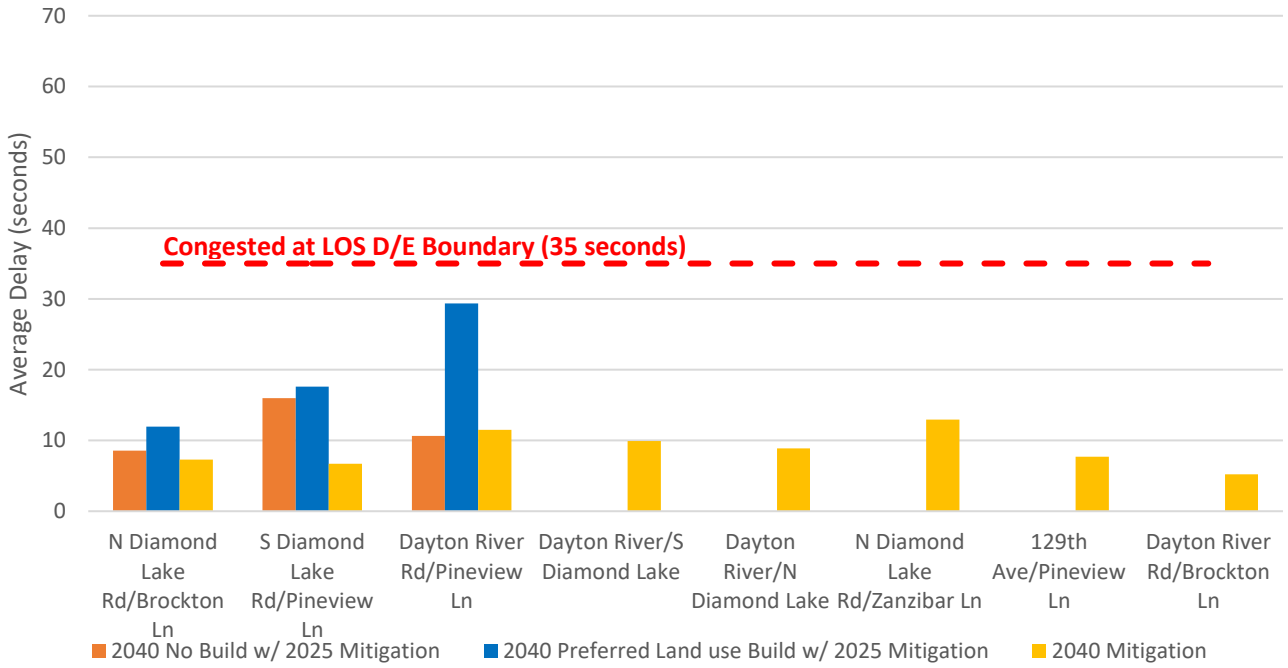


Chart 11 – A.M. Peak Hour Delays: All-Way Stop Sign/Roundabout Controlled Intersections

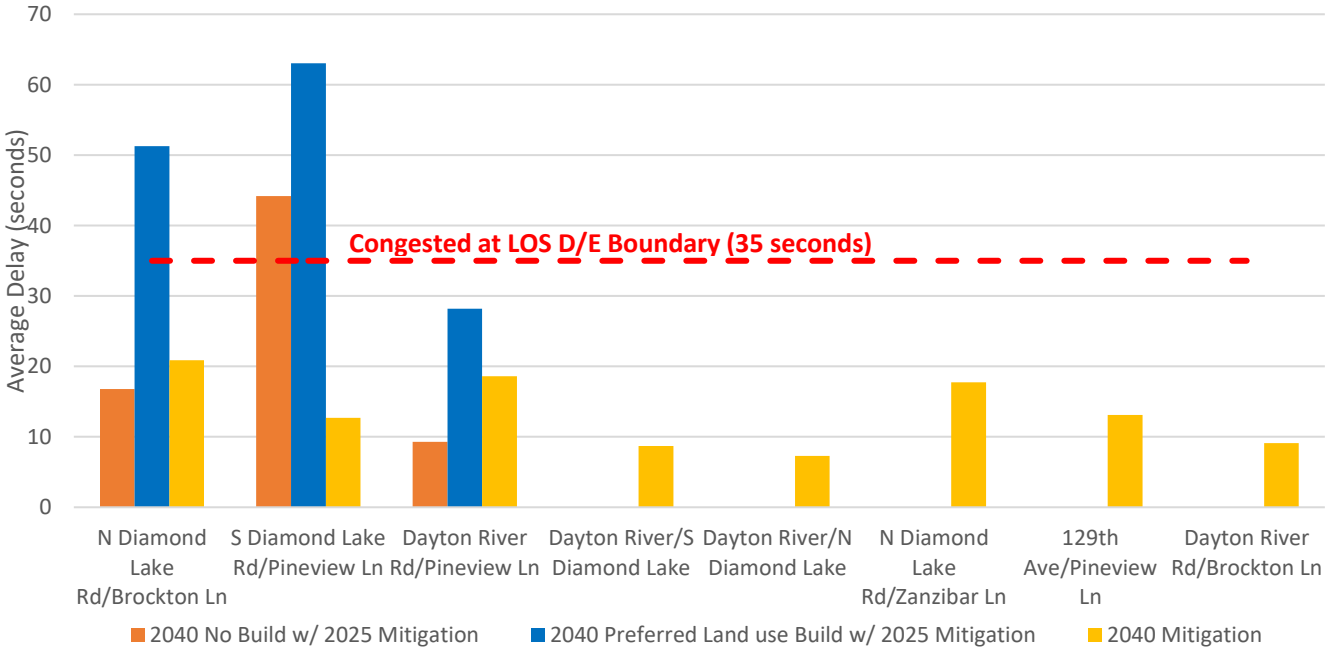


Chart 12 – P.M. Peak Hour Delays: All-Way Stop Sign/Roundabout Controlled Intersections

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.

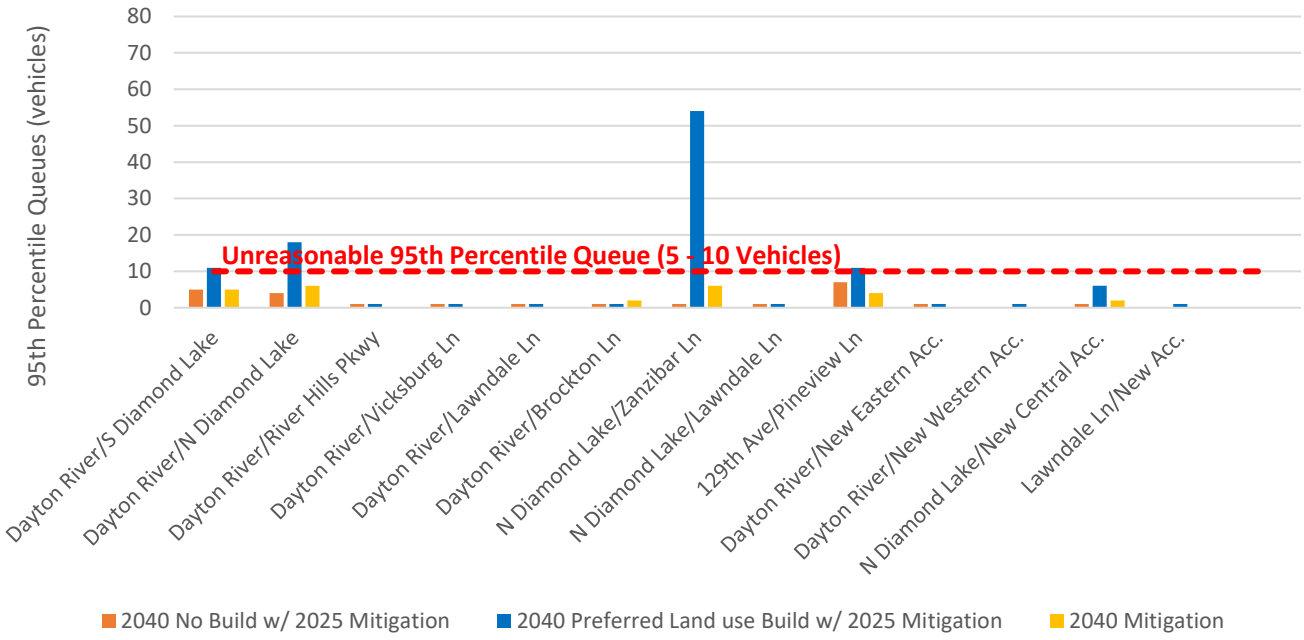


Chart 13 – A.M. Peak Hour Queues: Side Street Stop Sign Controlled Intersections

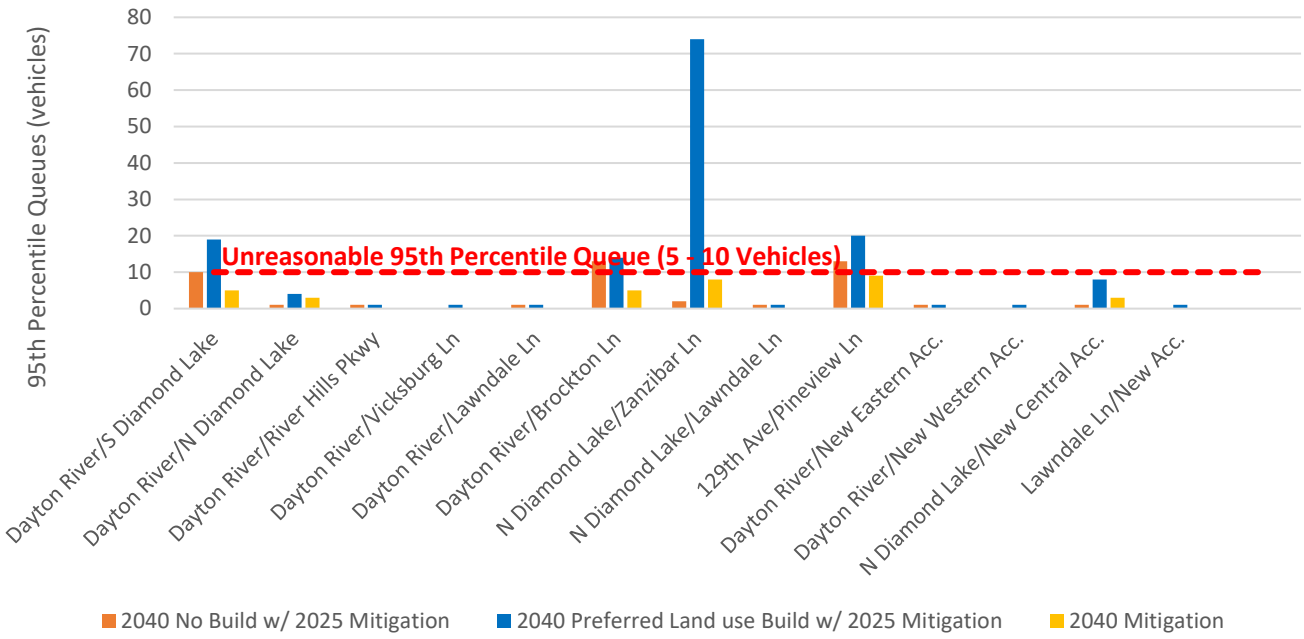


Chart 14 – P.M. Peak Hour Queues: Side Street Stop Sign Controlled Intersections

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)

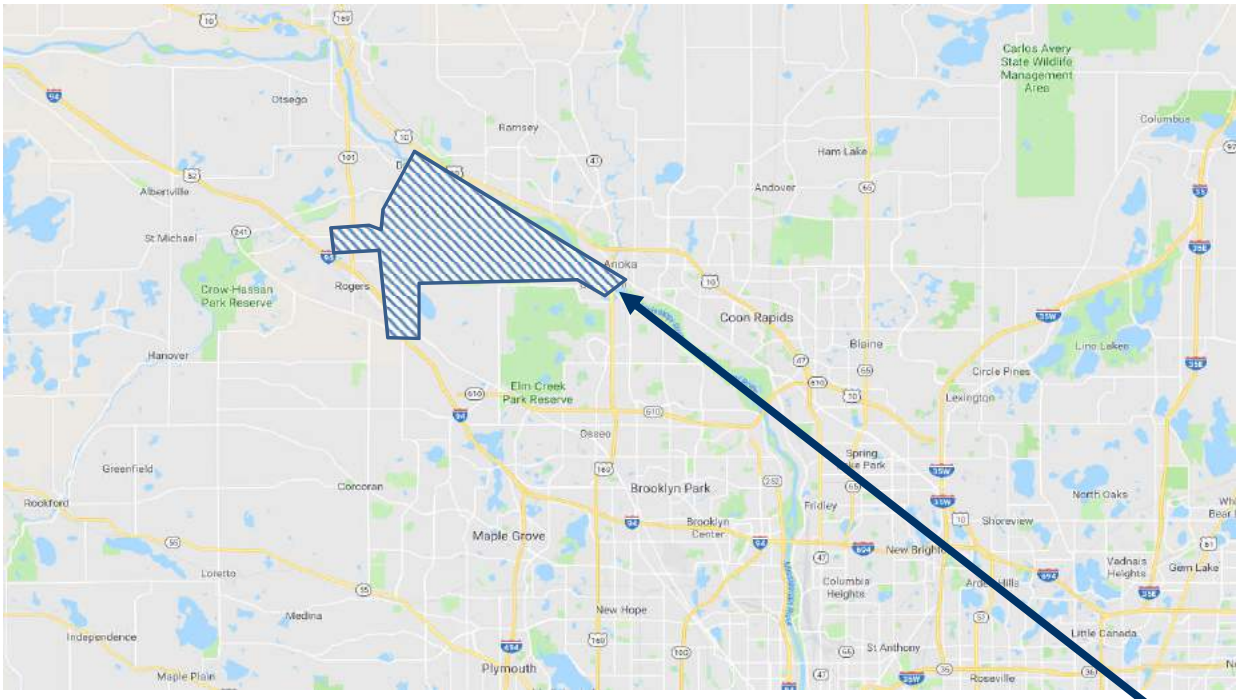
H. Capacity Analysis Backup (Available Upon Request)

