

TRANSPORTATION ADVISORY BOARD

MEETING OF THE TECHNICAL ADVISORY COMMITTEE

Wednesday | July 7, 2021
9:00 AM
Webex

AGENDA

I. CALL TO ORDER

II. APPROVAL OF AGENDA

(Agenda is approved without vote unless amended.)

III. APPROVAL OF MINUTES

June 2, 2021 meeting of the TAB Technical Advisory Committee

IV. TAB REPORT

V. COMMITTEE REPORTS

1. Executive Committee (Jon Solberg, Chair)
2. TAC Action Items
 - a. **2021-21:** Streamlined 2021-2024 TIP Amendment for MnDOT: I-35W Frontage Road Turnback (Joe Barbeau, MTS)
3. Planning Committee (Emily Jorgensen, Chair)

No action items.
4. Funding & Programming Committee (Michael Thompson, Chair)

No action items.

VI. INFORMATION ITEMS

1. Twin Cities Highway Mobility Needs Study (Steve Peterson, MTS and Paul Czech, MnDOT)
2. Transit Background from 2020 Regional Solicitation (Steve Peterson, MTS)
3. Regional Solicitation: Application Category Purpose Statements (Steve Peterson, MTS)
4. Regional Solicitation: Application Category Criteria and Weighting (Joe Barbeau, MTS)
5. Regional Solicitation: Funding Guarantees and Limitations (Joe Barbeau, MTS)
6. Regional Solicitation: Scoring Measure Changes (Joe Barbeau, MTS)
7. Regional Solicitation: Scoring Measure Outlier Adjustments (Joe Barbeau, MTS)
8. Regional Solicitation: Potential Options for Geographic Balance (Steve Peterson and Jed Hanson, MTS)

VII. AGENCY REPORTS

VIII. OTHER BUSINESS

IX. ADJOURNMENT

Please notify the Council at 651-602-1000 or 651-291-0904 (TTY) if you require special accommodations to attend this meeting. Upon request, the Council will provide reasonable accommodations to persons with disabilities.

*Transportation Advisory Board
of the Metropolitan Council*

**Minutes of a Meeting of the
TECHNICAL ADVISORY COMMITTEE
Wednesday, June 2, 2021
9:00 A.M.**

Members Present: Jon Solberg, Brian Isaacson, Joe MacPherson, Lyndon Robjent, Gina Mitteco, Chad Ellos, Lisa Freese, Emily Jorgensen, Andrew Witter, Elaine Koutsoukos, Steve Peterson, Michael Larson, Anna Flintoft, Andrew Emanuele, Innocent Eyoh, Matt Fyten, Praveena Pidaparathi, Danny McCullough, Ken Ashfeld, Charlie Howley, Paul Oehme, Robert Ellis, Jim Kosluchar, Ethan Fowley, Bill Dermody, Paul Kurtz

1. Call to Order

The meeting was called to order by Chair Solberg at 9:03 a.m. Due to the ongoing COVID-19 pandemic, the meeting was held via video conference.

2. Approval of Agenda

The Committee approved the agenda with no changes. Therefore, no vote was needed.

3. Approval of Minutes

The minutes of the May 5, 2021 meeting were presented to the Committee for consideration. A motion to approve the May minutes was made by Mr. Ellis and seconded by Ms. Jorgensen. Motion carried.

(Meeting minutes for the March 4, 2020, minutes will be presented for approval at a future committee meeting.)

4. TAB Report

TAB Coordinator Ms. Koutsoukos provided a summary of the May 19, 2021 meeting. Ms. Koutsoukos reported on the Regional Solicitation Unique Projects Workgroup and the goals that the group discussed.

5. Committee Reports

1. Executive Committee (Jon Solberg, TAC Chair)

Chair Solberg reported that the Executive Committee met prior to the meeting. Discussion topics included the agenda and the process for reviewing and making recommendations on updates to the 2022 Regional Solicitation criteria. Chair Solberg also noted that the TAC Executive Committee would be taking over the duties of updating the TAC Bylaws, as there were no volunteers amongst TAC members to participate on a planned workgroup. The bylaws will be presented to TAC for their consideration towards the end of 2021.

2. TAC Action Items

No items.

3. Planning Committee (Emily Jorgensen, Chair)

No items.

4. Funding and Programming Committee (Michael Thompson, Chair)

**a. 2021-2: Adoption of the Draft 2022-2025 Transportation Improvement Program (TIP),
Pending Public Comment**

Due to the absence of Mr. Thompson, this item was introduced by Chair Solberg and presented by Joe Barbeau of MTS Planning and Molly McCartney of MnDOT. Mr. Barbeau explained that the purpose of this action was to request the Transportation Advisory Board to adopt the 2022-2025 TIP after consideration of all public comments received during the public comment period. The public comment period is scheduled to be complete by July 6, 2021. The request for TAC recommendation of adoption pending public comment is due to the high volume of public comments received in 2020, which necessitates an alteration of the TIP timeline to bring the public comment period one month earlier than in previous years.

Mr. Barbeau and Ms. McCartney provided an overview of the TIP and how it is incorporated in the Statewide Transportation Improvement Program (STIP). Ms. McCartney also outlined some of the major projects that will be occurring within the metro area over the 2022 to 2025 timeframe.

Mr. Dermody requested clarity on the timeline and process, noting that the public comment period ends after TAC action on the item. As such, TAC would not have time to consider any significant public comments that might be received. The committee discussed this issue, noting that it was likely that any public comments would not be of a technical nature. As TAC is reviewing the TIP for its technical merits, public comments are unlikely to significantly alter the TIP after the public comment period is over. Mr. Peterson recommended that staff could provide an overview of the nature of the public comments to the TAC in order to keep the committee informed.

A motion to recommend adoption of the TIP upon the condition that staff provide a report of the public comments received in August was made by Mr. Dermody and seconded by Mr. Isaacson. Motion carried.

6. Information Items

1. Regional Solicitation Before and After Study 2

David Burns of MTS Planning presented this item. Mr. Burns provided an overview of the findings of the Regional Solicitation Before and After Study Phase 2, noting that a final version of the document would be provided after the meeting. The study was performed in response to the first phase of the study and focused on determining whether the criteria and performance measures used in the Regional Solicitation are successful in garnering the desired outcomes and to help determine potential changes to future Regional Solicitations.

The main objective of the study was to create a database that will be used to help monitor the after conditions of projects funded by the Regional Solicitation. This will be used to examine the anticipated effects versus the actual benefit provided by projects. The project also provided recommendations on how to streamline and improve the application process; examined the multiuse trail usage scoring criteria; explored the fate of projects that were submitted but did not receive funding; and examined the factors that may cause a project from being built on-time or altogether. Additionally, a “how to” guide of determining the best crash modification factors to use in Regional Solicitation and HSIP applications was developed as part of the study.

Mr. Burns concluded by noting some of the key takeaways of the study. Based on discussion with focus groups and other regional stakeholders, it was noted that the Council could provide greater clarity on the overall goals of the Regional Solicitation program and the types of projects that are prioritized. He noted that focus groups reported funding is being spread across too many funding categories and that many participants felt it was unclear how some of the performance measures relate to the funding categories. Overall, this may point to a need to provide greater transparency on how projects are scored and selected and what the Regional Solicitation is ultimately trying to accomplish.

2. 2022 Regional Solicitation: Modal Funding Ranges

Steve Peterson of MTS Planning presented this item. Mr. Peterson noted that there will be a number of information items related to the Regional Solicitation presented to the TAC and its subcommittees over the next few months, and the intention is to gather feedback from the committees prior to bringing the items forward for approval in the fall of 2021. He continued by showing a table of the ranges and midpoint of the modal categories of the Regional Solicitation, which had been altered slightly in 2020 from what had been used between 2003 and 2018. This was due to a set-aside for unique projects, which are projects that benefit the region but do not fit within the established categories. This change resulted in the midpoint of roadway funding shifting downward slightly, the midpoint of transit increasing, and a very slight decrease in the midpoint for non-motorized modes.

Chair Solberg commented that as the region looks forward into the future, the modal funding ranges should be reexamined. He continued by noting that the priorities of the region have changed over the past 20 years and that the funding ranges should reflect these shifting priorities.

3. Regional Solicitation: Policies, Qualifying Criteria, and Eligibility

Mr. Peterson presented this item, noting that the potential changes being presented were based upon feedback from the scoring committees, surveys from TAC and other stakeholders, the sensitivity analysis, and the Regional Solicitation Before and After Study. Based upon that feedback, Council staff recommended and asked for input on the following:

- the creation of goals for each application category; and
- simplification of measures that are redundant and/or are so low in point value that they don't affect which projects are funded.

Mr. Peterson noted that TAC Funding and Programming members were not in favor of the simplification of the measures but would like to explore how to tweak the weight of some the measures. Committee members expressed interest in exploring how the measures are weighed but felt it might be more valuable to spend extra time examining the implications of the weighing and thus waiting until the 2024 Regional Solicitation.

4. Twin Cities Region Complete Streets Leadership Academy

Cole Hiniker of MTS Planning introduced Beth Osborne of Smart Growth America. Smart Growth America contacted the Council and offered to provide a series of workshops focused on complete streets to transportation professionals and other interested individuals in the region. Ms. Osborne explained the overall mission of Smart Growth America and invited interested parties to complete an online application should they wish to participate.

7. Agency Updates

Mr. Hiniker reminded the committee that edits and changes to the Regional Bicycle Transportation network (RBTN) were due the previous week and that staff will bring the proposed changes to the Bicycle and Pedestrian Peer Discussion Group in the coming weeks. He also noted that potential

changes to the freight truck corridors would be due soon and encouraged members to contact Steve Elmer of MTS Planning.

8. Other Business and Adjournment

The meeting adjourned at 10:57 a.m.

Prepared by:

Dave Burns

ACTION TRANSMITTAL No. 2021-21

DATE: June 30, 2021

TO: Technical Advisory Committee

PREPARED BY: Joe Barbeau, Senior Planner (651-602-1705)

SUBJECT: Streamlined 2021-2024 TIP amendment for MnDOT: I-35W Frontage Road Turnback

REQUESTED ACTION: MnDOT requests an amendment to 2021-2024 TIP to increase the cost and scope of its I-35W turnback in Bloomington (SP # 2782-363).

RECOMMENDED MOTION: That the Technical Advisory Committee recommend that the Transportation Advisory Board recommend adoption of an amendment to the 2021-2024 TIP to increase the cost and scope of MnDOT's I-35W turnback in Bloomington (SP # 2782-363).

BACKGROUND AND PURPOSE OF ACTION: The 2021-2024 TIP includes a MnDOT turnback agreement for I-35W from 90th Street to River Terrace Drive in Bloomington. MnDOT requests this amended to the 2021-2024 TIP to increase the cost and scope of this fiscal year 2022 project.

This project is entirely state-funded and therefore was not funded through the Regional Solicitation.

RELATIONSHIP TO REGIONAL POLICY: Federal law requires that all TIP amendments meet the following four tests: fiscal constraint; consistency with the adopted regional transportation plan; air quality conformity; and opportunity for public input. It is the TAB's responsibility to adopt and amend the TIP per these four requirements.

The streamlined TIP amendment process allows projects that meet certain conditions to be streamlined, which entails forgoing the TAC Funding & Programming Committee review and results in saving a month of process time.

STAFF ANALYSIS: The TIP amendment meets fiscal constraint because the state funds are sufficient to fully fund the project. This amendment is consistent with the Metropolitan Council Transportation Policy Plan, adopted by the Metropolitan Council on November 18, 2020 with FHWA/FTA conformity determination established on December 4, 2020. Public input opportunity for this amendment is provided through the TAB's and the Council's regular meetings. The Minnesota Interagency Air Quality and Transportation Planning Committee determined that the project is exempt from air quality conformity analysis.

ROUTING

TO	ACTION REQUESTED	DATE SCHEDULED / COMPLETED
Technical Advisory Committee	Review & Recommend	7/7/2021
Transportation Advisory Board	Review & Recommend	7/21/2021
Metropolitan Council Transportation Committee	Review & Recommend	8/9/2021
Metropolitan Council	Review & Adopt	8/11/2021

Please amend the 2021-2024 Transportation Improvement Program (TIP) for program year 2022. This project is being submitted with the following information:

PROJECT IDENTIFICATION:

State Fiscal Year	ATP/Dist	Route System	Project Number (S.P. #)	Agency	Description	Miles
2022	M	I 35W	2782-363	MnDOT	I-35W from 90 th St to Riverter Dr. in Bloomington— Turnback Agreement I-35W from 84 th St to Bliss Ln from west of I35W Bloomington and 90 th St to 106 th St east of I35W (Frontage Road Turnback	0.0 3.2

Prog	Type of Work	Prop Funds	Total \$	TH \$
AM	Misc Agreement	SF	500,000 2,200,000	500,000 2,200,000

PROJECT BACKGROUND:

1. Briefly describe why amendment is needed (e.g., project in previous TIP but not completed; illustrative project and funds now available; discretionary funds received; inadvertently not included in TIP).

This amendment is needed to increase the cost and scope of this 100% state funded project into state fiscal year 2022 of the 2021-2024 TIP. The TIP is being amended because it is uncertain which TIP will be in effect when the project is obligated (it is being included in the final (2022-2025 TIP, as well) .

2. How is Fiscal Constraint Maintained as required by 23 CFR 450.216 (check all that apply)?

- New Money
- Anticipated Advance Construction
- ATP or MPO or MnDOT Adjustment by deferral of other projects
- Earmark or HPP not affecting fiscal constraint
- Other X

The total project cost is \$2,200,000, entirely state funding. Therefore, fiscal constraint is maintained.

CONSISTENCY WITH MPO LONG RANGE PLAN:

This amendment is consistent with the Metropolitan Council Transportation Policy Plan, adopted by the Metropolitan Council on November 18, 2020 with FHWA/FTA conformity determination established on December 4, 2020.

AIR QUALITY CONFORMITY:

- Subject to conformity determination
- Exempt from regional level analysis
- N/A (not in a nonattainment or maintenance area)

*Exempt Project O-1: Specific activities that do not involve or lead directly to construction, such as planning and technical studies, grants for training and research programs, planning activities conducted pursuant to titles 23 and 49 U.S.C., and Federal-aid systems revisions

Twin Cities Highway Mobility Needs Analysis

TAC

July 7, 2021

Consulting Team:

SRF Consulting Group

Sambatek, Inc.

Texas A&M Transportation Institute (TTI)



Associated Consulting Services (ACS)

Project overview

- The Minnesota Department of Transportation (MnDOT) and the Metropolitan Council are developing a performance-based approach to mobility investment on highways in the Twin Cities
- This approach
 - Sets a **highway mobility target**
 - Estimates a 20-year capital **investment need** on metro-area state highways

Target recommendation

Use a Twin Cities Highway Mobility target of 40-hours of annual delay per person to calculate MnDOT's 20-year investment needs on the state highway system

Target Value	40-hours annual delay per person
Change from 2018	 10%
Change from 2040 base	 25%
20-year cost	\$4 to \$6 billion

Planning Context



- Twin Cities highway mobility
 - Requires coordinated, collaborative planning at the local, state, and federal levels
 - Is not currently guided by a performance target
 - Helps to make strategic decisions based on data and to focus limited resources on the highest priorities

Stewardship | Prosperity
Equity | Livability
Sustainability

Maximize the health of
people, the environment
and the economy

- Transportation System Stewardship
- Safety and Security
- Access to Destinations
- Competitive Economy
- Heathy and Equitable Communities

- Open Decision-Making
- Transportation Safety
- Critical Connections
- System Stewardship
- Heathy Communities

Outcome Measures
Access | Travel Time | Emissions

Performance Measure
Delay per capita

Transportation Policy Plan 2040

Investment Priorities for Highway Mobility

1. Travel Demand Management (TDM)
2. Traffic Management Technologies
3. Spot Mobility (Lower Cost/High Benefit) (e.g., roundabouts or turn lanes)
4. MnPASS
5. Strategic Capacity Enhancements (e.g., new interchanges or lanes)

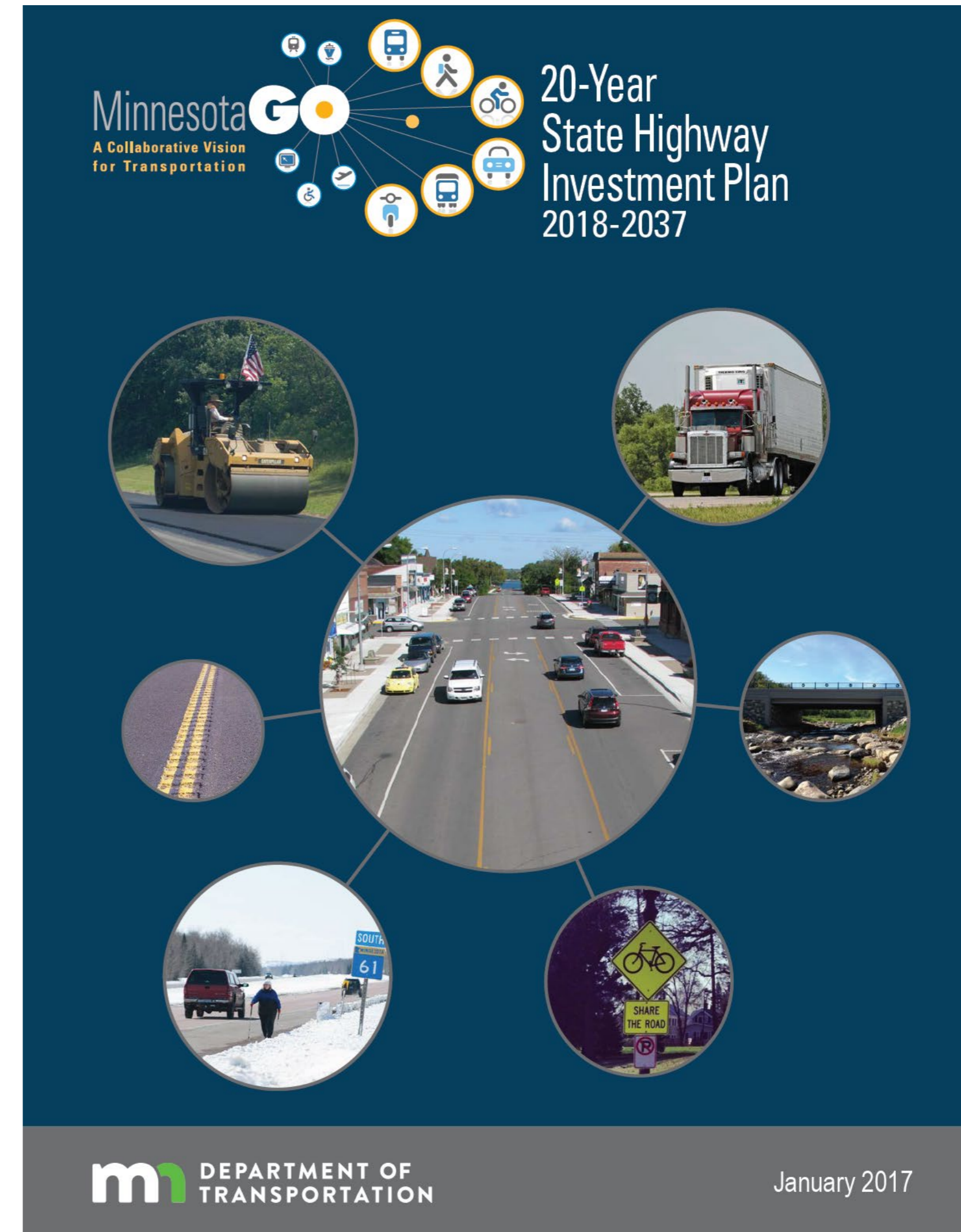
These investment principles were used throughout the project and contributed to the positive outcomes that were identified.

Connection to Regional Solicitation

- Metro cities and counties have assisted in the planning and partial funding of highway mobility projects on MnDOT's system.
- Since the Regional Solicitation redesign, 10 different cities and all 7 counties have been awarded funding for highway mobility projects on MnDOT's system (primarily new interchanges).
- Typically, the Regional Solicitation pays 1/3 of the project cost, the local city/county 1/3, and MnDOT 1/3.
- The Regional Solicitation helps make these locally-led, multi-agency, partnership projects possible.

Minnesota State Highway Investment Plan (MnSHIP)

- Sets direction (i.e., spending targets) for capital investment on the state highway system for a 20-year period
- Measures used to define need and project outcomes under alternative spending levels



MnSHIP Investment Categories

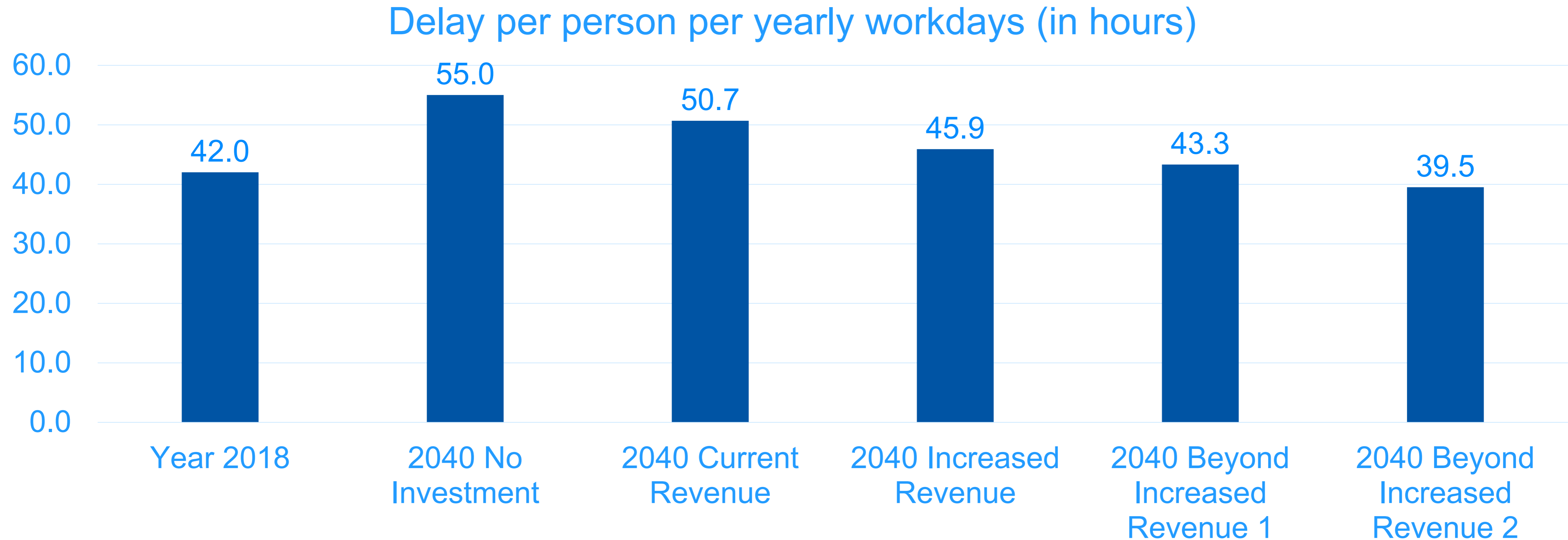
Investment Category	Performance Measure
Pavement Condition	Share of system with Poor ride quality
Bridge Condition	Share of bridges in Poor condition
Roadside Infrastructure Condition	Share of other assets (e.g., culverts, signs, etc.) in Poor condition
Accessible Pedestrian Infrastructure	Share of sidewalks, curb ramps and signalized intersections meeting ADA standards
Traveler Safety	Traffic fatalities; serious injuries; fatal and serious injury crash rates
Twin Cities Highway Mobility	TBD

Assign measure goals

Why measure system performance in terms of delay per capita?

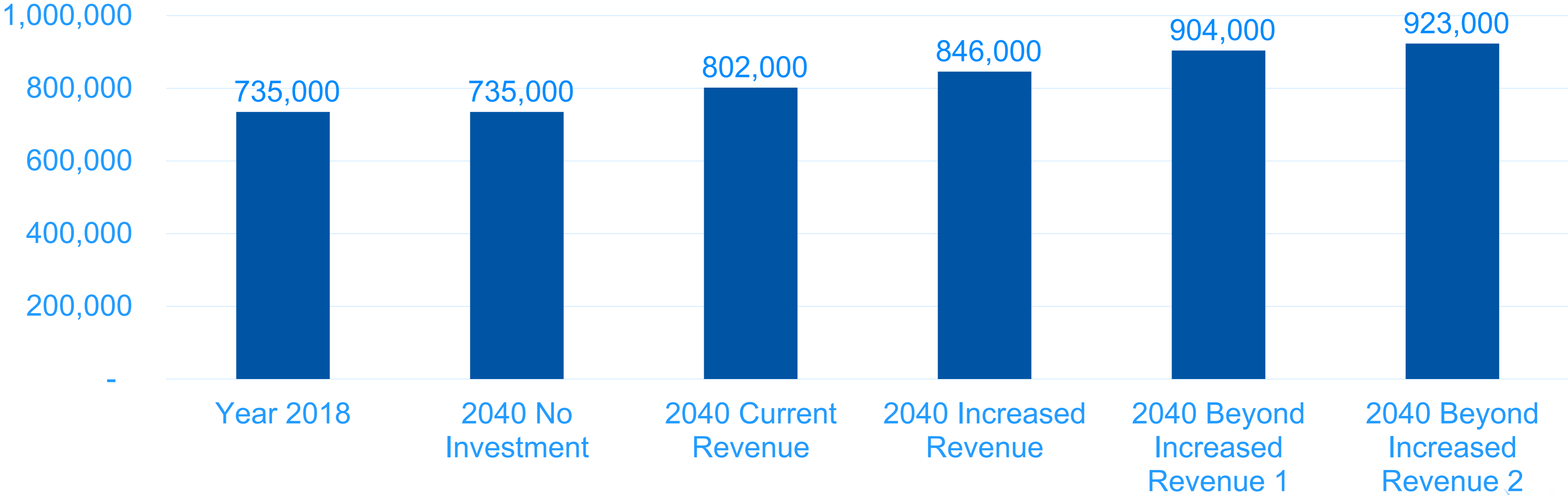
- Simple
- Relatable at the regional, corridor, project and person-level
- Responsive to MnDOT/Met Council highway investment strategies
- Supportive of economic analyses
- Captures the extent to which highway mobility contributes to broader transportation goals

Modeled Results – Average Annual Delay

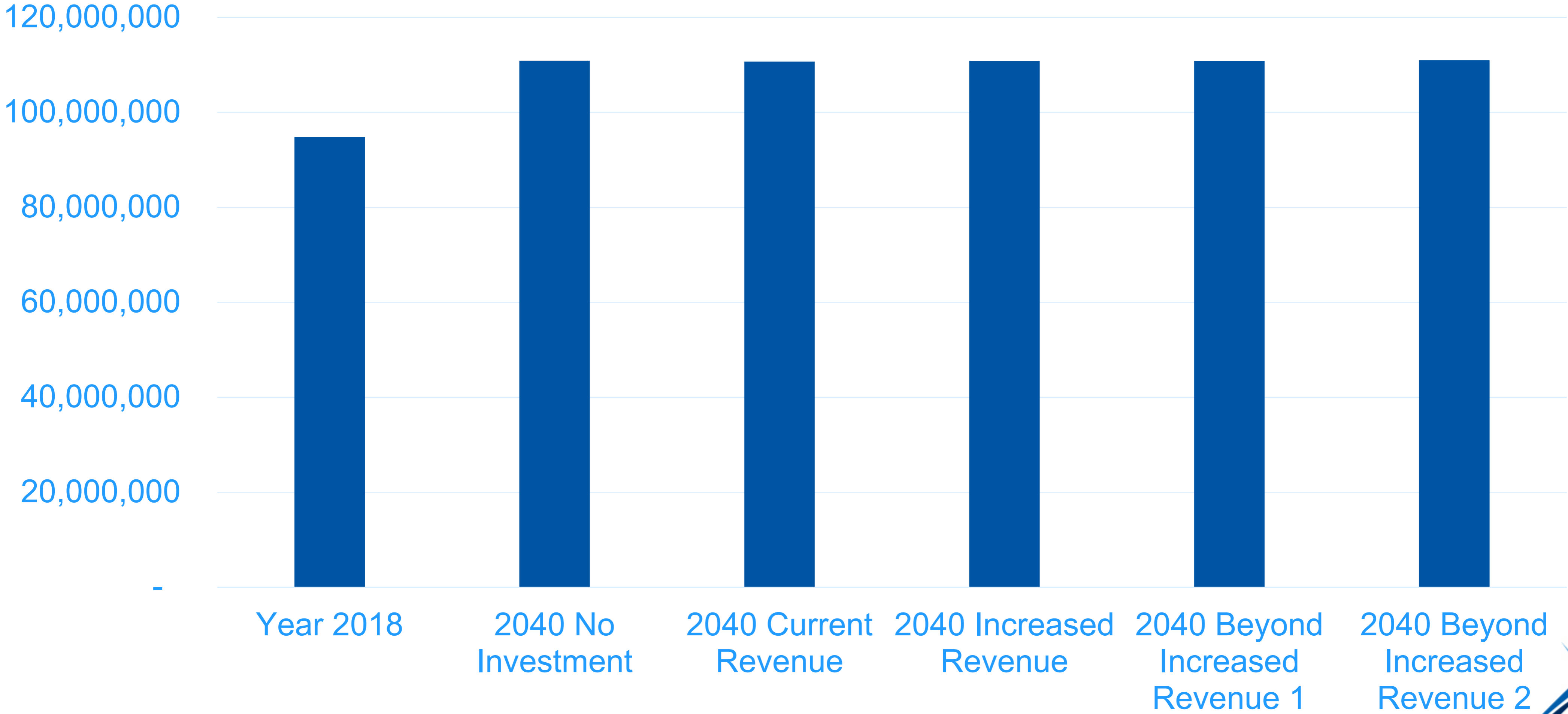


Modeled Results – Job Access

Number of Jobs Accessible to the Average Twin Cities Resident by Auto in 30 minutes (7-8am)



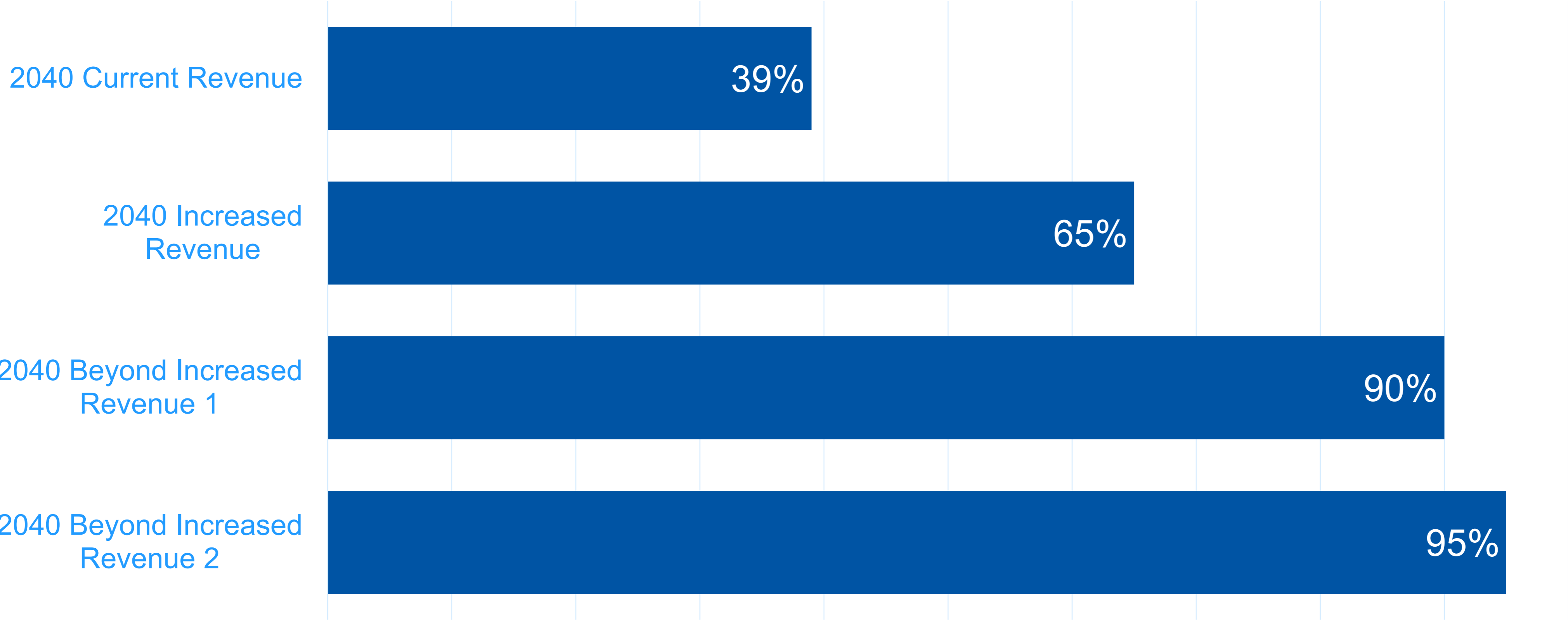
Modeled Results – Vehicle Miles Traveled



Vehicle Miles Traveled 2040 Modeling

- Follows methodology used in the 2040 Transportation Policy Plan (TPP).
- Population growth (+500,000 more people by 2040) is the primary driver of VMT.
- Accounts for some level of induced demand (e.g., an interchange is built and now a person can reach a new job two miles further away in the same amount of time as before the improvement).
- Uses 2040 regional land use allocations by city as approved by the Met Council and shown in approved, local comprehensive plans.
- Holds 2040 land use constant.
- Modeling uses EPA's MOVES model for assumptions for the rate of EV adoption and future fuel efficiency standards as it relates to emissions.

