2021 Amendments

Redline Changes

Austin Strategic Mobility Plan









GETTING THERE TOGETHER ASMP

Adopted April 11, 2019

Amended June 9, 2022

Acknowledgements

Austin City Council

We would like to thank current and past members of Austin City Council for their leadership on the ASMP.

Mayor Steve Adler

Natasha Harper-Madison (District 1)

Vanessa Fuentes (District 2)

Sabino "Pio" Renteria (District 3)

José "Chito" Vela (District 4)

Ann Kitchen (District 5)

Former Councilmember Ora Houston

Former Councilmember Ellen Troxclair

Mackenzie Kelly (District 6)

Leslie Pool (District 7)

Paige Ellis (District 8)

Kathie Tovo (District 9)

Mayor Pro Tem Alison Alter (District 10)

Former Councilmember Delia Garza

Former Councilmember Gregorio "Greg" Casar

Former Councilmember Jimmy Flannigan

Multimodal Community Advisory Committee

The Multimodal Community Advisory Committee (MCAC) is an advisory group to both the Austin Strategic Mobility Plan (ASMP) and Capital Metro's Project Connect. Thank you to all the community members who gave guidance to the ASMP and for your dedication over more than two years.

Boards, Commissions, Committees, and Councils

Many City boards, commissions, committees, and councils provided advice throughout the planning process on both public engagement and recommendations. Thank you for serving and representing your community.

African American Resource Advisory Commission

Asian American Quality of Life Advisory Commission

Bicycle Advisory Council

College Student Commission

Commission on Immigrant Affairs

Commission on Seniors

Community Development Commission

Downtown Commission

Environmental Commission

Hispanic/Latino Quality of Life Resource Advisory Commission

Impact Fee Advisory Committee

Joint Comprehensive Plan Committee

Joint Sustainability Committee

Lesbian, Gay, Bisexual, Transgender, and Queer Quality of Life Advisory Commission

Mayor's Committee for People with Disabilities

Pedestrian Advisory Council

Planning Commission

Urban Transportation Commission

Zoning and Platting Commission

Consultants

Thank you for your assistance along the way in producing this plan.

Civic Collaboration

Group Solutions RJW

Kimley-Horn and Associates

City Departments

Thank you to the many staff members who have made this possible through your assistance and review.

Austin 3-1-1
Austin Energy
Austin Fire
Austin Police
Austin Public Health
Austin Transportation
Austin Water
Aviation
City Manager's Office
Communications and Public Information
Corridor Program Office
Development Services
Economic Development
Equity Office
Fleet Mobility Services
Law Department
Housing and Planning
Office of Performance Management
Office of Sustainability
Parks and Recreation
Public Works
Watershed Protection

Partner Agencies and Organizations

We appreciate our local and regional mobility partners for their coordination and support throughout the planning process.

Capital Area Metropolitan Planning Organization
Capital Area Council of Governments
Capital Area Rural Transportation System
Capital Metropolitan Transportation Authority
Central Texas Regional Mobility Authority
Movability Austin
Texas Department of Transportation
Travis County

Community Members

We especially would like to thank the roughly 10,000 community members in the Austin area who provided their feedback throughout this process. We appreciated getting to know you and hear your concerns and desires for the future of transportation in Austin.

GETTING THERE TOGETHER ASMP


New Image
TRINITY ST 600
ONE WAY
IRON CACTUS
BRUNCH
EVERY
SUNDAY
Ice Made Fr h Daily
ID-1

New Page

Adoption & Amendments

0n April 11, 2019 Austin City Council unanimously passed Ordinance No. 20190411-033 adopting the Austin Stragetic Mobility Plan (ASMP) as the transportation element of the Imagine Austin Comprehensive Plan to guide future growth of the city's transportation network.

The ASMP is intended to be a living planning document, reflecting the creation and updates of future planning documents and the needs and goals of our evolving transportpation network. Amendments to the ASMP are expected. Future amendments will continue to strengthen the relationship between the public and the City established from the initial public engagement efforts. By this collaborative work the ASMP will guide the City of Austin toward a common transportation vision.

