![Metropolitan Council logo]

Goal Chapters Preview

2050 Transportation Policy Plan

Tony Fischer, Jed Hanson, Heidi Schallberg

September 2023   metrocouncil.org

Contents

METROPOLITAN
C O U N C I L

Purpose of Goal Chapters

Bridge between 2050 Regional Development Guide and 2050 TPP

- Define the 2050 Regional Development Guide goals in transportation context and issues, tell a compelling story with:
  - Data and trends
  - Issues and needs
  - Transportation system role

- Provide context (i.e., the "why") for the 2050 TPP objectives and performance measures

- Provide an overview of the plan's approach to addressing the goal through policies, actions, and investment, but mostly point to topics described in other chapters.

- Think of these as chapters that policymakers would read as an executive summary to our approach, without lists or projects or investments.

Transportation Policy Plan Role

1 Investment Direction

- **Evaluating projects of regional significance** for their role in achieving goals and objectives

- Set policy basis for **prioritizing projects** in Regional Solicitation, MnDOT, and other competitive programs for their contributions to achieving goals and objectives, like prioritizing criteria, funding categories, and project requirements

2 Comprehensive Planning

- Provide **guidance to local governments** on how to evaluate and plan for a future that addresses the goals and objectives.

- Can include required plan elements and optional best practices

3 Informing Practice

- Provide guidance to transportation partners about addressing goals and objectives through projects and operations including tools, guides, evaluations

We Protect & Restore Natural Systems

We protect, integrate, and restore natural systems to protect habitat and ensure a high quality of life for the people of our region.

Working Objective

- The region's transportation system and the people who use it limit their impacts on natural systems (e.g., air, water, vegetation, and habitat quality).

Issue Importance

Transportation uses land throughout the region in ways that impact natural systems.

- Transportation infrastructure fragments natural habitats, which increases vehicle-animal conflicts.
- Pollution from transportation reduces environmental quality.
- Paved infrastructure create impervious surfaces and related runoff.
  - Stormwater picks up oils, debris, and other pollutants.
  - Falling leaves that collect on impervious surfaces can concentrate phosphorous in stormwater discharge if not swept.
  - Salt and deicing solutions raise chloride levels in natural systems.
  - Transportation noise can disrupt behavior patterns of animals.

Transportation Policy Plan Role

1 **Investment Direction**

- **Evaluating projects of regional significance** for their role in protecting and restoring natural systems

- Set policy basis for **rewarding projects** in discretionary grants for improving natural systems and mitigating impacts beyond requirements

2 **Comprehensive Planning**

- Provide **guidance for local governments** to minimize transportation impacts on natural systems during land development

3 **Informing Practice**

- Provide guidance for transportation partners about opportunities to **voluntarily improve natural systems** through projects and operations

Policies & Actions

Policies and actions are being developed through a Policy Development Team and staff inputs.

- Two potential policies are emerging from early work:
  - o Use transportation rights-of-way to protect and restore natural systems.
  - o Prioritize projects which reduce total impervious surface coverage.
- Actions will likely target:
  - o Rewarding projects that advance this goal
  - o Developing guidance for partners
- Technical Working Group engagement will continue in Policy Development Workshops tentatively in November

Performance Measurement

Measures likely to include existing air quality and new surface measures.

- Potential measures may include:

    o Impervious surfaces

    o Lane miles without mitigating stormwater treatment or conveyance systems

- Staff are evaluating the relevance and feasibility of potential measures.

Discussion

- Does this framing of the issue make sense? What's missing or unclear?

- How would you apply this to goal to policies, actions, and investments?

- How specific should this topic get in directing the Regional Solicitation Evaluation for 2026? Any specific recommendations?

- Any suggestions for the work program?

We Lead on Addressing Climate Change

We have mitigated greenhouse gas emissions (GHG) and have adapted to ensure our communities and systems are resilient to climate impacts.

Working Objectives

- The region's transportation system minimizes its contributions to climate change.

- By 2035, 100% of new, light-duty vehicles registered are zero emissions, and 45% of all light-duty vehicles registered are zero emissions.

  - OR People have more access to and trust in zero emissions vehicle infrastructure.

  - OR The region can accommodate 100% of light-duty vehicles sold as zero emission by 2035.

- By 2050, the region reduces vehicle miles traveled by 20% per capita below 2019 levels.

  - OR The region reduces vehicle miles traveled per capita.

Metropolitan Council

Minnesota is Seeing Climate Impacts Already

Storms, flooding, heat, impacts and costs

- Frequent and intense storms already occurring more than any time on record leading to record-breaking floods.
  - Damage to "streets, wastewater facilities, business, homes, farms, and natural resources, costing…millions of dollars in cleanup and repairs."

- Rising temperatures statewide, especially winter nights in norther parts of Minnesota.
  - "[A]ffecting lake and fish health, outdoor recreation opportunities"

- "The years ahead will bring even warmer winters and nights, and even larger rainfalls, along with increased summer heat and longer dry spells."
  - Costly repairs to infrastructure
  - Increasing home and crop insurance rates
  - Destructive shifts in our native ecosystems
  - More hospitalizations for heat-related illness

- Impacts are experienced even more acutely by communities in areas of concern for environmental justice