Freight Bottlenecks Improved



Equity analysis

- How does job access of equity populations change under each funding scenario, in absolute terms and in relation to the region as a whole?
 - The number of additional jobs accessible due to the highway mobility investment was similar across income, race, and ethnic groups.
- What is the impact of each funding scenario on transit delay?
 - Transit delay decreased as highway mobility investment increased.



Telecommute Sensitivity Analysis

- Illustrative examples developed to understand outcomes at different levels of telecommuting
- Identify mobility needs with 15%, 25%, and 35% telecommuting
 - Pre-COVID, 5% of workers telecommuted at least one time per month.
 - Peak of COVID, 35% of workers telecommuted at least one time per month
- Increasing telework participation reduces the need for capital investment to meet the performance target

Twin Cities Highway Mobility Target Recommendation

Target recommendation

Use a Twin Cities Highway Mobility target of 40-hours of annual delay per person to calculate MnDOT's 20-year investment needs on the state highway system

Target Value	40-hours annual delay per person
Change from 2018	↓ 10%
Change from 2040 base	↓ 25%
20-year cost	\$4 to \$6 billion

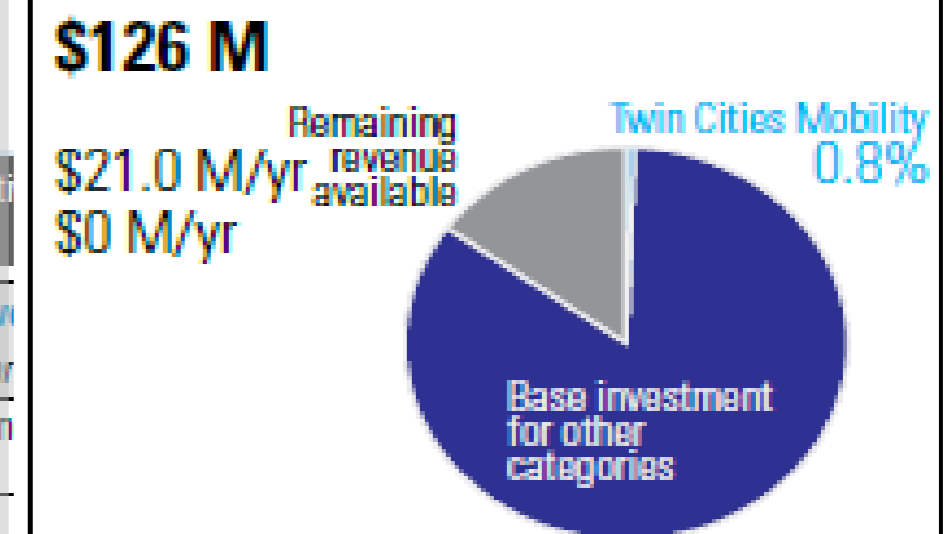
Twin Cities Highway Mobility Performance Levels

- Zero Revenue (PL0)
- Current Revenue (PL1)
- Increased Revenue (PL2)
- Beyond Increased Revenue 1 (PL3)
- Beyond Increased Revenue 2 (PL4)

Twin Cities Mobility		Performance Level 1	
Overarching Goal: Optimize the capacity of the existing system and provide reliable travel alternatives to move people and freight as effectively and efficiently as possible		Performance Objectives: Manage delay by providing reliable alternatives	
Investment Approach (See Approach Folio)	Performance Level 0 <i>Lowest cost, greatest risk</i> Approach A, C	Performance Level 1 <i>Lower cost, higher risk</i> Approximately corresponds with current investment, Approach B	Performance Level 2 <i>Greater cost, lower risk</i> Does not correspond with an approach
Investment Level <i>Total</i> Years 1-10 (2022-2027) Years 11-20 (2028-2037)	\$0 M \$0 M \$0 M	\$126 M \$21.0 M/yr \$0 M/yr	\$1,204 M \$59.7 M/yr \$84.6 M/yr
Investment Description	No investment beyond already planned projects	Current level of investment as identified in 2013 MnSHIP	Current level of investment through 2021; \$44 M per year through 2037
Outcomes <i>How will this investment help MnDOT meet its Twin Cities Mobility goals and objectives?</i>	<ul style="list-style-type: none"> No MnPASS investment 6 spot mobility improvements No major capacity projects No ATM investments 	<ul style="list-style-type: none"> 1 MnPASS investment 6 spot mobility improvements No major capacity projects No ATM investments 	<ul style="list-style-type: none"> 3-4 MnPASS investments 10-12 spot mobility improvements 5-7 major capacity projects focused on projects costing \$ 20-30 million 5 miles or 1 corridor of ATM investments per year, assuming an increase in RTMC operating budget
Risks	<p>High</p> <ul style="list-style-type: none"> Less predictable travel times and longer lasting congestion for people driving <p>Medium</p> <ul style="list-style-type: none"> Reduced reliability and efficiency for transit services Inability to attract/retain people and businesses Decreased system resiliency for all users Reduced ability for all users to reach desired destinations 	<p>High</p> <ul style="list-style-type: none"> Less predictable travel times and longer lasting congestion for people driving <p>Medium</p> <ul style="list-style-type: none"> Reduced reliability and efficiency for transit services Inability to attract/retain people and businesses Decreased system resiliency for all users Reduced ability for all users to reach desired destinations 	<p>Medium</p> <ul style="list-style-type: none"> Less predictable travel times and longer lasting congestion for people driving Reduced reliability and efficiency for transit services Inability to attract/retain people and businesses Decreased system resiliency for all users Reduced ability for all users to reach desired destinations
System Investment Strategies <i>What strategies would MnDOT use to manage risk?</i>	<ul style="list-style-type: none"> Invest in currently planned and programmed mobility projects 	<ul style="list-style-type: none"> Focus on investments that provide reliable congestion-free options for commuters in 1 corridor Focus on low cost spot mobility projects that provide safety and reduced delays 	<ul style="list-style-type: none"> Focus on investments that provide reliable congestion-free options for commuters in 4 corridors Focus on multiple spot mobility projects that provide safety and delay benefits Focus on lower cost strategic mobility improvements

Performance Level 1
Lower cost, higher risk

Approximately corresponds with current investment, **Approach B**



Current level of investment as identified in 2013 MnSHIP

- 1 MnPASS investment
- 6 spot mobility improvements
- No major capacity projects
- No ATM investments

High

- Less predictable travel times and longer lasting congestion for people driving

Medium

- Reduced reliability and efficiency for transit services
- Inability to attract/retain people and businesses
- Decreased system resiliency for all users
- Reduced ability for all users to reach desired destinations

Performance Level Information

* Relative to 2040 TPP
Current Revenue Scenario

Objective	Implement planned investment	Extend investment at existing levels	Manage decline in regional mobility	Sustain regional Mobility	Improve regional mobility
20-year investment	\$0-\$375M	\$1 - \$2 Billion	\$2 – \$3 billion	\$3 – \$5 billion	\$4 – \$6 billion
Delay per capita	56 hours per person/per year	52 hours per person/per year	48 hours per person/per year	44 hours per person/per year	40 hours per person/per year
Travel time savings*	- 4 hours (5%) per person/per year	N/A	4 hours (5%) per person/per year	8 hours (15%) per person/per year	12 hours (25%) per person/per year
20-year benefit from travel time savings*	- \$2 billion	N/A	\$2 billion	\$5 billion	\$8 billion
Job access benefits*	- 60,000 jobs accessible by auto within 30 minutes (AM peak)	N/A	+ 40,000 jobs accessible by auto within 30 minutes (AM peak)	+ 80,000 jobs accessible by auto within 30 minutes (AM peak)	+120,000 jobs accessible by auto within 30 minutes (AM peak)
GHG emissions*	Slight decrease (0 – 2.0%)	N/A	Slight increase (0 – 2.0%)	Slight increase (0 – 2.0%)	Slight increase (0 – 2.0%)
Risk of not reaching target	High	High	Moderate	Moderate	Low

Next steps

Next Steps

- Use mobility performance data and outcomes in MnSHIP
- Congestion Management Process Handbook (ongoing)
- Electric Vehicle Planning Study (ongoing)
- Travel Demand Management Study (fall 2021 start)
- Regional Transportation and Climate Change Measures (2022 start)
- Equity Study (fall 2021 start)
- Principal Arterial Intersection Conversion Study Update (late 2021 start)
- TPP Goals, including a review of the Regional Approach to Congestion (late 2022 start)

More information

- Project website: metro council.org/mobility
- Contact us:
 - Steve Peterson, Metropolitan Council
Steven.Peterson@metc.state.mn.us
651-602-1819
 - Paul Czech, MnDOT
paul.czech@state.mn.us
651-505-7831

INFORMATION ITEM

DATE: June 30, 2021
TO: Technical Advisory Committee
PREPARED BY: Cole Hiniker, Multimodal Planning Manager
SUBJECT: 2022 Regional Solicitation: Transit Policy Decisions Background

The 2020 Regional Solicitation saw several policy decisions that changed the transit modal funding category. These changes were developed and recommended by the 2019 TAB Policy Work Group and ultimately adopted by TAB. The Policy Work Group met 8 times during 2019 to discuss the issues and recommendations to go back to the full TAB. This memo summarizes the recommendations and provides insights on how the recommendations impacted TAB's project selection during the 2020 Regional Solicitation and potential impacts moving forward.

Bus Rapid Transit Policy Decisions

Identified Need/Problem:

Bus rapid transit (BRT) projects are larger scale, high-priority projects that the Regional Solicitation did not effectively fund with the past structure. Under the past structure, arterial bus rapid transit projects were the top-scoring projects in the transit expansion and modernization application categories, often by wide margins, indicating these projects best achieve the Regional Solicitation values. Selected applications for arterial BRT projects averaged about \$25 M per cycle over the previous three Regional Solicitations (2014, 2016 and 2018).

Arterial BRT projects do not have other dedicated or reliable funding sources as do the large dedicated transitway projects that typically receive 50% federal funding through the federal New Starts grant program, While the past Regional Solicitation structure funded a number of arterial BRT projects, for each individual line it only funded a small percentage of the total cost due to the \$7 M federal award maximum. This led to a situation whereby a number of arterial BRT lines had received Regional Solicitation funding, but the projects remained only partially funded in total.

Past stakeholder feedback indicated a desire to not have other transit projects compete with these high-scoring bus rapid transit applications, and indicated frustration that the structure resulted in incremental and inefficient project delivery. In addition, early evaluations of the A Line and C Line arterial bus rapid transit projects outcomes indicated that these types of transit improvements result in a high return on investment for TAB in terms of ridership growth, far outpacing other transit project's ridership outcomes in the transit modal category.

During the 2020 Solicitation work, concerns were also raised about all bus rapid transit (BRT) projects (dedicated, arterial and highway BRT together) securing too large of a share of the total transit modal funding allotment because other projects generally were not able to compete with BRT projects in the technical scoring process. There was a stated desire to limit total BRT funding overall in order to ensure that a variety of transit projects would be selected and recognizing that not all parts of the region are planning BRT projects. Limiting the BRT investment could also help TAB achieve its goal of regional balance of investment.

The TAB Policy Workgroup finalized its recommendations for the 2020 Solicitation transit structure based on trying to accomplish the following four principles:

- Fund one arterial BRT project that could be fully funded and implemented in an efficient manner.
- Remove arterial BRT projects from the other transit application categories to allow other transit projects, including other types of BRT projects to compete more effectively against one another.
- Provide a guarantee of funding for a transit project outside of the urban core.
- Provide an overall increased level of funding for transit projects in recognition of the high demand and desire for these types of projects.

The first two bullets resulted in the actions described below, while actions implemented to accomplish the second two principles are addressed later in this memo.

TAB Action:

The TAB Policy Workgroup recommended the following actions related to BRT in the Regional Solicitation:

- Exclude arterial BRT applications in the Transit Expansion and Transit Modernization categories and instead set aside up to \$25 M for one arterial BRT project. Metro Transit would complete its Network Next process, which included a prioritization of the next arterial BRT projects to be implemented within the region. The Network Next results would be presented to TAB along with a recommendation on a project to potentially receive the arterial BRT funding. TAB would make a final decision on the arterial BRT project and the funding amount at the time it selected the other Regional Solicitation projects.
- All other BRT projects (improvements on existing BRT lines, highway BRT, and dedicated or New Start BRT projects) would compete in the Transit Expansion or Transit Modernization categories and be subject to the category maximum funding amount of \$7 M per project application.
- To assure that non-BRT transit projects continued to compete and receive funding, no more than \$32 M would be allocated to BRT projects in total, including the selected arterial BRT project and any other high-scoring BRT projects in the other application categories.

For the final 2020 Regional Solicitation design, TAB adopted the recommendations of the Policy Workgroup.

Benefit/Impact of BRT Decisions:

The impacts of the two policy decisions are summarized in Table 1 below. For the arterial BRT category, TAB recommended that \$25 M be set aside and awarded to the yet to be identified F Line. Prior to the Solicitation final project selection, TAB received three updates on the Network Next corridor prioritization process and was made aware of the F, G, and H line recommendations early in the process. The Network Next process resulted in identifying the F

line along Central and University Avenues in Hennepin and Anoka counties and as part of the Solicitation funding decisions \$25 M was awarded to this project.

Figures 1 and 2 show the list of project applications in the 2020 Regional Solicitation expansion and modernization transit application categories with the selected projects indicated with orange shading in the column labeled “1B: Each County Gets a Project, Partial Funding.” Under the adopted funding scenario, a number of high scoring bus rapid transit project applications were skipped over as a result of TAB’s adopted policy to limit total BRT funding to a maximum of \$32 million. The top-ranked expansion project and two modernization projects were skipped since after the \$7 M available for other BRT projects was committed to the top-ranked modernization project. This rule did contribute to three additional non-BRT projects being funded for three different applicants, Metro Transit, SouthWest Transit, and MVTA. The three projects also were a wide variety of project types, from a service expansion project to bus garage modernization.

Midpoint Increase for Transit Modal Category Policy Decision

Identified Need/Problem:

With the previously discussed BRT policy decisions, the TAB Policy Workgroup recognized that there would be limited funding available for non-BRT transit projects in the Regional Solicitation. If the previous transit range and midpoints were used, \$49 M was assumed to be available for transit in the 2020 Regional Solicitation. Of this amount, \$25 M would go to arterial BRT, up to \$7 M to other BRT projects, and \$7 million to TDM/TMOs. This would’ve left as little as \$10 M for non-BRT projects in the Transit Expansion and Transit Modernization application categories. More funding was needed to allow for a wider range of transit project types and applicants in the Regional Solicitation.

TAB Action:

The TAB Policy Workgroup recommended increasing the midpoint of the modal funding range for transit application categories by \$5 M to allow at least two non-BRT projects (of \$7 M) to be funded within the transit applications with the remaining \$14 M - \$15 M after accounting for \$7 M for TDM/TMOs, \$25 M for arterial BRT, and \$7M for other BRT (and assuming that a BRT project scored high enough to be funded in the competitive transit categories).

For the final 2020 Regional Solicitation design, TAB adopted the recommendations of the Policy Workgroup and the funding range midpoints were reduced for Roadways by \$4 M and for Bike/Ped by \$1 M.

Benefit/Impact:

The decision to shift the transit midpoint up by \$5 M was a factor in the funding scenarios but the shift was ultimately cancelled out by the overprogramming allocations to roadway and bike/ped projects. No overprogramming was applied to the transit modal category. The modal funding split for transit ended up the same as the midpoint amount for transit prior to the \$5 M funding shift.

New Transit Market Guarantee Policy Decision

Identified Need/Problem:

Projects that attempt to serve new markets have difficulty competing against proven transit markets because of the scoring structure in the Transit Expansion category. Stakeholder input indicated that geographic balance of transit projects is a concern, as projects in suburban areas

do not compete well, particularly against bus rapid transit projects mostly focused on the urban core.

TAB Action:

The TAB instituted a policy that guarantees as least one transit project serves Transit Market Areas 3, 4, or 5. Transit Market Areas were chosen over other possible definitions because they are defined specifically based on transit demand and they are neutral to potential applicants and political subdivisions. The majority of transit service and trips are in Transit Market Areas 1 and 2, so it was believed that this would expand transit options to new markets, particularly in the suburban parts of the region.

Benefit/Impact:

As seen in Figures 1 and 2, nearly all projects in the 2020 Regional Solicitation have some portion of the project in Transit Market Areas 3, 4, or 5. Only 4 out of 19 projects did not meet this requirement, thus the New Market Guarantee was easily satisfied in all funding scenarios that were brought forward to TAB. The F Line arterial BRT project also serves Transit Market Area 3 and thus would have satisfied the New Market Guarantee as well. It is not known whether this guarantee influenced the types of project applied for, but removing arterial BRT projects from Transit Expansion and Transit Modernization likely led to a more geographically disperse set of transit applications. Since this was TAB's intent with the New Market Guarantee, it can likely be considered a success.

Table 1 – Impacts of 2020 Solicitation Transit Policy Decisions

Policy Decision	Impacts
\$25 Million Arterial BRT Set-aside	<ul style="list-style-type: none"> + Provided substantial funding for full F Line project + Removed arterial BRT from applying and competing in expansion and modernization, allowing for more competition + Provided TAB a substantial voice in Network Next planning and corridor prioritization - Limited funding available for other projects
\$32 Million BRT Maximum	<ul style="list-style-type: none"> + Allowed non-BRT transit projects to receive funding + Funded two suburban provider projects that likely would not have otherwise been funded - Required skipping over the top-scoring transit expansion project since maximum was met by funding the top-scoring transit modernization project. - Required skipping over two BRT projects in Transit Modernization which scored higher
\$5 Million Midpoint Increase for Transit Modal Category	<ul style="list-style-type: none"> + Allowed an additional transit expansion project to be funded - Overprogramming funding was not applied to increase transit funding, so transit ultimately ended up at the same proportion as previous solicitations; an additional SouthWest Transit project could have been funded or partially funded
New Transit Market Guarantee	<ul style="list-style-type: none"> + 15 of the 19 projects submitted for Transit Expansion and Transit Modernization served Transit Market Areas 3, 4 or 5. Four of these projects were funded. + Selected arterial BRT project, the F Line, also satisfied the New Market Guarantee

Figure 1 - 2020 Transit Expansion Project List

Transit Expansion													
Rank	ID	Applicant	County	City	BRT	New Mkt	Project Name	1B: Each County Gets a Project, Partial Funding	Federal Requested	Local Match	Total Proj Cost	Federal Cumulative	Total Scores
1*	14365	Washington Co	Washington	Woodbury	✓	✓	I-494 Park & Ride Structure in Woodbury	Skip due to BRT maximum	\$7,000,000	\$8,170,946	\$15,170,946	\$7,000,000	852
2	14176	Metro Transit	Hennepin	Minneapolis, St. Louis Park, Hopkins			Route 17 Service Improvement in Minneapolis, St. Louis Park, and Hopkins		\$2,511,123	\$627,781	\$3,138,904	\$9,511,123	607
3	14173	Metro Transit	Hennepin, Ramsey	Bloomington, St. Paul		✓	Route 54 Service Improvement in St. Paul and Bloomington		\$1,762,070	\$440,518	\$2,202,588	\$11,273,193	589
4	14298	Metro Transit	Hennepin	Minneapolis, Golden Valley, Plymouth		✓	New Route 757 Limited Stop in Minneapolis, Golden Valley, and Plymouth	\$8,942,679	\$4,669,486	\$1,167,372	\$5,836,858	\$15,942,679	566
5	14024	SouthWest Transit	Hennepin	Eden Prairie, Maple Grove, Plymouth, Minnetonka		✓	I-494 North SW Prime Service in Eden Prairie, Minnetonka, Plymouth, and Maple Grove		\$5,600,000	\$1,400,000	\$7,000,000	\$21,542,679	555
6	14340	MVTA	Hennepin, Dakota	Minneapolis, Mendota Heights, Eagan		✓	Route 436 Expansion - Viking Lakes in Eagan, Mendota Heights, and Minneapolis		\$2,600,000	\$650,000	\$3,250,000	\$24,142,679	495
7	14146	Metro Transit	Washington, Hennepin	Stillwater		✓	New Route 274 Express in Stillwater and Minneapolis		\$1,321,553	\$330,388	\$1,651,941	\$25,464,232	453
8	14296	Metro Transit	Hennepin, Ramsey	Minneapolis, St. Paul			Route 23 Service Improvement in Minneapolis and St. Paul		\$3,018,668	\$754,667	\$3,773,336	\$28,482,901	337
9	14178	Metro Transit	Ramsey, Washington	7 Cities		✓	Route 219 Service Improvement in Maplewood, White Bear Lake, Mahtomedi, North St. Paul, Oakdale, Landfall, and St. Paul		\$1,750,320	\$437,580	\$2,187,900	\$30,233,221	328
10	14330	SouthWest Transit	Hennepin, Carver	Eden Prairie, Chaska, Chanhassen, Carver, Victoria		✓	SouthWest Transit Golden Triangle Mobility Hub in Eden Prairie, Chaska, Chanhassen, Carver, Victoria		\$4,055,200	\$1,013,800	\$5,069,000	\$34,288,421	295

Figure 2 – 2020 Transit Modernization Project List

Transit Modernization													
Rank	ID	Applicant	County	City	BRT	New Mkt	Project Name	1B: Each County Gets a Project, Partial Funding	Federal Requested	Local Match	Total Proj Cost	Federal Cumulative	Total Scores
1*	14392	Metro Transit	Ramsey	St. Paul	✓		Gold Line Ramsey Washington Saint Paul Downtown Modernization		\$7,000,000	\$3,500,000	\$10,500,000	\$7,000,000	721
2	14357	Metro Transit	Regional	Regional			Bus Farebox Upgrade for All Regional Transit Providers		\$7,000,000	\$1,750,000	\$8,750,000	\$14,000,000	637
3	14078	Dakota Co	Dakota	Apple Valley	✓	✓	140th Red Line Pedestrian Bicycle Overpass in Apple Valley	Skip due to BRT maximum	\$2,400,000	\$600,000	\$3,000,000	\$16,400,000	610
4	14171	MVTA	Dakota	7 Cities		✓	Burnsville Bus Garage (BBG) Modernization		\$2,800,000	\$700,000	\$3,500,000	\$19,200,000	604
5	14084	Apple Valley	Dakota	Apple Valley	✓	✓	Apple Valley Red Line BRT 147th Street Station Skyway	Skip due to BRT maximum	\$3,810,400	\$952,600	\$4,763,000	\$23,010,400	602
6	14191	SouthWest Transit	Carver	Chaska		✓	Signal Prioritization at East Creek Park and Ride in Chaska	\$17,243,520	\$443,520	\$110,800	\$554,320	\$23,453,920	582
7	14076	SouthWest Transit	Carver	Chanhassen		✓	Solar Array at SouthWest Village in Chanhassen		\$4,840,000	\$1,210,000	\$6,050,000	\$28,293,920	436
8	14190	MVTA	Dakota, Hennepin, Scott	7 Cities		✓	Burnsville Transit Station (BTS) Modernization-Elevator Installation		\$656,000	\$164,000	\$820,000	\$28,949,920	411
9	14295	MVTA	Dakota, Hennepin, Ramsey	7 Cities		✓	Eagan Transit Station (ETS) Modernization-Elevator Installation		\$440,000	\$110,000	\$550,000	\$29,389,920	247

INFORMATION ITEM

DATE: June 30, 2021
TO: Technical Advisory Committee
PREPARED BY: Joe Barbeau, Senior Planner (651-602-1705)
Steve Peterson, Manager of Highway Planning and TAC/TAB
Process (651-602-1819)
Elaine Koutsoukos, TAB Coordinator (651-602-1717)
SUBJECT: 2022 Regional Solicitation: Application Category Purpose
Statements

At the May 20, 2021, Funding & Programming Committee meeting, sample purpose statements were provided. Members were supportive of the purpose statements and requested time to send in comments on them upon further review. Listed below is an updated version of the purpose statements following feedback from several participants.

Funding & Programming Committee Comments

At the June 17, 2021, Funding & Programming meeting only one comment was made; it is tracked withing the Arterial Bus Rapid Transit Project purpose statement. Other comments were provided before and after the meeting and are tracked.

- Roadway Categories:
 - **Traffic Management Technologies:** To fund traffic technology projects that reduce delay, emissions, and crashes.
 - **Spot Mobility and Safety:** To fund lower-cost, at-grade intersection projects that reduce delay and crashes.
 - **Strategic Capacity:** To fund regionally significant highway mobility projects, as prioritized in the Principal Arterial Intersection Conversion Study and the Congestion Management Process (CMP), that reduce delay and crashes and improve multimodal travel options.
 - **Roadway Reconstruction/Modernization:** To fund roadway preservation projects that improve infrastructure condition, reduce crashes, and enhance multimodal travel options.
 - **Bridge Rehabilitation/Replacement:** To fund preservation and replacement projects for existing bridges to improve infrastructure condition and multimodal travel options.
- Transit and Travel Demand Management Categories:
 - **Arterial Bus Rapid Transit Project:** To fund projects that implement the identified arterial bus rapid transit priorities in the Transportation Policy Plan that are not seeking FTA New Starts funds.
 - **Transit Expansion:** To fund transit projects that provide new or expanded transit service/facilities with the intent of attracting new transit riders to the system and reducing emissions.
 - **Transit Modernization:** To fund transit projects that make transit more attractive to existing riders by offering faster travel times between destinations or improving the customer experience.
 - **Travel Demand Management:** To fund lower-cost, innovative TDM projects that reduce emissions and vehicle miles traveled (VMT) in congested corridors.