- 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

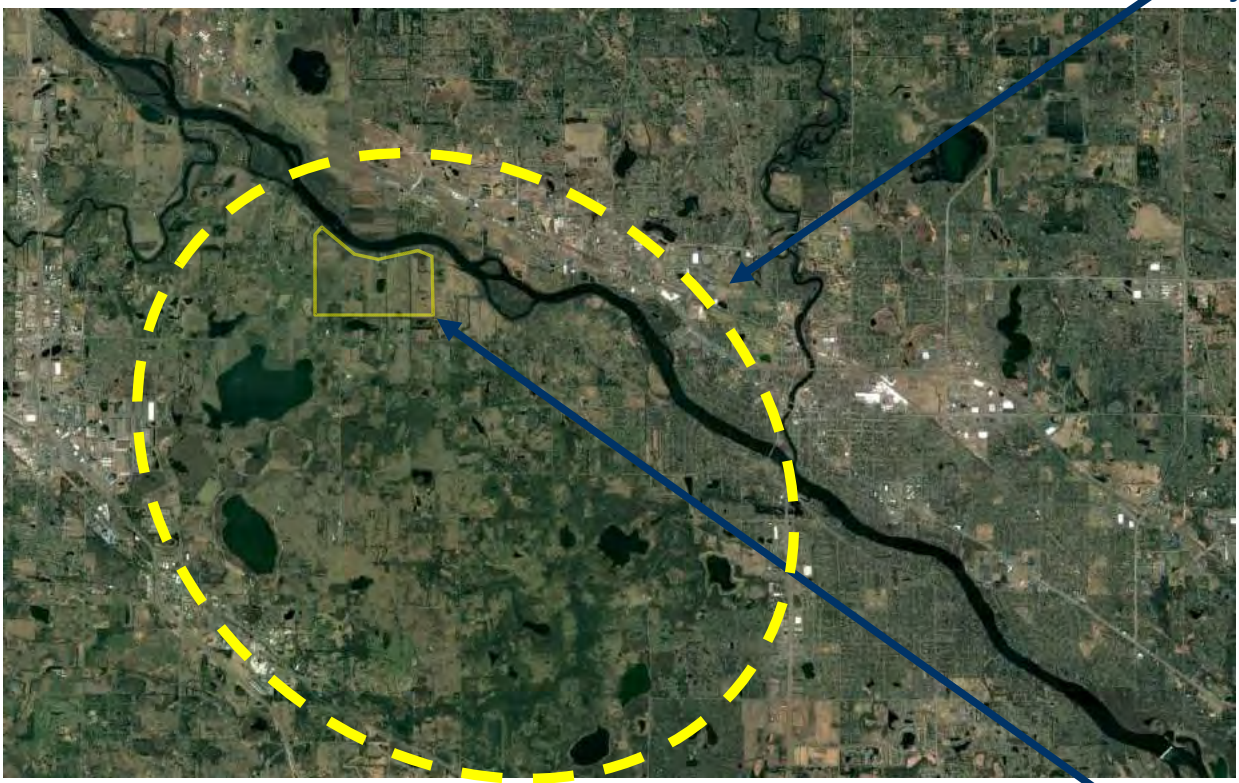
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ENGINEERING TRAFFIC FORWARD

Figure 1
Location Maps

North
No Scale



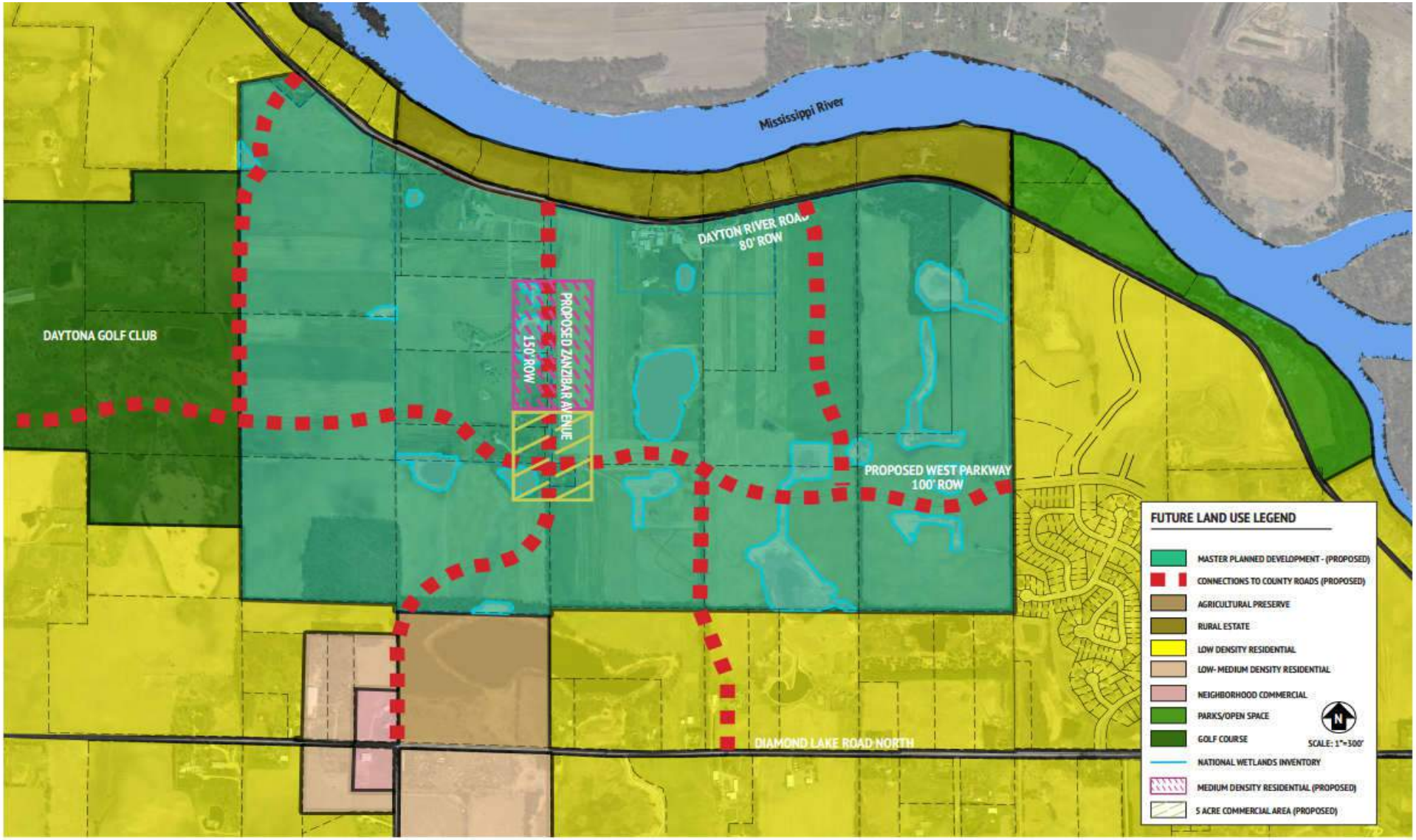
Study Area



Proposed Site

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Figure 2
Concept Plan

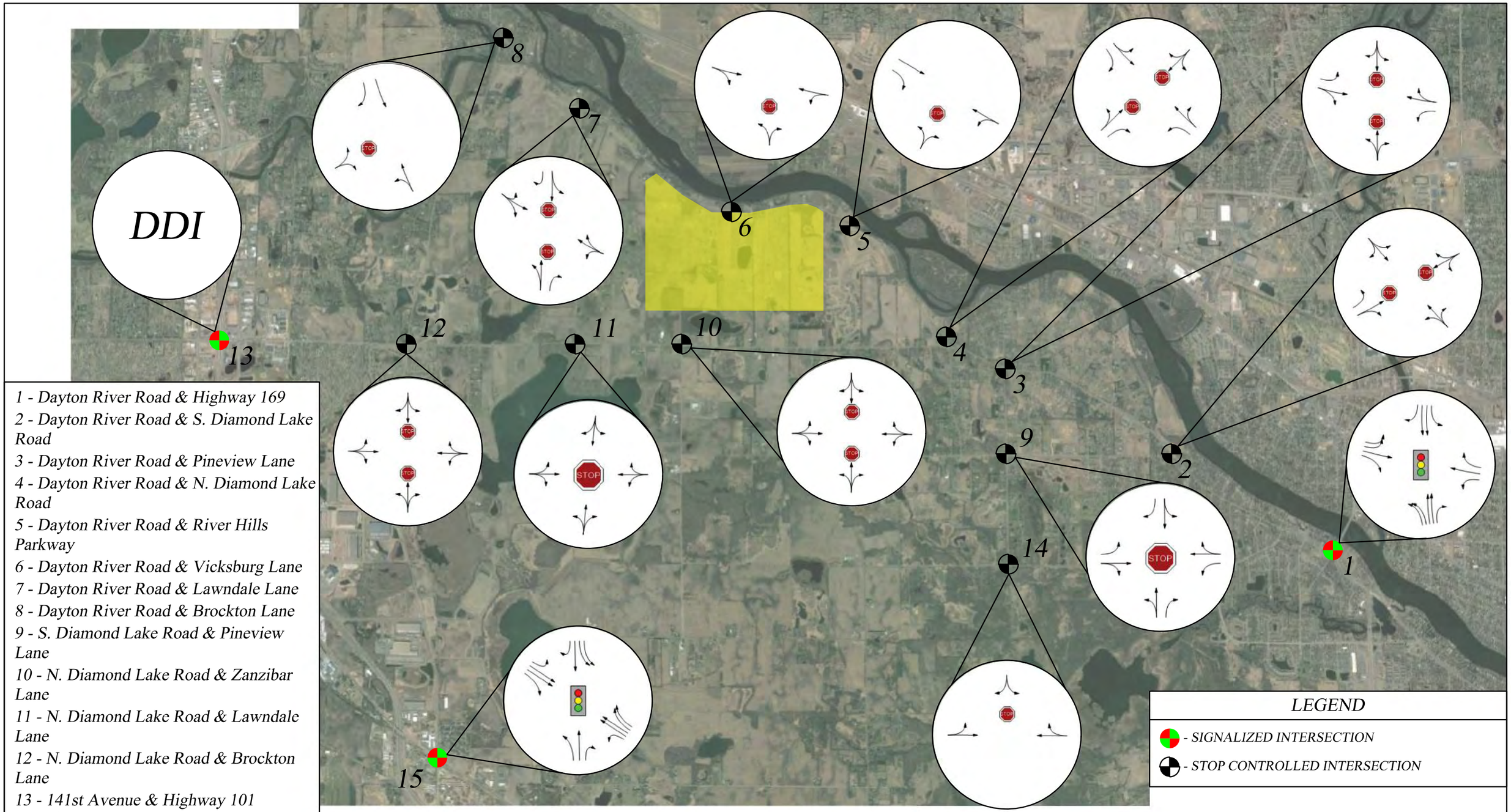


north dayton development
GONYEA COMPANY / RAMSAY PROPERTIES , LLC

DRAFT 2040 FUTURE LAND USE
(PROPOSED)

09.27.17

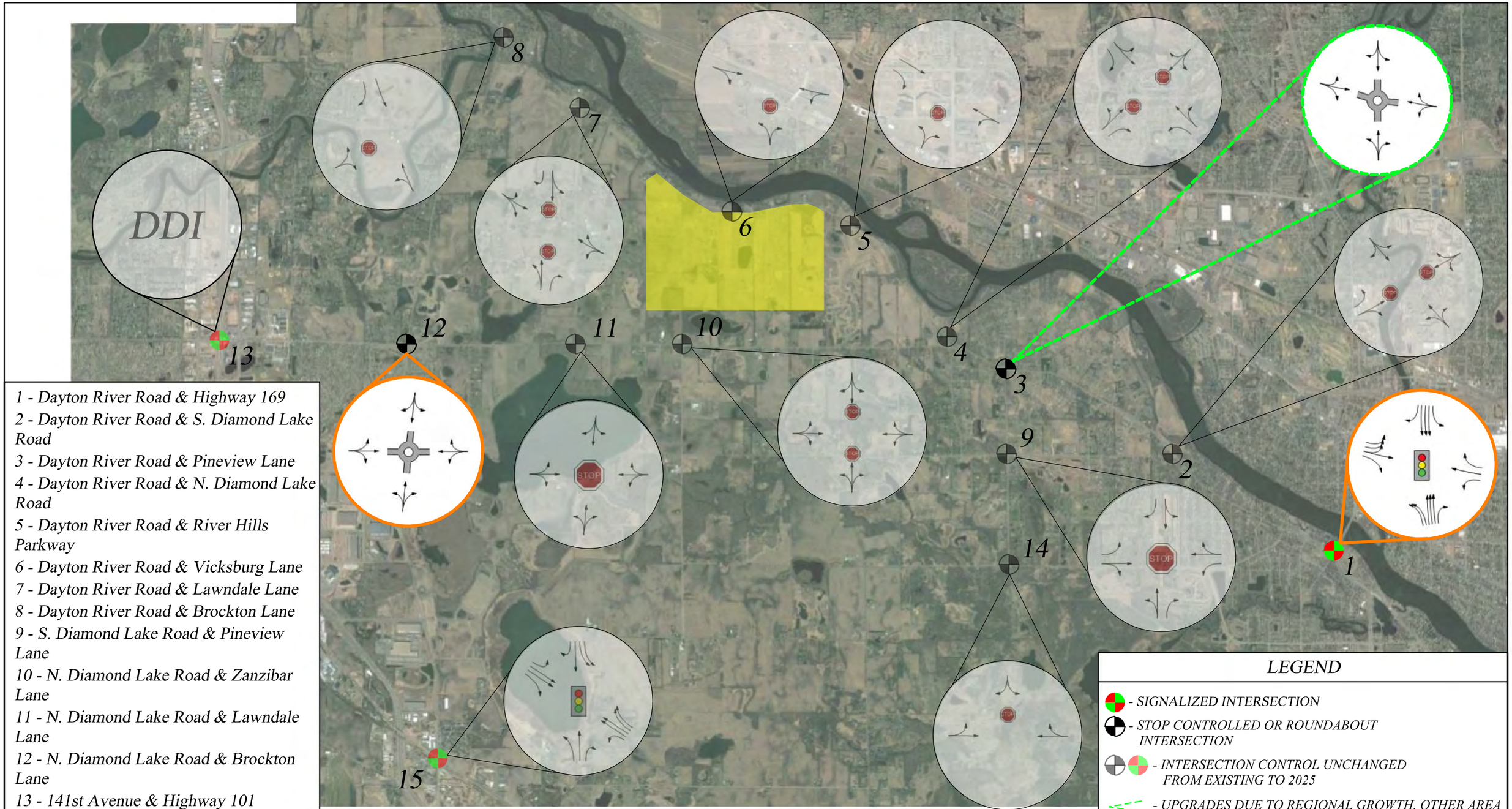
Sambatek



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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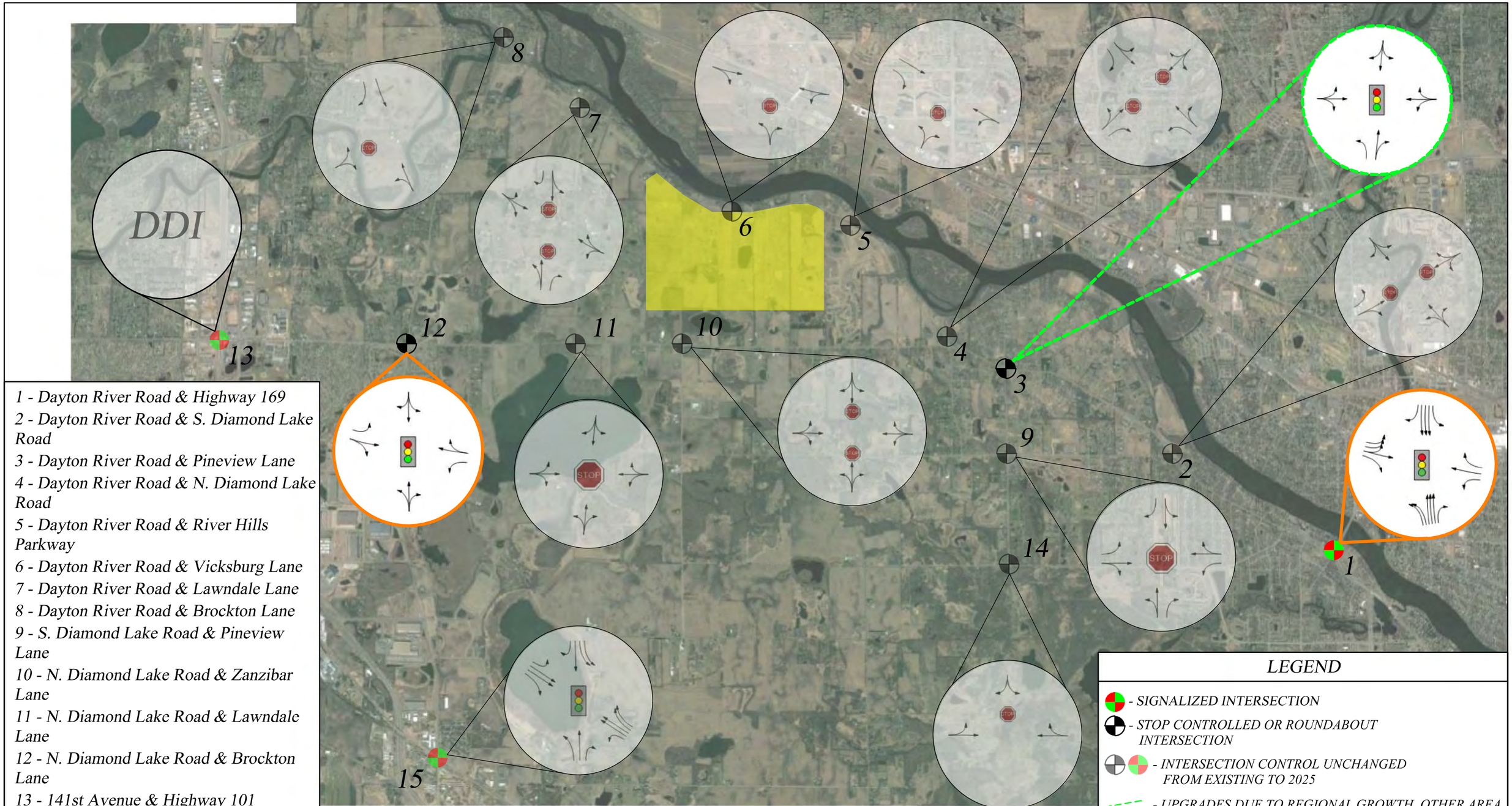
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12 - N. Diamond Lake Road & Brockton Lane
13 - 141st Avenue & Highway 101 Interchange
14 - 129th Avenue & Pineview Lane
15 - Brockton Lane & County Road 81