Source: MPCA: Climate Change Impacts

Minnesota is Not Meeting Greenhouse Gas Reduction Goals

Minnesota's GHG emissions 2005-2020 and goals from the Next Generation Energy Act and Climate Action Framework
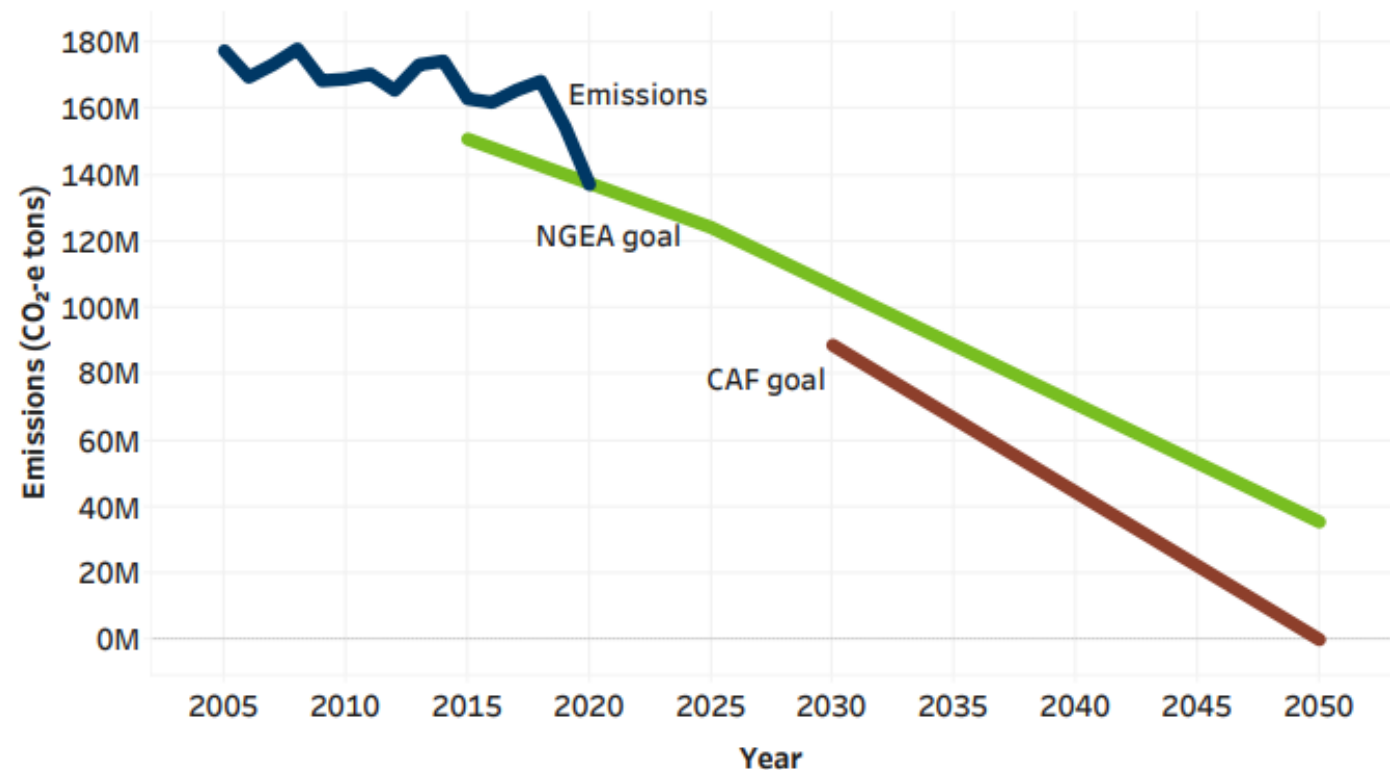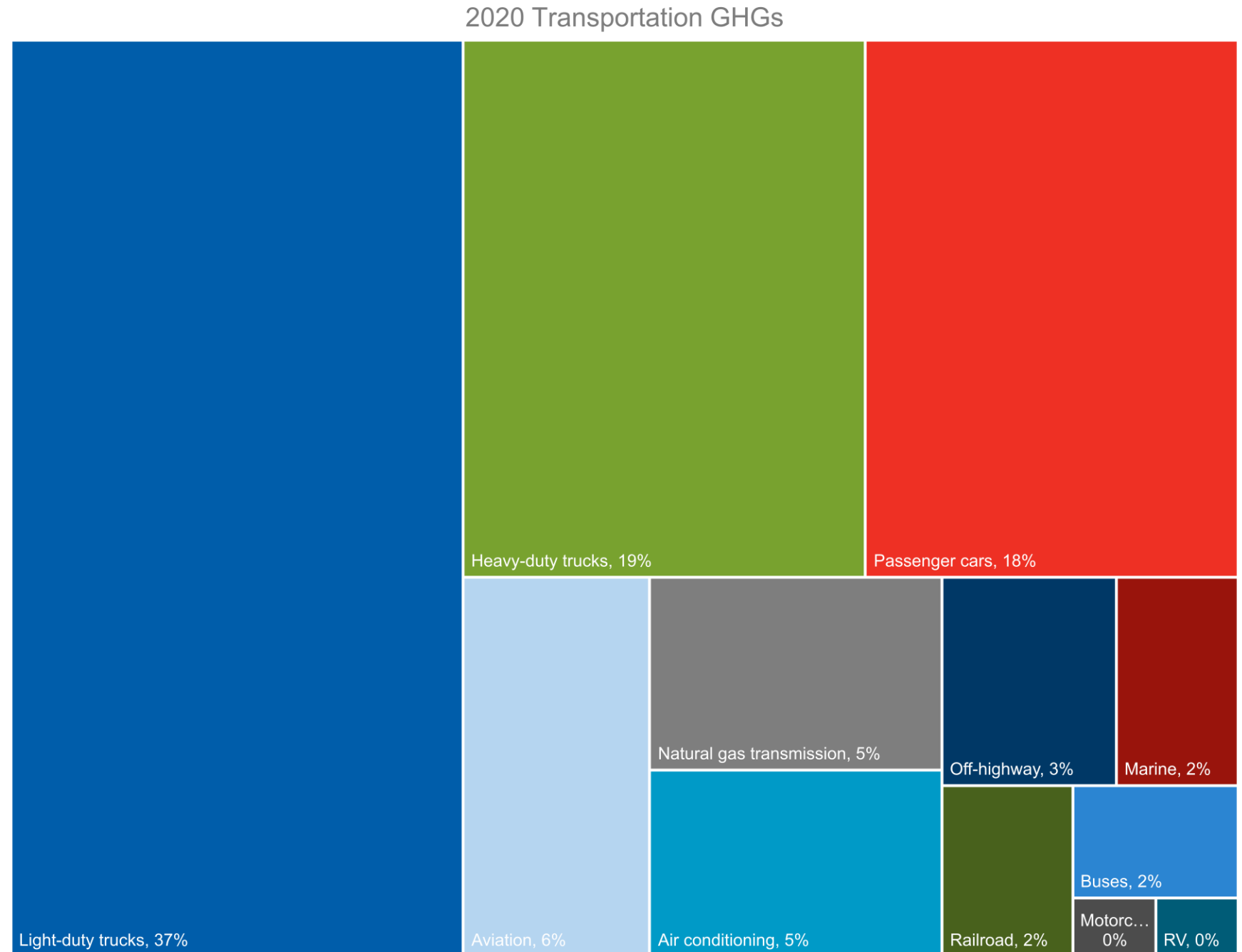