- Bicycle and Pedestrian Categories:
 - **Multiuse Trails and Bicycle Facilities:** To fund multiuse trail and bicycle facilities that increase the availability and attractiveness of bicycling, walking, or rolling by improving safety: reducing or eliminating user barriers: and improving the Regional Bicycle Transportation Network (RBTN).
 - **Pedestrian Facilities:** To fund pedestrian facility projects that focus on increasing the availability and attractiveness of walking or rolling by improving safety and removing gaps in the system.
 - **Safe Routes to School:** To fund Safe Route to School infrastructure projects that focus on improving safety around school sites.

Once finalized, these purpose statements will be included in the Regional Solicitation documentation.

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Steve Peterson, Manager of Highway Planning and TAC/TAB
Process (651-602-1819)
Elaine Koutsoukos, TAB Coordinator (651-602-1717)
SUBJECT: 2022 Regional Solicitation: Application Category Criteria and
Weighting

During the process of the 2014 Regional Solicitation redesign, TAB established scoring criteria to be included in each scoring category. TAB assigned point values to each of the criteria. Within each of the criteria are one or more scoring measures. TAB approved these scoring measures and their point values with input from TAC and the TAC Funding & Programming Committee. Over the years several changes have occurred to the scoring measures and their values, while fewer changes have occurred to the criteria and weights. Notable exceptions include the addition of a 100-point cost-effectiveness score for 2016 along with a new slate of criteria and measures for the Spot Mobility & Safety category that was added in 2020.

Prior to the Funding & Programming Committee meeting of June 17, 2021, no changes were proposed to the weighting of the criteria or the measures from what was used in 2020.

Attachment 1 shows the criteria and weighting for each of the application categories. Attachments 2 through 5 show distribution of points within and between the criteria.

Funding & Programming Committee Comments

At the June 17, 2021 meeting, members focused on the Spot Mobility and Safety category, which was new in 2020. One suggestion is that while the category weighs congestion/air quality evenly with safety (as is the case with Strategic Capacity), safety should be weighted higher (as is the case with Reconstruction/Modernization). Another suggestion was that the two criteria, given the purpose of the category, should be weighted more heavily than the 25% that each is currently weighted.

It was also suggested to compare the weights to the draft purpose statements.

ATTACHMENT 1: DRAFT CRITERIA WEIGHTING

Criteria	Traffic Mgmt. Tech.	Spot Mobility & Safety	Strategic Capacity	Roadway Recon / Mod	Roadway Bridges	Transit Exp	Transit Mod.	TDM	Multi-Use Trails & Bike Facility	Ped. Facility	Safe Routes to School
Role in the Regional System	16%	16%	19%	10%	18%	9%	9%	18%	18%	14%	--
Usage	11%	--	16%	16%	12%	32%	30%	9%	18%	14%	23%
Safety	18%	25%	14%	16%	--	--	--	--	23%	27%	23%
Congestion /Air Quality	18%	25%	14%	7%	--	18%	5%	27%	--	--	--
Infrastructure Age	7%	--	4%	16%	36%	--	--	--	--	--	--
Equity and Housing Performance	9%	9%	9%	9%	9%	18%	16%	14%	11%	11%	11%
Multimodal Facilities	5%	9%	9%	10%	9%	9%	9%	--	9%	14%	--
Risk Assessment	7%	7%	7%	7%	7%	5%	5%	5%	12%	12%	12%
Relationship Between SRTS Elements	--	--	--	--	--	--	--	--	--	--	23%
Transit Improvements	--	--	--	--	--	--	18%	--	--	--	--
TDM Innovation	--	--	--	--	--	--	--	18%	--	--	--
Cost Effectiveness	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
TOTAL POINTS	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100

Changes shown from 2020: none.

Changes from 2018 to 2020: In Roadway Reconstruction/Modernization, Role in the Regional System moved from 15% to 10% with small changes in other criteria. The reason is that a measure (Level of Congestion, Principal Arterial Intersection Conversion Study Priorities, and Congestion Management and Safety Plan Opportunity Areas) was removed.

ATTACHMENT 2: ROADWAY MEASURES

Criteria and Measures	Traffic Mgmt	Spot Mob.	Strat Cap.	Recon/Mod	Bridge
Role in the Regional Transportation System and Economy	175	175	210	105	195
Distance to the nearest parallel bridge					100
Congestion, Adjacent Congestion, or PA Intersection Conversion Study Priorities		100	80		
Functional Classification of project	50				
Connection to Total Jobs, Manu/Dist. Jobs, and Post-Secondary Students			50	65	30
Integration within existing traffic management systems	50				
Highway Truck Corridor Tiers	50	75	80	40	65
Coordination with other agencies	25				
Usage	125		175	175	130
Current daily person throughput	85		110	110	100
Forecast 2040 average daily traffic volume	40		65	65	30
Equity and Housing Performance	100	100	100	100	100
Benefits and outreach to disadvantaged populations	50	50	50	50	50
Housing Performance Score / affordable housing connection	50	50	50	50	50
Infrastructure Age/Condition	75		40	175	400
Date of construction			40	50	
Upgrades to obsolete equipment	75				
Geometric, structural, or infrastructure deficiencies				125	
Bridge Sufficiency Rating					300
Load-Posting					100
Congestion Reduction/Air Quality	200	275	150	80	
Vehicle delay reduced		200	100	50	
Congested roadway (V/C Ratio)	150				
Kg of emissions reduced		75	50	30	
Emissions and congestion benefits of project	50				
Safety	200	275	150	180	
Crashes reduced	50	225	120	150	
Safety issues in project area	150				
Pedestrian Crash Reduction (Proactive)		50	30	30	
Multimodal Elements and Existing Connections	50	100	100	110	100
Transit, bicycle, pedestrian, elements and connections	50	100	100	110	100
Risk Assessment	75	75	75	75	75
Risk Assessment Form	75	75	75	75	75
Cost Effectiveness	100	100	100	100	100
Cost effectiveness (total points awarded/total project cost)	100	100	100	100	100
Total	1,100	1,100	1,100	1,100	1,100

ATTACHMENT 3: TRANSIT MEASURES

Criteria and Measures	Transit Expansion	Transit Modernization
Role in the Regional Transportation System and Economy	100	100
Connection to Jobs and Educational Institutions	50	50
Average number of weekday transit trips connected to the project	50	50
Usage	350	325
Existing Riders		325
New Annual Riders	350	
Equity and Housing Performance	200	175
Benefits and outreach to disadvantaged populations	150	125
Housing Performance Score / affordable housing connection	50	50
Emissions Reduction	200	50
Total emissions reduced	200	50
Multimodal Elements and Existing Connections	100	100
Bicycle and pedestrian elements of the project and connections	100	100
Risk Assessment	50	50
Risk Assessment Form	50	50
Service and Customer Improvements		200
Project improvement for transit users		200
Cost Effectiveness	100	100
Cost effectiveness (total points awarded/total annual project cost)	100	100
Total	1,100	1,100

ATTACHMENT 4: TDM MEASURES

Criteria and Measures	Points
1. Role in the Regional Transportation System and Economy	200
Ability to capitalize on existing regional transportation facilities and resources	200
2. Usage	100
Users	100
3. Equity and Housing Performance	150
Benefits and outreach to disadvantaged populations	100
Housing Performance Score / affordable housing connection	50
4. Congestion Reduction/Air Quality	300
Congested roadways in project area	150
VMT reduced	150
5. Innovation	200
Project innovations and geographic expansion	200
6. Risk Assessment	50
Technical capacity of applicant's organization	25
Continuation of project after initial federal funds are expended	25
7. Cost Effectiveness	100
Cost effectiveness (total project cost/total points awarded)	100
Total	1,100

ATTACHMENT 5: BIKE / PEDESTRIAN MEASURES

Criteria and Measures	Multiuse Trails / Bike	Pedestrian	SRTS
Role in the Regional Transportation System and Economy	200	150	
Identify location of project relative to Regional Bicycle Transportation Network	200		
Connection to Jobs and Educational Institutions		150	
Potential Usage	200	150	250
Existing population and employment within 1 mile	200		
Existing population within ½ mile		150	
Average share of student population that bikes, walks, or uses transit			170
Student population within school's walkshed			80
Equity and Housing Performance	120	120	120
Benefits and outreach to disadvantaged populations	70	70	70
Housing Performance Score / affordable housing connection	50	50	50
Deficiencies and Safety	250	300	250
Barriers overcome or gaps filled	100	120	100
Deficiencies corrected or safety problem addressed	150	180	150
Multimodal Facilities and Existing Connections	100	150	
Transit or pedestrian elements of the project and existing connections	100	150	
Risk Assessment/Public Engagement	130	130	130
Risk Assessment Form	130	130	85
Public Engagement			45
Relationship between Safe Routes to School Program Elements			250
Describe how project addresses 6 Es of SRTS Program			170
Completion of Safe Routes to School Plan			80
Cost Effectiveness	100	100	100
Measure A-Cost effectiveness (Total project cost/total points awarded)	100	100	100
Total	1,100	1,100	1,100

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Steve Peterson, Manager of Highway Planning and TAC/TAB
Process (651-602-1819)
Elaine Koutsoukos, TAB Coordinator (651-602-1717)
SUBJECT: 2022 Regional Solicitation: Funding Guarantees and Limitations

Following the 2014 Regional Solicitation, TAC and TAB discussed the difficulty that applications along some roadway classifications, specifically A-minor connectors, had in scoring high enough to be funded. Therefore, starting with the 2016 Regional Solicitation, TAB has had a policy stating that at least one project from each of the five eligible functional classifications must be funded to ensure that all parts of the system receive investment. The five eligible roadway classifications are:

- Non-freeway principal arterials
- A-minor augmentors
- A-minor connectors
- A-minor expanders
- A-minor relievers

During the Policy Work Group Process prior to the 2020 Regional Solicitation, an arterial bus rapid transit (ABRT) program was added, providing a maximum of \$25M to a regional bus rapid transit project. Along with this came a \$32M total bus rapid transit (includes ABRT) cap and a guarantee that at least one “new market” Transit Expansion project will be funded. A “new market” project serves Transit Market Area III, IV, or V or a freestanding town center, as defined in the TPP. Projects that serve Downtown Minneapolis, Downtown St. Paul, or the University of Minnesota are not considered new market projects.

While there is no guarantee related to the Roadway Bridges category, there is a \$10M “target” to provide TAB with flexibility in project selections.

Summary of current guarantees and limitations:

1. Roadways: minimum of one funded project in each roadway classification.*
2. \$25M Arterial Bus Rapid Transit (ABRT) project award.
Includes a \$32M maximum total for ABRT/BRT (see transit memo for further discussion).*
3. Transit “new market” guarantee to fund a project in Transit Market Area III, IV, or V.*
4. Bridge “target” of \$10M.

* could lead to skipping higher-scoring applications in favor to lower-scoring applications

TAB will be asked to act on whether to retain these guarantees.

As discussed within other topics, TAB may consider other guarantees as well, such as funding at least one project located in each county.

The Funding & Programing Committee had no discussion on this topic at its June 17, 2021, meeting.

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Elaine Koutsoukos, TAB Coordinator (651-602-1717)
SUBJECT: 2022 Regional Solicitation: Scoring Measure Changes

Through surveys and meeting discussions, partners and applicants had comments on specific scoring measures, particularly measures new to the 2020 Regional Solicitation. Below are scoring measures that were commented on with frequency and seem to have room for improvement. At this point, members should discuss potential changes.

Highway-specific potential measure changes will be addressed at the August meeting.

1. Risk Assessment

The risk assessment includes five elements: layout (25% of points); review of Section 106 historic resources (15% of points); right-of-way (25% of points); railroad involvement (15% of points); and public involvement (20% of points). Two of these elements need thorough examination (and a third, right-of-way may need attention as well):

- Layout: This element awards 100% for a layout approved by the applicant and impacted jurisdictions, 50% for a completed layout not approved by all jurisdictions, and 0% for a layout that has not been started. This proved challenging from a scoring perspective because “layout” has not been defined. Further, there is room in between “completed but not approved...” and “not been started.” Some potential ways to address this:
 - Define what a layout is.
 - Add points (e.g., 25%) for a layout that has been started
 - Clarify that approval includes MnDOT approval for a MnDOT trunk highway project
 - Are there any projects for which a layout is not applicable (e.g., signal timing)?
- Right-of-way: It appears that some applicants do not understand that any property acquisition is a right-of-way acquisition; therefore, a better definition may be needed. It has also been suggested to add a line for whether a MnDOT agreement/limited-use permit is required and whether it has been initiated.
- Public Involvement: Public involvement was added to the risk assessment for 2020, with the premise that lack of outreach is a risk to the project not being completed. In the long-run, TAB will need to consider whether including outreach within the risk assessment makes sense. In the meantime, the scoring element includes space to list meeting dates, targeted online/mail outreach, and the number of responses. It also includes checkboxes (with assigned percentages) for the degree to which the meetings were targeted to the project and an open-ended response box. This created confusion for scorers and applicants regarding:
 - How the meeting descriptions, participation numbers, checkboxes, and open-ended responses related to each other in terms of generating a score.
 - Whether the open-ended response is required. Some applicants did not fill it out, tying the scorers’ hands in terms downgrading checkboxes.

- Non-construction projects are exempt from the rest of the risk assessment. A decision is needed about whether they should be exempt from the public involvement element.

Scorer feedback identified that the measure was too focused on quantity of meetings and attendees as opposed to analyzing the impact of the engagement on selection of the project, the method that helped arrive at key decisions, whether the outreach/engagement changed the project, and effectiveness of the efforts.

Funding & Programming Committee Comments

At its June 17, 2021, meeting, the Funding & Programming Committee had the following comments:

- Layouts: Better definition of what a layout is (and is not) is needed so applicants do not simply show an aerial photo with a line drawn along a roadway. Some projects may not need layouts at all. Others may have had extensive MnDOT involvement but have not gone through MnDOT's approval process. Is there a way to give them full credit? More point tiers could be used.
- Right-of-way: The only change discussed was to call out limited use permits as a risk.
- Public involvement: Members agreed that the public involvement objective in the risk assessment should be about the opportunity for involvement, as opposed to the quality of input received. Members also expressed caution on the degree to which the language in the measure focuses on meetings when there are other ways to reach out to the public. Members generally suggested that the dates and number of meetings should be removed in favor of the tiered checkboxes, though the text box for an open-ended response should remain.

2. Affordable Housing

Prior to 2020, housing was entirely scored with the Housing Performance Score (HPS). For 2020, 20% of the housing score was dedicated to a more project-specific qualitative element (connection to affordable housing).

Describe and map any affordable housing developments—planned, under construction or existing, within ½ mile of the proposed project. The applicant should note the development stage, number of units, number of bedrooms per unit, and level of affordability using 2019 affordability limits. Also note whether the affordability is guaranteed through funding restrictions (i.e. LIHTC, 4d) or is unsubsidized, if housing choice vouchers are/will be accepted, and if there is a fair housing marketing plan required or in place.

Describe how the proposed project will improve or impact access for residents of the affordable housing locations within ½ mile of the project. This should include a description of improved access by all modes, automobiles, transit, bicycle and pedestrian access. Since residents of affordable housing are more likely not to own a private vehicle, higher points will be provided to roadway projects that include other multimodal access improvements.

Applicants found it difficult to find all the information being requested. This is particularly true for transit projects that have several stops/stations. Similarly, this was difficult for TDM applicants, who tend not to be connected to housing data.

The intent of the sub-measure is to help shift the role of housing from being a citywide “carrot” to improve affordable housing to rewarding applications for projects that locate near existing and

developing affordable housing. Ultimately, TAB will need to determine which approach is preferred (or both; or neither). If the project-specific approach is included, the measure will have to be adjusted.

Funding & Programming Committee Comments

At the June 17, 2021, Funding & Programming Committee meeting, members expressed that it was time-consuming to find all existing and developing affordable housing, particularly for projects that enter multiple jurisdictions and/or cover long corridors. The time needed to fill out the response was not in proportion with the ten-point value of the sub-measure. While members generally appreciated TAB's interest in locating projects where affordable housing exists and is being developed, the preference of members is to go back to only using the Housing Performance Score, barring a more easily accessible information source being available.

3. Equity and Housing Performance (100 Points)

This criterion addresses the [Council's role in advancing equity](#) by examining how a project directly provides benefits to, or impacts (positive and negative) low-income populations, people of color, people with disabilities, youth and the elderly. The criterion evaluates whether the applicant engaged these populations to identify transportation needs and potential solutions and how the project will address these identified needs. The criterion also evaluates a community's overall efforts to implement affordable housing and how the project improves multimodal access to affordable housing residents.

HOUSING MEASURE: Projects will be scored based on two housing measures: 1. the 2019 Housing Performance Score for the city or township in which the project is located (40 points) and 2. the project's connection to affordable housing (10 points) as described below.

Part 1 (40 points): Housing Performance Score

Part 2 (10 points): Affordable Housing Access

This measure is a qualitative scoring measure. Describe and map any affordable housing developments—planned, under construction or existing, within ½ mile of the proposed project. The applicant should note the development stage, number of units, number of bedrooms per unit, and level of affordability using 2019 affordability limits. Also note whether the affordability is guaranteed through funding restrictions (i.e. LIHTC, 4d) or is unsubsidized, if housing choice vouchers are/will be accepted, and if there is a fair housing marketing plan required or in place.

Describe how the proposed project will improve or impact access for residents of the affordable housing locations within ½ mile of the project. This should include a description of improved access by all modes, automobiles, transit, bicycle and pedestrian access. Since residents of affordable housing are more likely not to own a private vehicle, higher points will be provided to roadway projects that include other multimodal access improvements.

RESPONSE:

(Limit 2,100 characters; approximately 300 words):

SCORING GUIDANCE (50 Points)

Part 1 (40 points): The applicant with the highest 2019 Housing Performance Score will receive the full points. Remaining projects will receive a proportionate share of the full points. (redacted to save space)

Part 2 (10 points): The project that best provides meaningful improvements to access to the affordable housing units will receive the full 10 points. Multiple projects may receive the highest possible score of 10 points based on this assessment. Remaining projects will receive a share of the full points at the scorer's discretion.

Final Score (50 points): The scores in Parts 1 and 2 will be totaled. If no application gets 50 points, the highest-scoring project will be awarded 50 points, with other projects adjusted proportionately.

Note: Metropolitan Council staff will score this measure.

8. Risk Assessment (75 Points)

This criterion measures the number of risks associated with successfully building the project. High-risk applications increase the likelihood that projects will withdraw at a later date. If this happens, the region is forced to reallocate the federal funds in a short amount of time or return them to the US Department of Transportation. These risks are outlined in the checklist in the required Risk Assessment.

- A. **MEASURE:** Applications involving construction must complete the Risk Assessment. This checklist includes activities completed to-date, as well as an assessment of risks (e.g., right-of-way acquisition, proximity to historic properties, etc.).

RESPONSE (Complete Risk Assessment):

Please check those that apply and fill in anticipated completion dates for all projects. ~~N~~**except for new/expanded transit service projects will receive full credit for items 1-4 but must fill out item 5.** ~~T~~**or transit vehicle purchases will receive full credit.**

1. Layout (25 Percent of Points)

Layout ~~should~~ includes proposed geometrics and existing and proposed right-of-way boundaries. [A basic layout should include a base map \(north arrow; scale; legend;* city and/or county limits; existing ROW, labeled; existing signals;* and bridge numbers*\) and design data \(proposed alignments; bike and/or roadway lane widths; shoulder width;* proposed signals;* and proposed ROW\).](#) [An aerial photograph with a line showing the project's termini does not suffice and will be awarded zero points.](#)

*If applicable

100% Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties ~~/MnDOT that the project goes through or agencies that maintain the roadway(s)~~). If a MnDOT trunk highway is impacted, approval by MnDOT must have occurred to receive full points. **A PDF of the layout must be attached along with letters from each jurisdiction to receive points.**

100% A layout does not apply (signal replacement/signal timing, stand-alone streetscaping, minor intersection improvements). Applicants that are not certain whether a layout is required should contact Colleen Brown at MnDOT Metro State Aid – colleen.brown@state.mn.us.

50% Layout completed but not approved by all jurisdictions. **A PDF of the layout must be attached to receive points.**

25% Layout has been started but is not complete. A PDF of the layout must be attached to receive points.

0% Layout has not been started

~~Anticipated date or date of completion: _____~~

2. Review of Section 106 Historic Resources (15 Percent of Points)

(No changes recommend)

3. Right-of-Way (25 Percent of Points)

100% Right-of-way, permanent or temporary easements, [and MnDOT agreement/limited-use permit](#) either not required or all have been acquired

50% Right-of-way, permanent or temporary easements, [and/or MnDOT agreement/limited-use permit](#) required, ~~_-~~ plat, legal descriptions, or official map complete

25% Right-of-way, permanent or temporary easements, [and/or MnDOT agreement/limited-use permit](#) required, ~~_-~~ parcels identified

0% Right-of-way, permanent or temporary easements, [and/or MnDOT agreement/limited-use permit](#) required, ~~_-~~ parcels not all identified

~~Anticipated date or date of acquisition _____~~

4. Railroad Involvement (15 Percent of Points)

(No changes recommended)

5. Public Involvement (20 Percent of Points)

Projects that have been through a public process with residents and other interested public entities are more likely than others to be successful. The project applicant must indicate that events and/or targeted outreach (e.g., surveys and other web-based input) were held to help identify the transportation problem, how the potential solution was selected instead of other options, and the public involvement completed to date on the project. [The focus of this section is on the opportunity for public input as opposed to the quality of input. NOTE: A written response is required and failure to respond will result in zero points.](#)

~~List Dates of most recent meetings and outreach specific to this project:~~

- ~~• Meeting with general public: _____~~
- ~~• Meeting with partner agencies: _____~~
- ~~• Targeted online/mail outreach: _____~~
 - ~~○ Number of respondents: _____~~

100% [Multiple types of targeted outreach efforts \(such as meetings or online/mail outreach\)](#) ~~Meetings~~ specific to this project with the general public and partner agencies have been used to help identify the project need.

~~75% Targeted outreach specific to this project with the general public and partner agencies have been used to help identify the project need.~~

50% At least one meeting specific to this project with the general public has been used to help identify the project need.

50% At least ~~one meeting~~ [online/mail outreach effort](#) specific to this project with [the general public](#) ~~key partner agencies~~ has been used to help identify the project need.

25% No meeting or outreach specific to the project was conducted, but the project was identified through meetings and/or outreach related to a larger planning effort.

0% No outreach has led to the selection of this project.

RESPONSE (Limit 2,800 characters; approximately 400 words). [Describe the type\(s\) of outreach selected for this project \(i.e., online or in-person meetings, surveys, demonstration projects\), the](#)

[method\(s\) used to announce outreach opportunities, and how many people participated. Include any public website links to outreach opportunities.](#)

SCORING GUIDANCE (75 Points)

The applicant with the most points on the Risk Assessment (more points equate to less project risk) will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 40 points and the top project had 70 points, this applicant would receive $(40/70)*75$ points or 43 points.

INFORMATION ITEM

DATE: June 30, 2021
TO: Technical Advisory Committee
PREPARED BY: Joe Barbeau, Senior Planner (651-602-1705)
Steve Peterson, Manager of Highway Planning and TAC/TAB
Process (651-602-1819)
Elaine Koutsoukos, TAB Coordinator (651-602-1717)
SUBJECT: 2022 Regional Solicitation: Scoring Measure Outlier Adjustments

Many scoring measures are scored by awarding full points to the top-scoring application and distributing points proportionately to other applications. This sometimes results in one application scoring 100% of the points, while all others score less than 50% or even less than 10% of the points, the latter in particular providing almost no separation among any applications other than the top-scorer. Scoring committees have corrected for that by adjusting the remaining applications to the second highest-scoring application. This tends to improve the overall spread among applications, though arguably at the expense of a deserved advantage of the top-performing application.

There is no definition of what constitutes an outlier, no standard for when an adjustment is needed, and no standard for how to adjust. Up until now, scorers and committees have relied on “knowing an outlier when we see it” and have tended to adjust projects proportionately to the second-ranked application. Partners have provided feedback that this should be standardized. In 2020, there was even a scoring challenge suggesting that an outlier adjustment should have occurred on a measure.¹

The purpose for adjusting low-scoring applications within a measure is not to improve scores; it helps create separation among applications. The standards that would have to be set are:

1. What is an outlier (or outliers) and when is an adjustment needed? Key discussion points:
 - a. Is a minimum number of total applications needed for an outlier adjustment to be used?
 - b. Would a minimum proportion of applications (e.g., 50%) need to be below a certain number of points (e.g., 20% of the maximum) to necessitate an adjustment?
 - c. How should the need for an adjustment be determined if there are multiple high-scoring applications (e.g., three applications score 90% and above with the remaining eight applications scoring 10% and below)?
 - d. Is it likely that adherence to a strict standard could tie the hands of a scoring committee, preventing it from adjusting when it makes sense or forcing it to adjust when it does not make sense?
2. How should an adjustment be made? Assuming this should be standardized, key discussion points include:
 - a. Is adjusting to the second-ranked application the best method? Sometimes this creates a spread, but other times it would still leave most applications with almost

¹ The score was not changed, as Funding & Programming determined that the scorer and scoring committee did not have an obligation to adjust for an outlier since there are no standards.

no spread. It could also effectively eliminate the top-ranked application's advantage.

- b. How (or should) scoring committees keep the top-performing application from losing too much of the advantage it has earned? For example, a nominal total above 100% could be granted for top-performing outliers, which would partly offset the lost advantage. Another idea could be increasing that number above 100% based on its previous margin over the top adjusted application.

An example outlier policy: For quantitative proportionate scoring measures with at least eight applications, when the second-place application scores less than 50% of the total points possible, the scores should be adjusted to the second-highest scoring application.

Another approach could be to set a minimum (e.g., transit ridership, ADT) for getting the maximum points, as was suggested internally to address high ridership numbers on systemwide transit projects. The downsides to this approach are that it would need to be customized for each measure and would need to be determined prior to receipt of applications (i.e., the total counts would be unknown).

The following pages provide case studies of outliers used or not used in recent Regional Solicitations. Scenarios 2 and 3 used the same adjustment, but from different starting points and may provide evidence that a standard is needed, as neither scenario probably should have had an adjustment. Scenario 3 solved a problem that didn't exist and while there was an outlier in Scenario 2, the adjustment did not help address it.

If members view the standards as too strict and unknown, the policy for scoring committees to use outliers when and how they see fit could be maintained. In that case, use or lack thereof of an adjustment should not be challengeable.

Funding & Programming Committee Comments

At the June 17, 2021 meeting, members shared several thoughts:

- While it is valuable to make sure that the measures are achieving their task of separating projects, adjustments tend to harm the highest-rated project. This is a difficult balance.
- There was split opinion on whether to trust the judgment of the committees versus trying to prescribe when and how to adjust. Unforeseen circumstances could occur in advance to the scoring.
- Generally, members favored an adjustment when no application scores 50% of the top-scoring project, by adjusting it to 50% to 80% of the top score (as a single number or a range). There was some interest in mitigating the advantage lost by the top application.
 - However, Scenario 2 shown below is not an effective adjustment, in that the spacing among most projects does not change a lot. The adjustment cost the top-scoring application much of its advantage, greatly rewarded the second-rated application, and was fairly neutral towards the rest.
- An outlier adjustment could be viewed as a last resort.
- A log scale could be used.

1. 2016 Un-Addressed Outliers

Regional Solicitation: 2016

The 2016 Regional Solicitation included several measures for which scoring committee members felt that one or more outlier applications impacted a scoring measure's effectiveness. Staff identified the below potential outliers.

Measures with potential outlier concerns included the following characteristics:

- Roadway Expansion Measure Performance (21 applications submitted)
 - 1C. Top application scored 50. Others scored from 0 to 23.
 - 5B. Top application scored 50. Second-ranked application scored 23. Others from 0 to 8.
 - 6. Top application scored 150. Other 20 applications scored from 0 to 55.
 - 9. Top application scored 100. Other 20 applications scored from 10-48.
- Roadway Reconstruction / Modernization (34 applications)
 - Measure 2B. Top application scored 65. Others scored from 4 to 31.
 - Measure 5B. Top application scored 30. Second-ranked application scored 18. Others scored from 0 to 2.
- Roadway System Management (4 applications)
 - Measure 1C. Top application scored 30. Others scored 10, 5, and 6.
 - Measure 5A. Top application scored 150. Others scored 28, 15, and 0.
 - Measure 5B. Top application scored 50. Others scored 17, 9, and 0
 - Measure 6 Top application scored 200. Others scored 88, 0 and 0.
- Bridges Measure Performance (8 applications submitted)
 - Measure 1B. Top two applications scored 30. Others scored from 0 to 8.
- Safe Routes to School (3 applications)
 - Measure 2A. Top application scored 170. Others scored from 31 to 46.
 - Measure 6. Top application scored 100. Others scored 32 to 47.
- Transit Expansion Measure (10 applications)
 - Measure 2. Top application scored 350. Second application scored 247. Others scored from 10 to 76.
 - Measure 7. Top application scored 100. Others scored from 4 to 16.
- Transit System Modernization (13 applications)
 - Measure 2. Top application scored 300. Others scored from 1 to 96.
 - Measure 7. Top application scored 100. Others scored from 0 to 16.
- Travel Demand Management (6 applications)
 - Measure 2. Top application scored 100. Others scored from 6 to 23.

These 18 potential outliers led to scoring committees being able to adjust for outliers, starting with the 2018 Regional Solicitation. Staff only identified three outliers in 2018, following the adjustments.