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 4A: 2025 Intersection Layouts
Northern Dayton Development

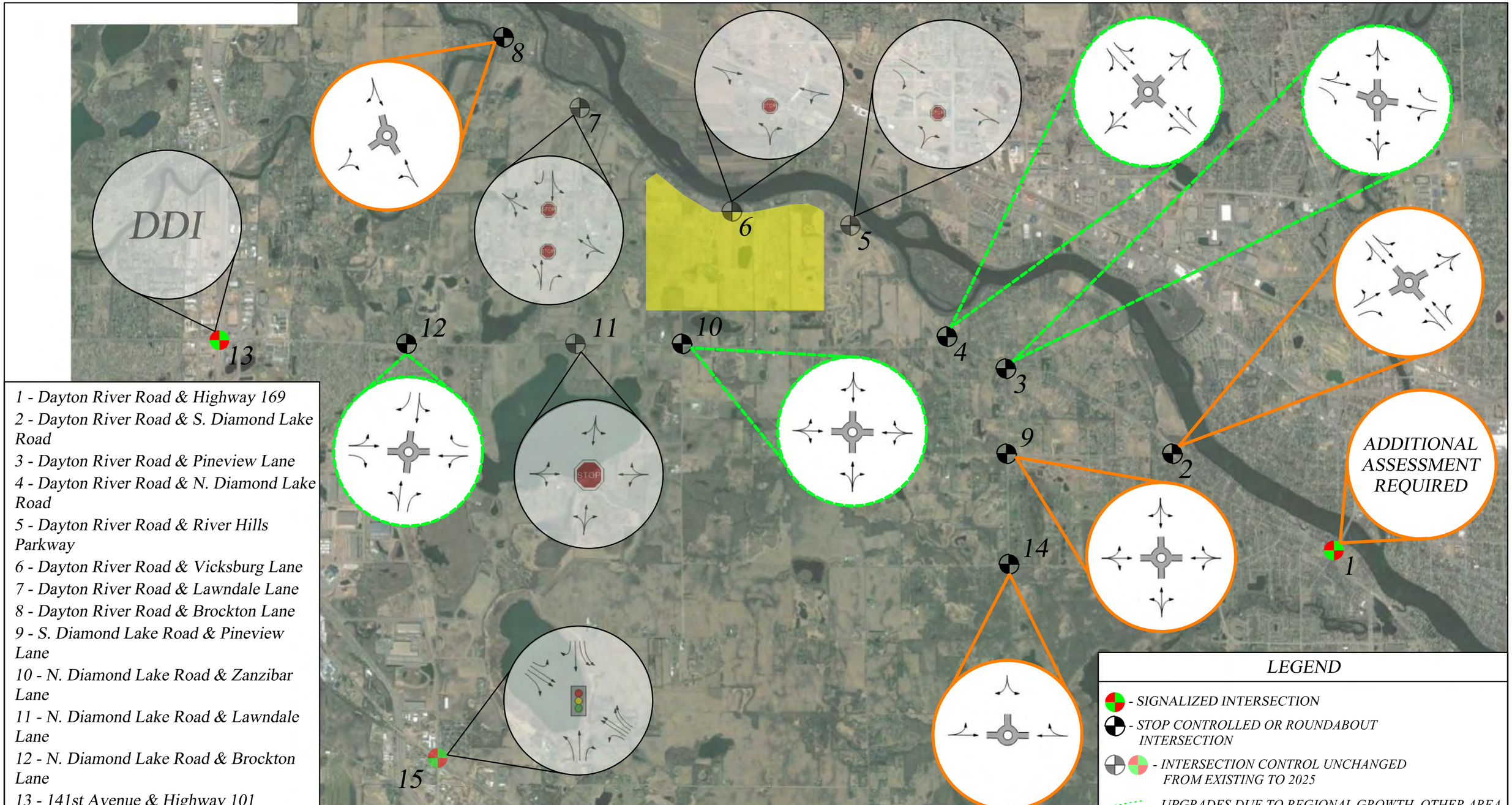
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1 - Dayton River Road & Highway 169
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15 - Brockton Lane & County Road 81

Figure 4B: 2025 Intersection Layouts
Northern Dayton Development

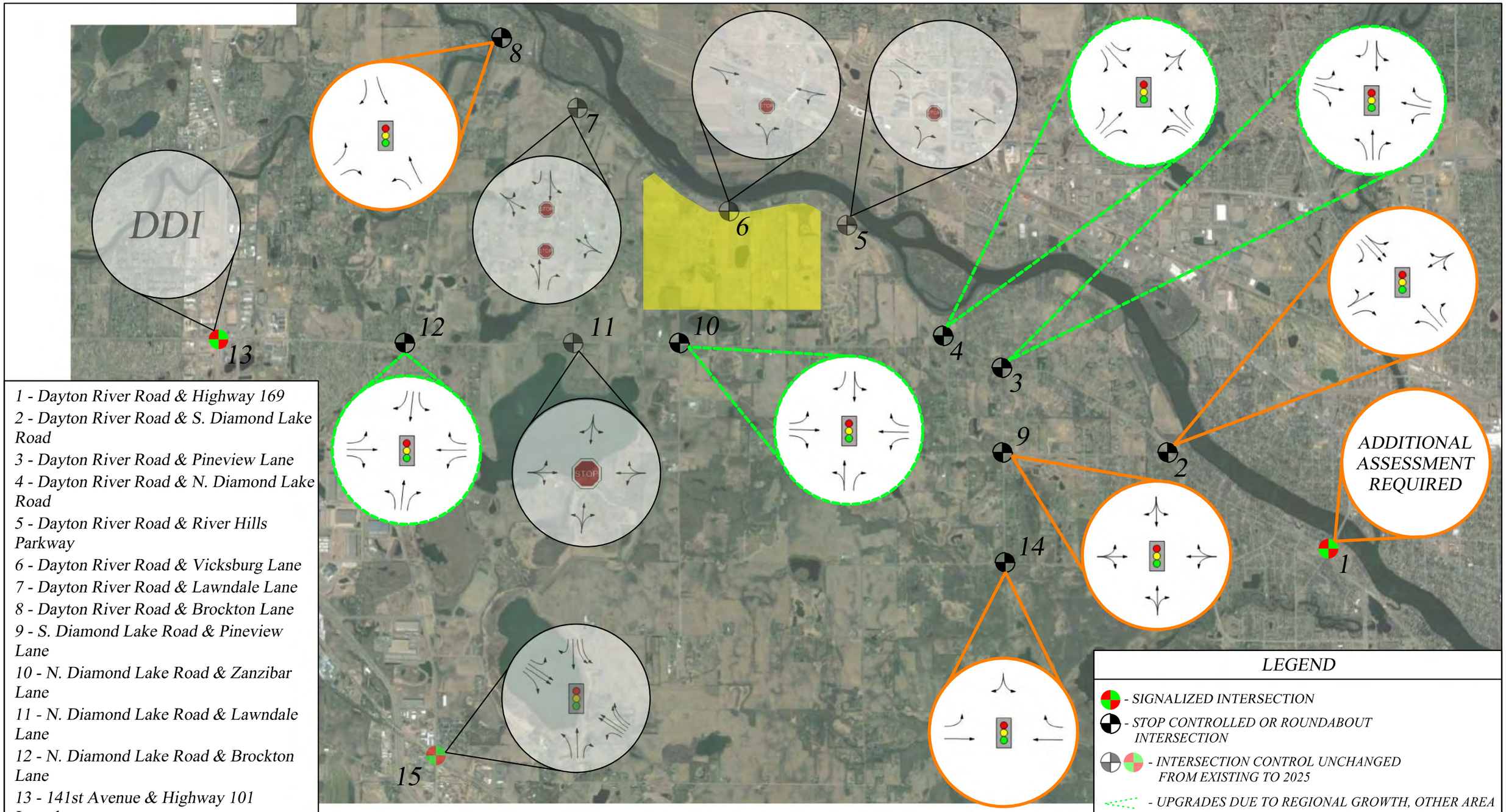
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1 - Dayton River Road & Highway 169
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Figure 5A: 2040 Intersection Layouts
Northern Dayton Development

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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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5 - Dayton River Road & River Hills Parkway
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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.

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ENGINEERING TRAFFIC FORWARD

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.).**

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	NEW TRIPS 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	NEW TRIPS 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	NEW TRIPS 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.).**

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	NEW TRIPS 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	NEW TRIPS 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	NEW TRIPS 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

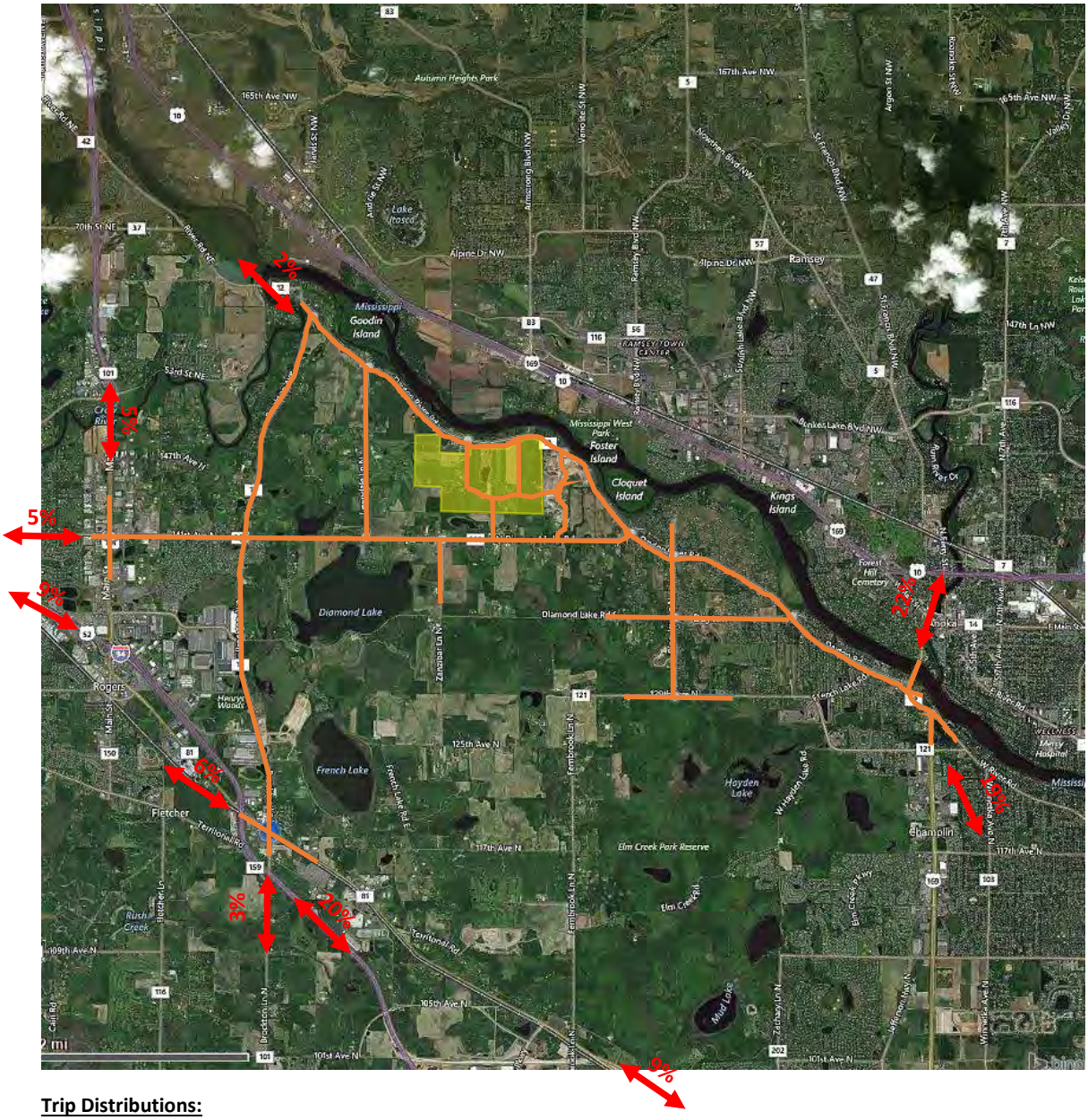
LAND USE	ITE CODE #	DEVELOPMENT UNITS	QUANTITY	PEAK RATE	ENTER PERCENT	EXIT PERCENT	PASSBY PERCENT	PASSBY TRIPS	NEW TRIPS ENTER	NEW TRIPS EXIT
Pulte, Rush Creek, Sundance, Brayburn	210	Units	1086.0	0.99	63%	37%	0%	0	677	398
Total								**0**	**677**	**398**