- Transportation sector is leading contributor to greenhouse gases in MN (26% in 2020)
- A significant decrease in aviation and vehicle miles traveled during the COVID-19 pandemic played a prominent role in the emissions reduction in 2020.
- Transportation GHGs down 18% 2005-2020

Source: Greenhouse gas emissions in Minnesota 2005-2020: Report to the Legislature, January 2023

Where are Transportation GHGs from?

- **55%** Cars and light-duty trucks (<10,000 lbs., includes SUVs)
- **19%** Heavy-duty trucks
- **6%** Aviation
- **5%** Rail, marine, motorcycles, RVs
- **2%** Buses
- **- 13%** Natural gas transmission, air conditioning, off-highway
- **+** Construction, vehicle manufacturing/disposal

Source: MPCA GHG Emissions Data

2020 Transportation GHGs

Light-duty trucks, 37%

Heavy-duty trucks, 19%

Passenger cars, 18%

Aviation, 6%

Air conditioning, 5%

Natural gas transmission, 5%

Off-highway, 3%

Marine, 2%

Railroad, 2%

Buses, 2%

Motorc... 0%

RV, 0%

Policies & Actions

Policies and actions are being developed through a Policy Development Team and staff inputs.

- Planning
  - GHG inventory, forecast and scenario planning tool
  - GHG evaluation methods & reporting for TPP, TIP, and Regional Solicitation
  - Technical support

- Electrification
  - Engagement and up-to-date information
  - Regional approach to investing in public charging infrastructure
  - Low/no-emission public fleet transition plans

- Vehicle Miles Traveled (VMT) Reduction
  - Prioritize non-single-occupant vehicle (SOV) travel in projects and roadway spaces

- Other
  - Low-carbon construction methods and materials

Investment: Electrification

Electrification

- 78% less life cycle GHGs than gasoline vehicle given today's electricity generation mix

    – 55% of GHGs Cars and light-duty trucks (<10,000 lbs., includes SUVs)

- Investment areas

    – Public charging stations

    – Technical support/convening

    – Public education and engagement

    – Agency fleet purchases

- Co-benefits include public health, fueling and maintenance costs, equity

Source: Alternative Fuels Data Center: Emissions from Electric Vehicles (energy.gov)

Why and how vehicle miles traveled (VMT) reduction?

Why?

- Direct greenhouse gas emissions reduction
- Public health
  - Direct pollution reduction
  - Active transportation
- Safety, including most vulnerable road users
- Reduced transportation costs for people and road authorities
- Equity (via above benefits)

How?

- 4.5% of regional VMT (25% of trips) could feasibly and competitively switch from auto to walk/bike/transit (transportation demand and system, land use and population held constant)
- +/= travel demand management
- + telework
- + population growth is an opportunity to develop differently
- + transportation investments for better options to driving alone

Investment: VMT Reduction

- **Travel Demand Management**
  - Incentives, pricing, promotion, regulation
  - Telework
- **Transit**
  - Emphasize productivity (riders/bus), reach of the system
  - Attracting new riders, longer trips, choice riders
  - Minimizing use of carbon intensive energy sources (buildings & vehicles)
- **Bike/Pedestrian**
  - E-bikes, scooters, shared mobility
  - Better facilities, comfort, security
  - Transit connections, eliminate gaps in system
- **Highways**
  - Complete streets (typology), transit advantages, design standards that prioritize multimodal safety and comfort
  - Minimize induced demand

Investment: Other

- **Freight**
  - VMT reduction
  - Electrification, hydrogen, other fuels
  - Platooning, automated vehicles
  - Shifting from truck to rail, to barge
  - Direct where major freight facilities are located
- **Other**
  - Low-carbon construction methods and materials

New Federal & Local Funding

- **Federal**
  - Electrification (National Electric Vehicle Infrastructure, Charging and Fueling Infrastructure grants)
  - Carbon Reduction Funds (2026/2027 available)
  - CMAQ flexibility
  - EPA Carbon Pollution Reduction Grants
  - PROTECT
- **Local**
  - Active Transportation
- 2026 Regional Solicitation cycle will align with 2050 TPP

Discussion

- Does the framing of this issue make sense? What's missing or unclear?

- How would you apply this goal to policies, actions, and investments?

- How specific should this topic get in directing the Regional Solicitation Evaluation for 2026? Any specific recommendations?

- Future work? Current projects:

  – Regional Transportation and Climate Change Multimodal Measures
  – Maximum Mode Shift: A VMT Reduction Study
  – GHG Inventory, forecast and scenario planning tool
  – Electric Vehicle Public Charging Needs Analysis
  – Electric Vehicle Public Engagement and City Support
  – US EPA Climate Pollution Reduction Grant

Our Communities are Healthy & Safe

All our region's residents live healthy, productive, and rewarding lives with a sense of dignity and wellbeing.