2. Generally Successful Adjustment? Probably Not.

Regional Solicitation: 2018

Funding Category: Roadway Strategic Capacity

Scoring Measure: 1B Connection to Total Jobs, Manufacturing/Distribution Jobs, and Students (Connection to Total Jobs Component)

Employment w/i 1 mile	Score (Max 50) - Per Scoring Guidance	Final Score - Per Removal of High Scoring Outlier	Change in Gap Over Below Score	Change in Gap vs. Top
72,624	50	50	-40	N/A
13,974	10	50	+10	-40
10,291	7	37	+2	-30
9,813	7	35	0	-28
9,373	6	34	+6	-28
7,705	5	28	+1	-23
7,546	5	27	+3	-22
6,585	5	24	+1	-19
6,172	4	22	+2	-18
5,460	4	20	+2	-16
5,044	3	18	0	-15
5,001	3	18	+8	-15
2,609	2	9	+4	-7
1,064	1	4	+1	-3
787	1	3	+1	-2
440	0	2	+1	-2
276	0	1	N/A	-1

The original scoring spread resulted in one application scoring 50 points while 16 applications scored 0 to 10 points, providing almost no differentiation among the applications not ranked first. The adjustment in the third column was meant to address this, though the change in scoring gap was marginal, primarily impacting the advantage of the top-performing application. This is shown in the far-right column, which shows the loss of margin between each project and the top-rated project.

Overall, this adjustment was most beneficial to the second-ranked project and most damaging to the top-ranked project.

3. Potentially Unnecessary Adjustment

Regional Solicitation: 2020

Funding Category: Roadway Strategic Capacity

Scoring Measure: 1B Connection to Total Jobs, Manufacturing/Distribution Jobs, and Students (Connection to Total Jobs Component)

Employment w/i 1 mile	Score (Max 50) - Per Scoring Guidance	Final Score - Per Removal of High Scoring Outlier	Change in Gap Over Below Score	Change in Gap vs. Top
10,285	50	50	-4	N/A
9,363	46	50	0	-4
6,461	31	35	+1	-4
6,435	31	34	+1	-3
4,709	23	25	0	-2
4,495	22	24	0	-2
4,131	20	22	+1	-2
3,427	17	18	0	-1
2,094	10	11	0	-1
1,864	9	10	0	-1
1,734	8	9	0	-1
1,678	8	9	0	-1
1,635	8	9	-1	-1
1,064	5	6	-1	-1
695	3	4	+1	-1
579	3	3	0	0
555	3	3	0	0
276	1	1	N/A	0

The original scoring spread included some bunching toward the bottom. However, the overall spread does not appear to lack separation. Further, the adjustment has a negligible effect on the overall spread and is most impactful on the reduced advantage for the top-performing application.

Overall, the adjustment was minimally impactful.

INFORMATION ITEM

DATE: June 30, 2021
TO: Technical Advisory Committee
PREPARED BY: Joe Barbeau, Senior Planner (651-602-1705)
Steve Peterson, Manager of Highway Planning and TAC/TAB
Process (651-602-1819)
Elaine Koutsoukos, TAB Coordinator (651-602-1717)
SUBJECT: 2022 Regional Solicitation: Potential Options for Geographic Balance

Over many Regional Solicitation cycles, TAB and its technical committees have struggled with the concept of geographic (or regional) balance (i.e., how funding and projects are spread across the region). Geographic balance is not part of how projects are scored. Instead, it is a secondary lens used by TAB when selecting a funding scenario. In the 2020 funding cycle, overprogramming funds were used to meet geographic balance objectives by funding at least one project within each county.

“Geographic balance” has never been defined and seems to mean different things to different participants. Some of the key questions to consider are discussed below.

1. What is the Geographic Goal?

This essentially asks whether simply rating applications on regionally based criteria and measures is sub-optimal in that it does not necessarily geographically balance (however that may be defined) the location of projects and federal funding. From a technical standpoint, feedback may be based on the best approach for improving transportation cohesively across the region.

2. Geography

Traditionally, balance has been explored county-by-county (Figures 1A-C and 5A). This method was not selected for any compelling reason; it was used initially as counties were some of the primary applicants for many projects. This provides a general look across the region, though does not distinguish, for example, Minneapolis versus northwestern Hennepin County. Other potential geographies include:

- Council districts (Figures 2A-B and 5B) – 16 Smaller areas nearly equal in population.
- Regional quadrant (Figures 3A-B and 5C) – Four large areas, as opposed to seven. The concentration near the “four corners” (i.e., center point) and edges (the two downtowns) could call into the question the optimality of this map.
- Land Use (Figures 4A-B and 5D) – This is the only view that doesn’t focus on directional geography, but more on city, suburb, and rural project spread.

From a technical standpoint, is any of the above geographies (or some other geography) preferable to the others?

3. StreetLight Analysis

Project location within one of these geographies does not fully describe its spread of benefits. StreetLight Insight analysis of the locations of 2020 awarded roadway projects show these roadways currently serve both local and regional trips.

Results of this analysis are visualized in attached Figures 6-22 and provided in alternate format in Table 1. Minnesota House of Representatives districts were used as origins and destinations in this analysis, striking a balance between spatial resolution, population proportionality, and processing time. The largest shares of trips start in a project's district or near districts. For most projects, small shares of trips start throughout the region. Some projects see benefits in more focused areas.

This analysis covers peak morning (6am-10am) weekday trips to provide insight on trip direction. Trip starts are not always home locations; they are where a trip started, like a home, office, childcare center, or a variety of places. The analysis covers all funded roadway projects in 2020 except the Traffic Management Technologies category.

4. What does “Geographic Balance” Mean?

What is the best approach to defining “geographic balance?” Traditionally, discussions of geographic balance have focused on comparing the total federal funding for projects to county population, as this is how most of the federal funding is given to the region (i.e., based on population). As discussed above, this was mostly a function of simplicity and the committees have never had a discussion on whether this is the best way to measure balance. Some options for how to determine balance include:

- Distribution (numerator): Federal funding? Number of Projects? Something else?
- Appropriate balance (denominator): Population? Jobs? Population + Jobs? Something else, perhaps related to existing travel patterns?

For example, this issue is currently framed as federal funding / population by county. But it could also be number of projects / jobs by land use. Any technical rationale that members have to consider an updated approach can be considered by TAB as it determines how to address geographic balance.

The above-mentioned figures show geographic distribution of projects and funds by each geography over the past four Regional Solicitation cycles.

- Figures 1A-B show that federal funds over the last four cycles (2014-2020) are similar to regional distribution of population and jobs. Figure 1C shows roadway project funding is allocated in a similar proportion to VMT.
- Figures 2A-B show that central Council districts receive high funding versus population, though that evens out when compared to jobs.¹
- Figures 3A-B show distribution by four quadrants. The Northeast quadrant shows proportionately less funding than population. However, note that many projects are located near the midpoint of all four quadrants.
- Figures 4A-B show that funding and jobs are roughly the same proportion.

5. What, if Anything, is Needed in Advance of Application?

Technical committee members are closer to the application process than TAB members. Therefore, TAB may value technical input on whether any geographic balance methods or rules (see part 5 below) could impact how potential applicants approach the number or type of applications they will submit.

¹ The presented council district analysis is limited by spatial resolution of project data; accuracy of funding information by council district will improve through an ongoing project to improve historical project data.

6. Future Questions

At this point, the objective is to find a common understanding of what geographic balance means. However, over the next one-to-two meeting cycles practical application of geographic balance may be considered. Some of these questions may include:

- Should geographic balance be assessed over time or cycle-by-cycle? In either case, how would this be implemented?
- Should geographic balance be codified in the application, or should it continue to be addressed as projects are selected (which has been the practice to this point)?
- Will the Highway Safety Improvement Program (HSIP) solicitation be considered? Traditionally HSIP has not been considered, but the question of whether to consider it has never been raised.

Funding & Programming Committee Comments

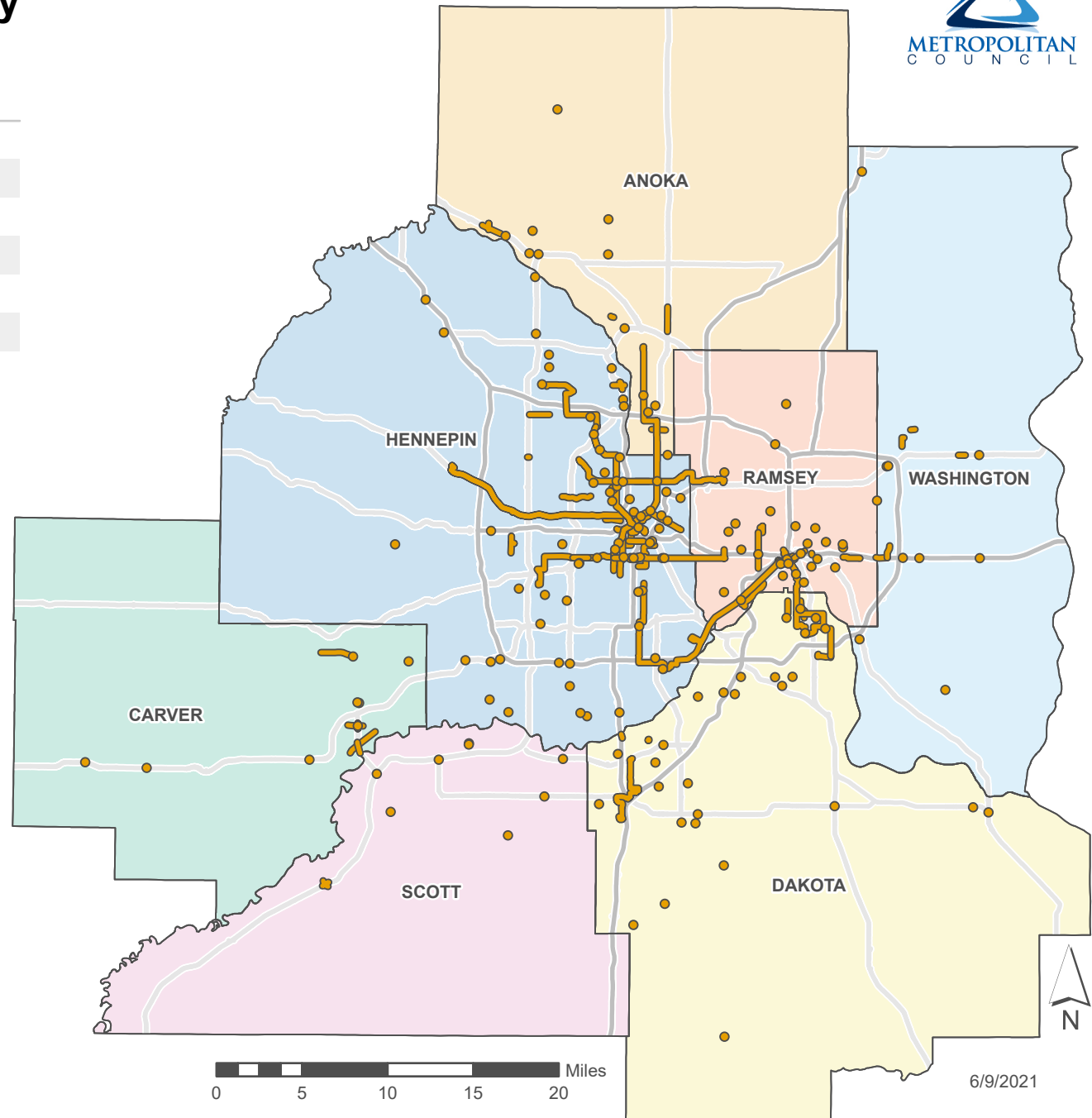
Members expressed that the geographic spread over the past four Regional Solicitation cycles has been balanced and suggested that balance be examined over several Regional Solicitation cycles, as opposed to within each cycle. It was suggested that Streetlight data or other information could be used to determine who is benefiting from various projects (as is addressed in 3, above).

Figure 1A. Location of 2014-2020 Regional Solicitation Funded Projects by County



County	Federal Funds	Pop	Jobs
Anoka	10%	12%	7%
Carver	5%	3%	2%
Dakota	9%	14%	11%
Hennepin	50%	41%	53%
Ramsey	16%	18%	19%
Scott	5%	5%	3%
Washington	4%	8%	5%

Notes: Federal funding refers to amount awarded in Regional Solicitation only. Population (2019) and employment (2020) data based on Metropolitan Council Community Profiles. Project corridors are only available for 2020 projects and 2018 transit projects. Excludes regional and travel demand management projects. Projects that cross boundaries are evenly divided among intersecting jurisdictions.



- Selected Project Points
- Selected Project Corridors
- Interstate Highways
- Other Major Roads
- Counties

6/9/2021

Figure 1B. Location of 2014-2020 Regional Solicitation Funded Projects by County, Scaled



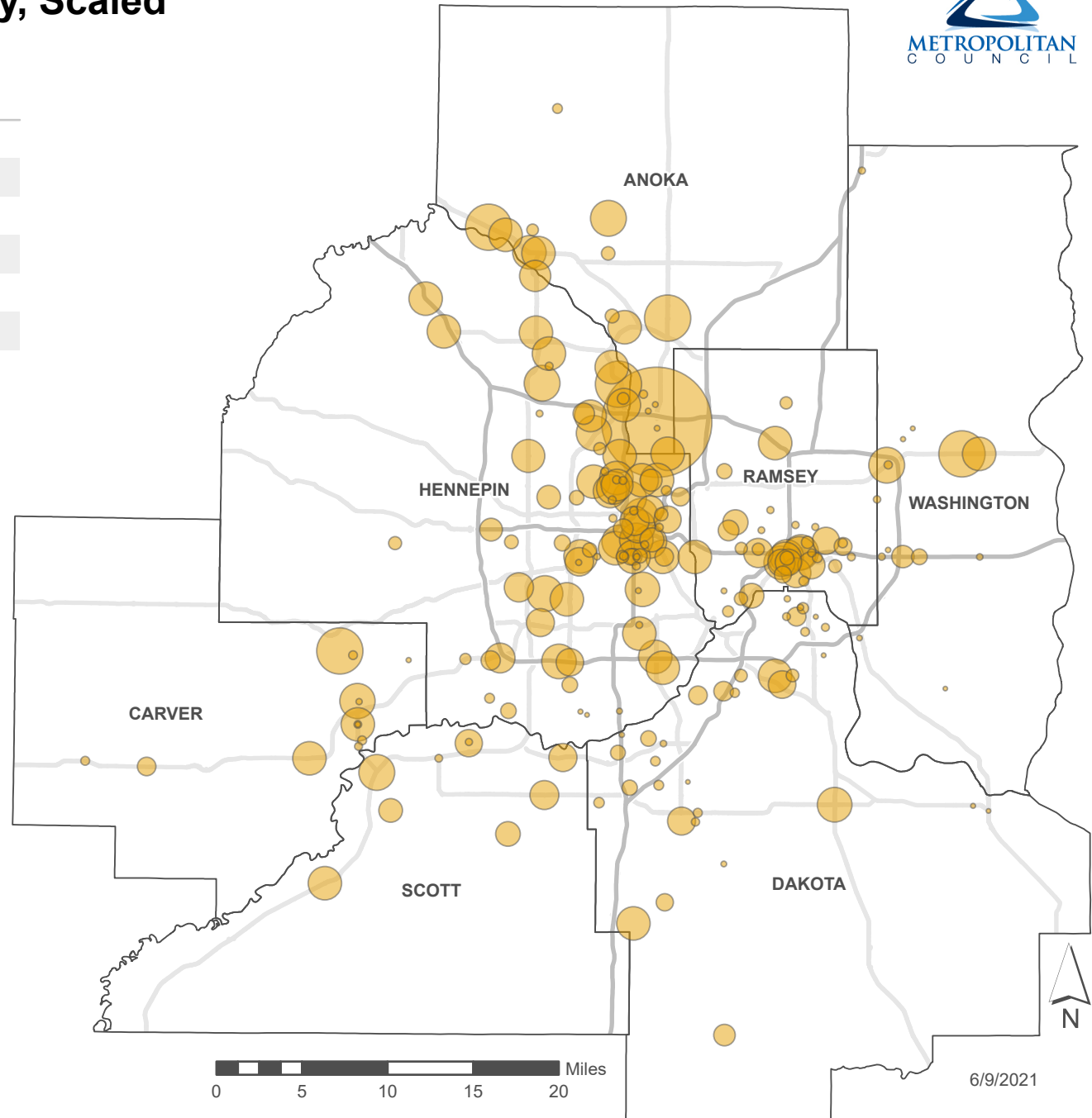
County	Federal Funds	Pop	Jobs
Anoka	10%	12%	7%
Carver	5%	3%	2%
Dakota	9%	14%	11%
Hennepin	50%	41%	53%
Ramsey	16%	18%	19%
Scott	5%	5%	3%
Washington	4%	8%	5%

Notes: Federal funding refers to amount awarded in Regional Solicitation only. Population (2019) and employment (2020) data based on Metropolitan Council Community Profiles. Project corridors are only available for 2020 projects and 2018 transit projects. Excludes regional and travel demand management projects. Projects that cross boundaries are evenly divided among intersecting jurisdictions.

Selected Projects (\$)

- 100,000
- 500,000
- 1,000,000
- 5,000,000
- 10,000,000

- Interstate Highways
- Other Major Roads
- Counties



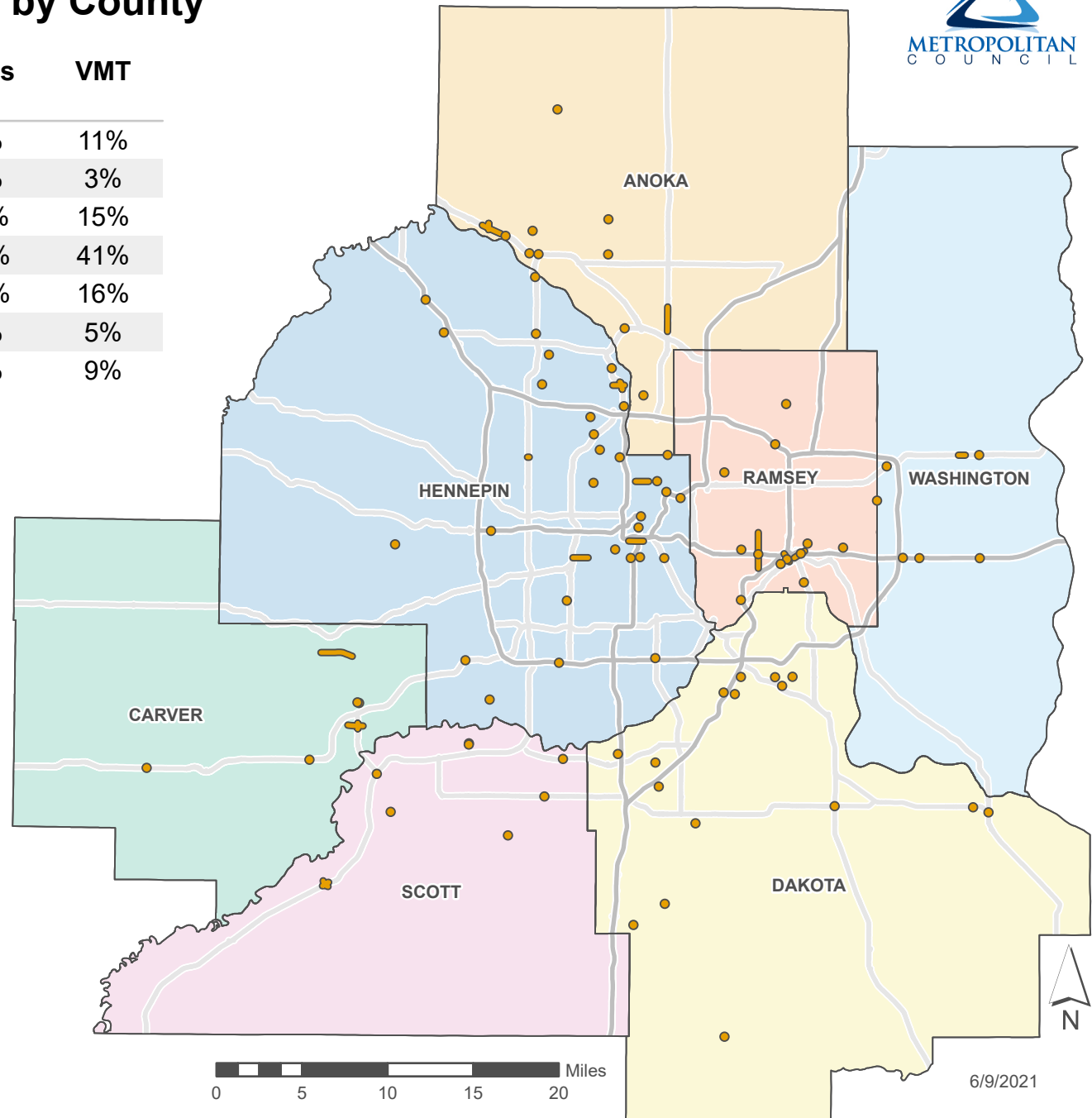
6/9/2021

Figure 1C. Location of 2014-2020 Regional Solicitation Funded Roadway Projects by County



County	Roadway Funds	Pop	Jobs	VMT
Anoka	13%	12%	7%	11%
Carver	7%	3%	2%	3%
Dakota	10%	14%	11%	15%
Hennepin	41%	41%	53%	41%
Ramsey	13%	18%	19%	16%
Scott	9%	5%	3%	5%
Washington	7%	8%	5%	9%

Notes: Roadway funds refers to federal amount awarded in Regional Solicitation only. Population (2019) and employment (2020) data based on Metropolitan Council Community Profiles. VMT (2019) data from MnDOT TDA. Project corridors are only available for 2020 projects and 2018 transit projects. Excludes regional and travel demand management projects. Projects that cross boundaries are evenly divided among intersecting jurisdictions.



- Selected Project Points
- Selected Project Corridors
- Interstate Highways
- Other Major Roads
- Counties

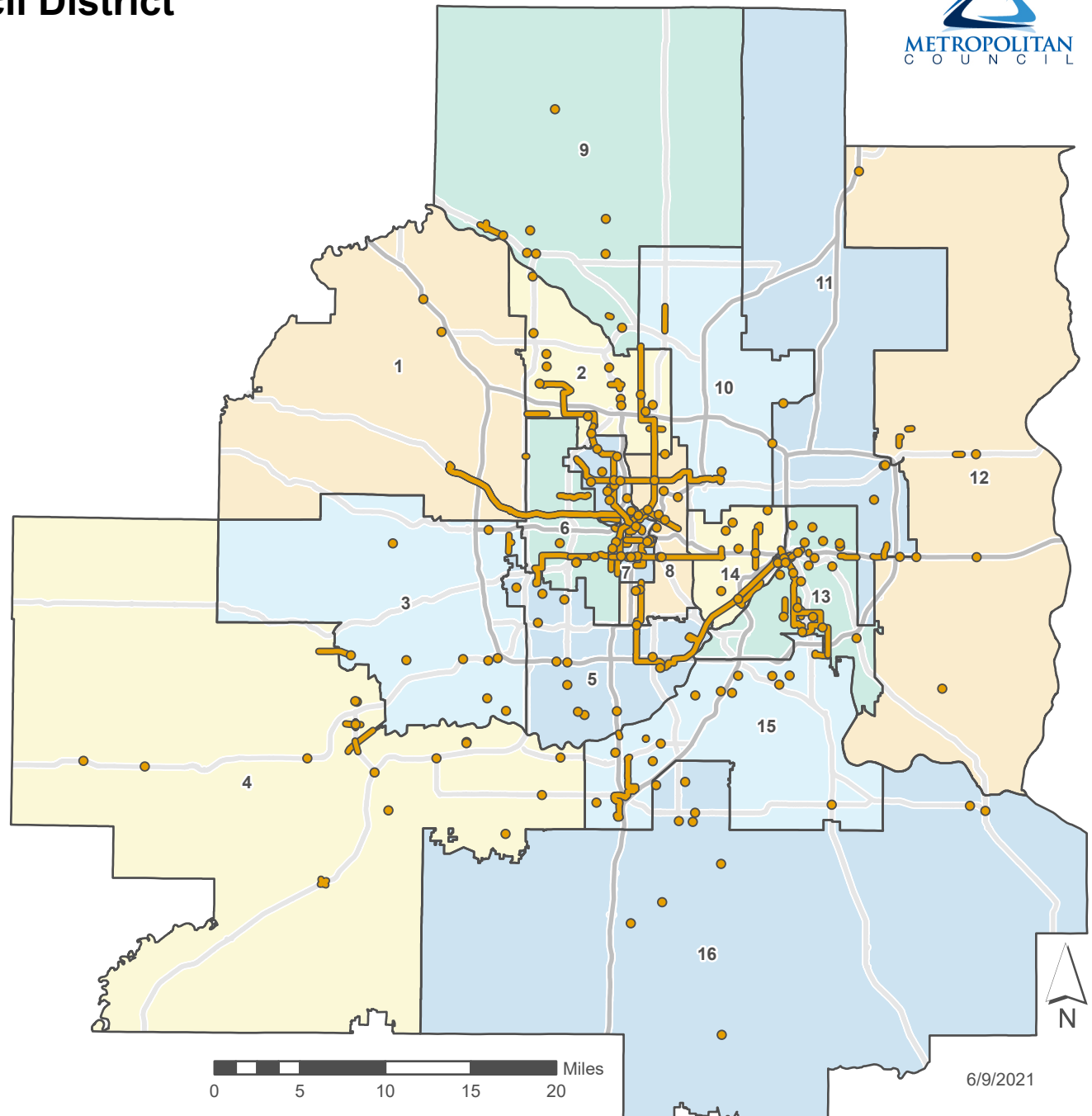
Figure 2A. Location of 2014-2020 Regional Solicitation Funded Projects by Council District



District	Federal Funds	Pop	Jobs
1	2%	6%	7%
2	11%	6%	5%
3	4%	6%	8%
4	9%	7%	4%
5	7%	6%	12%
6	6%	6%	6%
7	14%	6%	12%
8	9%	6%	6%
9	6%	6%	3%
10	2%	6%	7%
11	2%	6%	5%
12	3%	7%	4%
13	11%	6%	6%
14	3%	6%	6%
15	5%	6%	7%
16	3%	7%	3%

Notes: Federal funding refers to amount awarded in Regional Solicitation only. Population and employment data based on 2020 estimates in Metropolitan Council's TAZ with Current Forecasts dataset. Project corridors are only available for 2020 projects and 2018 transit projects. Excludes regional and travel demand management projects. Projects that cross boundaries are evenly divided among intersecting jurisdictions.

- Selected Project Points
- Selected Project Corridors
- Interstate Highways
- Other Major Roads
- Metropolitan Council Districts



6/9/2021

Figure 2B. Location of 2014-2020 Regional Solicitation Funded Projects by Council District, Scaled



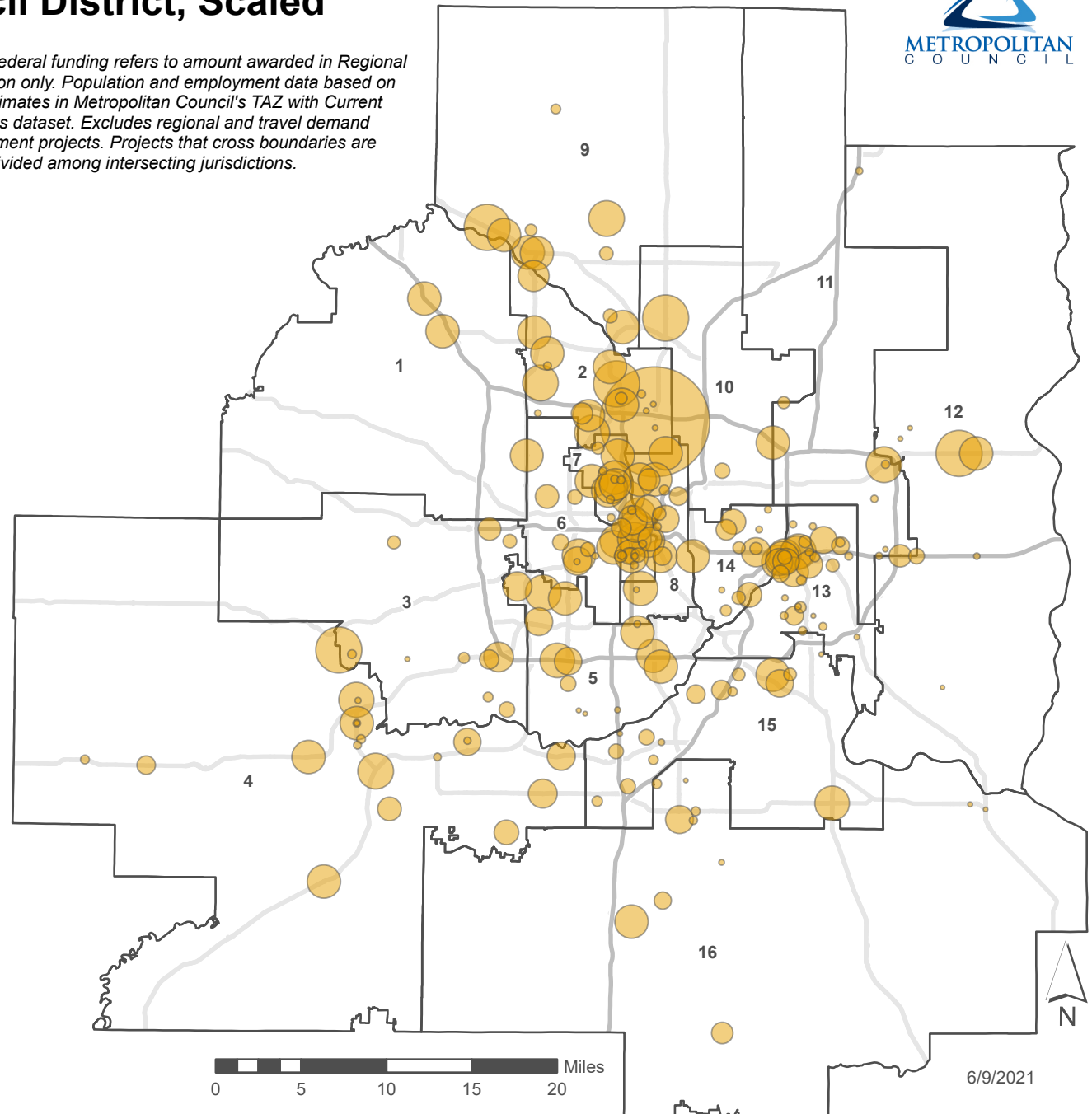
District	Federal Funds	Pop	Jobs
1	2%	6%	7%
2	11%	6%	5%
3	4%	6%	8%
4	9%	7%	4%
5	7%	6%	12%
6	6%	6%	6%
7	14%	6%	12%
8	9%	6%	6%
9	6%	6%	3%
10	2%	6%	7%
11	2%	6%	5%
12	3%	7%	4%
13	11%	6%	6%
14	3%	6%	6%
15	5%	6%	7%
16	3%	7%	3%

Notes: Federal funding refers to amount awarded in Regional Solicitation only. Population and employment data based on 2020 estimates in Metropolitan Council's TAZ with Current Forecasts dataset. Excludes regional and travel demand management projects. Projects that cross boundaries are evenly divided among intersecting jurisdictions.