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

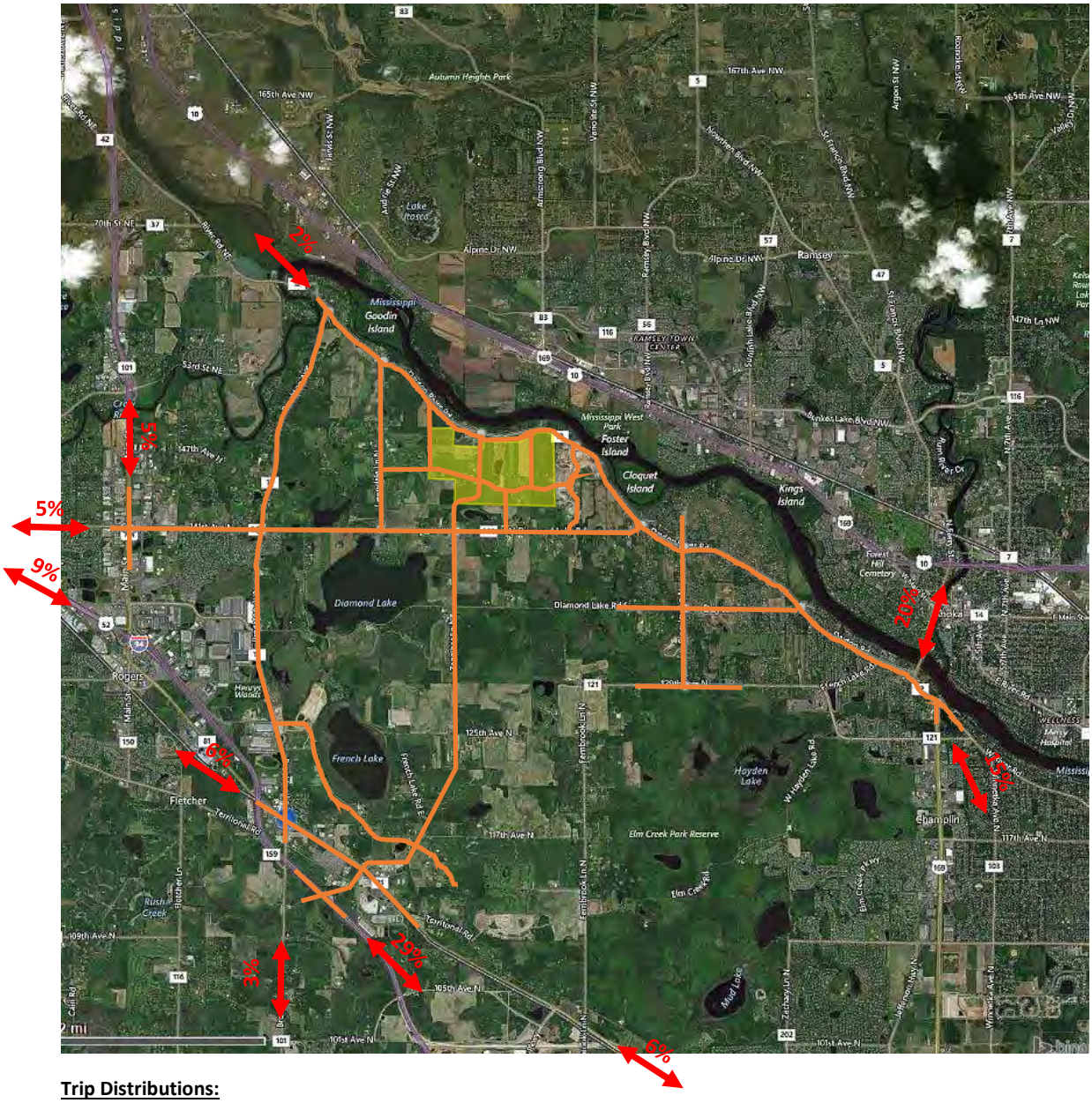


Trip Distributions:

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

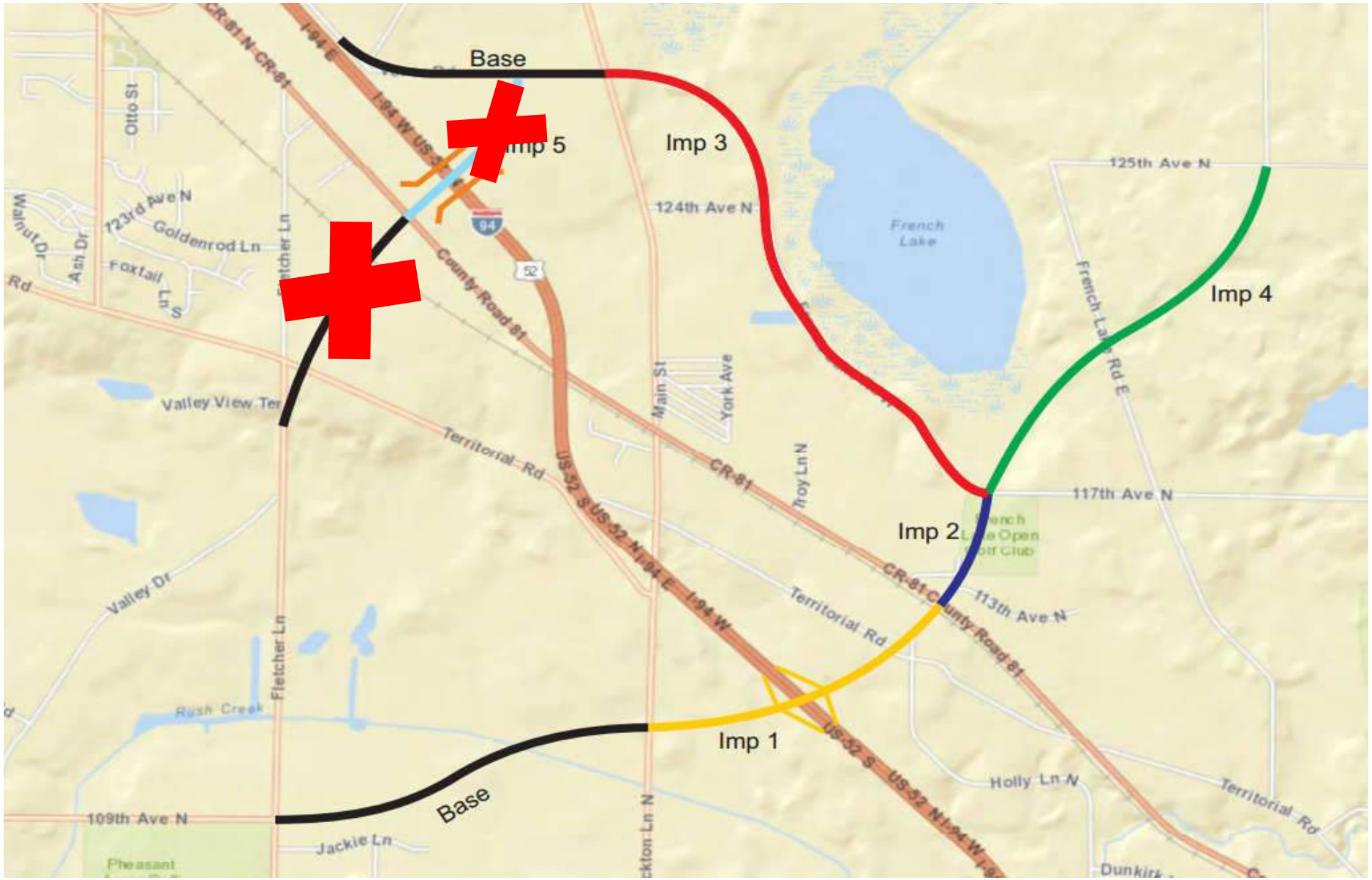


Trip Distributions:

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%

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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

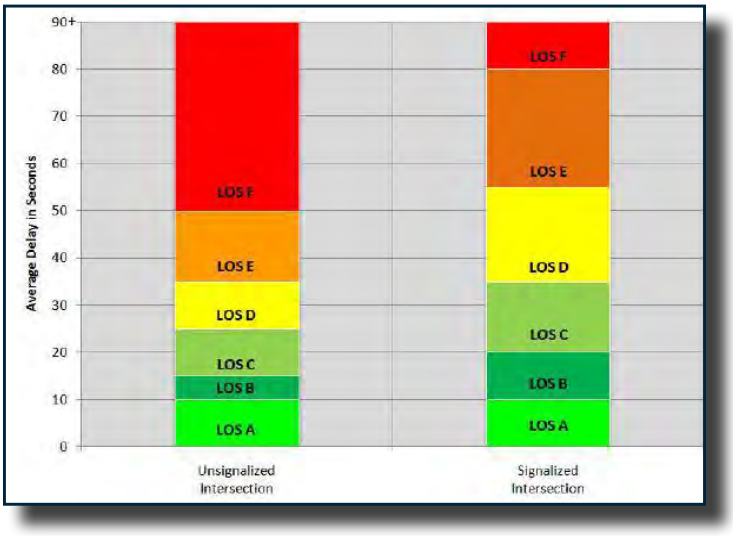
- **Number of Lanes.**
- **Traffic Volumes.**
- **Intersection Control (stop sign, signal, roundabout, interchange.)**
- **Amount of access on a corridor.**
- **Percentage of turning traffic.**
- **Traffic signal cycle length (green time devoted to each approach) and phasing (one green for all approach 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



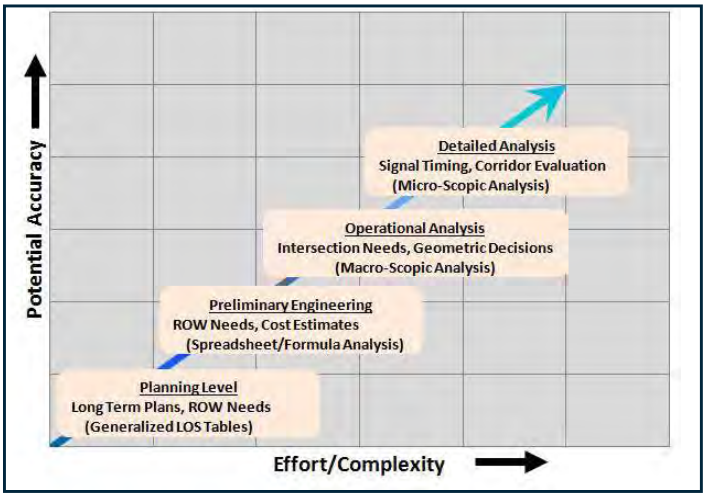
LOS F = Unacceptable

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.**

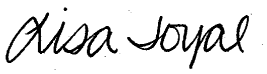
The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, 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

MINNESOTA POLLUTION CONTROL AGENCY

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

800-657-3864 | Use your preferred relay service | info.pca@state.mn.us | Equal Opportunity Employer

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.

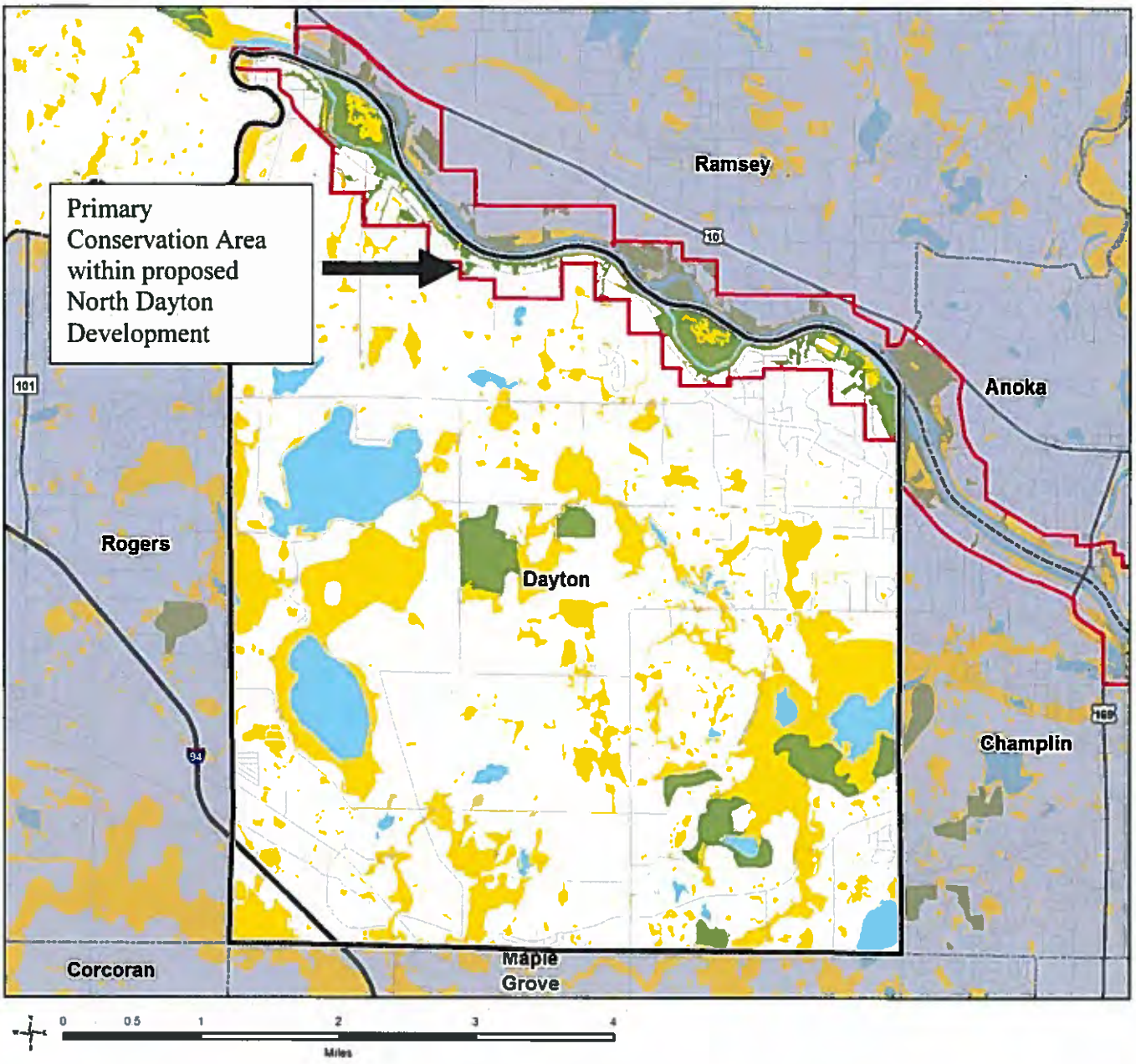
If you any questions regarding these comments please contact me at alan_robbins_fenger@nps.gov or by calling 651-293-8438.

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
City Hall: 763.427.1410 • Fax: 763.427.5543
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

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

RESOLUTION #18-169

RESOLUTION APPROVING RESPONSE TO THE CITY OF DAYTON'S NORTH DAYTON DEVELOPMENT DRAFT AUAR

WHEREAS, an Alternative Urban Areawide Review is an environmental review tool that can be used within a defined geographic area that is covered by an acceptable Comprehensive Plan; and

WHEREAS, adjacent jurisdictions are afforded the opportunity to review and comment on AUARs; and

WHEREAS, the City of Ramsey has received a draft AUAR for the North Dayton Development project located within the city of Dayton.

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

1) That the Ramsey City Council hereby approves the response to the draft North Dayton Development AUAR.

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 6th day of August, 2018.

_____
Acting Mayor

ATTEST:

_____
City Clerk

Our Mission: To work together to resposibly grow our community, and to provide quality, cost-effective, and efficient government services.

CC Regular Session **7. 7.**

Meeting Date: 08/06/2018

By: Tim Gladhill, Community Development

Information

Title:

Adopt Resolution #18-170 Approving Assessment Agreement with Affinity at Ramsey, LLC

Purpose/Background:

The purpose of this case is to adopt a resolution approving the Assessment Agreement with Affinity at Ramsey, LLC for the upcoming Affinity at Ramsey Senior Housing Project. The Agreement was previously approved as Appendix D to the Tax Increment Financing Agreement. The Anoka County Property Records Department has instructed the City to adopt a resolution specifically calling out this separate agreement for approval for signature. This is the final piece required in order to close on the real estate transaction and allow construction to commence.

Notification:

Notification is not required.

Observations/Alternatives:

Affinity at Ramsey is a 175 unit market rate senior apartment building previously approved by the City Council. Staff did not anticipate that a separate resolution was to be required for closing since it was covered in the Tax Increment Financing Agreement.