23

Working Objectives

- People do not die or face life-changing injuries when using any form of transportation.

- People feel safer, more comfortable, and more welcome when using any form of transportation.

- We mitigate and avoid harms to people caused by nearby transportation infrastructure and use (e.g., air quality, noise).

- People are better connected to community and cultural resources that support their physical, emotional, and mental well-being.

- People can increase physical activity with more opportunities to walk, roll, or bike.

Importance of Safety Issues

Safety takes different forms

- Region and state are not meeting our goals for reducing fatalities and serious injuries – going in the wrong direction
  - Even though year-to-date crash fatality totals are down compared to the three-year average through August, those totals are still higher than each of the previous years from 2017-2019.
  - Increases in serious injuries for people walking and biking
  - Known racial disparities in traffic fatalities – higher rates for pedestrian deaths for Black and native American residents
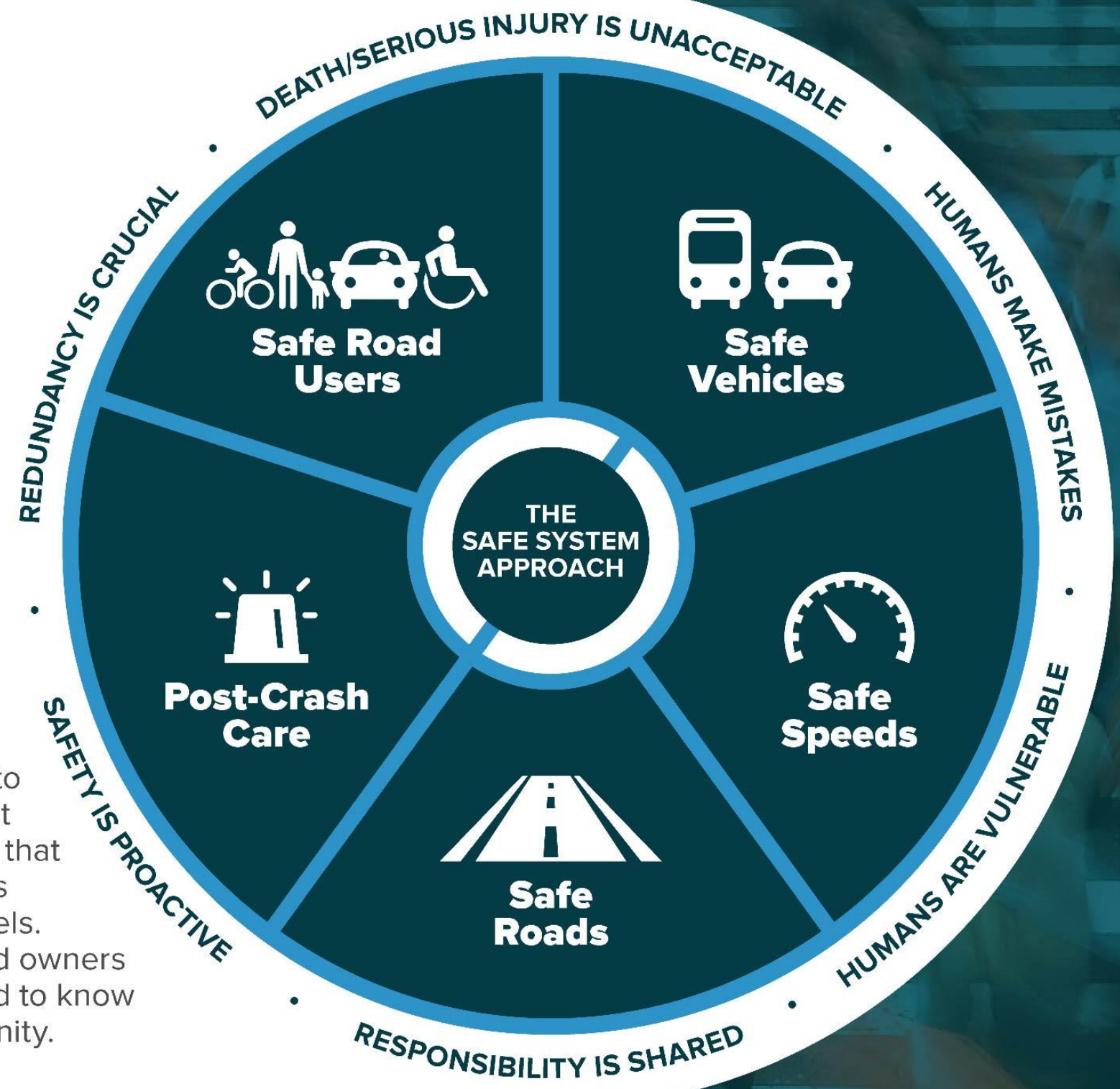- Concerns about feeling safe and secure while using all modes

THE SAFE SYSTEM

APPROACH

Zero is our goal. A Safe System is how we will get there.

Imagine a world where nobody has to die from vehicle crashes. The Safe System approach aims to eliminate fatal & serious injuries for all road users. It does so through a holistic view of the road system that first anticipates human mistakes and second keeps impact energy on the human body at tolerable levels. Safety is an ethical imperative of the designers and owners of the transportation system. Here's what you need to know to bring the Safe System approach to your community.

DEATH/SERIOUS INJURY IS UNACCEPTABLE

HUMANS MAKE MISTAKES

HUMANS ARE VULNERABLE

RESPONSIBILITY IS SHARED

SAFETY IS PROACTIVE

REDUNDANCY IS CRUCIAL

Safe Road Users

Safe Vehicles

THE SAFE SYSTEM APPROACH

Post-Crash Care

Safe Speeds

Safe Roads

Metropolitan Council

26

Safety Policies & Actions

Policies and actions are being developed through a Policy Development Team and staff inputs.