Selected Projects (\$)

- 100,000
- 500,000
- 1,000,000
- 5,000,000
- 10,000,000

- Interstate Highways
- Other Major Roads
- Metropolitan Council Districts



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Figure 3A. Location of 2014-2020 Regional Solicitation Funded Projects by Quadrant



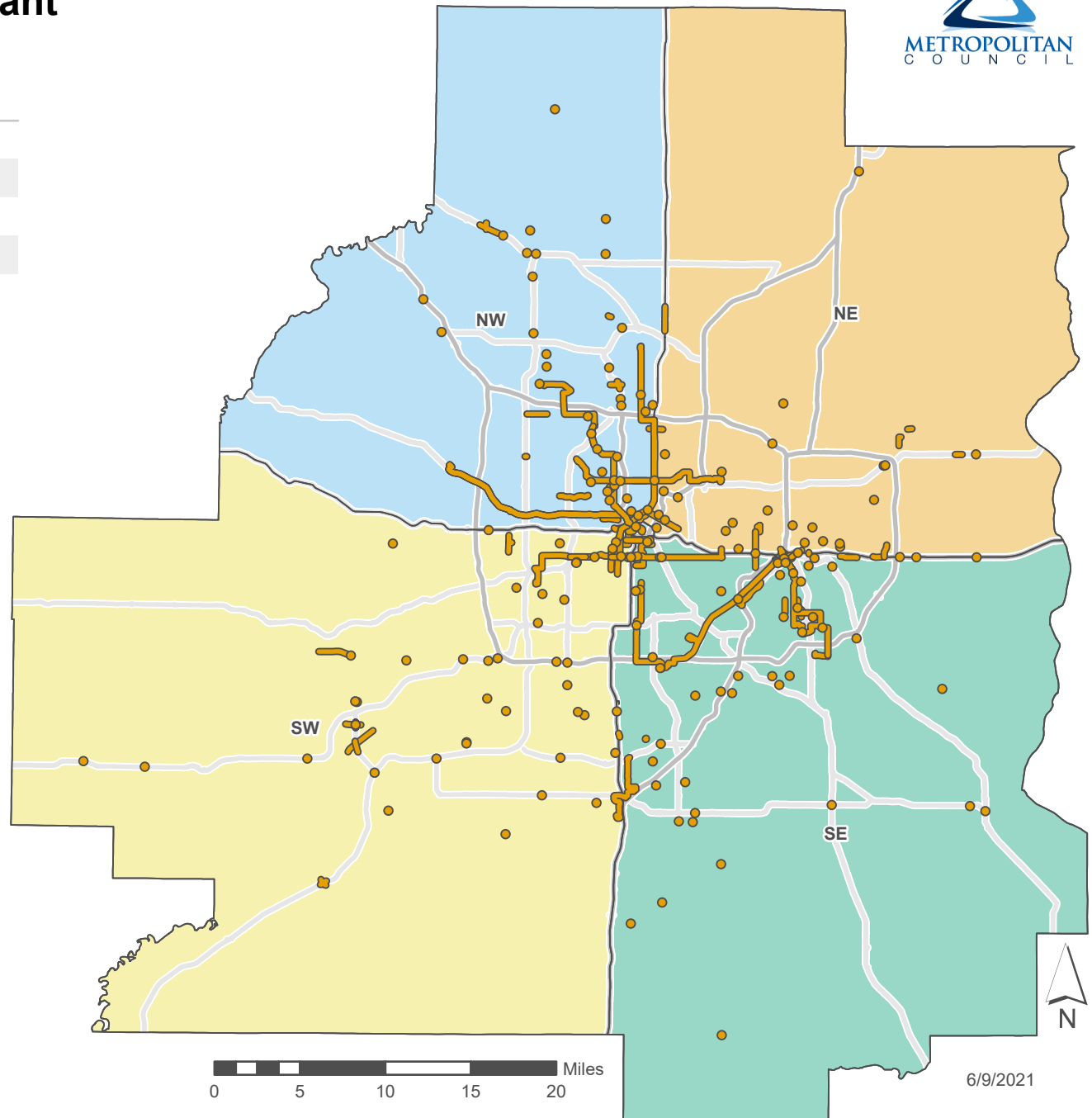
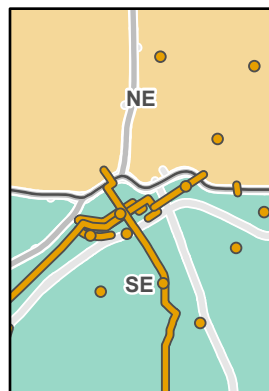
Quadrant	Federal Funds	Pop	Jobs
Northwest	32%	25%	28%
Northeast	15%	23%	23%
Southeast	26%	28%	25%
Southwest	27%	24%	24%

Notes: Federal funding refers to amount awarded in Regional Solicitation only. Population and employment data based on 2020 estimates in Metropolitan Council's TAZ with Current Forecasts dataset. Project corridors are only available for 2020 projects and 2018 transit projects. Excludes regional and travel demand management projects. Projects that cross boundaries are evenly divided among intersecting quadrants.

Downtown Minneapolis Detail



Downtown Saint Paul Detail



- Selected Project Points
- Selected Project Corridors
- Interstate Highways
- Other Major Roads
- Quadrants

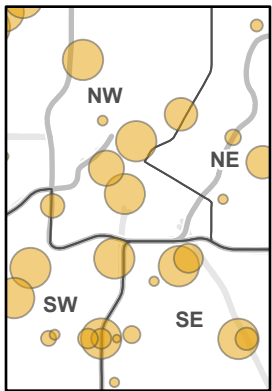
Figure 3B. Location of 2014-2020 Regional Solicitation Funded Projects by Quadrant, Scaled



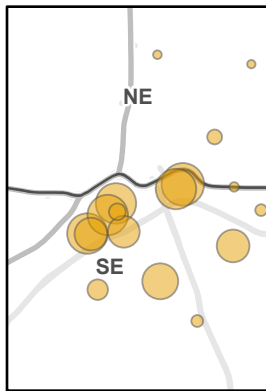
Quadrant	Federal Funds	Pop	Jobs
Northwest	32%	25%	28%
Northeast	15%	23%	23%
Southeast	26%	28%	25%
Southwest	27%	24%	24%

Notes: Federal funding refers to amount awarded in Regional Solicitation only. Population and employment data based on 2020 estimates in Metropolitan Council's TAZ with Current Forecasts dataset. Project corridors are only available for 2020 projects and 2018 transit projects. Excludes regional and travel demand management projects. Projects that cross boundaries are evenly divided among intersecting quadrants.

Downtown Minneapolis Detail



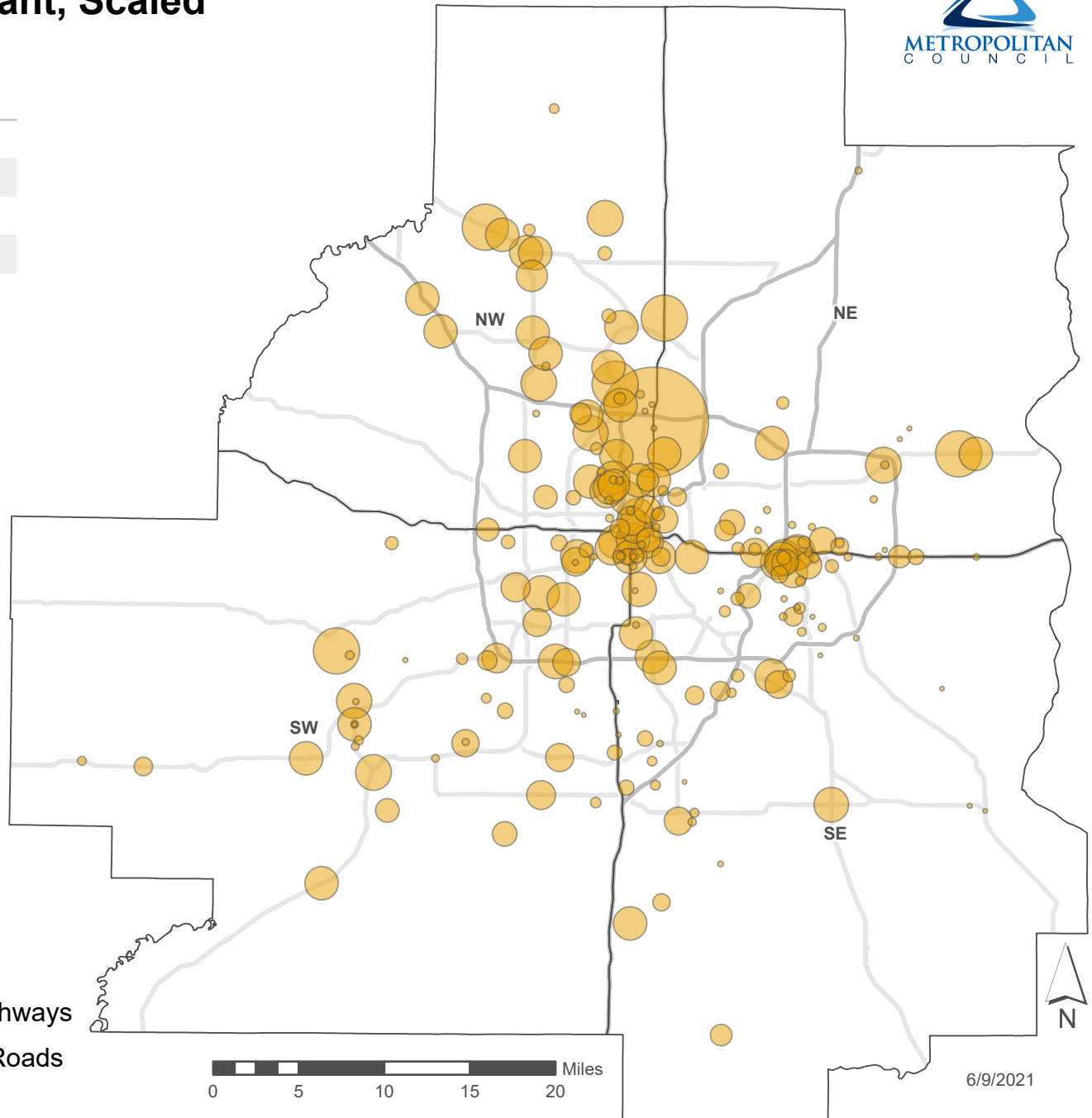
Downtown Saint Paul Detail



Selected Projects (\$)

- 100,000
- 500,000
- 1,000,000
- 5,000,000
- 10,000,000

- Interstate Highways
- Other Major Roads
- Quadrants



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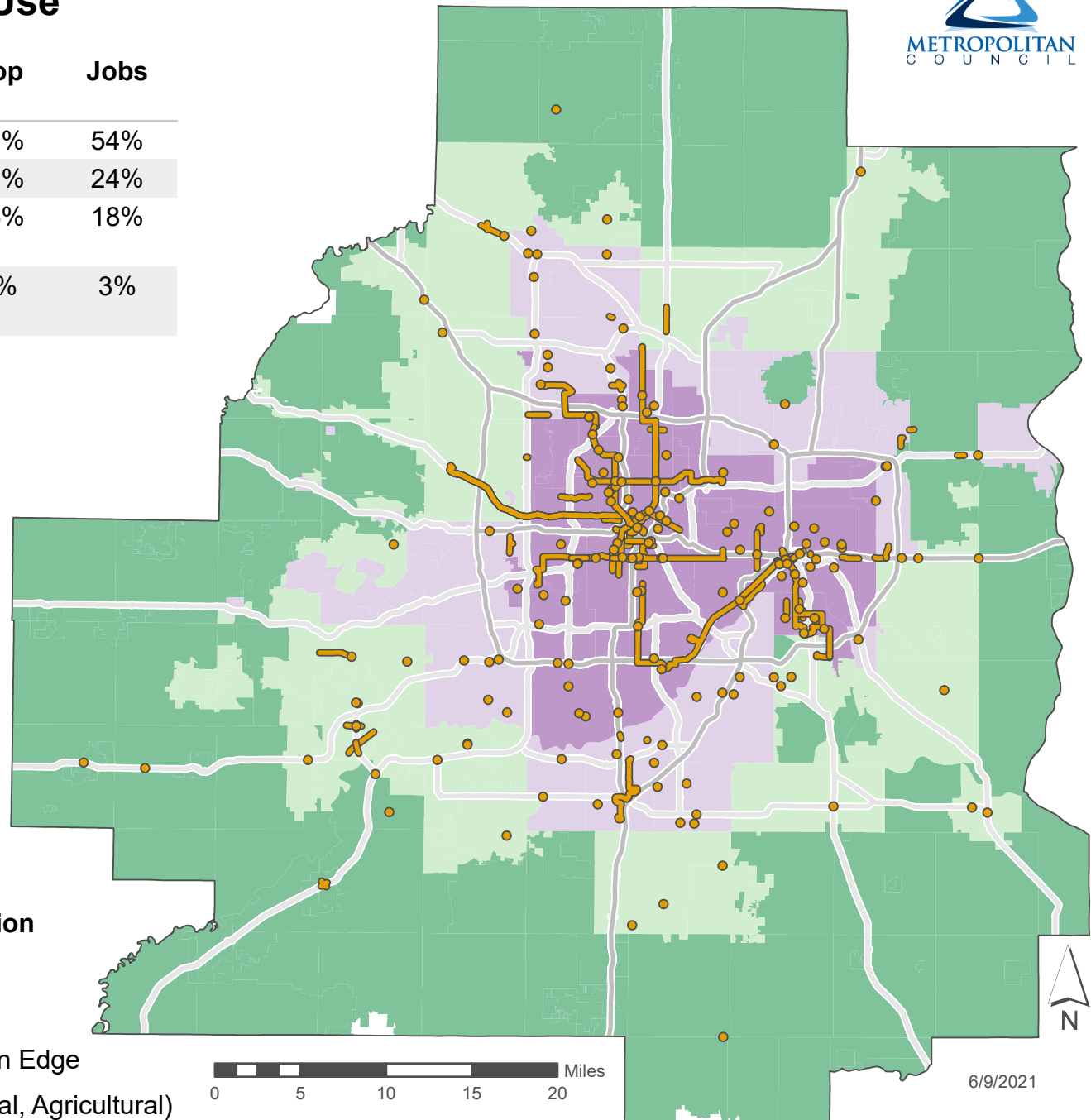
Figure 4A. Location of 2014-2020 Regional Solicitation Funded Projects by Land Use



Designation Summary	Federal Funds	Pop	Jobs
Urban, Urban Center	56%	42%	54%
Suburban	22%	24%	24%
Suburban Edge, Emerging Suburban Edge	18%	25%	18%
Rural (Center, Diversified, Residential, Agricultural)	4%	8%	3%

Notes: Federal funding refers to amount awarded in Regional Solicitation only. Population and employment data based on 2020 estimates in Metropolitan Council's TAZ with Current Forecasts dataset. Project corridors are only available for 2020 projects and 2018 transit projects. Excludes regional and travel demand management projects. Projects that cross boundaries are evenly divided among intersecting designations.

- Selected Project Points
 - Selected Project Corridors
 - Interstate Highways
 - Other Major Roads
- Thrive MSP 2040 Community Designation**
- Urban Center, Urban
 - Suburban
 - Suburban Edge, Emerging Suburban Edge
 - Rural (Center, Diversified, Residential, Agricultural)



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Figure 4B. Location of 2014-2020 Regional Solicitation Funded Projects by Land Use, Scaled



Designation Summary	Federal Funds	Pop	Jobs
Urban, Urban Center	56%	42%	54%
Suburban	22%	24%	24%
Suburban Edge, Emerging Suburban Edge	18%	25%	18%
Rural (Center, Diversified, Residential, Agricultural)	4%	8%	3%

Notes: Federal funding refers to amount awarded in Regional Solicitation only. Population and employment data based on 2020 estimates in Metropolitan Council's TAZ with Current Forecasts dataset. Project corridors are only available for 2020 projects and 2018 transit projects. Excludes regional and travel demand management projects. Projects that cross boundaries are evenly divided among intersecting designations.

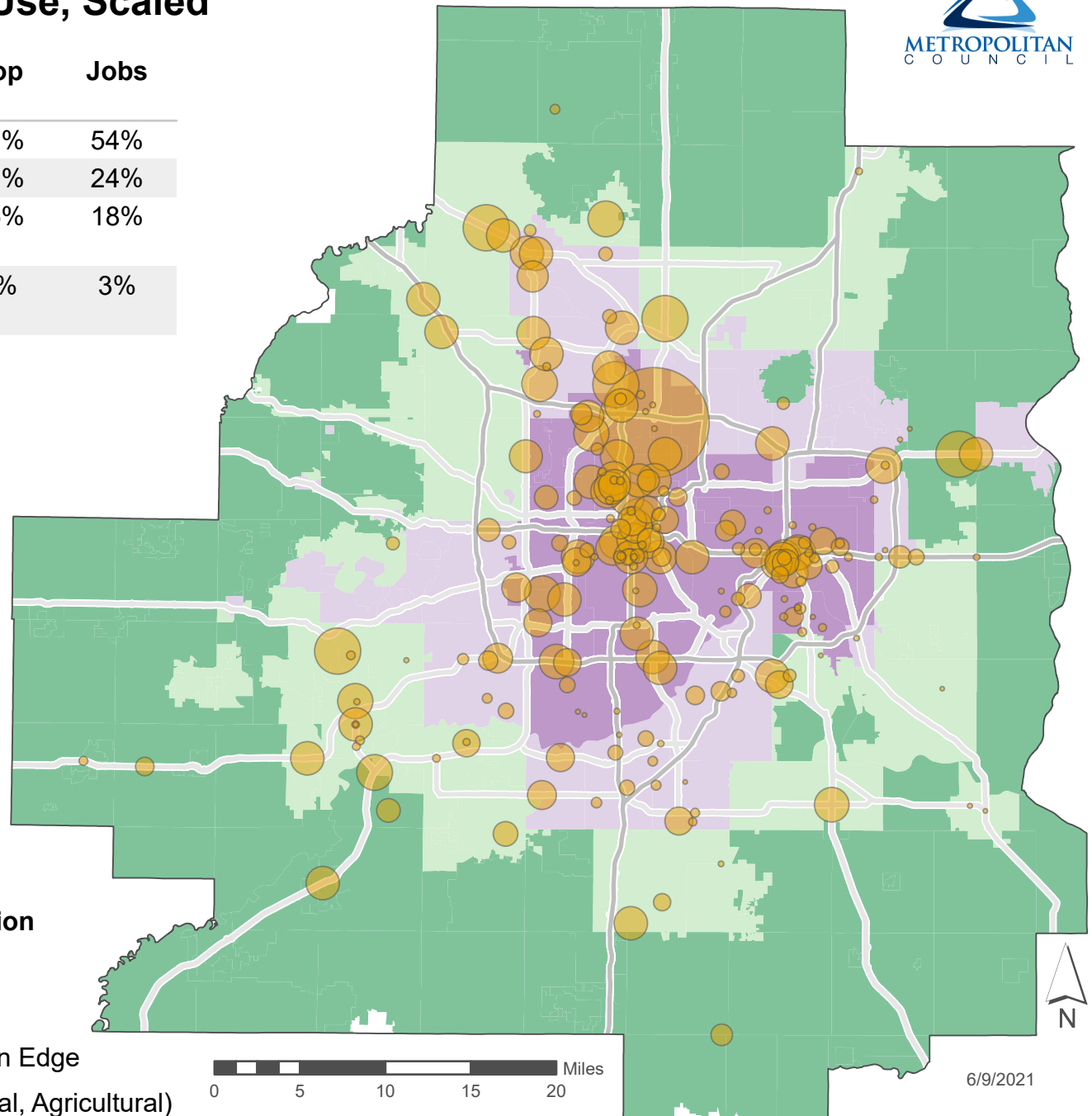
Selected Projects (\$)

- 100,000
- 500,000
- 1,000,000
- 5,000,000
- 10,000,000

- Interstate Highways
- Other Major Roads

Thrive MSP 2040 Community Designation

- Urban Center, Urban
- Suburban
- Suburban Edge, Emerging Suburban Edge
- Rural (Center, Diversified, Residential, Agricultural)



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Geographic Balance of Regional Solicitation Awards, 2014-2020

Figure 5A. 2014-2020 Awards by County
Excluding TDM and Regional Projects

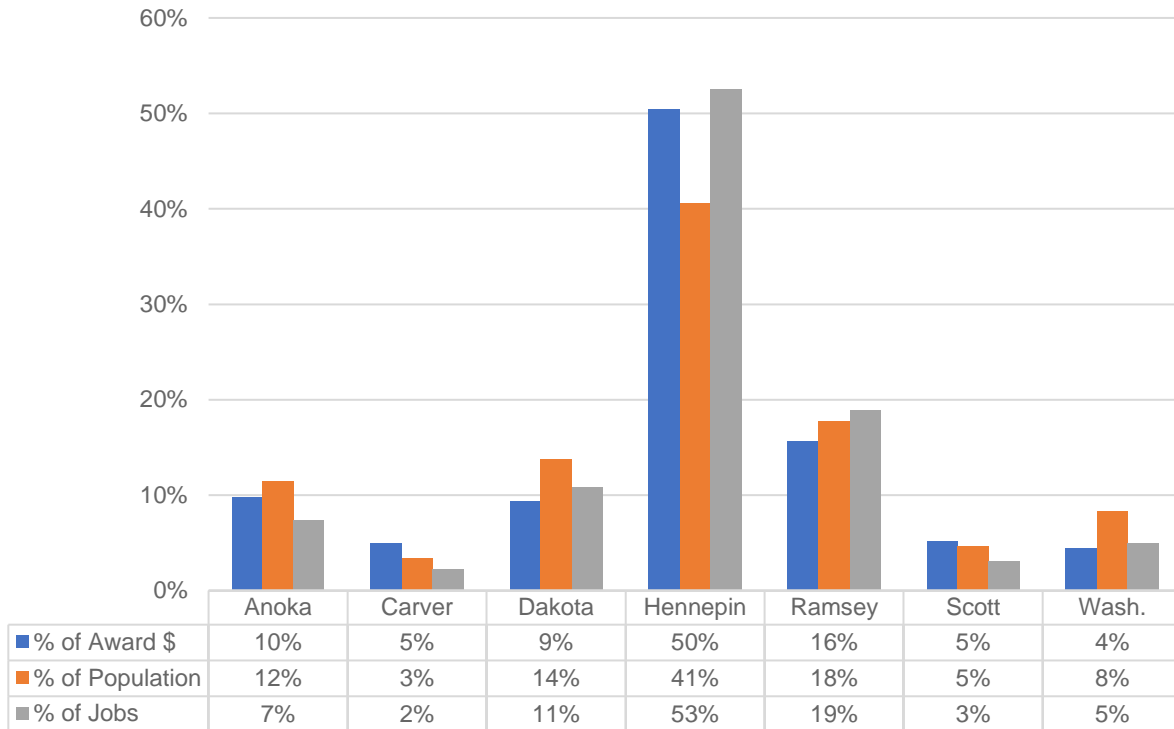
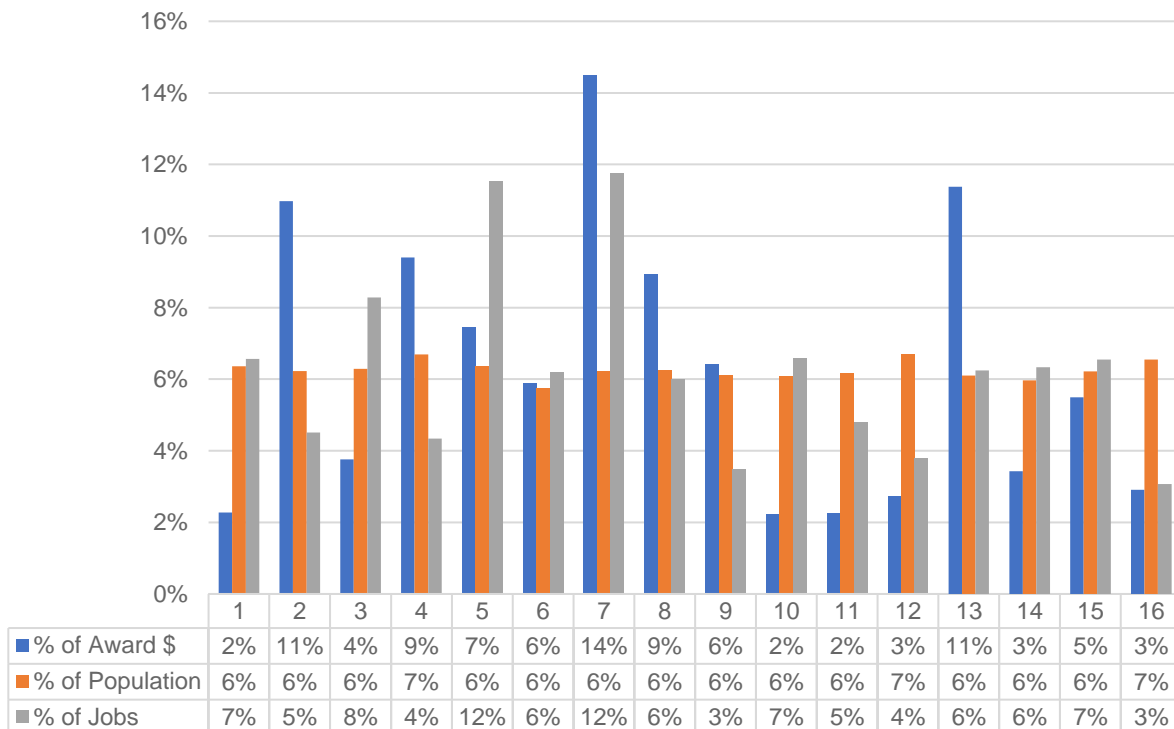


Figure 5B. 2014-2020 Awards by Council District
Excluding TDM and Regional Projects



Geographic Balance of Regional Solicitation Awards, 2014-2020

Figure 5C. 2014-2020 Awards by Quadrant
Excluding TDM and Regional Projects

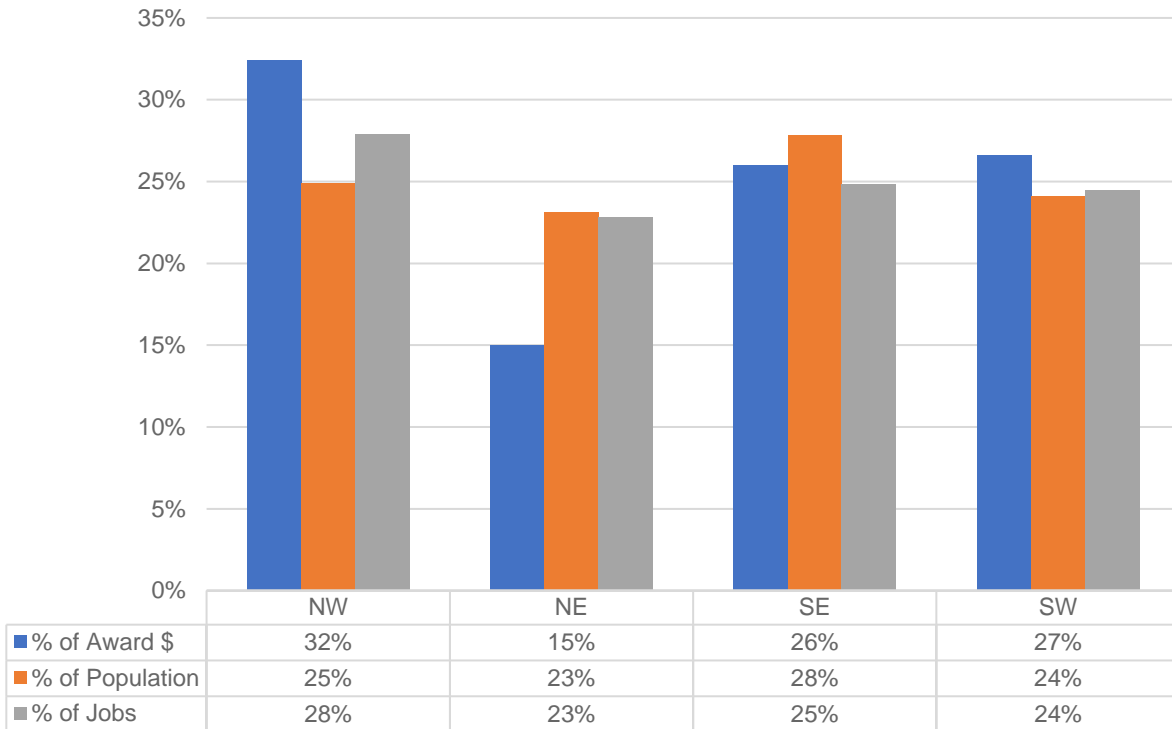


Figure 5D. 2014-2020 Awards by Land Use Designation
Excluding TDM and Regional Projects