Affinity at Ramsey, LLC, the development entity of the Inland Group for the Ramsey project, is constructing any paying for the public infrastructure surrounding their project, and being reimbursed for the City's share as property owner of the surrounding area through a Tax Increment Financing District. A portion of this agreement is an Assessment Agreement that outlines how Affinity at Ramsey will be reimbursed and establishes a Minimum Assessment Agreement to ensure that sufficient increment is generated by the district to fund the reimbursement.

Funding Source:

This case is being handled as part of normal Staff duties. Affinity of Ramsey is being reimbursed through a Tax Increment Financing District through dollars generated in TIF District #14 (The COR).

Recommendation:

Staff recommends approval of the Assessment Agreement for signature.

Action:

Motion to adopt Resolution #18-170 approving the Assessment Agreement with Affinity at Ramsey, LLC as a separate document for recording.

Attachments

Resolution #18-170

FOR REFERENCE ONLY: Approved Assessment Agreement

Form Review

Inbox	Reviewed By	Date
Kurt Ulrich	Tim Gladhill	08/03/2018 02:02 PM
Form Started By: Tim Gladhill		Started On: 08/03/2018 01:51 PM
Final Approval Date: 08/03/2018		

Councilmember introduced the following resolution and moved for its adoption:

RESOLUTION #18-170

RESOLUTION APPROVING ASSESSMENT AGREEMENT (MINIMUM ASSESSMENT AGREEMENT) FOR AFFINITY AT RAMSEY, LLC

WHEREAS, the City Council of the City of Ramsey has approved a plat/subdivision, site plan, and multiple agreements for a market-rate senior housing apartment with Affinity at Ramsey, LLC; and

WHEREAS, as part of the approval, the City Council approved a Tax Increment Financing Agreement, including Exhibit D entitled Assessment Agreement (also known as Minimum Assessment Agreement); and

WHEREAS, the Assessment Agreement is to be executed separately from the Tax Increment Financing Agreement.

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

1) That the Ramsey City Council hereby approves the Assessment Agreement with Affinity at Ramsey, LLC (also known as the Minimum Assessment Agreement) and authorizes the Mayor and City Administrator to sign on behalf of 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:

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 6th day of August, 2018.

Acting Mayor

ATTEST:

City Clerk

FOR REFERENCE ONLY - PREVIOUSLY APPROVED

ASSESSMENT AGREEMENT

THIS AGREEMENT, dated as of this ___ day of August, 2018 (the "Agreement"), is by and among the City of Ramsey, Minnesota (the "City"), and Affinity at Ramsey, LLC, a Washington limited liability company (the "Developer"), and the Anoka County Assessor (the "Assessor").

WITNESSETH

WHEREAS, the City and the Developer have entered into a Tax Increment Financing Agreement dated as of August _____, 2018 (the "TIF Agreement") regarding certain real property located in the City (the "Development Property") which property is legally described on Exhibit A attached hereto and made a part hereof.

WHEREAS, it is contemplated that pursuant to the TIF Agreement, the Developer will construct a Project on the Development Property as described in the Development Agreement.

WHEREAS, the City and Developer desire to establish a minimum market value for the Development Property and the improvements constructed or to be constructed thereon, pursuant to Minnesota Statutes, Section 469.177, Subdivision 8.

WHEREAS, the Developer has acquired the Development Property.

WHEREAS, the Assessor has reviewed the plans and specifications for the improvements and the market value previously assigned to the land upon which the improvements are to be constructed, and that the "minimum market value" as set forth below is reasonable.

NOW, THEREFORE, the parties to this Agreement, in consideration of the promises, covenants and agreements made by each to the other, do hereby agree as follows:

1. As of January 2, 2021 through and thereafter until the earlier of (i) December 31, 2039; or (ii) the Termination Date as defined in the TIF Agreement, the minimum market value which shall be assessed for the Project shall be not less than $20,760,000.

2. The minimum market value herein established shall be of no further force and effect and this Agreement shall terminate on the earlier of: (i) December 31, 2039; or (ii) the Termination Date of the TIF Agreement.

3. This Agreement shall be recorded by the City with the County Recorder of Anoka County, Minnesota. The Developer shall pay all costs of recording. At the request of the Developer following the earlier of: (i) December 31, 2039; or (ii) the Termination Date of the TIF Agreement, the City shall record a Termination and/or Release of this Agreement with the County Recorder of Anoka County, Minnesota.

4. Neither the preamble nor provisions of this Agreement are intended to, or shall they be construed as, modifying the terms of the TIF Agreement between the City and the Developer.

5. This Agreement shall inure to the benefit of and be binding upon the successors and assigns of the parties.

IN WITNESS WHEREOF, the City, the Developer and the Assessor have caused this Agreement to be executed in their names and on their behalf all as of the date set forth above.

CITY OF RAMSEY, MINNESOTA

(SEAL)

By _____
Its Acting Mayor

By _____
City Administrator

STATE OF MINNESOTA)
) ss
COUNTY OF ANOKA)

The foregoing instrument was acknowledged before me this 24th day of July, 2018, by John LeTourneau, the Acting Mayor, and Kurt Ulrich, the City Administrator of the City of Ramsey on behalf of said City.

_____
Notary Public

Signature page for Assessment Agreement by and between the City of Ramsey, Minnesota, Affinity at Ramsey, LLC, and the Anoka County Assessor.

FOR REFERENCE ONLY; PREVIOUSLY APPROVED

AFFINITY AT RAMSEY, LLC

By _____
_____

STATE OF WASHINGTON)
) ss.
COUNTY OF SPOKANE)

The foregoing instrument was acknowledged before me this _____ day of _____, _____, by, Darin Davidson, the Manager of Affinity at Ramsey, LLC, a limited liability corporation under the laws of the State of Washington on behalf of the corporation.

_____
Notary Public

FOR REFERENCE ONLY; PREVIOUSLY APPROVED

Signature page for Assessment Agreement by and between the City of Ramsey, Minnesota, Affinity at Ramsey, LLC, and the Anoka County Assessor.

CERTIFICATION BY COUNTY ASSESSOR

The undersigned, having reviewed the plans and specifications for the improvements to be constructed and the market value assigned to the land upon which the improvements are to be constructed, and being of the opinion that the minimum market value contained in the foregoing Agreement appears reasonable, hereby certifies as follows: The undersigned Assessor, being legally responsible for the assessment of the above described property, hereby certifies that the market values assigned to such land and improvements are reasonable.

_____
County Assessor for Anoka County

STATE OF MINNESOTA)
) ss.
COUNTY OF ANOKA)

This instrument was acknowledged before me on _____, 2018, by _____, the County Assessor of Anoka County.

_____
Notary Public

FOR REFERENCE ONLY, PREVIOUSLY APPROVED

Signature page for Assessment Agreement by and between the City of Ramsey, Minnesota, Affinity at Ramsey, LLC, and the Anoka County Assessor.

Our Mission: To work together to resposibly grow our community, and to provide quality, cost-effective, and efficient government services.

CC Regular Session **7. 8.**

Meeting Date: 08/06/2018

By: Tim Gladhill, Community Development

Information

Title:

Adopt Resolution #18-171 Approving Consent to Assignment of Rights Under TIF Agreement

Purpose/Background:

This case was added on August 6, 2018. Due to the addition of the case on the same day as the meeting, the City Council is not obligated to take action this evening. Staff is presenting this case as an option for action this evening in order to provide the opportunity to act without delaying the project until the end of the month. Options for action include, but are not necessarily limited to the following.

1. Take action this evening (8/6/18).
2. Hold a special meeting on 8/13/18.
3. Postpone action until the next regularly scheduled meeting (8/28/18).

Affinity at Ramsey, LLC, the developer of a 55+ senior apartment building has requested that the City consent to an assignment of rights under the approved TIF Agreement. The Primary Lender on the project has requested the rights of the TIF Agreement to be assigned to them as collateral on their loan. This is standard in transactions, and does not increase liability to the City.

The City previously approved a Tax Increment Financing Agreement to reimburse the Developer for the City's share of public infrastructure surrounding the development site. The Developer is constructing and paying up front for all required public infrastructure that will benefit the remaining undeveloped parcels surrounding the development site. The Developer is still paying their share of the public infrastructure (under the 60%/40% Split per City policy). This was a tool that was used that allowed the project to move forward in a shorter timeframe and still construct beginning in 2018. The structure of the agreement is Pay As You Go, so there is very limited liability to the City.

Notification:

Notification is not required.

Observations/Alternatives:

The original TIF Agreement was drafted by Ms. Mary Ippel of Briggs and Morgan, which is standard for Ramsey for these types of financial packages. Ms. Ippel has reviewed the request and the document, and is comfortable in taking action for approval this evening. Ms. Ippel states that this is a fairly standard consent, and the agreement is really between the Developer/Borrower and the Lender. There is no material change or increase in liability to the City. The City is not a direct party to the Assignment.

With this action, the City is simply consenting to an agreement between Borrower (Developer/Affinity at Ramsey) and Lender. The City is further protected by other existing agreements such as the Right of Re-Entry Agreement, Assessment Agreement, and Development Agreement (including a Financial Guarantee in the form of a Letter of

Credit). Staff believes the City is well protected in this project.

Recommendation:

Staff and Legal Counsel recommend approval of the Assignment, regardless of the date of action. Staff would support a delay in action if desired by the City Council. Given the simplicity of the Agreement/Consent, legal counsel does not believe it is necessary to hold up closing for this agreement.

Action:

Motion to adopt Resolution #18-171 approving Assignment of Rights Under TIF Agreement related to the Affinity at Ramsey project.

Attachments

Assignment of Rights Under TIF Agreement

FOR REFERENCE ONLY: Original TIF Agreement

Resolution #18-171

Form Review

Inbox	Reviewed By	Date
Kurt Ulrich	Tim Gladhill	08/06/2018 12:08 PM
Form Started By: Tim Gladhill		Started On: 08/06/2018 11:26 AM
Final Approval Date: 08/06/2018		

ASSIGNMENT OF RIGHTS UNDER TIF AGREEMENT

This ASSIGNMENT OF RIGHTS UNDER TIF AGREEMENT (this "Agreement") is made and entered into as of July [__], 2018, by and between AFFINITY AT RAMSEY, LLC, a Washington limited liability company ("Borrower"), and UMPQUA BANK, an Oregon state-chartered bank ("Lender").

R E C I T A L S

A. Lender and Borrower are parties to a loan agreement dated as of July __, 2018 (together with all amendments, supplements, exhibits, and modifications thereto, the "Loan Agreement"), which sets forth the terms and conditions under which Lender will make a loan (the "Loan") to Borrower. Terms defined in the Loan Agreement shall have same meanings when used herein.

B. The proceeds of the Loan will be used to provide financing to Borrower for the development of a 174 unit "age restricted at 55 and older" apartment complex known as "Affinity at Ramsey" located at the southwest corner of Ramsey Parkway NW and West Town Center Drive, Ramsey, Minnesota 55303 (the "Property").

C. In connection with the development of the Project, Borrower and the City of Ramsey, Minnesota (the "City"), a home rule charter city organized and existing under the constitution and laws of the State of Minnesota have entered into that certain Tax Increment Financing Agreement dated as of _____, 2018(as now or hereafter amended, the "TIF Agreement"), pursuant to which the City will issued to Borrower that certain Tax Increment Revenue Note (Affinity at Ramsey, LLC Project) (as now or hereafter amended, the "TIF Note").

D. To secure Borrower's obligations to Lender, Borrower granted to Lender a Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing to Lender (the "Mortgage") covering the Property.

E. As a condition to Lender making the Loan, Borrower must assign it rights in and to the TIF Agreement to Lender as additional security for the Borrower's obligations to Lender.

For and in consideration of the mutual covenants herein contained as well as other considerations, the receipt and sufficiency of which is hereby acknowledged, Borrower and Lender hereby agree as follows:

1. GRANT OF SECURITY INTEREST

(a) Borrower hereby grants to Lender and Lender hereby accepts a security interest in all right, title and interest of Borrower in an to the TIF Agreement together with all proceeds and replacements thereof. Said security interest shall attach on execution hereof, and shall secure performance by Borrower of all of its obligations to Lender described in Section 2 herein.

(b) Until the termination of this Agreement, Borrower shall perform any and all steps and take all actions requested by Lender from time to time to perfect, maintain, protect, and enforce Lender's security interest in, and lien on, the TIF Agreement, including (i) executing and delivering all appropriate documents and instruments as Lender may determine are necessary or desirable to perfect, preserve, or enforce Lender's interest in the TIF Agreement, including financing statements, all in form and substance satisfactory to Lender, (iii) placing notations on Borrower's books of account to disclose Lender's security interest and lien therein, and (iv) taking such other steps and actions as deemed reasonably necessary or desirable by Lender to perfect and enforce Lender's security interest in, and lien on, and other rights and interests in, the TIF Agreement.

(c) Borrower hereby irrevocably authorizes Lender at any time and from time to time to file in any filing office in any jurisdiction any initial financing statements and amendments thereto that (i) indicate the TIF Agreement as being collateral, and (ii) provide any other information required by applicable law for the sufficiency or filing office acceptance of any financing statement or amendment. Borrower hereby irrevocably authorizes Lender at any time and from time to time to correct or complete, or to cause to be corrected or completed, any financing statements, continuation statements or other such documents as have been filed naming Borrower as debtor and Lender as secured party. Borrower agrees to furnish any such information to Lender promptly upon request. At Lender's request, Borrower will execute notices appropriate under any applicable requirements of law that Lender deems desirable to evidence, perfect, or protect its security interest in and other liens on the TIF Agreement in such form(s) as are satisfactory to Lender. Borrower will pay the cost of filing all financing statements and other notices in all public offices where filing is deemed by Lender to be necessary or desirable to perfect, protect or enforce the security interest and lien granted to Lender hereunder. A carbon, photographic, photostatic or other reproduction of this Agreement or of a financing statement is sufficient as a financing statement. Lender is hereby authorized to give notice to any creditor or any other person as may be necessary or desirable under applicable laws to evidence, protect, perfect, or enforce the security interest and lien granted to Lender in the TIF Agreement.

2. OBLIGATIONS SECURED HEREBY

This Agreement secures the payment and performance of the Note and all other "Secured Obligations" as defined in the Mortgage.

3. WARRANTIES OF BORROWER

Borrower warrants that (i) Borrower is the owner of the TIF Agreement free and clear of all liens and security interests except the security interest granted herein, (ii) Borrower has the right to make this Agreement, and (iii) no default or event of default has occurred and is continuing under the TIF Agreement.

DRAFT

4. COLLATERAL COVENANTS

Until the Secured Obligations are fully paid, performed and satisfied and this Agreement is terminated, Borrower will:

(a) Maintain the TIF Agreement, as the same is constituted from time to time, free and clear of all liens, except the liens granted to Lender pursuant to this Agreement, and Borrower will defend or cause to be defended the TIF Agreement against all of the claims and demands of all Persons whomsoever;

(b) Promptly notify Lender in writing of any information which Borrower have or may receive with respect to the TIF Agreement which may with reasonable certainty materially and adversely affect the value thereof or the rights of Lender with respect thereto;

(c) Not sell or transfer the TIF Agreement, or create or permit to be created or to exist any Lien on the TIF Agreement, or release, compromise, or settle any obligation due under the TIF Agreement;

(d) Not (i) amend, modify, terminate or waive any provisions of the TIF Agreement or any related documents, (ii) grant any extension of time of repayment of any sum due under the TIF Agreement, (iii) compromise, compound, or settle any sum due under the TIF Agreement for less than the full amount thereof, (iv) release, wholly or partially, any person or entity liable for the payment of any sum due under the TIF Agreement, or allow any credit or discount whatsoever thereon, or (iv) grant any consent under the TIF Agreement requiring the consent of Borrower a without the prior written consent of Lender;

(e) Take all actions requested by Lender to enforce the covenants of the obligors under the TIF Agreement; and

(f) Concurrently with the execution of the TIF Note, Borrower shall (i) execute and deliver a Pledge of Note agreement in form and substance acceptable to Lender and (ii) deliver the original TIF Note to Lender with a signed allonge, leaving the name of the transferee blank.