- Potential policies are emerging from early work:
  - Safe system approach
  - Prioritize safety for people using public rights of way outside of vehicles
  - Context sensitive investments provide comfort for all users
  - Safe, secure, welcoming transit facilities
- Actions will likely focus on:
  - Investment direction, especially for Regional Solicitation
  - Infrastructure countermeasures and design
  - Providing support and building capacity
- Technical Working Group engagement will continue in Policy Development Workshops tentatively in November
- Regional Safety Action Plan work will also influence these

Importance of Public Health

Health connects with transportation in many ways and with all modes

Transportation is a key social determinant of health.

- Works with socioeconomic status, education, housing, and other factors to influence health outcomes for populations

- Access to work, food, health care and supportive services, social connections

- System benefits go beyond physical access to destinations
  - Increased physical activity walking and biking, connected to transit
  - Relationship to mental health

- System impacts on people, such as air and noise pollution and traffic safety
  - Not just impacts from exhaust – tire and brake particles have relationship to heart and lung disease and are unregulated
  - Exposure to traffic noise is related to increased dementia risk, cardiovascular disease, sleep disturbances, cognitive issues

Public Health Policies and Actions

Policies and actions are being developed through a Policy Development Team and staff inputs.

- Potential policies are emerging from early work:
  - o Fully accessible and connected system for all ages and abilities
  - o Place making connection with transportation
  - o Reducing health impacts from transportation system

- Actions will likely focus on:
  - o Data collection and maintenance
  - o Coordination for key supportive services
  - o Preventing, mitigating, and reducing health impacts

- Technical Working Group engagement will continue in Policy Development Workshops tentatively in November

Other sections

Work Program

2024 Work Program

- Regional Safety Action Plan Study (cont.)
- TPP Goal Topic Workshops

TPP Work Program

- Research factors and recommendations to increase pedestrian safety around transit stops
- Complete Streets typology

Potential Performance Measures

- Federally-required safety measures will continue
- Perceptions of safety
- Active transportation mode participation rate
- Geographic isolation/intercommunity connectivity

Discussion

- Does this framing of the issue make sense? What's missing or unclear?

- How would you apply this to goal to policies, actions, and investments?

- How specific should this topic get in directing the Regional Solicitation Evaluation for 2026? Any specific recommendations?

- Any suggestions for the work program?

Our Region is Dynamic & Resilient

Our region meets the opportunities and challenges faced by our communities and economy including issues of choice, access, and affordability.

Working Objectives

- People and businesses trust that transportation infrastructure and services will withstand and recover quickly from natural and human-caused disruptions.

- People can better meet their daily needs with timely, reliable, direct, and affordable options beyond driving alone.

- People experience more predictable travel times without experiencing excessive delays when traveling on highways.

- People and businesses can rely on predictable and cost-effective movement of freight and goods.

Transportation Resilience Focus

We frame transportation resilience as withstanding natural and human-caused disruptions.

- Natural disruptions are forces of nature occurring without human input, like:
  - Seasonal flooding
  - Typical winter storms
  - Wildlife migration

- Human-caused disruptions are a result of human action, regardless of scale of time, like:
  - Security disruptions (e.g., criminal activity or terrorism)
  - Disruption from negligence (e.g., failure to maintain bridge safety)
  - Extreme weather events and heat resulting from human-caused climate change
  - Non-recurring congestion when related to major incidents

Metropolitan Council

Dynamic Nature of Travel

People lack choices to meet different and evolving travel needs.

- Travel is essential to the economic vitality of the region.

- People depend on transportation to access daily needs.

  – Work, school, housing, healthcare, and socializing

- A competitive variety of options allows people choice to meet their needs, and it attracts people and business to the region.

  – People want to walk and bike more!

- Most will still choose driving in our region.

  – The worst areas of unpredictable highway travel need to be addressed while improving accessibility for all forms of transportation.

Freight and Goods

Businesses rely on predictable delivery of freight and goods to meet those needs.

- Freight is essential for businesses and manufacturers to get supplies and for goods to reach consumers.

  – Consumer delivery preferences require an evolving approach to managing urban freight

- The worst areas of unpredictable highway travel need to be addressed to maintain freight reliability.

- *2050 Land Use Policy Plan* and the *2050 Transportation Policy Plan* can jointly consider actions to address:

  – Industrial land availability and clustering

  – Improvements to first-last mile connection and curb management needs

Renewal, Repair, and Replacement

Most renewal, repair, and replacement projects advance the Our Region is Dynamic & Resilient goal.

Pavement Condition

Preventative work maintains travel time reliability on highways and for freight users

Bridge Reconstruction

Prevents disruption to travel due to restriction, collapse, or flooding and reduces multimodal crossing barriers

Transit Fleet Replacement

Improves reliability of transit service and potentially expands affordable travel options

Connections to Other Goals

Many projects that advance the Dynamic & Resilient goal will naturally advance other goals.