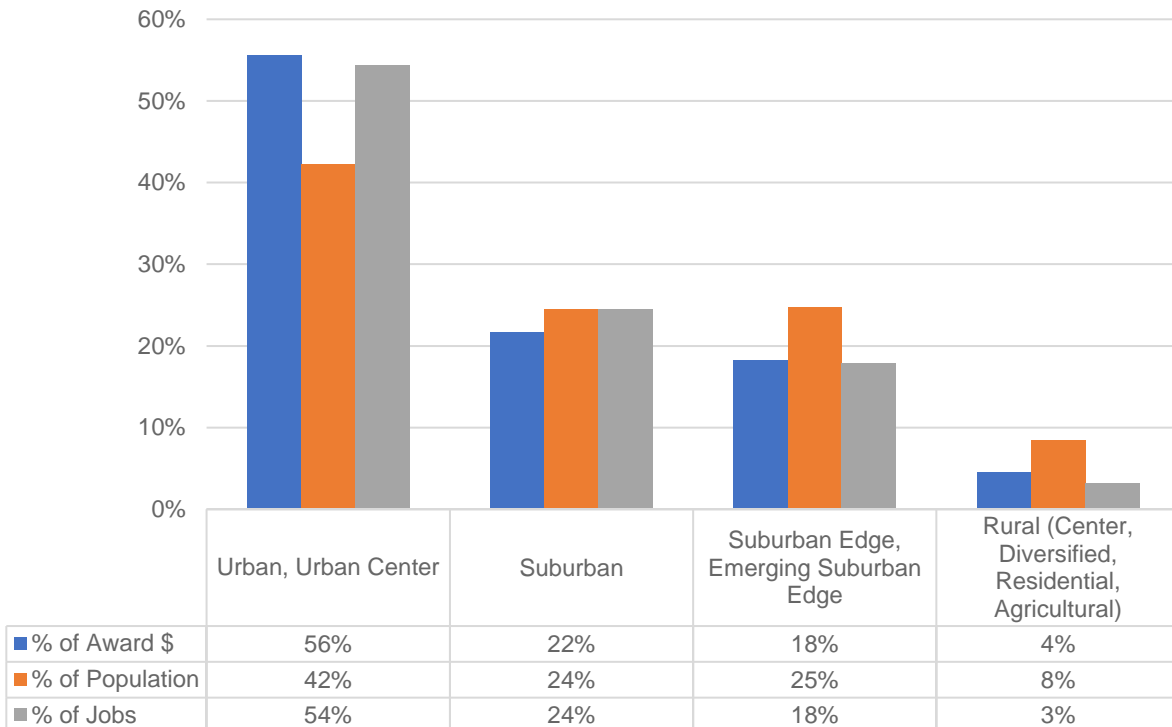


Figure 6. Origin of Trips by MN House District

Franklin Ave Reconstruction (Application 13970)

Average Weekday Trips Through Project Area, 6am-10am

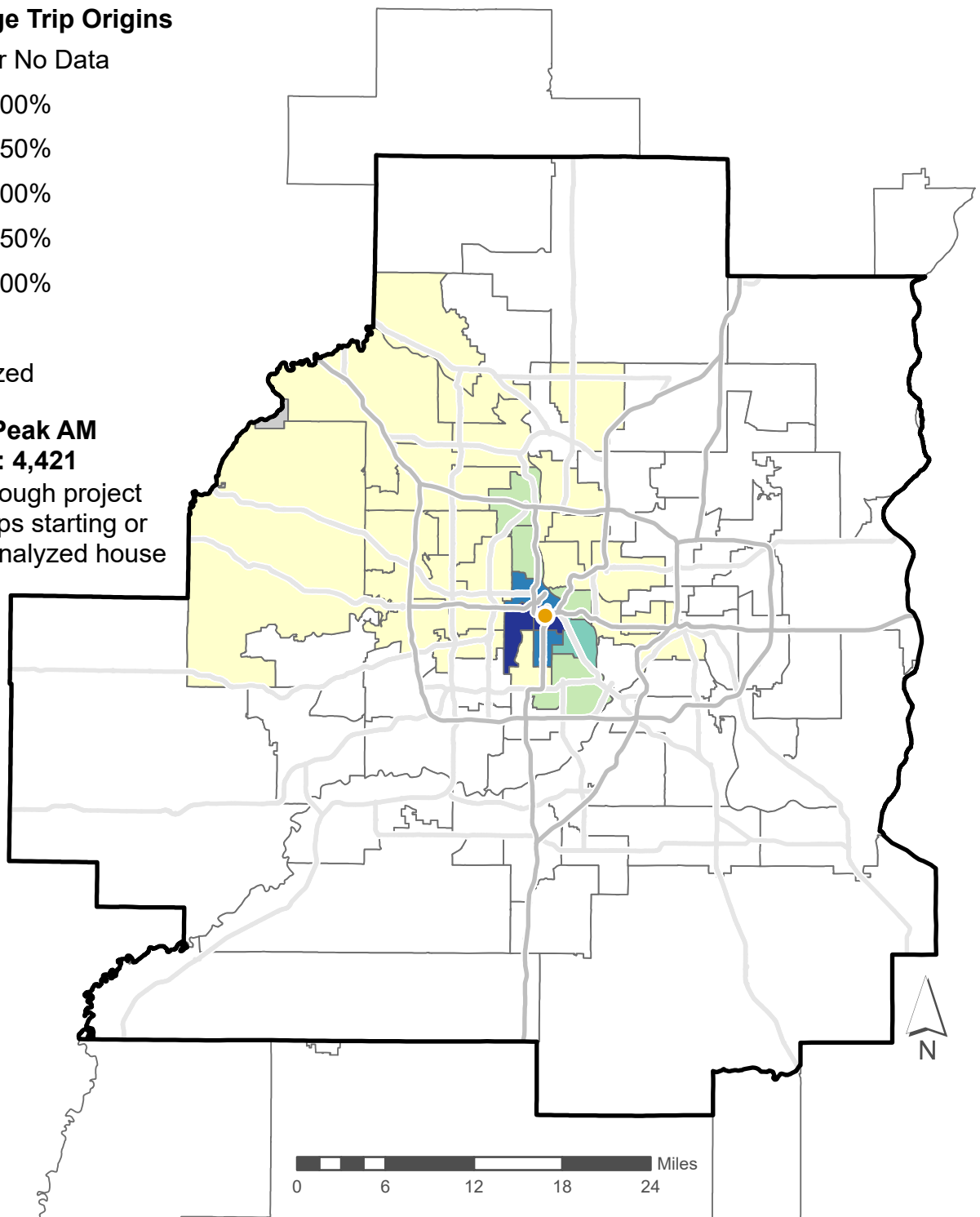


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 4,421

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

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Figure 7. Origin of Trips by MN House District

Lowry Ave NE Reconstruction (Application 14012)

Average Weekday Trips Through Project Area, 6am-10am

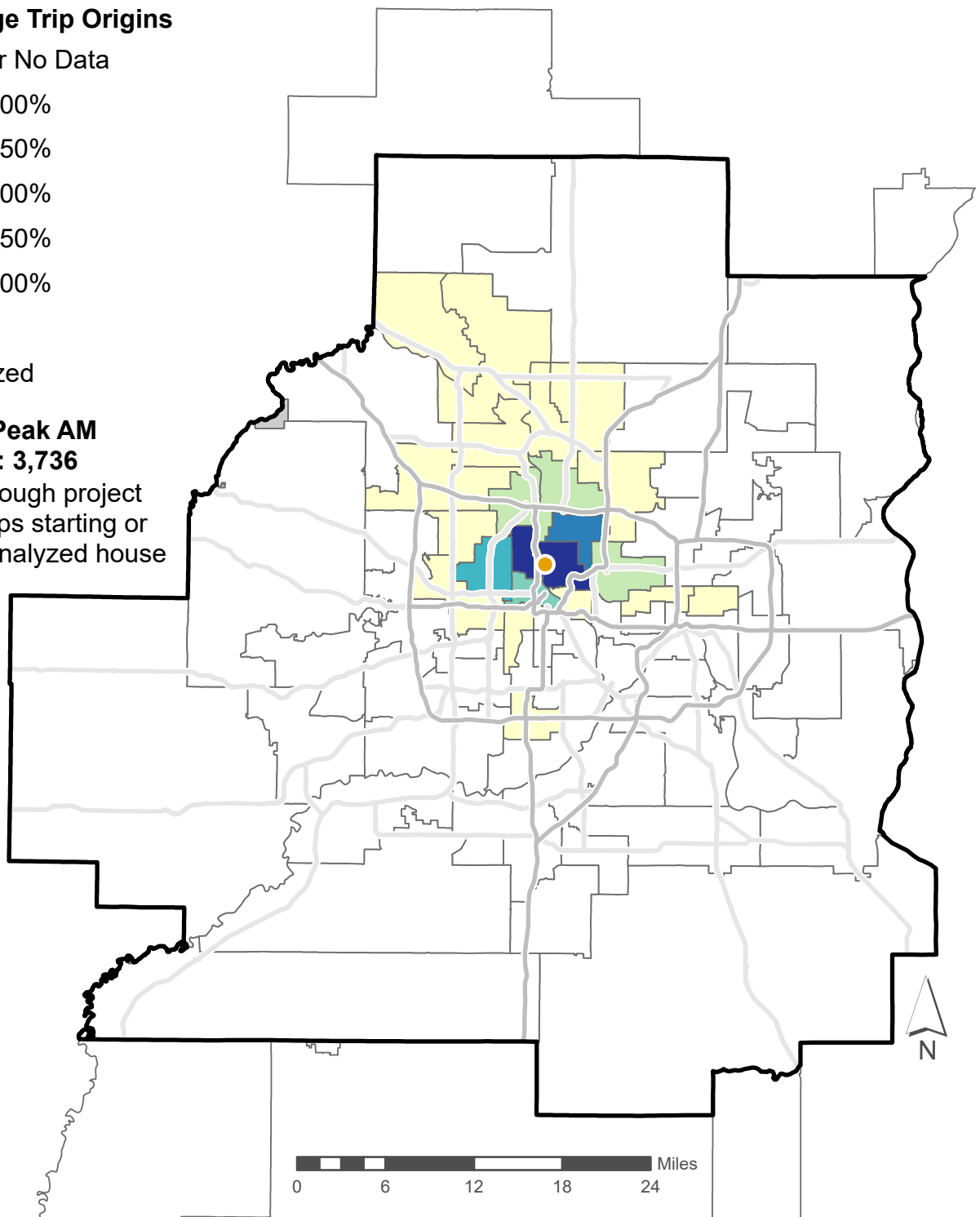


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 3,736

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

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Figure 8. Origin of Trips by MN House District

Robert St Reconstruction (Application 14013)

Average Weekday Trips Through Project Area, 6am-10am

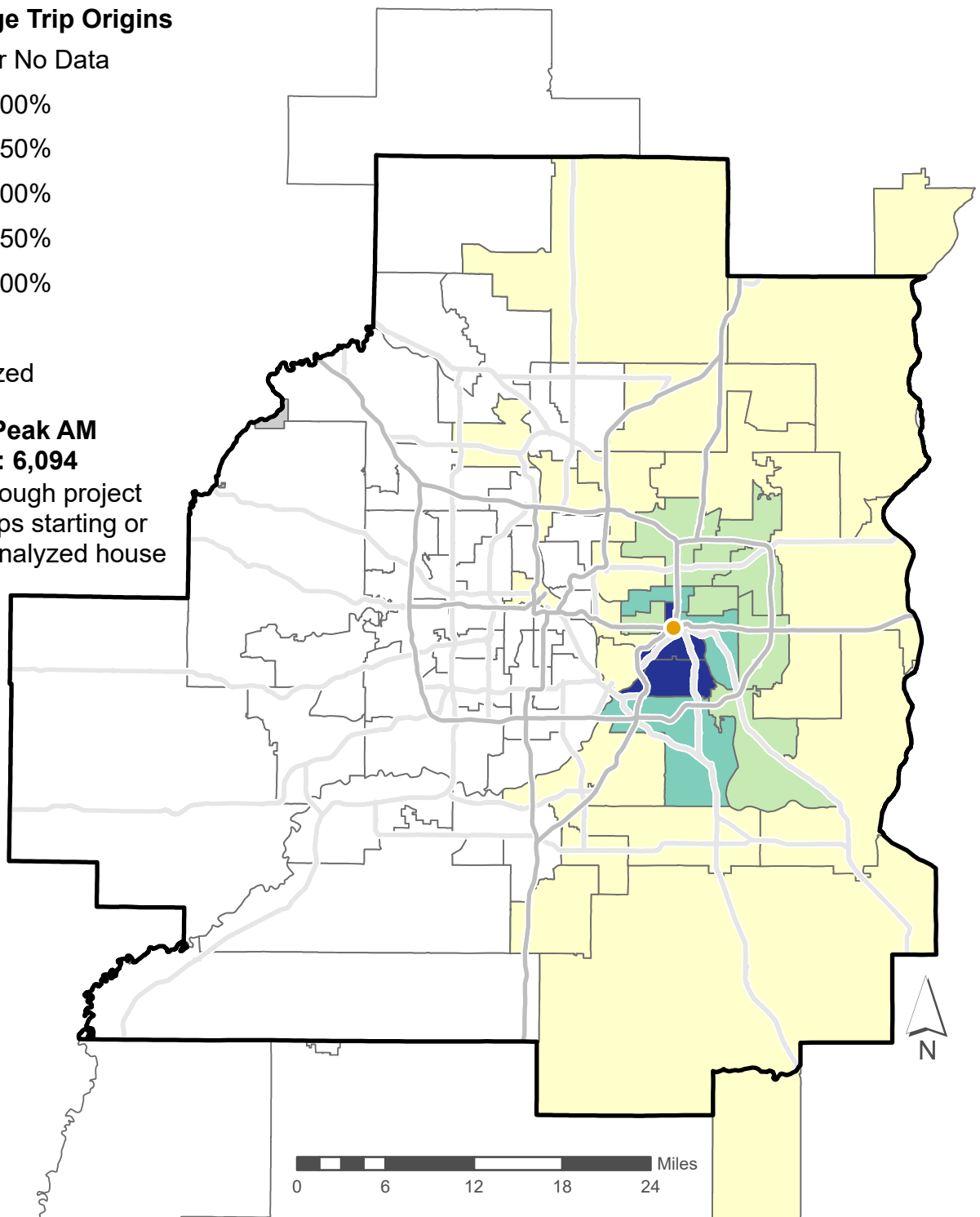


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 6,094

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

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Figure 9. Origin of Trips by MN House District

US 169, Hwy 282, and County 9 Interchange (Application 14015)
Average Weekday Trips Through Project Area, 6am-10am

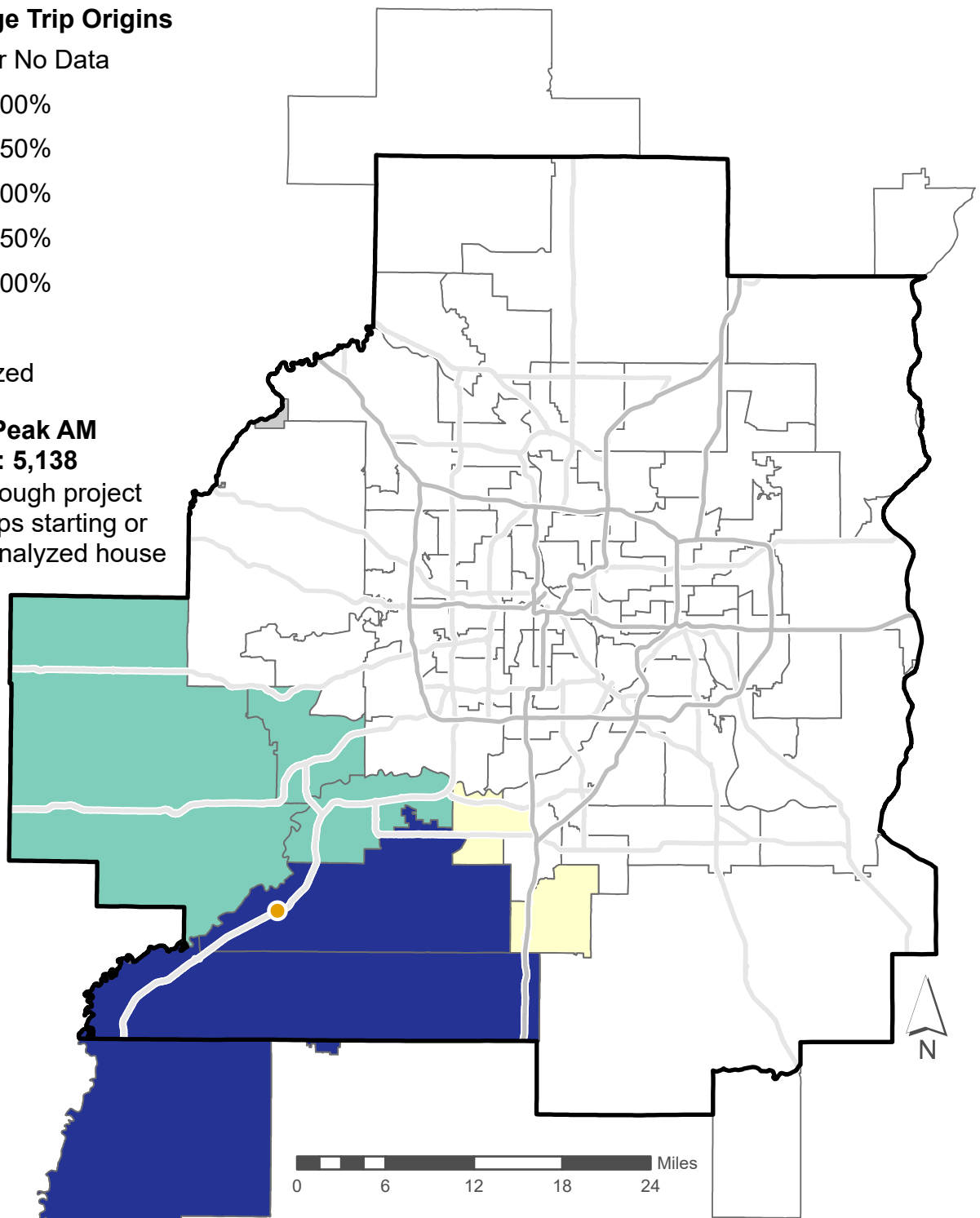


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 5,138

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

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Figure 10. Origin of Trips by MN House District

Hwy 252/Brookdale Dr Interchange (Application 14030)
Average Weekday Trips Through Project Area, 6am-10am

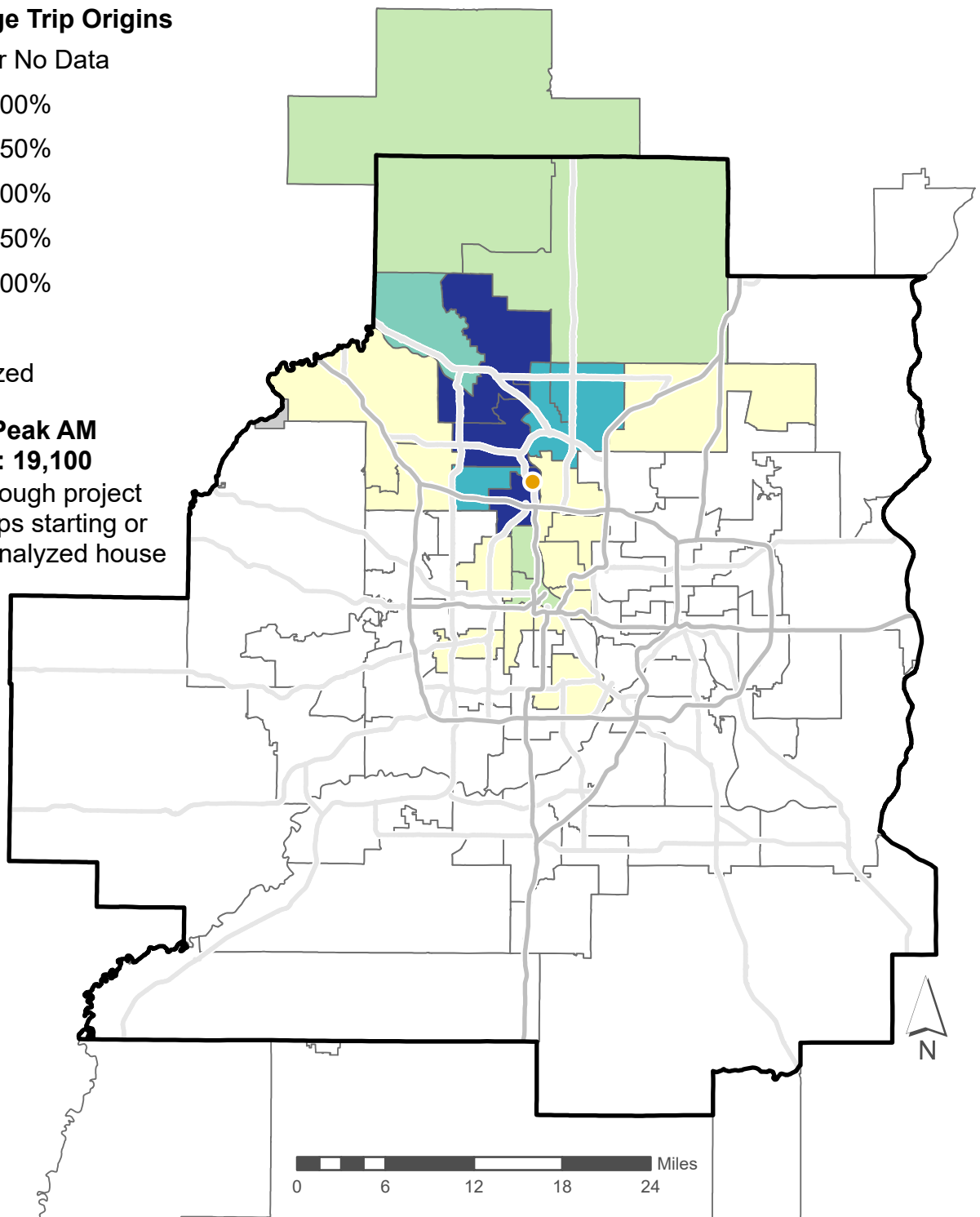


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 19,100

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

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Figure 11. Origin of Trips by MN House District

US 212 and County 51 Intersection Safety (Application 14050)
Average Weekday Trips Through Project Area, 6am-10am

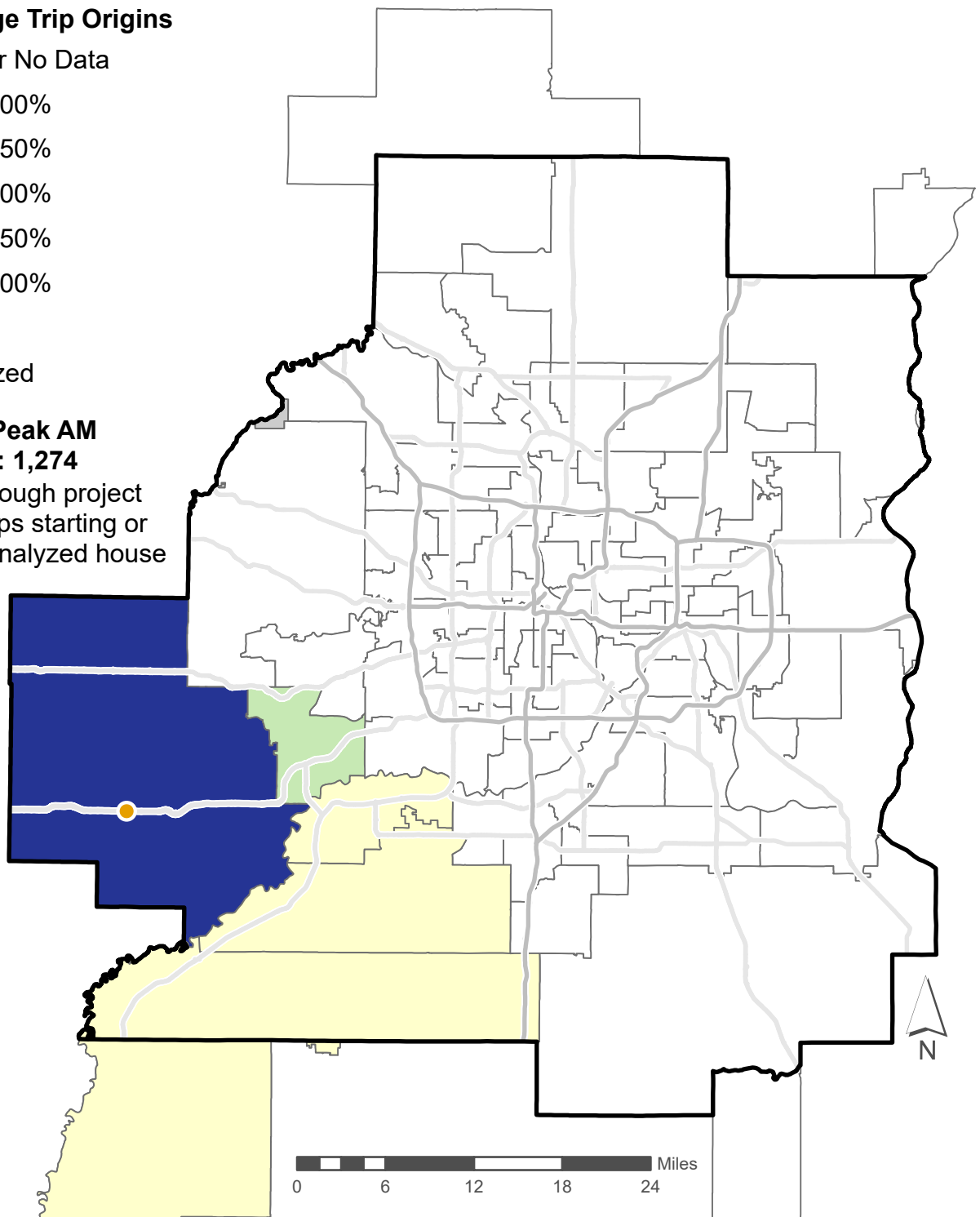


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 1,274

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

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Figure 12. Origin of Trips by MN House District

Johnson St NE/I-35W S Ramps Intersection (Application 14059)
Average Weekday Trips Through Project Area, 6am-10am

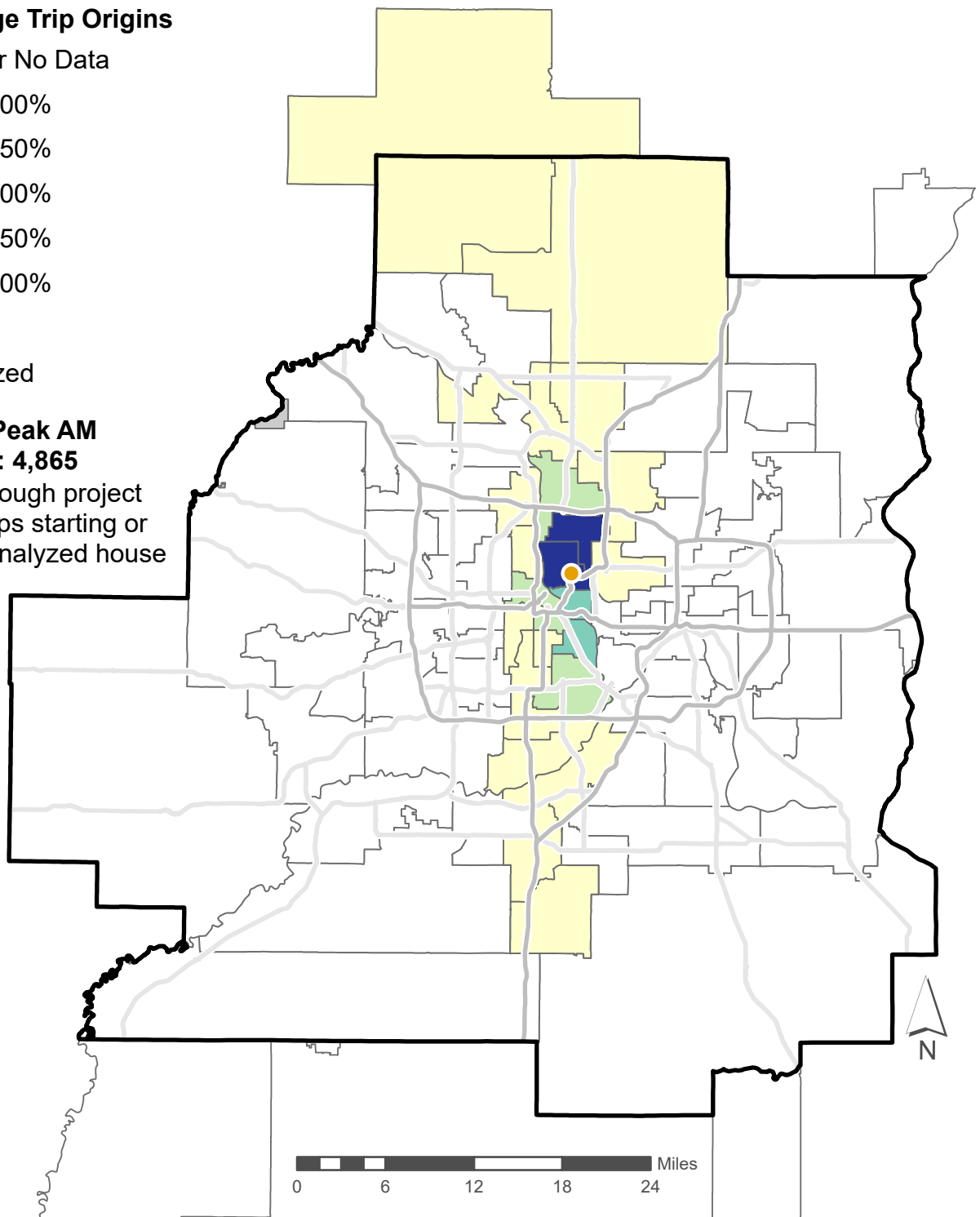


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 4,865

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

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Figure 13. Origin of Trips by MN House District