5. APPOINTMENT OF ATTORNEY- IN- FACT

Borrower hereby nominates and appoints Lender as attorney-in-fact to do all acts and things which Lender may deem necessary or advisable to perfect and continue perfected the security interest created by this Agreement. This power of attorney, being coupled with an interest, will be irrevocable for the term of this Agreement and all transactions under this Agreement and thereafter so long as any of the Secured Obligations remain in existence. Borrower ratifies and approves all acts of such attorney, and neither Lender nor its attorney will be liable for any acts or omissions or for any error of judgment or mistake of fact or law. Borrower will execute and deliver promptly to Lender all instruments necessary or desirable, as determined in Lender's discretion, to further Lender's exercise of the rights and powers granted it in this Section 5.

6. REMEDIES

(a) Upon the occurrence of any Event of Default, Lender shall have all rights and remedies of a secured party under the Washington Uniform Commercial Code or other applicable law and all rights provided herein, or in any other applicable agreement, all of which rights and remedies shall, to the fullest extent permitted by law, be cumulative. Any forbearance, failure, or delay by Lender in exercising any right, power or remedy, and any single or partial exercise of any right, power or remedy hereunder shall not preclude the further exercise thereof; and every right, power, and remedy of Lender shall continue in full force and effect until such right, power, or remedy is specifically waived by an instrument in writing executed by Lender.

(b) Without limiting the generality of the foregoing, upon the occurrence of any such Event of Default, Lender is entitled to sell the TIF Agreement, provided any notice of sale or intended disposition is mailed by Lender postage prepaid, first class to Borrower at the address contained herein at least five days prior to such action. Such notice shall constitute reasonable notice to Borrower.

7. WAIVERS BY BORROWER

Borrower waives any rights to require Lender to (a) proceed against any other person; (b) proceed against or exhaust any collateral for the Secured Obligations other than the TIF Agreement; (c) pursue any other remedy in the Lender's power and waives any defense arising by reason of the cessation from any cause whatsoever of the liability of Borrower, or any other person. Until all of the Secured Obligations have been fully performed and have been paid in full, Borrower shall have no right of and waives any right to enforce any remedies which Lender now has or may hereafter have against any other person and waives any benefit of and any right to participate in the proceeds of the TIF Agreement at any time.

8. PROCEEDS OF SALE

(a) In the event of sale pursuant to Section 6 herein, the proceeds of such sale shall be applied in the following manner: (i) the reasonable expenses of selling and, to the extent provided in this Agreement and not prohibited by law, including, without limitation all attorneys' fees and legal expenses incurred by the Lender, and (ii) all other Secured Obligations in any order that Lender chooses.

(b) Lender may buy the TIF Agreement at a public sale and at a private sale. Any sale hereunder may be conducted by any officer, attorney or agent of Lender.

9. EXPENSES AND ATTORNEYS' FEES

All obligations of Borrower hereunder shall by payable on demand, and any amount due and payable hereunder to any Lender by Borrower which is not paid within ten (10) days after written demand therefor from an Lender shall bear interest from the date of such demand at the Note Rate. Borrower agrees to pay on demand all of Lender's costs and expenses, including Lender's attorney fees and legal expenses, incurred in connection with

enforcement of this Agreement including, without limitation, all costs and expenses of selling the TIF Agreement. Lender may hire or pay someone else to help enforce this Agreement. Lender may also use attorneys who are salaried employees of Lender to enforce this Agreement. Borrower shall pay all costs and expenses of all such enforcement. In the event arbitration, suit, action or other legal proceeding is brought to interpret or enforce this Agreement, Borrower agrees to pay all additional sums as the arbitrator or court may adjudge reasonable as Lender's costs, disbursements, and attorney fees at hearing, trial, and on any and all appeals. Whether or not an arbitration or court action is filed, all reasonable attorney fees and expenses Lender incurs in protecting its interests and/or enforcing this Agreement shall become part of the obligations owed to Lender under this Agreement. The attorney fees and expenses covered by this Section 9 include without limitation all of Lender's attorney fees (including the fees charged by Lender's in-house attorneys, calculated at hourly rates charged by attorneys in private practice with comparable skill and experience), Lender's fees and expenses for bankruptcy proceedings (including efforts to modify, vacate, or obtain relief from any automatic stay), fees and expenses for Lender's post-judgment collection activities, Lender's cost of searching lien records, searching public record databases, on-line computer legal research, title reports, surveyor reports, appraisal reports, collateral inspection reports, title insurance, and bonds issued to protect Lender's collateral, all to the fullest extent allowed by law.

10. TERM

This Agreement shall remain in full force and effect until the Secured Obligations are discharged in full.

11. MISCELLANEOUS

11.1 Successors and Assigns

Each and all of the covenants, conditions and restrictions contained in this Agreement shall inure to the benefit of and shall be binding upon the assignees, and other successors in interest of Borrower and Lender.

11.2 Notices

Any demand, request or notice which either party hereto desires or may be required to make or deliver to the other shall be given and deemed delivered in accordance with the terms of the Loan Agreement.

11.3 Governing Law

This Agreement shall be governed by and construed in accordance with Washington law.

DRAFT

11.4 Class Action Waiver

BORROWER AND LENDER HEREBY WAIVE THE RIGHT TO LITIGATE IN COURT ANY CLAIM OR DISPUTE AS A CLASS ACTION, EITHER AS A MEMBER OF A CLASS OR AS A REPRESENTATIVE, OR TO ACT AS A PRIVATE ATTORNEY GENERAL.

11.5 Waiver of Jury Trial

BORROWER AND LENDER EACH HEREBY WAIVES ANY RIGHT TO TRIAL BY JURY OF ANY CLAIM ARISING OUT OF THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT, WHETHER NOW OR HEREAFTER ARISING AND WHETHER SOUNDING IN CONTRACT, TORT OR OTHERWISE, AND HEREBY CONSENTS AND AGREES THAT ANY SUCH CLAIM MAY, AT LENDER'S ELECTION, BE DECIDED BY TRIAL WITHOUT A JURY AND THAT LENDER MAY FILE AN ORIGINAL COUNTERPART OR COPY OF THIS SECTION WITH ANY COURT AS WRITTEN EVIDENCE OF THE WAIVER AND AGREEMENT CONTAINED HEREIN.

11.6 Incorporation of Schedules Etc.

All documents attached hereto, including any appendices, schedules, riders, and exhibits to this Agreement, are hereby expressly incorporated by reference.

11.7 Counterparts

This Assignment may be executed in any number of counterparts, each of which shall be considered an original for all purposes; provided, however, that all such counterparts shall constitute one and the same instrument.

[SIGNATURE PAGE FOLLOWS]

DRAFT

IN WITNESS WHEREOF, Borrower and Lender have executed this Agreement as of the day and year first above written.

BORROWER:

AFFINITY AT RAMSEY, LLC, a Washington limited liability company

By: Affinity Ramsey Manager, LLC, its Manager

By _____
Darin Davidson, Manager

LENDER:

UMPQUA BANK

By _____
Name: _____
Title: _____

DRAFT

CONSENT

The undersigned City hereby consents to the foregoing Assignment of Rights under TIF Agreement.

CITY:

CITY OF RAMSEY, MINNESOTA,
a home rule charter city organized and existing under the constitution and laws of the State of Minnesota

By _____
Name: _____
Title: _____

DRAFT

TAX INCREMENT FINANCING AGREEMENT

BY AND BETWEEN

CITY OF RAMSEY, MINNESOTA

AND

AFFINITY AT RAMSEY, LLC

FOR REFERENCE ONLY; ALREADY APPROVED

This document drafted by:

BRIGGS AND MORGAN (MLI)
Professional Association
2200 IDS Center
80 South 8th Street
Minneapolis, Minnesota 55402

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FOR REFERENCE ONLY, ALREADY APPROVED

TAX INCREMENT FINANCING AGREEMENT

THIS AGREEMENT, made as of the 27th day of July, 2018, by and between the City of Ramsey, Minnesota (the "City"), a home rule charter city organized and existing under the constitution and laws of the State of Minnesota and Affinity at Ramsey, LLC, a Washington limited liability company (the "Developer"). (The City and Developer are hereinafter collectively referred to as the "parties.")

WITNESSETH:

WHEREAS, pursuant to Minnesota Statutes, Section 469.124 to 469.133, the City has heretofore established Development District No. 1 (the "Development District") and has adopted a development program therefor (the "Development Program"); and

WHEREAS, pursuant to Minnesota Laws, 2010, Chapter 389, Article 7, Section 22, as amended by Minnesota Laws, 2011, Chapter 112, Article 11, Section 16 ("Special Legislation") and the provisions of Minnesota Statutes, Section 469.174 through 469.1794, as amended (hereinafter, the "Tax Increment Act"), the City has heretofore established, within the Development District, Tax Increment Financing District No. 14 (the "Tax Increment District") and has adopted a tax increment financing plan therefor (the "Tax Increment Plan") which provides for the use of tax increment financing in connection with certain development within the Development District; and

WHEREAS, the reimbursement by the City for costs of the acquisition of the Development Property and the construction of Site Improvements incurred by the Developer for a redevelopment project are objectives of the Development Program and Tax Increment Financing Plan; and

WHEREAS, in order to achieve the objectives of the Development Program and particularly to make the land in the Development District available for development by private enterprise in conformance with the Development Program, the City has determined to assist the Developer with the financing of certain costs of a Project (as hereinafter defined) to be constructed within the Tax Increment District as more particularly set forth in this Agreement; and

WHEREAS, the City believes that the development and construction of the Project, and fulfillment of this Agreement are vital and are in the best interests of the City, the health, safety, morals and welfare of residents of the City, and in accordance with the public purpose and provisions of the applicable state and local laws and requirements under which the Project has been undertaken and is being assisted; and

WHEREAS, the requirements of the Business Subsidy Law, Minnesota Statutes, Section 116J.993 through 116J.995, do not apply to this Agreement pursuant to an exemption for housing.

NOW, THEREFORE, in consideration of the premises and the mutual obligations of the parties hereto, each of them does hereby covenant and agree with the other as follows:

FOR REFERENCE ONLY; NOT APPROVED

ARTICLE I

DEFINITIONS

Section 1.1. Definitions. All capitalized terms used and not otherwise defined herein shall have the following meanings unless a different meaning clearly appears from the context:

Agreement means this Agreement, as the same may be from time to time modified, amended or supplemented;

Assessment Agreement means the agreement, in substantially the form of the agreement contained in Exhibit D attached hereto and hereby made a part of this Agreement, among the Developer, the City and the Assessor for the County, entered into pursuant to Article III of this Agreement;

Assessor's Minimum Market Value means the agreed minimum market value of the Development Property and Project and for calculation of real property taxes as determined by the Assessor for the County pursuant to the Assessment Agreement;

Business Day means any day except a Saturday, Sunday or a legal holiday or a day on which banking institutions in the City are authorized by law or executive order to close;

City means the City of Ramsey, Minnesota, its successors and assigns;

City Development Agreement means, the Development Agreement for Affinity at Ramsey by and between the City and Affinity at Ramsey dated as of July 27, 2018, as the same may be from time to time modified;

County means Anoka County, Minnesota;

Developer means Affinity at Ramsey, LLC, a Washington limited liability company, its successors and assigns;

Development District means the real property included in Development District No. 1 heretofore established;

Development Program means the Development Program approved in connection with the Development District;

Development Property means the real property described in Exhibit A attached to this Agreement;

Event of Default means any of the events described in Section 4.1 hereof;

Note Payment Date means August 1, 2020, and each February 1 and August 1 of each year thereafter to and including February 1, 2040; provided, that if any such Note Payment Date should not be a Business Day, the Note Payment Date shall be the next succeeding Business Day;

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Project means the construction of an approximately 174-unit senior rental housing project on the Development Property located in the City;

Public Improvements means the public improvements described in the City Development Agreement;

Site Improvements means the site improvements undertaken or to be undertaken on the Development Property, more particularly described on Exhibit C attached hereto;

Special Legislation means Minnesota Laws, 2010, Chapter 389, Article 7, Section 22, as amended by Minnesota Laws, 2011, Chapter 112, Article 11, Section 16;

State means the State of Minnesota,

Tax Increments means 90% of the tax increments derived from the Development Property as calculated by the City in its sole discretion and which have been received by the City in accordance with the provisions of Minnesota Statutes, Section 469.177;

Tax Increment Act means Minnesota Statutes, Sections 469.174 through 469.1794, as amended;

Tax Increment District means Tax Increment Financing District No. 14 located within the Development District, a description of which is set forth in the Tax Increment Financing Plan, which was qualified as a redevelopment district under the Tax Increment Act;

Tax Increment Financing Plan means the tax increment financing plan approved for the Tax Increment District by the City Council on December 14, 2010, and any future amendments thereto;

Termination Date means the earlier of (i) February 1, 2040, (ii) the date the Reimbursement Amount as defined in Section 3.1 is paid in full, (iii) the date on which the Tax Increment District expires or is otherwise terminated, or (iv) the date this Agreement is terminated or rescinded in accordance with its terms; and

TIF Note means the Tax Increment Revenue Note (Affinity at Ramsey, LLC Project) to be executed by the City and delivered to the Developer pursuant to Article III hereof, the form of which is attached hereto as Exhibit B; and

Unavoidable Delays means delays, outside the control of the party claiming its occurrence, which are the direct result of strikes, other labor troubles, unusually severe or prolonged bad weather, acts of God, fire or other casualty to the Project, litigation commenced by third parties which, by injunction or other similar judicial action or by the exercise of reasonable discretion, directly results in delays, or acts of any federal, state or local governmental unit (other than the City) which directly result in delays.

FOR REFERENCE ONLY; ALREADY APPROVED

ARTICLE II

REPRESENTATIONS AND WARRANTIES

Section 2.1. Representations and Warranties of the City. The City makes the following representations and warranties:

(1) The City is a municipal corporation and has the power to enter into this Agreement and carry out its obligations hereunder.

(2) The Tax Increment District is a "redevelopment district" within the meaning of Minnesota Statutes, Section 469.174, Subdivision 10, and was created, adopted and approved in accordance with the Special Legislation.

(3) The development contemplated by this Agreement is in conformance with the development objectives set forth in the Development Program.

(4) To finance certain costs within the Tax Increment District, the City proposes, subject to the further provisions of this Agreement, to apply Tax Increments to reimburse the Developer for acquisition of the Development Property and a portion of the costs of the construction of certain of certain Site Improvements incurred in connection with the Project as further provided in this Agreement.

(5) The City makes no representation or warranty, either expressed or implied, as to the Development Property or its condition or the soil conditions thereon, or that the Development Property shall be suitable for the Developer's purposes or needs.

Section 2.2. Representations and Warranties of the Developer. The Developer makes the following representations and warranties:

(1) The Developer is a Washington limited liability company and has the power and authority to enter into this Agreement and to perform its obligations hereunder and doing so will not violate its articles of organization, member control agreement or operating agreement, or the laws of the State and by proper action has authorized the execution and delivery of this Agreement.