Equitable & Inclusive
Improving transit service increases accessibility for disadvantaged communities

Healthy & Safe
People can choose travel options that increase happiness and reduce their exposure to crashes

Climate Change
Providing more choice gives opportunity to reduce climate impact of travel

Natural Systems
Stormwater improvements that increase system resilience may lessen discharge impacts on water

Policies & Actions

Policies and actions are being developed through three Policy Development Teams and staff inputs.
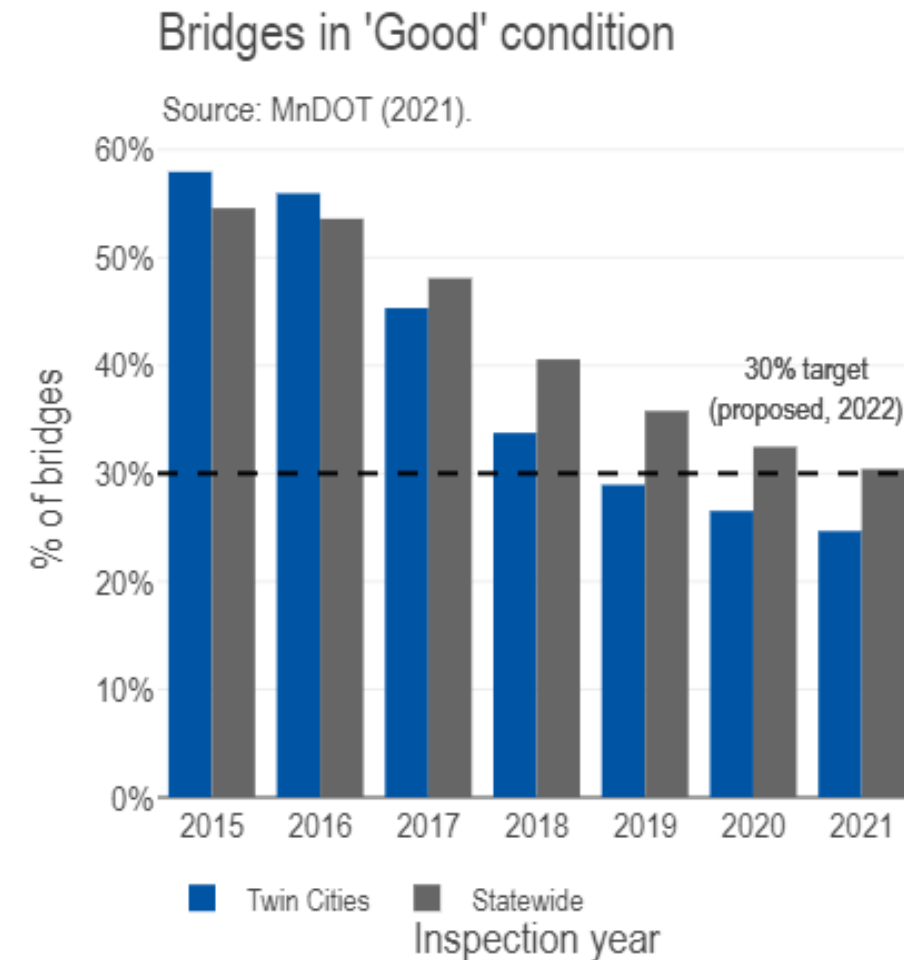
- Several potential policy areas are emerging from early work:
    - **Travel options,** like network connectivity, barrier removal, and demand management
    - **Travel reliability,** like freight connectivity, operations, and delay
    - **Resilience,** like climate adaptation and asset management

- Actions will likely target:
    - Rewarding projects that advance this goal
    - Prioritizing regionally significant investments
    - Identifying planning studies and ongoing work

- Technical Working Group engagement will continue in Policy Development Workshops tentatively in November

Performance Measurement

This goal will be tracked and evaluated with several performance measures.

- Potential measures may include:
    - Infrastructure condition and vulnerability
    - Measures of access to destinations
    - Measures of delay, timeliness
    - Modal participation
    - Network by level of traffic stress
- Staff are evaluating the relevance and feasibility of potential measures

Bridges in 'Good' condition
Source: MnDOT (2021).

30% target (proposed, 2022)

% of bridges

Twin Cities   Statewide
Inspection year

Discussion

- Does this framing of the issue make sense? What's missing or unclear?

- How would you apply this to goal to policies, actions, and investments?

- How specific should this topic get in directing the Regional Solicitation Evaluation for 2026? Any specific recommendations?

- Any suggestions for the work program?

Our Region is Equitable & Inclusive

Racial inequities and injustices experienced by historically marginalized communities have been eliminated; and all residents and newcomers feel welcome, included, and empowered.

Importance of Equity

- Acknowledgement of transportation's role with past and ongoing harms and inequities

- Recognizing the importance and benefits of transportation in connecting people in communities

- Structural inequities including spatial segregation and an auto dependent system, leading to disconnection and harms for some communities