Rockford Rd Bridge Replacement (Application 14061)
Average Weekday Trips Through Project Area, 6am-10am

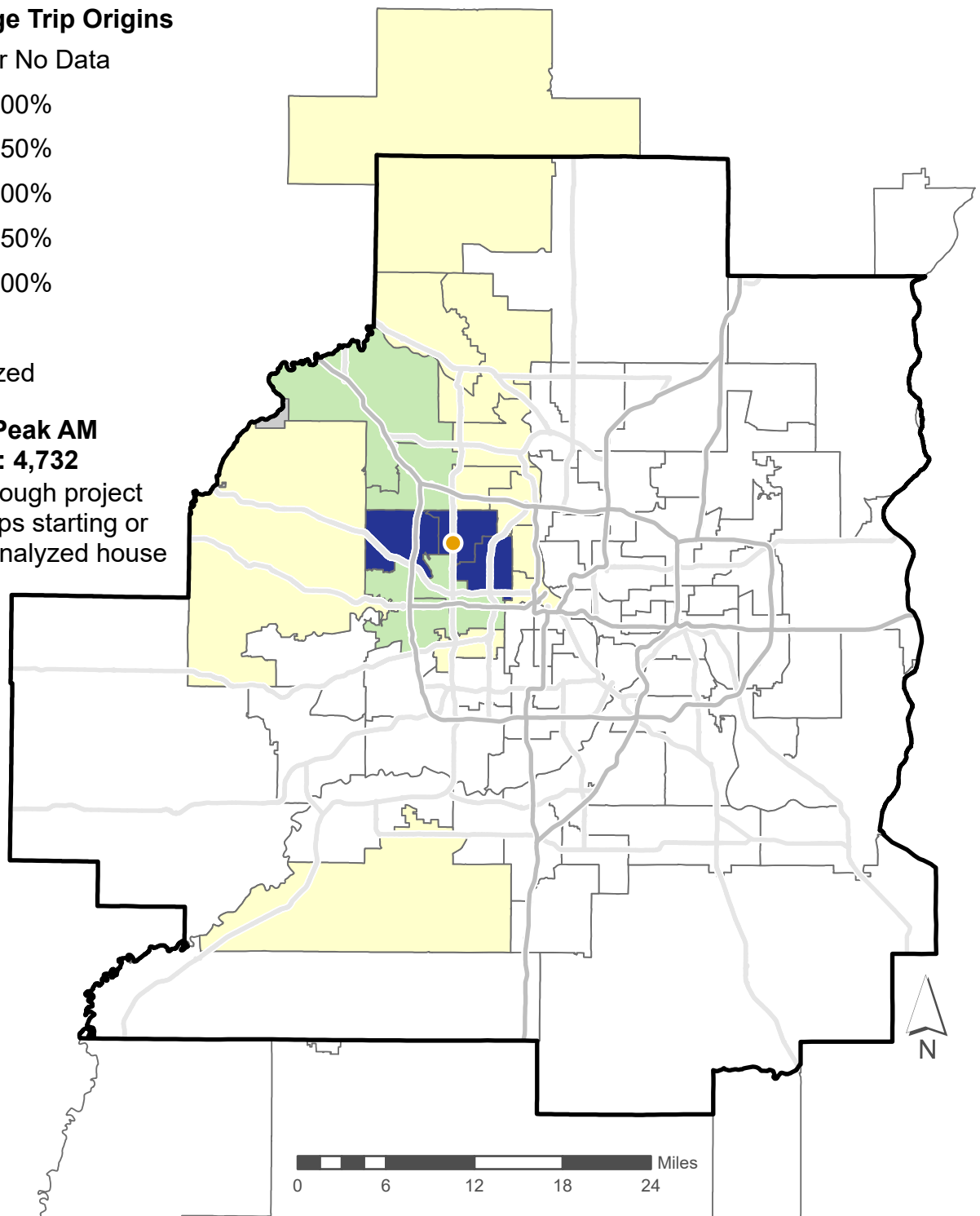


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 4,732

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

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Figure 14. Origin of Trips by MN House District

Hiawatha Ave/Lake St Safety (Application 14067)

Average Weekday Trips Through Project Area, 6am-10am



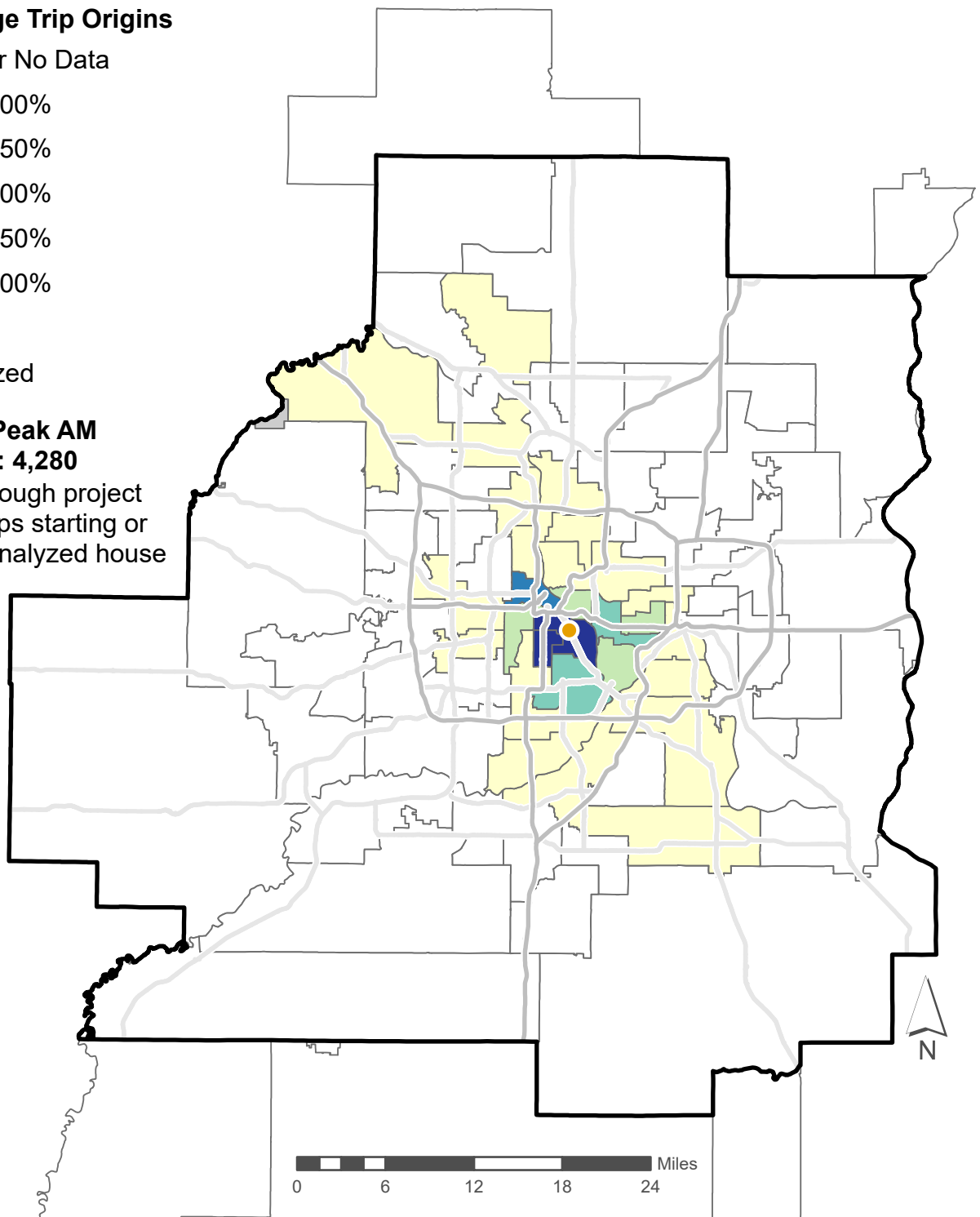
Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM

Trips Observed: 4,280

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

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Figure 15. Origin of Trips by MN House District

Kellogg-Third St Bridge Replacement (Application 14087)
Average Weekday Trips Through Project Area, 6am-10am

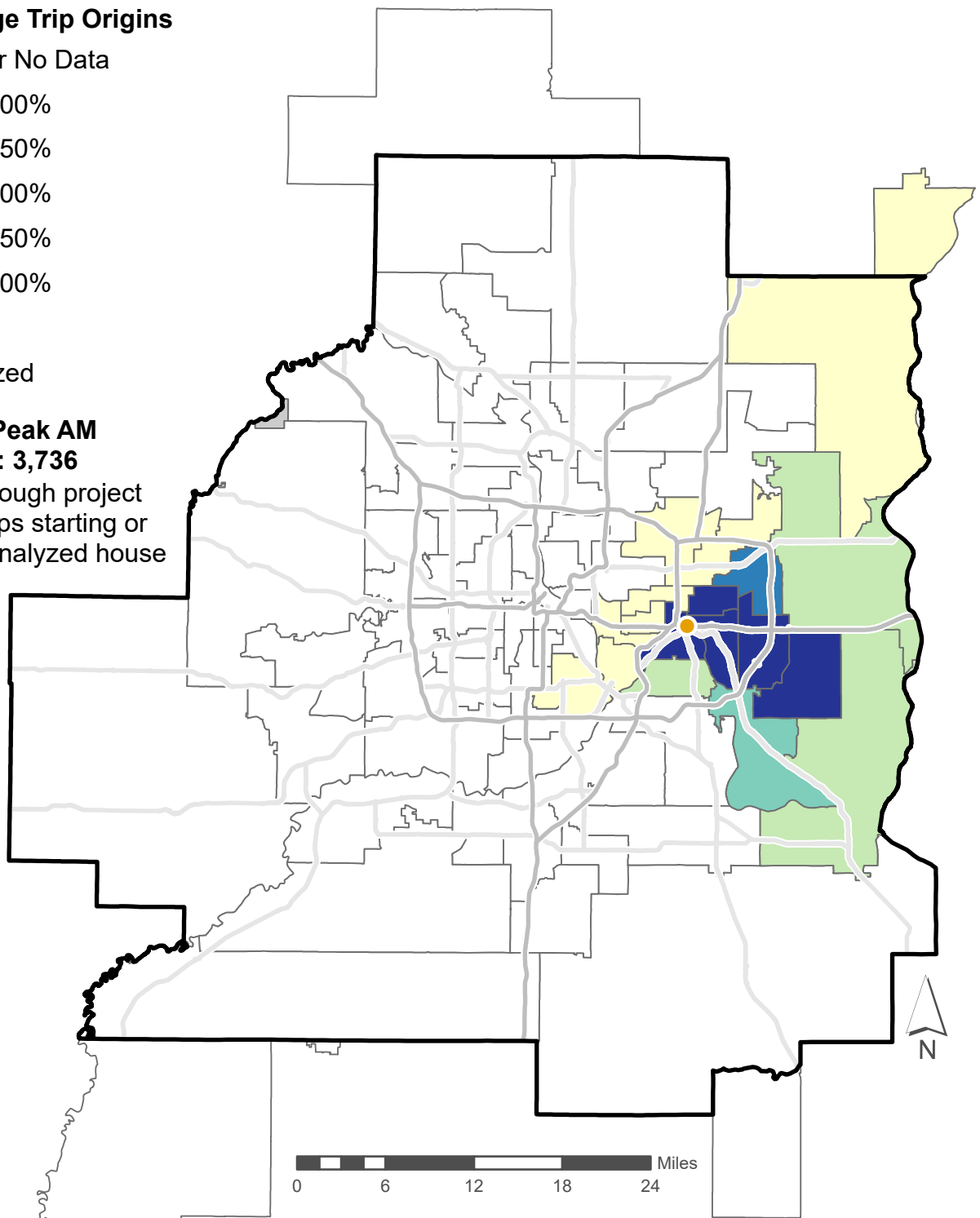


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 3,736

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

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Figure 16. Origin of Trips by MN House District

Ramsey Blvd/US 10 Interchange (Application 14139)
Average Weekday Trips Through Project Area, 6am-10am

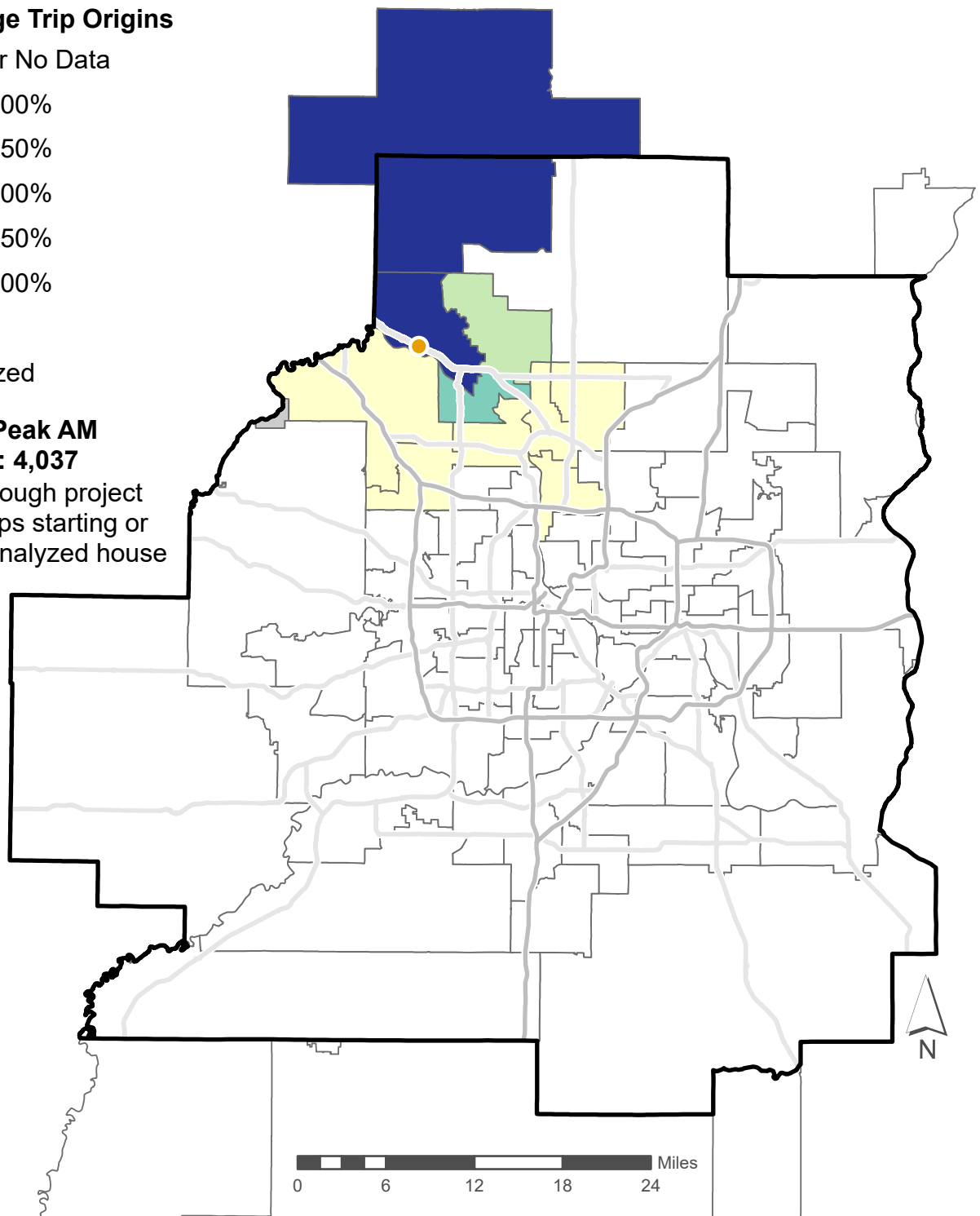


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 4,037

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

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Figure 17. Origin of Trips by MN House District

Hwy 65 at 99th Ave NE Grade Separation (Application 14165)
Average Weekday Trips Through Project Area, 6am-10am

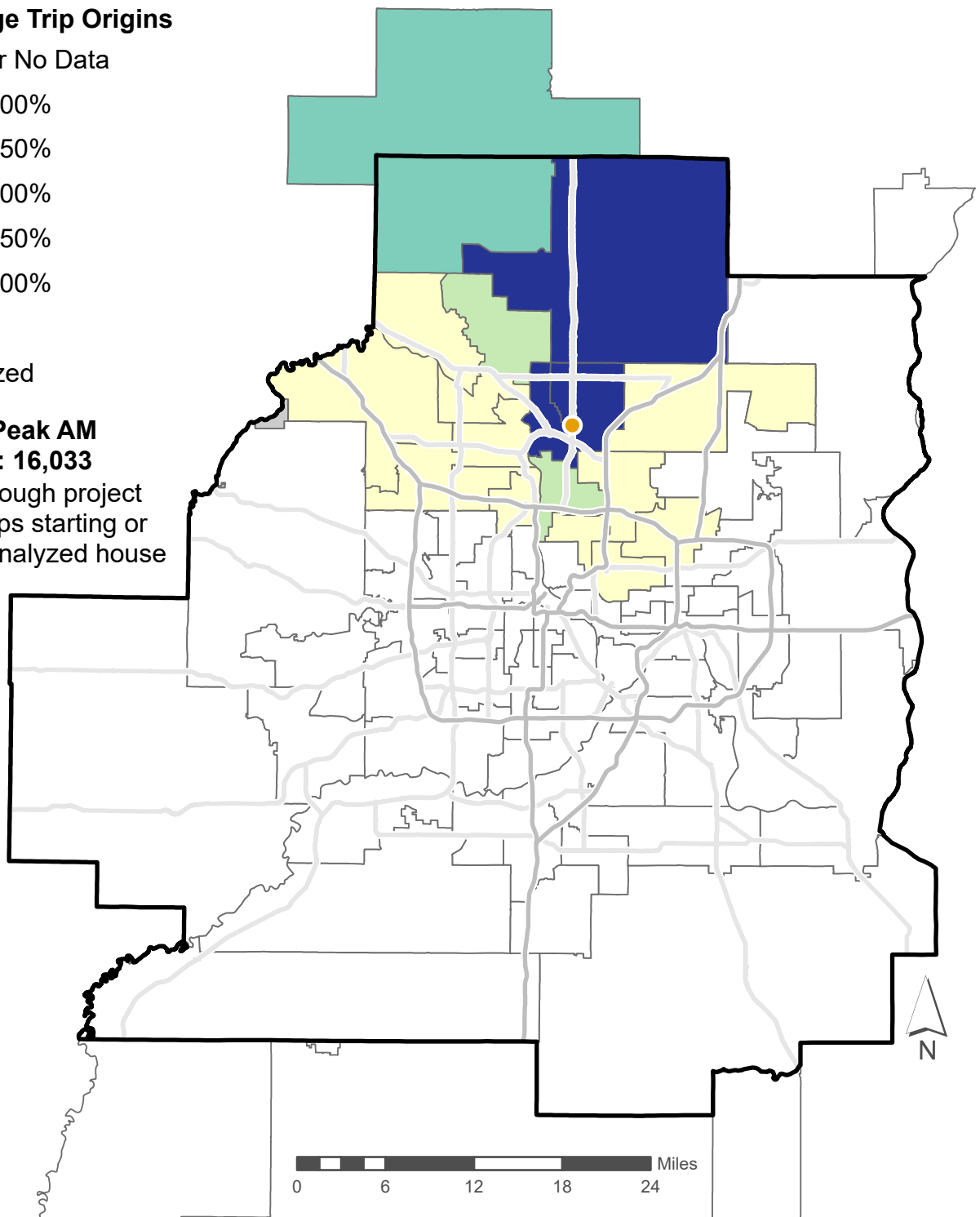


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 16,033

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

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Figure 18. Origin of Trips by MN House District

County 11/Burnsville Pkwy Roundabout (Application 14198)
Average Weekday Trips Through Project Area, 6am-10am

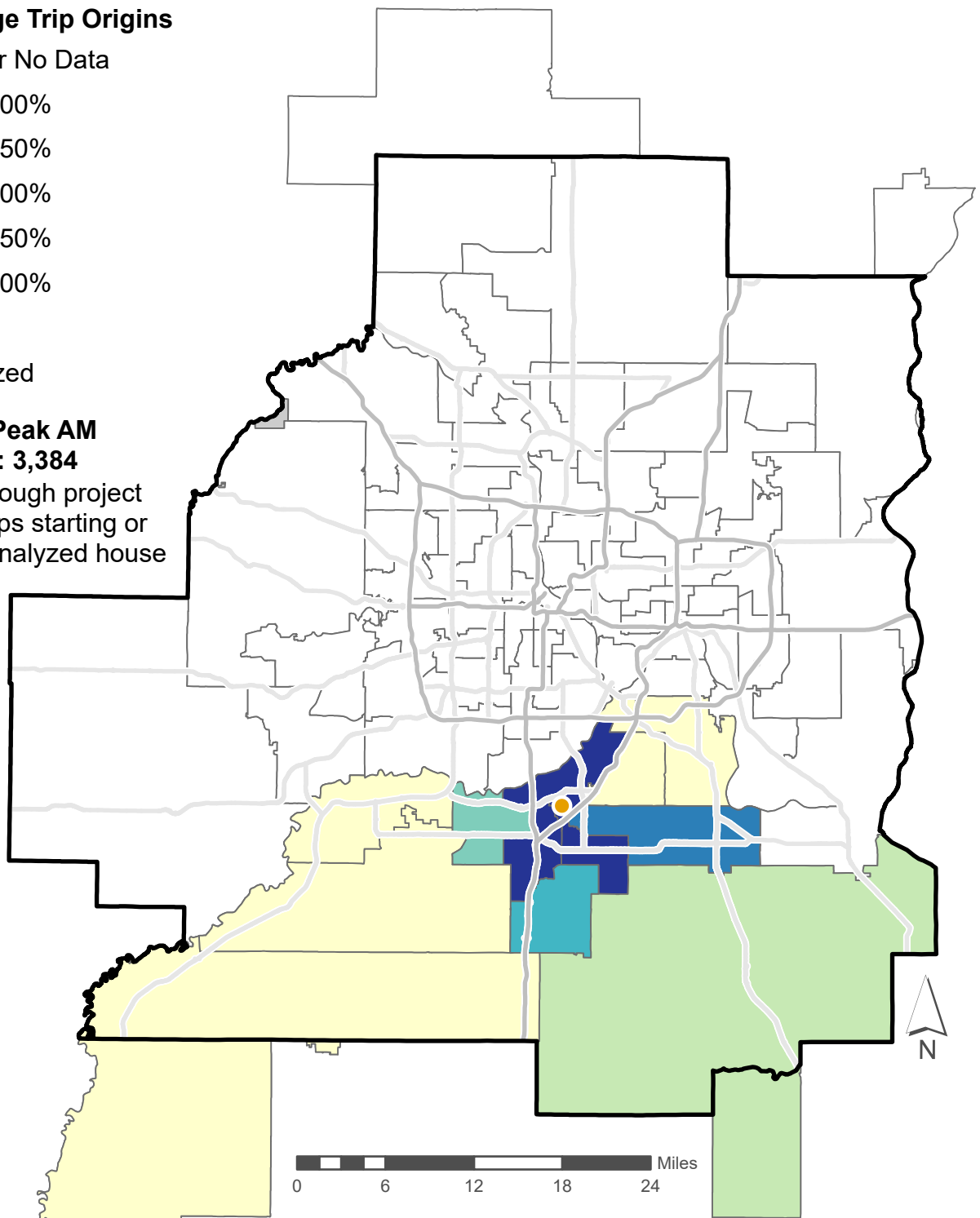


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 3,384

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

6/29/2021

Figure 19. Origin of Trips by MN House District

Lake Elmo Ave/Hwy 36 Interchange (Application 14324)
Average Weekday Trips Through Project Area, 6am-10am

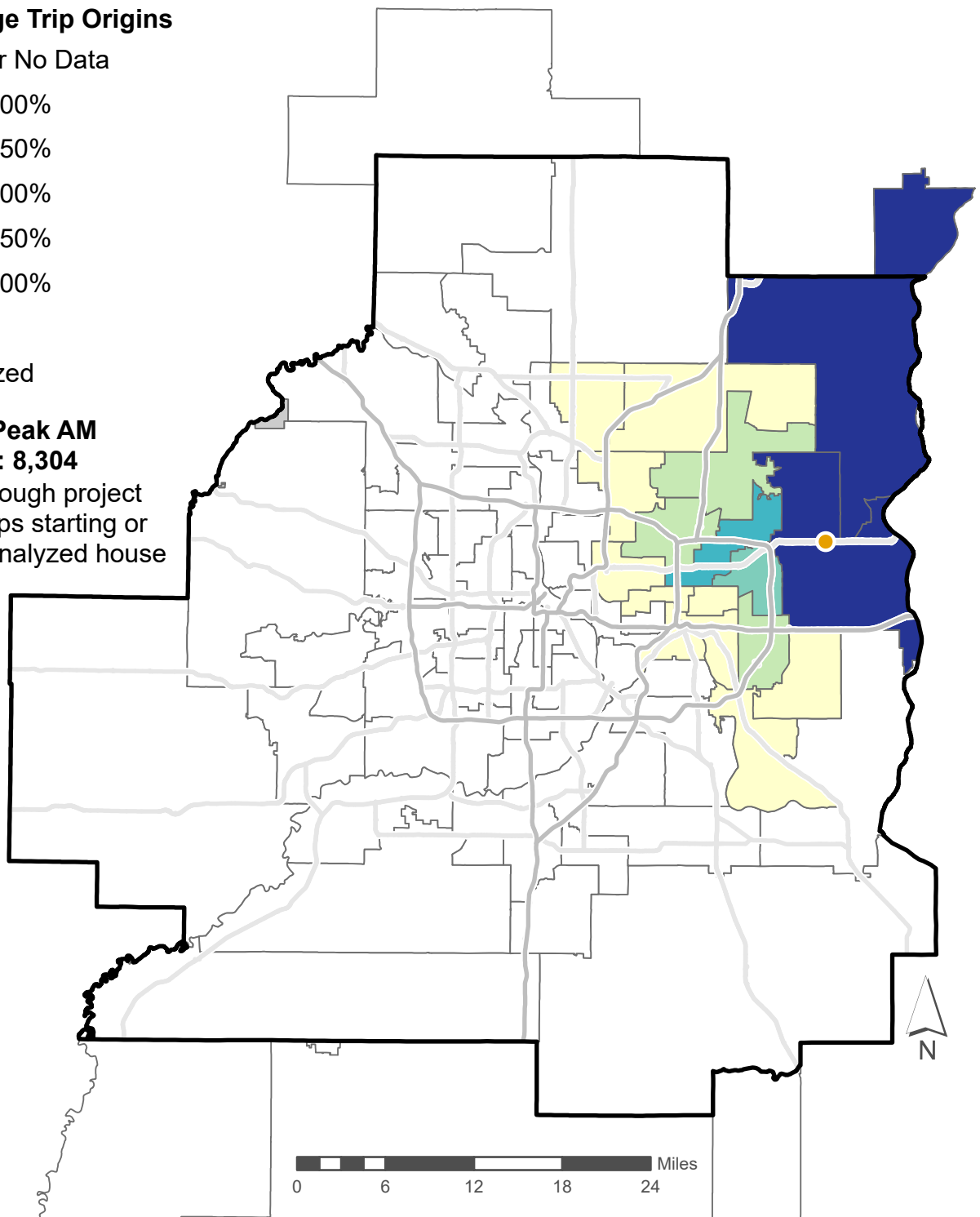


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 8,304

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

6/29/2021

Figure 20. Origin of Trips by MN House District

Minnetonka Blvd Reconstruction (Application 14327)