(2) The Developer shall cause the Project to be constructed in accordance with the terms of this Agreement, the Development Program, the City Development Agreement, and all applicable local, state and federal laws and regulations (including, but not limited to, environmental, zoning, energy conservation, building code and public health laws and regulations).

(3) The construction of the Project would not be undertaken by the Developer, and in the opinion of the Developer would not be economically feasible within the reasonably foreseeable future, without the assistance and benefit to the Developer provided for in this Agreement.

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(4) The Developer will use its best efforts to obtain, or cause to be obtained, in a timely manner, all required permits, licenses and approvals, and will meet, in a timely manner, all requirements of all applicable local, state, and federal laws and regulations which must be obtained or met before the Project may be lawfully constructed.

(5) Neither the execution and delivery of this Agreement, the consummation of the transactions contemplated hereby, nor the fulfillment of or compliance with the terms and conditions of this Agreement is prevented, limited by or conflicts with or results in a breach of, the terms, conditions or provision of any contractual restriction, evidence of indebtedness, agreement or instrument of whatever nature to which the Developer is now a party or by which it is bound, or constitutes a default under any of the foregoing.

(6) Construction shall begin by September 1, 2018 and the construction of the Project will be substantially completed by June 1, 2020, subject to Unavoidable Delays.

(7) The Developer acknowledges that Tax Increment projections contained in the Tax Increment Financing Plan are estimates only and the Developer acknowledges that it shall place no reliance on the amount of projected Tax Increments and the sufficiency of such Tax Increments to reimburse the Developer for a portion of the costs of the acquisition of the Development Property and the construction of the Site Improvements as provided in Article III.

FOR REFERENCE ONLY; ALREADY APPROVED

ARTICLE III

UNDERTAKINGS BY DEVELOPER AND CITY

Section 3.1. Project. The parties agree that the acquisition of the Development Property and the installation of the Site Improvements are essential to the successful completion of the Project. The costs of the Project shall be paid by the Developer. The City shall reimburse the Developer for the actual costs of acquisition of the Development Property and the Site Improvements actually incurred and paid by the Developer in an amount as determined as follows: the amount to be reimbursed shall equal (a) 80% of the actual cost of the construction of the Public Improvements designated as Segment A-1 and Segment C-1 as described in the City Development Agreement; plus (b) 100% of the actual cost of the construction of the Public Improvements designated in Segment C-2 as described in the City Development Agreement; less (c) $58,000 (the "Reimbursement Amount"), as further provided in Section 3.3.

Section 3.2. Limitations on Undertaking of the City. Notwithstanding the provisions of Section 3.1, the City shall have no obligation to the Developer under this Agreement to reimburse the Developer for the costs identified in Section 3.1, if the City, at the time or times such payment is to be made, is entitled under Section 4.2 to exercise any of the remedies set forth therein as a result of an Event of Default which has not been cured.

Section 3.3. Reimbursement: TIF Note. The City shall reimburse the Developer the Reimbursement Amount through the issuance of the City's TIF Note in substantially the form attached to this Agreement as Exhibit B, subject to the following conditions:

(1) The TIF Note shall be dated, issued and delivered when (i) the Developer shall have demonstrated in writing to the reasonable satisfaction of the City that the construction of the Project and the Public Improvements have been completed; and (ii) that the Developer has incurred and paid all costs of acquisition of the Development Property and the construction of Site Improvements, as described in and limited by Section 3.1 and shall have submitted paid invoices for the costs of construction of the Site Improvements and a settlement statement or other evidence of payment of the costs of the Development Property in an amount not less than the Reimbursement Amount.

(2) The unpaid principal of the TIF Note shall bear simple non-compounding interest from the date of issuance of the TIF Note, at 4.50% per annum. Interest shall be computed on the basis of a 360 day year consisting of twelve (12) 30-day months.

(3) The principal amount of the TIF Note and the interest thereon shall be payable solely from the Tax Increments.

(4) On each Note Payment Date and subject to the provisions of the TIF Note, the City shall pay, against the principal and interest outstanding on the TIF Note, any Tax Increments received by the City during the preceding 6 months. All such payments shall be applied first to accrued interest and then to reduce the principal of the TIF Note.

(5) The TIF Note shall be a special and limited obligation of the City and not a general obligation of the City, and only Tax Increments shall be used to pay the principal and

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interest on the TIF Note. If, on any TIF Note Payment Date, the Tax Increments for the payment of the accrued and unpaid interest on the TIF Note are insufficient for such purposes, the difference shall be carried forward, without interest accruing thereon, and shall be paid if and to the extent that on a future TIF Note Payment Date there are Tax Increments in excess of the amounts needed to pay the accrued interest then due on the TIF Note.

(6) The City's obligation to make payments on the TIF Note on any Note Payment Date or any date thereafter shall be conditioned upon the requirements that: (A) there shall not at that time be an Event of Default that has occurred and is continuing under this Agreement and (B) this Agreement shall not have been rescinded pursuant to Section 4.2.

(7) The TIF Note shall be governed by and payable pursuant to the additional terms thereof, as set forth in Exhibit B. In the event of any conflict between the terms of the TIF Note and the terms of this Section 3.2, the terms of the TIF Note shall govern. The issuance of the TIF Note pursuant and subject to the terms of this Agreement, and the taking by the City of such additional actions as bond counsel for the TIF Note may require in connection therewith, are hereby authorized and approved by the City.

Section 3.4. Execution of Assessment Agreement. Simultaneously with the execution of this Agreement, the Developer and the City shall execute an Assessment Agreement pursuant to the provisions of Minnesota Statutes, Section 469.177, Subdivision 8, specifying the Assessor's Minimum Market Value for the Development Property and the Project for calculation of real property taxes. Specifically, the Developer shall agree to a market value for the Development Property and the Project which will result in a market value as of January 2, 2021 of not less than $20,760,000 until December 31, 2039 (such minimum market value at the time applicable is herein referred to as the "Assessor's Minimum Market Value"). Nothing in the Assessment Agreement shall limit the discretion of the Assessor to assign a market value to the property in excess of such Assessor's Minimum Market Value. The Assessment Agreement shall remain in effect until the earlier of (i) December 31, 2039; or (ii) the date of termination of this Agreement. The Assessment Agreement shall be certified by the Assessor for the County as provided in Minnesota Statutes, Section 469.177, Subdivision 8, upon a finding by the Assessor that the Assessor's Minimum Market Value represents a reasonable estimate based upon the plans and specifications for the Project to be constructed on the Development Property and the market value previously assigned to the Development Property. Pursuant to Minnesota Statutes, Section 469.177, Subdivision 8, the Assessment Agreement shall be filed for record in the office of the county recorder or registrar of titles of the County, and such filing shall constitute notice to any subsequent encumbrancer or purchaser of the Development Property (or part thereof), whether voluntary or involuntary, and such Assessment Agreement shall be binding and enforceable in its entirety against any such subsequent purchaser or encumbrancer, including the holder of any mortgage recorded against the Development Property. At the request of the Developer following the Termination Date of this Agreement, the City shall record a Termination and/or Release of such Assessment Agreement in the office of the county recorder or registrar of titles of the County

Section 3.5. Real Property Taxes. Prior to the Termination Date, the Developer shall pay all real property taxes payable with respect to all and any parts of the Development Property

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acquired and owned by it until the Developer's obligations have been assumed by any other person pursuant to the provisions of this Agreement.

The Developer agrees that prior to the Termination Date:

(1) It will not seek administrative review or judicial review of the applicability of any tax statute relating to the ad valorem property taxation of real property contained on the Development Property determined by any tax official to be applicable to the Project or the Developer or raise the inapplicability of any such tax statute as a defense in any proceedings with respect to the Development Property, including delinquent tax proceedings; provided, however, "tax statute" does not include any local ordinance or resolution levying a tax;

(2) It will not seek administrative review or judicial review of the constitutionality of any tax statute relating to the taxation of real property contained on the Development Property determined by any tax official to be applicable to the Project or the Developer or raise the unconstitutionality of any such tax statute as a defense in any proceedings, including delinquent tax proceedings with respect to the Development Property; provided, however, "tax statute" does not include any local ordinance or resolution levying a tax;

(3) It will not seek any tax deferral or abatement, either presently or prospectively authorized under Minnesota Statutes, Section 469.1813, or any other State or federal law, of the ad valorem property taxation of the Development Property between the date of execution of this Agreement and the Termination Date.

(4) It may seek through petition or other means to have the market value for the Development Property reduced. Until the TIF Note is fully paid, such activity must be preceded by written notice from the Developer. Upon receiving such notice, or otherwise learning of the Developer's intentions, the City may suspend payments due under the TIF Note until the actual amount of the reduction is determined, whereupon the City will make the suspended payments less any amount that the City is required to repay the County as a result any reduction in market value of the Development Property. During the period that the payments are subject to suspension, the City may make partial payments on the TIF Note if it determines, in its sole and absolute discretion, that the amount retained will be sufficient to cover any repayment which the County may require. The City's suspension of payments on the TIF Note pursuant to this Section shall not be considered a default under this Agreement.

FOR REFERENCE ONLY; ALREADY APPROVED

ARTICLE IV

EVENTS OF DEFAULT

Section 4.1. Events of Default Defined. The following shall be "Events of Default" under this Agreement and the term "Event of Default" shall mean whenever it is used in this Agreement any one or more of the following events:

(1) Failure by the Developer to timely pay any ad valorem real property taxes assessed and special assessments or other City charges with respect to the Development Property.

(2) Failure by the Developer to cause the construction of the Project to be completed pursuant to the terms, conditions and limitations of this Agreement and the City Development Agreement.

(3) Failure of the Developer to observe or perform any other covenant, condition, obligation or agreement on its part to be observed or performed under this Agreement and the City Development Agreement.

(4) The holder of any mortgage on the Development Property or any improvements thereon, or any portion thereof, commences foreclosure proceedings as a result of any default under the applicable mortgage documents.

(5) If the Developer shall:

(a) file any petition in bankruptcy or for any reorganization, arrangement, composition, readjustment, liquidation, dissolution, or similar relief under the United States Bankruptcy Act of 1978, as amended or under any similar federal or state law; or

(b) make an assignment for the benefit of its creditors; or

(c) admit in writing its inability to pay its debts generally as they become due; or

(d) be adjudicated a bankrupt or insolvent; or if a petition or answer proposing the adjudication of the Developer as bankrupt or its reorganization under any present or future federal bankruptcy act or any similar federal or state law shall be filed in any court and such petition or answer shall not be discharged or denied within sixty (60) days after the filing thereof; or a receiver, liquidator or trustee of the Developer, or of the Project, or part thereof, shall be appointed in any proceeding brought against the Developer, and shall not be discharged within sixty (60) days after such appointment, or if the Developer, shall consent to or acquiesce in such appointment.

Section 4.2. Remedies on Default. Whenever any Event of Default referred to in Section 4.1 occurs and is continuing, the City, as specified below, may take any one or more of the following actions after the giving of sixty (60) days' written notice to the Developer, but only if the Event of Default has not been cured within said sixty (60) days (or, if such Event of

FOR REFERENCE ONLY; ALREADY APPROVED

Default cannot reasonably be cured by the Developer within sixty (60) days of receipt of such notice, and the Developer has provided assurances reasonably satisfactory to the City that such Event of Default will be cured as soon as reasonably possible, then only if the Event of Default has not been cured as soon as reasonably possible):

(1) The City may suspend its performance under this Agreement and the TIF Note until it receives assurances from the Developer, deemed adequate by the City, that the Developer will cure its default and continue its performance under this Agreement.

(2) The City may cancel and rescind the Agreement and the TIF Note.

(3) The City may take any action, including legal or administrative action, in law or equity, which may appear necessary or desirable to enforce performance and observance of any obligation, agreement, or covenant of the Developer under this Agreement.

Section 4.3. No Remedy Exclusive. No remedy herein conferred upon or reserved to the City is intended to be exclusive of any other available remedy or remedies, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Agreement or now or hereafter existing at law or in equity or by statute. No delay or omission to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver thereof, but any such right and power may be exercised from time to time and as often as may be deemed expedient.

Section 4.4. No Implied Waiver. In the event any agreement contained in this Agreement should be breached by any party and thereafter waived by any other party, such waiver shall be limited to the particular breach so waived and shall not be deemed to waive any other concurrent, previous or subsequent breach hereunder.

Section 4.5. Agreement to Pay Attorney's Fees and Expenses. Whenever any Event of Default occurs and the City shall employ attorneys or incur other expenses for the collection of payments due or to become due or for the enforcement or performance or observance of any obligation or agreement on the part of the Developer herein contained, the Developer agrees that it shall, on demand therefor, pay to the City the reasonable fees of such attorneys and such other expenses so incurred by the City.

Section 4.6. Indemnification of City.

(1) The Developer (a) releases the City and its governing body members, officers, agents, including the independent contractors, consultants and legal counsel, servants and employees (collectively, the "Indemnified Parties") from, (b) covenants and agrees that the Indemnified Parties shall not be liable for, and (c) agrees to indemnify and hold harmless the Indemnified Parties against, any claim, cause of action, suit or liability for loss or damage to property or any injury to or death of any person occurring at or about or resulting from any defect in the Project or on the Development Property.

(2) Except for any willful misrepresentation or any willful or wanton misconduct of the Indemnified Parties, the Developer agrees to protect and defend the Indemnified Parties, now and forever, and further agrees to hold the aforesaid harmless from any

FOR REFERENCE ONLY, AS TO FORM APPROVED

claim, demand, suit, action or other proceeding whatsoever by any person or entity whatsoever arising or purportedly arising from the actions or inactions of the Developer (or if other persons acting on its behalf or under its direction or control) under this Agreement, or the transactions contemplated hereby or the acquisition, construction, installation, ownership, and operation of the Project; provided, that this indemnification shall not apply to the warranties made or obligations undertaken by the City in this Agreement or to any actions undertaken by the City which are not contemplated by this Agreement.

(3) All covenants, stipulations, promises, agreements and obligations of the City contained herein shall be deemed to be the covenants, stipulations, promises, agreements and obligations of the City and not of any governing body member, officer, agent, servant or employee of the City.

FOR REFERENCE ONLY; ALREADY APPROVED

ARTICLE V

INTENTIONALLY OMITTED

FOR REFERENCE ONLY; ALREADY APPROVED

ARTICLE VI

ADDITIONAL PROVISIONS

Section 6.1. Restrictions on Use. Until the Termination Date of this Agreement, the Developer agrees for itself, its successors and assigns and every successor in interest to the Development Property, or any part thereof, that the Developer and such successors and assigns shall operate, or cause to be operated, the Project as a senior rental housing project and shall devote the Development Property to, and in accordance with, the uses specified in this Agreement.

Section 6.2. Conflicts of Interest. No member of the governing body or other official of the City shall have any financial interest, direct or indirect, in this Agreement, the Development Property or the Project, or any contract, agreement or other transaction contemplated to occur or be undertaken thereunder or with respect thereto, nor shall any such member of the governing body or other official participate in any decision relating to the Agreement which affects his or her personal interests or the interests of any corporation, partnership or association in which he or she is directly or indirectly interested. No member, official or employee of the City shall be personally liable to the City in the event of any default or breach by the Developer or successor or on any obligations under the terms of this Agreement.

Section 6.3. Titles of Articles and Sections. Any titles of the several parts, articles and sections of the Agreement are inserted for convenience of reference only and shall be disregarded in construing or interpreting any of its provisions.