- Region continues to have some of the largest racial disparities in the country

HUDSON'S INDEXED MAP OF SAINT PAUL
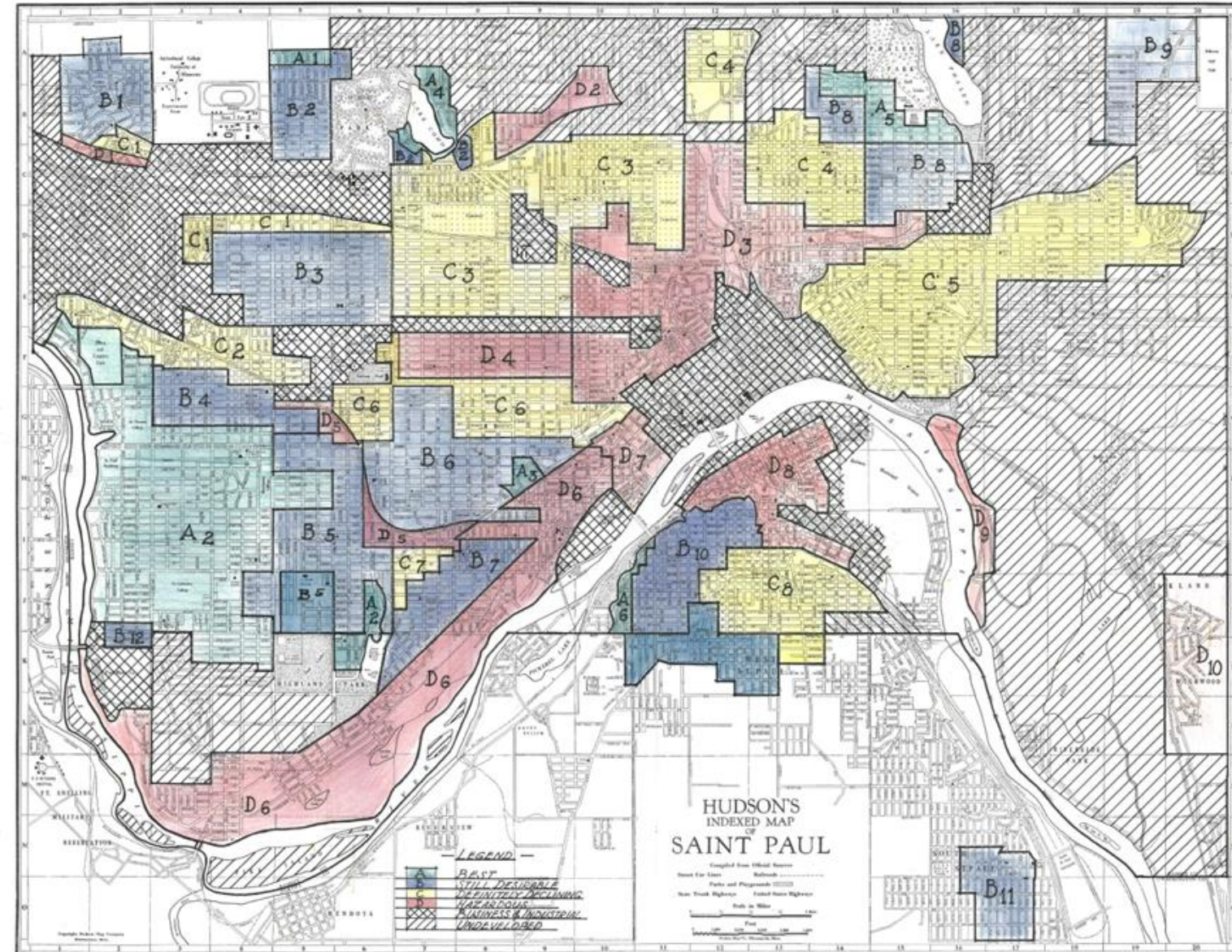
Equity in *Imagine 2050*

Equity is built into the values, vision, and goals of the working draft 2050 plan, evolving from how equity was included in *Thrive MSP 2040*.

Equity in *Imagine 2050* Values

Values

Vision

Goals

Objectives

Policies & Actions

Values are the core beliefs that guide how the Council carries out work.

- Four statements on Equity, Leadership, Accountability, and Stewardship

- The Equity value statement reads:

  We value the people and communities of our region. Our region is economically and culturally vibrant. We also recognize, however, the harm and disparities that injustices, including racism, have created.

  We are dedicated to creating systems, policies, and programs that repair and heal past harm, foster an equitable future, and eliminate disparities. Communities that have been marginalized in the past will be at the center of this work in leadership roles.

Equity in the *Imagine 2050* Vision

Values

Vision

Goals

Objectives

Policies & Actions

The vision narrative states the overarching description of what we want to achieve for the region.

"We envision a healthy, just, and resilient region where future generations thrive and experience new opportunities supported by planning that results in economical services, housing affordability, clean water, thriving ecosystems, and safe, accessible transportation throughout the region."

We envision an equitable future where our region's residents, communities, and economy thrive. Through collaborative leadership and innovative planning, we will deliver equitable and affordable services and infrastructure; we will confront challenges, including those related to equity and climate change; and we will seize opportunities to ensure the wellbeing of our natural and built environments."

Equity in the *Imagine 2050* Goals

Values	**Goals are broad directional statements that more specifically describe the desired end states for the region.**
Vision	• **Our Region is Equitable and Inclusive.** Racial inequities and injustices experienced by historically marginalized communities have been eliminated; and all residents and newcomers feel welcome, included, and empowered.
Goals	
	• Our Communities are Healthy and Safe
Objectives	• Our Region is Dynamic and Resilient
	• We Lead on Addressing Climate Change
Policies & Actions	• We Protect and Restore Natural Systems

Metropolitan Council

Equity in the 2050 TPP Objectives

Values

Vision

Goals

Objectives

Policies & Actions

Objectives are achievable results that advance each regional goal.

Three specific objectives were developed to advance the plan's Equitable & Inclusive Region goal.

- Historically disadvantaged communities are better connected to jobs, education, and other opportunities.

- We repair and eliminate disparate and unjust impacts and harms to Black people, Indigenous people, and people of color.

- We better meet the transportation needs of people who have disabilities or limited mobility.

RACIAL EQUITY FRAMEWORK

CONTEXTUALIZED — Ensures solutions are addressing a systemic inequity

COMMUNITY CENTERED — We are working with the population negatively affected by said inequity to co-create solutions

REPARATIVE — Creating solutions that are commensurate with what caused the inequity

cura

Framework application example

Blue Line Anti-Displacement Project

- **Community-Centered:** Partnered with community and government stakeholders in the Blue Line Extension Anti-Displacement Work Group, which developed recommendations for policy and implementation. Created vision to ensure the communities in the corridor receive the primary benefits of the project, looking beyond just transit.

- **Contextualized:** Intended to address potential displacement harms related to large public infrastructure investment

- **Reparative:** Working with government partners on implementation plan for policies that could help prevent displacement (housing, businesses, cultural) and address displacement that has already occurred from the Blue Line Extension

Policies & Actions

Policies and actions are being developed through an Equity Policy Development Team and staff inputs.