Average Weekday Trips Through Project Area, 6am-10am

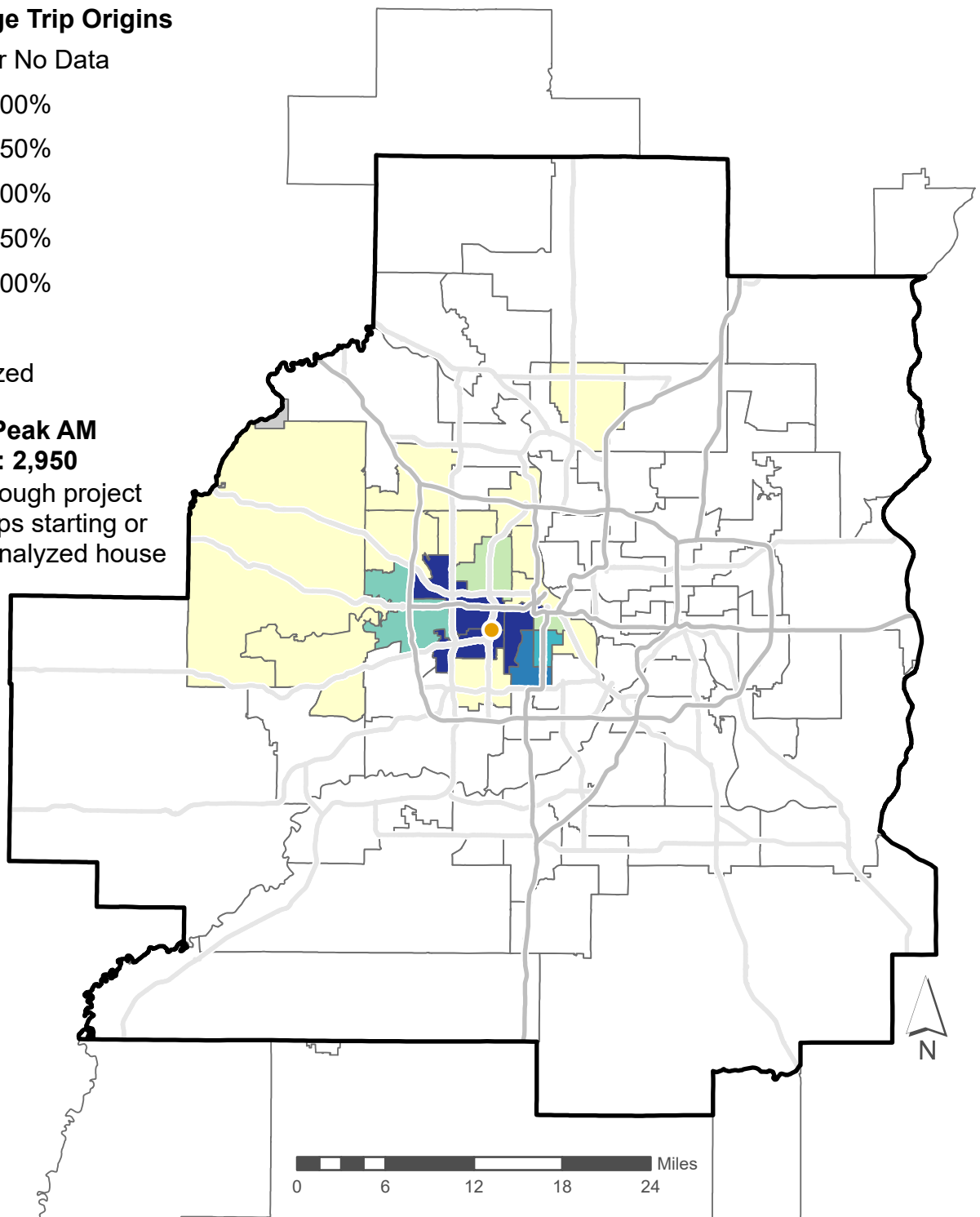


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 2,950

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

6/29/2021

Figure 21. Origin of Trips by MN House District

Hwy 41 and County 10 Mobility and Access (Application 14345)
Average Weekday Trips Through Project Area, 6am-10am

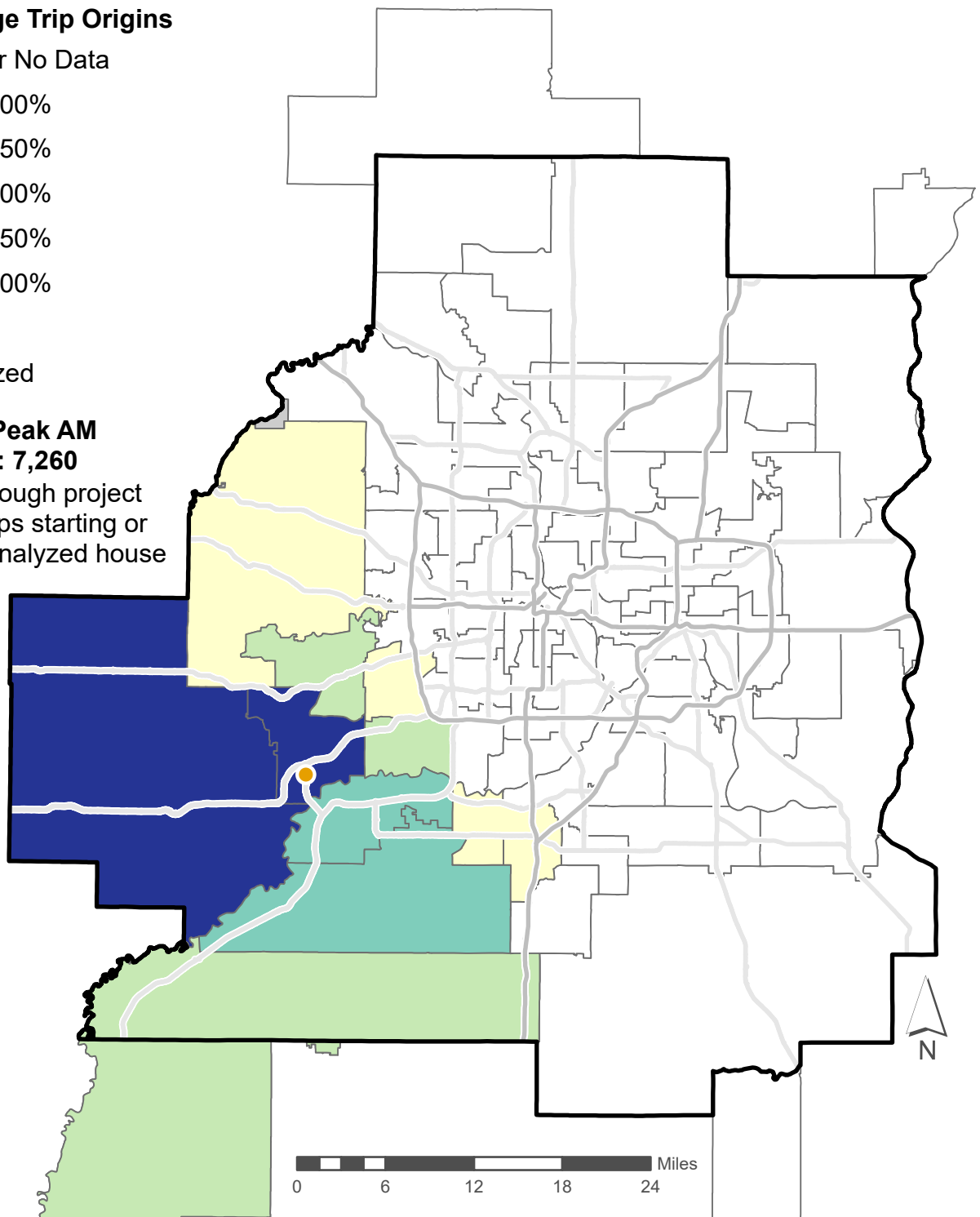


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 7,260

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

6/29/2021

Figure 22. Origin of Trips by MN House District

Hwy 5 Arboretum Area Mobility and Access (Application 14347)
Average Weekday Trips Through Project Area, 6am-10am

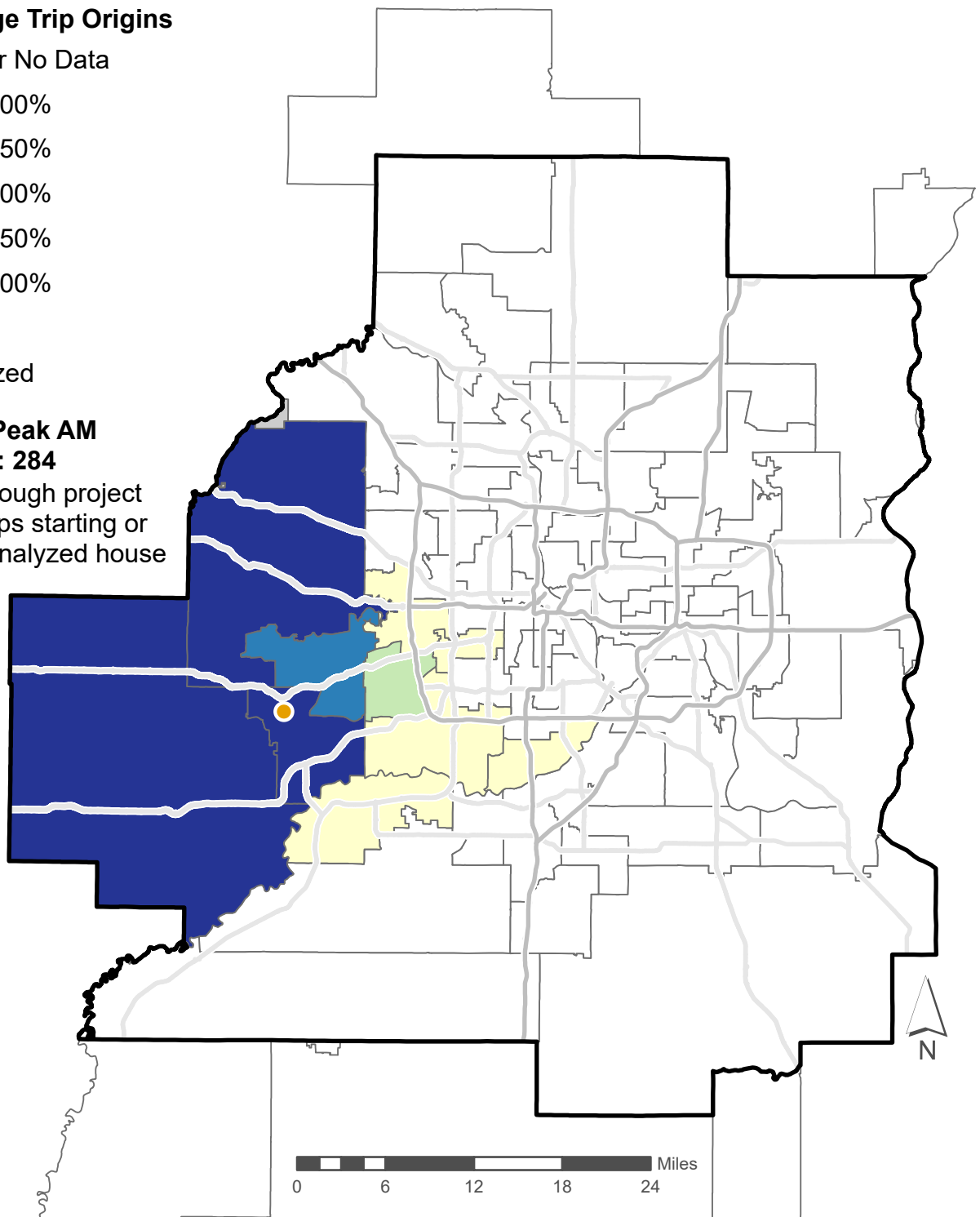


Share of Average Trip Origins

- ≤ 0.50% or No Data
- 0.51% - 2.00%
- 2.01% - 3.50%
- 3.51% - 5.00%
- 5.01% - 6.50%
- 6.51% - 8.00%
- > 8.00%
- Not Analyzed

Avg. Weekday Peak AM Trips Observed: 284

Includes trips through project site. Excludes trips starting or ending outside analyzed house districts.



Reference

- Project
- Interstate Highways
- Other Major Roads
- 7 County Metro

This map shows the origin MN House of Representatives district of trips travelling through the project area. Trips origins are not necessarily home location; they represent trip starts, which may be a home, business, childcare center, etc. Percentages are based on StreetLight InSight location-based service data for Monday-Friday, 6am-10am in 2019. Portions of Hanover, MN and Rockford, MN in Hennepin County are not included in this analysis, as their respective Districts 29A and 30B are primarily outside the 7-county metro. Districts 20A, 31A, 39A, and 58B are shown as they include large portions of the 7-county metro; this analysis includes trips outside the 7-county metro originating in these districts.

6/29/2021

Table 1. Share of Trip Origins by MN House District
 2020 Regional Solicitation Non-TMT Roadway Projects
 Average Weekday, Peak AM 6am-10am, 2019

Dist.	13970 Franklin Ave Reconstruction	14012 Lowry Ave NE Reconstruction	14013 Robert St Reconstruction	14015 US 169, Hwy 282, County 9 Interchange	14030 Hwy 252/ Brookdale Dr Interchange	14050 US 212/County 51 Intersection Safety	14059 Johnson St NE/ I-35W S Ramps Intersection	14061 Rockford Rd Bridge Replacement	14067 Hiawatha Ave/Lake St Safety	14087 Kellogg-Third St Bridge Replacement	14139 Ramsey Blvd/US 10 Interchange	14165 Hwy 65 at 99th Ave NE Grade Separation	14198 County 11/ Burnsville Pkwy Roundabout	14324 Lake Elmo Ave/Hwy 36 Interchange	14327 Minnetonka Blvd Reconstruction	14345 Hwy 41/County 10 Mobility and Access	14347 Hwy 5 Arboretum Area Mobility/Access
20A	0.00%	0.00%	0.08%	38.36%	0.00%	1.57%	0.16%	0.02%	0.05%	0.05%	0.02%	0.02%	1.21%	0.06%	0.00%	2.38%	0.00%
31A	0.45%	0.27%	0.10%	0.04%	2.20%	0.00%	0.53%	0.57%	0.09%	0.03%	15.83%	3.95%	No Data	0.23%	0.14%	0.03%	0.00%
31B	0.23%	0.37%	0.53%	0.08%	2.50%	0.00%	0.68%	0.11%	0.12%	0.05%	0.40%	18.41%	0.03%	0.25%	0.14%	0.03%	0.00%
33A	0.54%	0.11%	0.05%	0.08%	0.05%	0.08%	0.12%	1.90%	0.14%	0.00%	0.32%	0.15%	0.00%	0.12%	1.36%	0.83%	8.80%
33B	0.34%	0.08%	0.08%	0.33%	0.05%	0.24%	0.06%	0.15%	0.14%	0.00%	0.02%	0.06%	0.00%	0.05%	0.54%	2.44%	6.69%
34A	1.11%	0.32%	0.39%	0.08%	1.47%	0.16%	0.10%	2.56%	0.54%	0.00%	1.98%	0.72%	0.00%	0.31%	0.31%	0.07%	0.00%
34B	1.24%	0.83%	0.41%	0.04%	0.80%	0.24%	0.21%	3.00%	0.42%	0.00%	0.62%	1.04%	0.00%	0.13%	0.58%	0.23%	0.35%
35A	0.68%	1.28%	0.30%	0.06%	4.60%	0.08%	0.41%	0.82%	0.30%	0.00%	62.65%	1.07%	0.00%	0.30%	0.34%	0.07%	0.00%
35B	0.48%	0.56%	0.28%	0.04%	9.67%	0.00%	0.37%	0.55%	0.51%	0.03%	3.39%	3.27%	0.00%	0.33%	0.10%	0.01%	0.00%
36A	0.72%	0.64%	0.39%	0.04%	8.30%	0.00%	0.66%	1.31%	0.40%	0.11%	4.16%	1.04%	0.00%	0.23%	0.31%	0.01%	0.00%
36B	1.15%	1.79%	0.56%	0.29%	22.64%	0.00%	0.35%	1.31%	0.54%	0.05%	0.84%	1.73%	0.03%	0.46%	0.47%	0.08%	0.00%
37A	0.50%	0.99%	0.44%	0.06%	6.32%	0.08%	1.36%	0.32%	0.35%	0.00%	1.73%	11.61%	0.00%	0.42%	0.41%	0.01%	0.00%
37B	0.61%	1.12%	0.49%	0.12%	5.80%	0.00%	1.32%	0.25%	0.44%	0.05%	1.49%	38.88%	0.03%	0.51%	0.58%	0.03%	0.35%
38A	0.29%	0.29%	1.17%	0.02%	0.66%	0.00%	0.39%	0.17%	0.35%	0.08%	0.32%	1.22%	0.03%	0.90%	0.20%	0.01%	0.00%
38B	0.27%	0.24%	1.94%	0.00%	0.06%	0.00%	0.23%	0.04%	0.30%	0.43%	0.12%	0.27%	0.12%	2.61%	0.00%	0.01%	0.00%
39A	0.16%	0.08%	1.15%	0.02%	0.36%	0.00%	0.10%	0.17%	0.00%	1.34%	0.10%	0.20%	0.00%	25.01%	0.07%	0.01%	0.00%
39B	0.43%	0.08%	0.82%	0.00%	0.04%	0.00%	0.08%	0.00%	0.09%	3.19%	0.07%	0.12%	0.33%	40.16%	0.03%	0.01%	0.00%
40A	1.63%	1.26%	0.33%	0.04%	5.27%	0.00%	0.39%	1.61%	0.47%	0.05%	0.37%	0.74%	0.00%	0.11%	0.47%	0.03%	0.00%
40B	2.42%	2.94%	0.30%	0.04%	12.14%	0.00%	0.51%	1.67%	0.82%	0.11%	0.30%	0.99%	0.00%	0.16%	0.75%	0.07%	0.00%
41A	1.13%	2.78%	0.51%	0.04%	1.37%	0.16%	2.65%	0.34%	0.72%	0.11%	1.04%	3.42%	0.00%	0.33%	0.34%	0.10%	0.00%
41B	0.70%	6.88%	0.31%	0.04%	0.90%	0.08%	11.53%	0.40%	0.93%	0.08%	0.17%	1.05%	0.00%	0.47%	0.14%	0.01%	0.00%
42A	0.45%	0.62%	0.82%	0.00%	0.20%	0.08%	0.80%	0.08%	0.44%	0.08%	0.25%	1.70%	0.00%	0.66%	0.20%	0.01%	0.00%
42B	0.38%	0.37%	2.31%	0.02%	0.17%	0.00%	0.49%	0.04%	0.35%	0.56%	0.12%	0.51%	0.03%	2.07%	0.14%	0.03%	0.00%
43A	0.45%	0.27%	3.23%	0.04%	0.10%	0.00%	0.16%	0.02%	0.23%	0.96%	0.10%	0.29%	0.12%	5.06%	0.07%	0.01%	0.00%
43B	0.27%	0.24%	2.10%	0.00%	0.05%	0.00%	0.12%	0.00%	0.14%	7.07%	0.05%	0.17%	0.06%	3.96%	0.03%	0.00%	No Data
44A	0.97%	0.46%	0.21%	0.04%	0.09%	0.00%	0.49%	20.16%	0.35%	0.00%	0.15%	0.22%	0.00%	0.12%	1.76%	0.45%	0.35%
44B	1.04%	0.16%	0.08%	0.08%	0.06%	0.08%	0.08%	2.18%	0.33%	0.00%	0.10%	0.16%	0.00%	0.11%	3.86%	0.19%	0.70%
45A	1.09%	1.47%	0.05%	0.10%	0.46%	0.08%	0.25%	37.38%	0.30%	0.05%	0.27%	0.30%	0.03%	0.14%	1.36%	0.04%	0.00%
45B	1.31%	6.16%	0.18%	0.04%	0.94%	0.16%	0.25%	10.88%	0.49%	0.00%	0.20%	0.33%	0.00%	0.11%	2.44%	0.06%	0.00%
46A	1.79%	0.70%	0.15%	0.14%	0.37%	0.08%	0.25%	2.64%	0.82%	0.00%	0.15%	0.33%	0.03%	0.14%	21.49%	0.17%	0.35%
46B	0.93%	0.43%	0.15%	0.16%	0.53%	0.24%	0.27%	0.87%	1.36%	0.00%	0.15%	0.12%	0.00%	0.08%	14.03%	0.30%	0.70%
47A	0.05%	0.11%	0.08%	4.03%	0.00%	89.09%	0.10%	0.11%	0.00%	0.00%	0.02%	0.05%	0.12%	0.08%	0.14%	18.25%	33.80%
47B	0.16%	0.11%	0.13%	3.76%	0.02%	2.35%	0.14%	0.13%	0.21%	0.03%	0.02%	0.07%	0.18%	0.04%	0.17%	56.21%	39.08%
48A	0.29%	0.24%	0.05%	0.29%	0.04%	0.24%	0.18%	0.27%	0.14%	0.00%	0.05%	0.11%	0.00%	0.04%	0.41%	1.02%	2.11%
48B	0.11%	0.05%	0.05%	0.35%	0.02%	0.31%	0.14%	0.15%	0.19%	0.00%	0.00%	0.06%	0.09%	0.08%	0.17%	2.02%	1.76%

Table 1. Share of Trip Origins by MN House District, Continued

Dist.	13970 Franklin Ave Reconstruction	14012 Lowry Ave NE Reconstruction	14013 Robert St Reconstruction	14015 US 169, Hwy 282, County 9 Interchange	14030 Hwy 252/ Brookdale Dr Interchange	14050 US 212/County 51 Intersection Safety	14059 Johnson St NE/ I-35W S Ramps Intersection	14061 Rockford Rd Bridge Replacement	14067 Hiawatha Ave/Lake St Safety	14087 Kellogg-Third St Bridge Replacement	14139 Ramsey Blvd/US 10 Interchange	14165 Hwy 65 at 99th Ave NE Grade Separation	14198 County 11/ Burnsville Pkwy Roundabout	14324 Lake Elmo Ave/Hwy 36 Interchange	14327 Minnetonka Blvd Reconstruction	14345 Hwy 41/County 10 Mobility and Access	14347 Hwy 5 Arboretum Area Mobility/Access
49A	0.34%	0.08%	0.25%	0.18%	0.31%	0.08%	0.23%	0.38%	0.21%	0.00%	0.10%	0.09%	0.06%	0.06%	0.98%	0.30%	0.35%
49B	0.16%	0.11%	0.10%	0.35%	0.26%	0.39%	0.33%	0.34%	0.49%	0.08%	0.05%	0.13%	0.09%	0.13%	0.37%	0.47%	1.41%
50A	0.48%	0.56%	0.16%	0.16%	0.18%	0.16%	1.29%	0.11%	0.89%	0.13%	0.05%	0.07%	0.24%	0.07%	0.34%	0.10%	0.00%
50B	0.27%	0.08%	0.25%	0.14%	0.10%	0.16%	0.90%	0.25%	0.96%	0.16%	0.02%	0.07%	0.30%	0.11%	0.44%	0.15%	0.70%
51A	0.23%	0.16%	0.53%	0.23%	0.11%	0.16%	0.64%	0.08%	0.68%	0.21%	0.10%	0.09%	31.65%	0.12%	0.14%	0.30%	0.35%
51B	0.32%	0.08%	1.13%	0.06%	0.04%	0.08%	0.23%	0.04%	0.44%	0.16%	0.05%	0.12%	1.80%	0.25%	0.07%	0.10%	0.00%
52A	0.09%	0.05%	8.68%	0.06%	0.08%	0.00%	0.06%	0.04%	0.58%	2.11%	0.10%	0.09%	0.41%	0.26%	0.03%	0.03%	0.00%
52B	0.20%	0.08%	3.89%	0.10%	0.07%	0.16%	0.33%	0.04%	0.79%	0.43%	0.10%	0.10%	0.71%	0.36%	0.00%	0.04%	0.00%
53A	0.16%	0.11%	2.17%	0.04%	0.04%	No Data	0.08%	0.04%	0.12%	10.49%	0.07%	0.14%	0.18%	2.23%	0.07%	0.01%	0.00%
53B	0.16%	0.00%	1.54%	0.02%	0.03%	0.00%	0.08%	0.00%	0.14%	8.16%	0.02%	0.18%	0.15%	1.29%	0.00%	0.01%	0.00%
54A	0.11%	0.05%	2.79%	0.14%	0.07%	0.16%	0.08%	0.11%	0.14%	3.85%	0.05%	0.14%	0.30%	0.73%	0.07%	0.01%	0.00%
54B	0.09%	0.00%	1.07%	0.04%	0.03%	0.08%	0.08%	0.00%	0.12%	2.28%	0.00%	0.06%	0.38%	0.28%	0.00%	0.01%	0.00%
55A	0.09%	0.13%	0.08%	4.30%	0.03%	1.02%	0.21%	0.17%	0.23%	0.05%	0.10%	0.07%	0.83%	0.08%	0.20%	4.88%	1.06%
55B	0.00%	0.00%	0.13%	42.55%	0.02%	0.63%	0.12%	0.59%	0.07%	0.00%	0.02%	0.07%	1.77%	0.07%	0.10%	4.72%	0.35%
56A	0.11%	0.08%	0.10%	0.80%	0.03%	0.24%	0.49%	0.15%	0.14%	0.08%	0.05%	0.06%	4.91%	0.11%	0.00%	1.47%	0.35%
56B	0.27%	0.05%	0.18%	0.37%	0.06%	0.16%	0.53%	0.19%	0.16%	0.08%	0.02%	0.06%	14.45%	0.16%	0.10%	0.63%	0.00%
57A	0.27%	0.00%	0.59%	0.10%	0.07%	0.08%	0.29%	0.30%	0.33%	0.11%	0.00%	0.05%	20.86%	0.18%	0.10%	0.25%	0.00%
57B	0.14%	0.13%	1.15%	0.06%	0.03%	0.08%	0.43%	0.06%	0.51%	0.11%	0.02%	0.06%	7.71%	0.20%	0.00%	0.07%	0.00%
58A	0.14%	0.13%	0.67%	0.54%	0.10%	0.08%	1.05%	0.08%	0.09%	0.05%	0.02%	0.09%	6.24%	0.10%	0.07%	0.48%	0.00%
58B	0.02%	0.00%	1.10%	0.08%	0.03%	0.00%	0.12%	0.00%	0.09%	0.05%	0.02%	0.05%	2.96%	0.10%	0.00%	0.18%	0.00%
59A	2.76%	23.50%	0.34%	0.02%	2.04%	0.08%	1.40%	1.97%	1.80%	0.05%	0.10%	0.31%	0.00%	0.08%	0.98%	0.03%	0.00%
59B	6.70%	4.58%	0.98%	0.12%	2.44%	0.08%	2.49%	0.72%	7.13%	0.29%	0.12%	0.37%	0.06%	0.28%	1.39%	0.04%	0.00%
60A	1.54%	27.89%	0.39%	0.04%	0.76%	0.16%	42.26%	0.42%	1.36%	0.19%	0.20%	0.44%	0.00%	0.35%	0.47%	0.03%	0.00%
60B	2.90%	1.12%	0.44%	0.04%	0.57%	0.00%	4.91%	0.13%	2.78%	0.16%	0.07%	0.18%	0.00%	0.26%	0.41%	0.03%	0.35%
61A	9.93%	0.54%	0.31%	0.04%	0.83%	0.00%	0.82%	0.32%	3.48%	0.19%	0.07%	0.12%	0.00%	0.22%	22.10%	0.06%	0.00%
61B	1.31%	0.43%	0.26%	0.06%	0.24%	0.00%	1.40%	0.15%	1.73%	0.08%	0.02%	0.11%	0.00%	0.11%	7.42%	0.01%	0.00%
62A	27.53%	0.46%	0.26%	0.04%	0.80%	No Data	2.36%	0.15%	12.22%	0.08%	0.10%	0.11%	0.03%	0.08%	2.51%	0.04%	0.00%
62B	7.67%	0.24%	0.18%	0.04%	0.43%	0.00%	1.62%	0.13%	9.46%	0.00%	0.02%	0.07%	0.03%	0.12%	5.42%	0.03%	0.00%
63A	3.66%	0.32%	0.33%	0.00%	0.38%	0.00%	3.86%	0.13%	22.78%	0.08%	0.02%	0.07%	0.06%	0.20%	1.02%	0.03%	0.00%
63B	2.80%	0.37%	0.48%	0.18%	0.54%	0.16%	2.36%	0.36%	4.28%	0.67%	0.12%	0.21%	0.30%	0.18%	0.47%	0.07%	0.00%
64A	1.02%	0.19%	1.48%	0.06%	0.11%	0.16%	0.41%	0.04%	4.37%	1.04%	0.07%	0.22%	0.09%	0.47%	0.27%	0.03%	0.00%
64B	0.48%	0.05%	1.25%	0.06%	0.06%	0.00%	0.39%	0.04%	2.64%	0.94%	0.02%	0.11%	0.27%	0.40%	0.07%	0.03%	0.00%
65A	0.88%	0.46%	3.28%	0.02%	0.15%	0.08%	0.23%	0.08%	2.03%	1.02%	0.05%	0.14%	0.15%	0.33%	0.20%	0.01%	0.00%
65B	0.75%	0.16%	30.59%	0.06%	0.15%	0.08%	0.33%	0.06%	1.36%	13.12%	0.07%	0.20%	0.21%	0.63%	0.20%	0.03%	0.00%
66A	0.88%	2.22%	1.26%	0.06%	0.15%	0.08%	1.07%	0.06%	0.82%	0.40%	0.15%	0.67%	0.03%	1.12%	0.14%	0.04%	0.00%
66B	0.48%	0.59%	3.72%	0.02%	0.10%	No Data	0.31%	0.04%	0.68%	1.07%	0.02%	0.11%	0.06%	0.72%	0.17%	0.00%	0.00%
67A	0.23%	0.54%	3.28%	0.02%	0.15%	0.00%	0.10%	0.00%	0.40%	9.66%	0.07%	0.22%	0.09%	1.04%	0.07%	0.01%	0.00%
67B	0.48%	0.13%	4.38%	0.02%	0.14%	0.08%	0.12%	0.04%	0.42%	27.84%	0.07%	0.14%	0.24%	0.66%	0.07%	0.00%	0.00%