Section 6.4. Notices and Demands. Except as otherwise expressly provided in this Agreement, a notice, demand or other communication under this Agreement by any party to any other shall be sufficiently given or delivered if it is dispatched by registered or certified mail, postage prepaid, return receipt requested, or by a nationally recognized overnight courier (such as Federal Express or UPS), or delivered personally, and

(1) in the case of the Developer is addressed to or delivered personally to:

Affinity at Ramsey, LLC
Attention: Scott Morris
120 West Cataldo Avenue, Suite 100
Spokane, WA 99201

with a copy to:

Robert Bauer
Dougherty, Molenda, Solfest, Hills & Bauer, PA
14985 Glazier Ave., #535
Apple Valley, MN 55124

FOR REFERENCE ONLY; ALREADY APPROVED

(2) in the case of the City is addressed to or delivered personally to the City at:

City of Ramsey, Minnesota
Attention: City Administrator
Ramsey City Hall
7550 Sunwood Drive NW
Ramsey, MN 55303

with a copy to:

Briggs and Morgan, P.A.
Attention: Mary Ippel
2200 IDS Center
80 South 8th Street
Minneapolis, MN 55402

or at such other address with respect to any such party as that party may, from time to time, designate in writing and forward to the other, as provided in this Section.

Section 6.5. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall constitute one and the same instrument.

Section 6.6. Law Governing. This Agreement will be governed and construed in accordance with the laws of the State.

Section 6.7. Expiration. This Agreement shall expire on the Termination Date.

Section 6.8. Provisions Surviving Rescission or Expiration. Sections 4.5 and 4.6 shall survive any rescission, termination or expiration of this Agreement with respect to or arising out of any event, occurrence or circumstance existing prior to the date thereof.

Section 6.9. Assignability of Agreement. This Agreement may be assigned only with the consent of the City, which consent is not to be unreasonably withheld. The TIF Note may only be assigned pursuant to the terms of the TIF Note.

Section 6.10. Cooperation and Further Assurances. The parties shall reasonably cooperate with one another in order to fulfil and perform the transactions contemplated by this Agreement, and shall provide such further assurances to one another as shall be reasonable and appropriate under the circumstances.

FOR REFERENCE ONLY; ALREADY APPROVED

IN WITNESS WHEREOF, the City has caused this Agreement to be duly executed in its name and on its behalf and the Developer has caused this Agreement to be duly executed in its name and on its behalf, on or as of the date first above written.

CITY OF RAMSEY, MINNESOTA

By_____
Its Acting Mayor

By_____
Its City Administrator

FOR REFERENCE ONLY; ALREADY APPROVED

This is a signature page to the Tax Increment Financing Agreement by and between the City of Ramsey, Minnesota and Affinity at Ramsey, LLC.

AFFINITY AT RAMSEY, LLC

By _____
Its _____

FOR REFERENCE ONLY; ALREADY APPROVED

This is a signature page to the Tax Increment Financing Agreement by and between the City of Ramsey, Minnesota and Affinity at Ramsey, LLC.

EXHIBIT A

Description of Development Property

Property located in the City of Ramsey, Anoka County, Minnesota with the following legal description:

Lot 1 Block 1 Affinity at the Cor

FOR REFERENCE ONLY; ALREADY APPROVED

EXHIBIT B

Form of TIF Note

No. R-1 $_____

UNITED STATES OF AMERICA
STATE OF MINNESOTA
COUNTY OF ANOKA
CITY OF RAMSEY

TAX INCREMENT REVENUE NOTE
(AFFINITY AT RAMSEY, LLC PROJECT)

The City of Ramsey, Minnesota (the "City"), hereby acknowledges itself to be indebted and, for value received, hereby promises to pay the amounts hereinafter described (the "Payment Amounts") to Affinity at Ramsey, LLC (the "Developer") or its registered assigns (the "Registered Owner"), but only in the manner, at the times, from the sources of revenue, and to the extent hereinafter provided.

The principal amount of this Note shall equal from time to time the principal amount stated above, as reduced to the extent that such principal installments shall have been paid in whole or in part pursuant to the terms hereof as provided in that certain Tax Increment Financing Agreement, dated as of _____ 1, 2018, as the same may be amended from time to time (the "TIF Agreement"), by and between the City and the Developer. The unpaid principal amount hereof shall bear interest from the date of this Note at the simple non-compounded rate of four and one-half percent (4.50%) per annum. Interest shall be computed on the basis of a 360 day year consisting of twelve (12) 30-day months.

The amounts due under this Note shall be payable on August 1, 2020, and on each February 1 and August 1 thereafter to and including February 1, 2040, or, if the first should not be a Business Day (as defined in the TIF Agreement), the next succeeding Business Day (the "Payment Dates"). On each Payment Date, subject to the provisions of Section 3.5 the City shall pay by check or draft mailed to the person that was the Registered Owner of this Note at the close of the last business day of the City preceding such Payment Date an amount equal to the sum of the Tax Increments (hereinafter defined) received by the City during the six month period preceding such Payment Date. All payments made by the City under this Note shall first be applied to accrued interest and then to principal.

The Payment Amounts due hereon shall be payable solely from 90% of tax increments (the "Tax Increments") from the Development Property (as defined in the TIF Agreement) within the City's Tax Increment Financing District No. 14 (the "Tax Increment District") within its Development District No. 1 which are paid to the City and which the City is entitled to retain pursuant to the provisions of Minnesota Statutes, Sections 469.174 through 469.1794, as the same may be amended or supplemented from time to time and also as expressly authorized by Minnesota Laws, 2010, Chapter 389, Article 7, Section 22, as amended by Minnesota Laws, 2011, Chapter 112, Article 11, Section 16 (the "Tax Increment Act"). This Note shall terminate

FOR REFERENCE ONLY - ALREADY APPROVED

and be of no further force and effect following the last Payment Date defined above, on any date upon which the City shall have terminated the TIF Agreement under Section 4.2(2) thereof or the Developer shall have terminated the TIF Agreement under Article V thereof, on the date the Tax Increment District is terminated, or on the date that all principal payable hereunder shall have been paid in full, whichever occurs earliest.

The Tax Increment District includes properties other than the Development Property and Anoka County remits Tax Increment to the City on the basis of the Captured Tax Capacity of the entire Tax Increment District. For purposes of this Tax Increment Revenue Note, the City will determine Tax Increment generated from the Development Property and improvements thereon in its sole discretion.

The City makes no representation or covenant, express or implied, that the Tax Increments will be sufficient to pay, in whole or in part, the amounts which are or may become due and payable hereunder.

The City's payment obligations hereunder shall be further conditioned on the fact that no Event of Default under the TIF Agreement shall have occurred and be continuing at the time payment is otherwise due hereunder, but such unpaid amounts shall become payable if said Event of Default shall thereafter have been cured; and, further, if pursuant to the occurrence of an Event of Default under the TIF Agreement the City elects to cancel and rescind the TIF Agreement, the City shall have no further debt or obligation under this Note whatsoever. Reference is hereby made to all of the provisions of the TIF Agreement, including without limitation Section 3.2 thereof, for a fuller statement of the rights and obligations of the City to pay the principal of this Note, and said provisions are hereby incorporated into this Note as though set out in full herein.

This Note is a special, limited revenue obligation and not a general obligation of the City and is payable by the City only from the sources and subject to the qualifications stated or referenced herein. This Note is not a general obligation of the City and neither the full faith and credit nor the taxing powers of the City are pledged to the payment of the principal of this Note and no property or other asset of the City, save and except the above-referenced Tax Increments, is or shall be a source of payment of the City's obligations hereunder.

This Note is issued by the City in aid of financing a project pursuant to and in full conformity with the Constitution and laws of the State of Minnesota, including the Tax Increment Act.

This Note may be assigned only with the consent of the City which consent shall not be unreasonably withheld. In order to assign the Note, the assignee shall surrender the same to the City either in exchange for a new fully registered note or for transfer of this Note on the registration records for the Note maintained by the City. Each permitted assignee shall take this Note subject to the foregoing conditions and subject to all provisions stated or referenced herein.

This Note is subject to prepayment in immediately available funds on any date at the option of the City, in whole or in part and without penalty.

FOR REFERENCE ONLY, ALREADY APPROVED

IT IS HEREBY CERTIFIED AND RECITED that all acts, conditions, and things required by the City Charter, the Constitution and laws of the State of Minnesota to be done, to have happened, and to be performed precedent to and in the issuance of this Note have been done, have happened, and have been performed in regular and due form, time, and manner as required by law; and that this Note, together with all other indebtedness of the City outstanding on the date hereof and on the date of its actual issuance and delivery, does not cause the indebtedness of the City to exceed any charter, constitutional or statutory limitation thereon.

IN WITNESS WHEREOF, City of Ramsey, Minnesota, by its City Council, has caused this Note to be executed by the manual signatures of its Acting Mayor and City Administrator and has caused this Note to be dated as of _____, 2018.

_____ _____

City Administrator Acting Mayor

DO NOT EXECUTE UNTIL PAID INVOICES FOR LAND ACQUISITION AND SITE IMPROVEMENTS ARE GIVEN TO THE CITY - REFER TO SECTION 3.3(1).

FOR REFERENCE ONLY; ALREADY APPROVED

CERTIFICATION OF REGISTRATION

It is hereby certified that the foregoing Note was registered in the name of Affinity at Ramsey, LLC, and that, at the request of the Registered Owner of this Note, the undersigned has this day registered the Note in the name of such Registered Owner, as indicated in the registration blank below, on the books kept by the undersigned for such purposes.

NAME AND ADDRESS OF REGISTERED OWNER	DATE OF REGISTRATION	SIGNATURE OF CITY ADMINISTRATOR
Affinity at Ramsey, LLC 120 West Cataldo Avenue, Suite 100 Spokane, WA 99201		

FOR REFERENCE ONLY; ALREADY APPROVED

EXHIBIT C

Site Improvements

Landscaping, including irrigation
Foundations and Footings
Grading/earthwork
Engineering
Survey
Environmental Testing
Soil Borings
Site Preparation
Onsite Utilities
Storm Water/Ponding
Outdoor Lighting
Onsite Road, Curb, Gutter, Driveway, Sidewalk and Streetscape Improvements
Parking Facilities

FOR REFERENCE ONLY; ALREADY APPROVED

EXHIBIT D

Form of Assessment Agreement

THIS AGREEMENT, dated as of this ___ day of _____, 2018 (the "Agreement"), is by and among the City of Ramsey, Minnesota (the "City"), and Affinity at Ramsey, LLC, a Washington limited liability company (the "Developer"), and the Anoka County Assessor (the "Assessor").

WITNESSETH

WHEREAS, the City and the Developer have entered into a Tax Increment Financing Agreement dated as of _____, 2018 (the "TIF Agreement") regarding certain real property located in the City (the "Development Property") which property is legally described on Exhibit A attached hereto and made a part hereof.

WHEREAS, it is contemplated that pursuant to the TIF Agreement, the Developer will construct a Project on the Development Property as described in the Development Agreement.

WHEREAS, the City and Developer desire to establish a minimum market value for the Development Property and the improvements constructed or to be constructed thereon, pursuant to Minnesota Statutes, Section 469.177, Subdivision 8.

WHEREAS, the Developer has acquired the Development Property.

WHEREAS, the Assessor has reviewed the plans and specifications for the improvements and the market value previously assigned to the land upon which the improvements are to be constructed, and that the "minimum market value" as set forth below is reasonable.

NOW, THEREFORE, the parties to this Agreement, in consideration of the promises, covenants and agreements made by each to the other, do hereby agree as follows:

1. As of January 2, 2021 through and thereafter until the earlier of (i) December 31, 2039; or (ii) the Termination Date as defined in the TIF Agreement, the minimum market value which shall be assessed for the Project shall be not less than $20,760,000.

2. The minimum market value herein established shall be of no further force and effect and this Agreement shall terminate on the earlier of: (i) December 31, 2039; or (ii) the Termination Date of the TIF Agreement.

3. This Agreement shall be recorded by the City with the County Recorder of Anoka County, Minnesota. The Developer shall pay all costs of recording. At the request of the Developer following the earlier of: (i) December 31, 2039; or (ii) the Termination Date of the TIF Agreement, the City shall record a Termination and/or Release of this Agreement with the County Recorder of Anoka County, Minnesota.

FOR REFERENCE ONLY, ALREADY APPROVED

4. Neither the preamble nor provisions of this Agreement are intended to, or shall they be construed as, modifying the terms of the TIF Agreement between the City and the Developer.

5. This Agreement shall inure to the benefit of and be binding upon the successors and assigns of the parties.

IN WITNESS WHEREOF, the City, the Developer and the Assessor have caused this Agreement to be executed in their names and on their behalf all as of the date set forth above.

CITY OF RAMSEY, MINNESOTA

(SEAL)

By _____
Its Acting Mayor

By _____
City Administrator

STATE OF MINNESOTA)
) ss
COUNTY OF ANOKA)

The foregoing instrument was acknowledged before me this 24th day of July, 2018, by John LeTourneau, the Acting Mayor, and Kurt Ulrich, the City Administrator of the City of Ramsey on behalf of said City.

_____
Notary Public

FOR REFERENCE ONLY; ALREADY APPROVED

Signature page for Assessment Agreement by and between the City of Ramsey, Minnesota, Affinity at Ramsey, LLC, and the Anoka County Assessor.

AFFINITY AT RAMSEY, LLC

By _____
_____

STATE OF WASHINGTON)
) ss.
COUNTY OF SPOKANE)

The foregoing instrument was acknowledged before me this ____ day of _____, 2018, by _____, the _____ of Affinity at Ramsey, LLC, a Washington limited liability company, on behalf of said company.

_____
Notary Public

FOR REFERENCE ONLY; ALREADY APPROVED

Signature page for Assessment Agreement by and between the City of Ramsey, Minnesota, Affinity at Ramsey, LLC, and the Anoka County Assessor.

CERTIFICATION BY COUNTY ASSESSOR

The undersigned, having reviewed the plans and specifications for the improvements to be constructed and the market value assigned to the land upon which the improvements are to be constructed, and being of the opinion that the minimum market value contained in the foregoing Agreement appears reasonable, hereby certifies as follows: The undersigned Assessor, being legally responsible for the assessment of the above described property, hereby certifies that the market values assigned to such land and improvements are reasonable.

_____
County Assessor for Anoka County

STATE OF MINNESOTA)
) ss.
COUNTY OF ANOKA)

This instrument was acknowledged before me on _____, 2018, by _____, the County Assessor of Anoka County.

_____
Notary Public

FOR REFERENCE ONLY - ALREADY APPROVED

Signature page for Assessment Agreement by and between the City of Ramsey, Minnesota, Affinity at Ramsey, LLC, and the Anoka County Assessor.

Councilmember introduced the following resolution and moved for its adoption:

RESOLUTION #18-171

RESOLUTION APPROVING CONSENT TO ASSIGNMENT OF RIGHTS UNDER TIF AGREEMENT RELATED TO AFFINITY AT RAMSEY, LLC

WHEREAS, the City Council of the City of Ramsey has approved a plat/subdivision, site plan, and multiple agreements for a market-rate senior housing apartment with Affinity at Ramsey, LLC; and

WHEREAS, the Primary Lender on the project has requested that the City consent to an Assignment of Rights Under TIF Agreement; and

WHEREAS, the Consent is a standard legal action and does not materially change any previous agreement or increase liability to the City..

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

1) That the Ramsey City Council hereby approves the Consent to Assignment of Rights Under TIF Agreement and authorizes the Mayor and City Administrator to sign on behalf of the City, subject to final review by the City Attorney.

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 6th day of August, 2018.

Acting Mayor

ATTEST:

City Clerk