- Potential policies are emerging from early work:
  - Community engagement at all phases of project planning and development
  - Defined community role in a clearly identified decision making process
  - Assessment of affected communities (e.g., demographics, history, culture, needs) from the beginning
  - Continual evaluation of programs and plans for historically disadvantaged community benefits and impacts
  - Mitigate and minimize displacement and gentrification related to regional transportation investments
  - Meet federal ADA standards and go beyond minimums to better meet needs of people with disabilities
  - Maximize economic benefits to communities, e.g., use of local work force and firms in projects

Equity Evaluation of Regional Transportation Investments Study

Working with community to identify actions

- Community-based Equity Policy Group working with a consultant team will recommend how investment processes can change for more equitable processes, decision making, and outcomes
- This work is influencing draft policies and actions now
- Additional actions recommended by this group expected by May 2023; will influence revision to identified policies and actions

Study's working definition of equity

Transportation equity means benefits and burdens of transportation systems, services, and spending are fair and just, which historically has not been the case. Transportation equity requires acknowledging, addressing and rectifying past harms, particularly impacting underserved Black, Indigenous, and People of Color. It also calls for active intentional inclusion of underserved communities in shaping future transportation decisions.

Other sections

Work Program

2024 Work Program

- Freeway Harms Study
- TPP Goal Topic Workshops

TPP Work Program

- Application of tool developed in Equity Evaluation study to other project types and processes

Performance Measures

- Still in development internally
- Will be presented at future meetings

Discussion

- Does this framing of the issue make sense? What's missing or unclear?

- How would you apply this to goal to policies, actions, and investments?

- How specific should this topic get in directing the Regional Solicitation Evaluation for 2026? Any specific recommendations?

- Any suggestions for the work program?
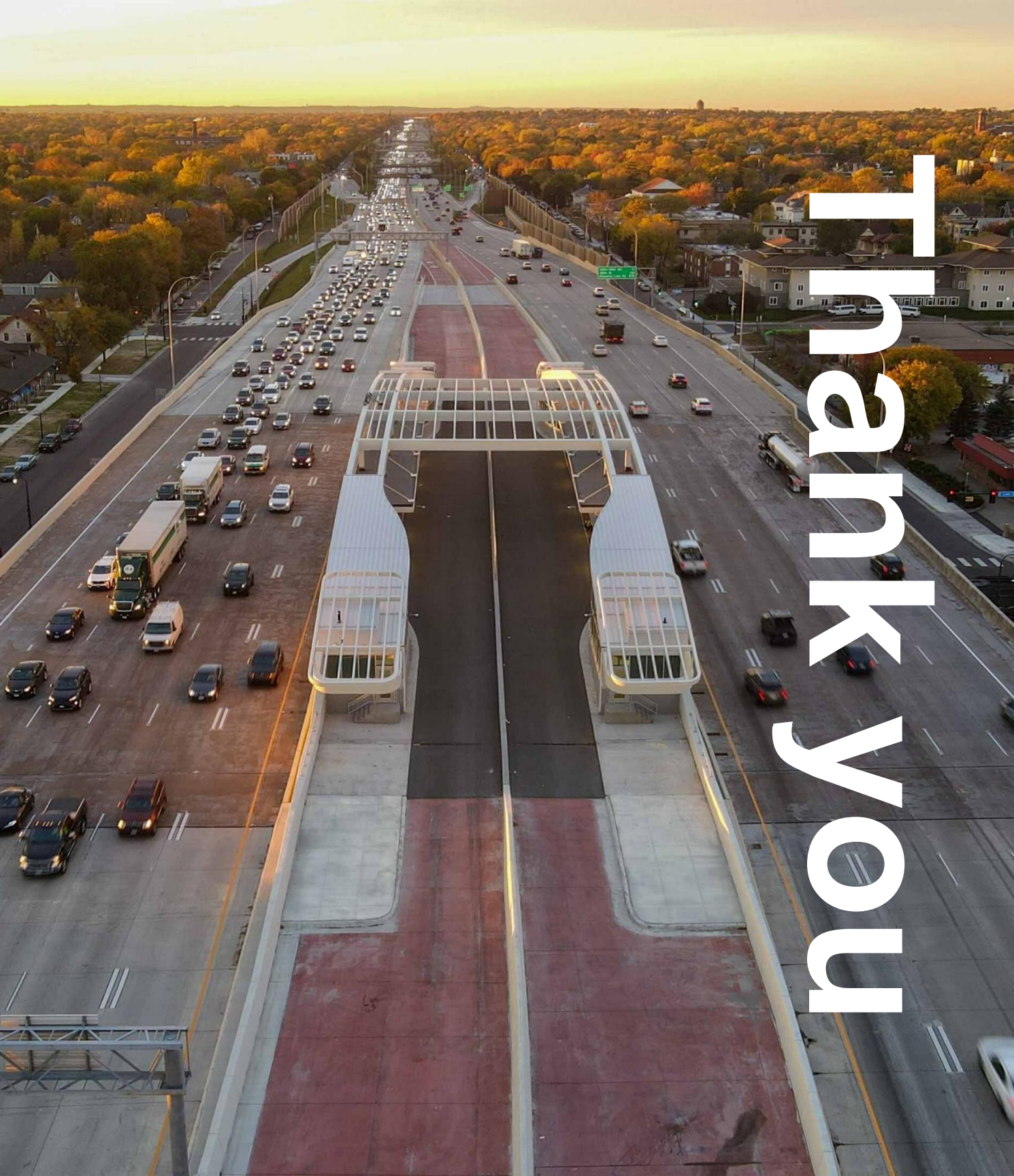
Thank you

Tony Fischer

Chapter Author: Climate Change
tony.fischer@metc.state.mn.us

Jed Hanson

Chapter Author: Natural Systems, Dynamic & Resilient
jed.hanson@metc.state.mn.us

Heidi Schallberg

Chapter Author: Equitable & Inclusive, Healthy & Safe
heidi.schallberg@metc.state.mn.us

METROPOLITAN
C O U N C I L