Date	Ordinance Number	Description
April 11, 2019 (Adopted)	20190411-033	An ordinance amending the Imagine Austin Comprehensive Plan (Ordinance No. 20120614-058) by adopting the Austin Strategic Mobility Plan

ID-2



Contents

Introduction

Executive Summary vii

Introduction xii

Chapter 1

Prioritizing Our Safety 1

Safety Culture 8

Designing for Safety 16

Safe Behaviors 24

Chapter 2

Managing Our Demand 31

Land Use 34

Parking 44

Curb Management 50

Transportation Demand Management Programming 56

Shared Mobility 70

Chapter 3

Supplying Our Transportation Infrastructure 77

Sidewalk System 80

Roadway System 88

Public Transportation System 96

Bicycle System 108

Urban Trail System 118

Condition of Infrastructure 124

Emerging Mobility Solutions 130

Aviation 136

Chapter 4

Operating Our Transportation Network 145

Transportation Operations 148

Closures and Detours 156

Goods Movement 166

Contents

Chapter 5

Protecting Our Health and Environment 175

Public Health 178

Air and Climate 186

Water and Stormwater 192

Land and Ecology 200

Chapter 6

Supporting Our Community 207

Equity 210

Affordability 220

Accessibility 226

Public Interaction 234

Chapter 7

Implementing Our Plan 243

Data 246

Collaboration 252

Financial Strategies 262

Action Table 270

Appendices

A. Acronyms and Glossary A1

B. Street Network Table and Map A8

C. Maps A10

D. List of Attached Plans A23

E. Chapter 380 Strategies A24

Dear Friends,

I am pleased to share with you the Austin Strategic Mobility Plan – our City's comprehensive mobility plan. As one of the nation's largest and most populous cities, we face tough issues. This mobility plan, written in partnership with our community, aims to put Austin in the best position to address our transportation challenges directly.

As you read this plan, you may notice that it reflects Austin's priorities – how we move people around Austin, how we protect our health and environment, how we achieve our individual and community economic vitality, and much more.

The two-year process that led to the creation of the Austin Strategic Mobility Plan included conversations with thousands of Austinites. People young and old, long-time residents and newcomers, from all parts of our community engaged with the planning team to share ideas for our future. Overwhelmingly, you told us more access to transportation options is a priority to you. We also heard that you are concerned about affordability – both your household costs for transportation and the overall cost of living in Austin. This plan includes strategies to increase transportation affordability and provide more ways to get around safely, no matter which travel mode you choose.

I want to thank the City Council, City staff, and partner agencies for your leadership in creating this bold plan for Austin. With this shared direction, we will act on our commitments together and be strategic about decisions that impact the region's long-term sustainability.

We are counting on Austin residents to join us. Together, we have the resolve to address our mobility challenges and opportunities. Let's get moving!

Spencer Cronk
Austin City Manager

Executive Summary

Purpose of the Plan

The Austin Strategic Mobility Plan is a comprehensive multimodal transportation plan for the future of our transportation network — and it is needed for us to achieve the mobility outcomes that will help to improve and sustain the quality of life for all community members. Austinites want our city, and our transportation network to be safe, accessible, and inclusive for all members of our community. And we all want to be able to get where we want to go, when we want to get there. This plan presents the policies needed to guide us and the actions necessary to achieve our common goals as identified in the Imagine Austin transportation vision.

Imagine Austin Transportation Vision

Our comprehensive plan calls for Austin to be mobile and interconnected. We envision a transportation network that is accessible and reliable, provides choices, and serves the diverse needs of our community.

> **AUSTIN IS MOBILE AND INTERCONNECTED**
> Austin is accessible. Our transportation network provides a wide variety of options that are efficient, reliable, and cost-effective to serve the diverse needs and capabilities of our citizens. Public and private sectors work together to improve our air quality and reduce congestion in a collaborative and creative manner.
> ***- Imagine Austin Comprehensive Plan***

Mobility Goals

In reviewing past public engagement efforts, eight mobility goals emerged as recurring themes raised by Austin residents that serve as the goals for the Austin Strategic Mobility Plan: **Commuter Delay, Travel Choice, Health & Safety, Affordability, Sustainability, Placemaking, Economic Prosperity, and Innovation.**



Commuter Delay
Reduce the amount of time workers spend traveling between home and work.



Placemaking
Build a transportation network that encourages social interaction through quality urban design, and connects users to the many places that make Austin unique.



Travel Choice
Promote a balanced transportation network and the ability to make informed choices based on personal needs and preferences.



Economic Prosperity
Promote economic growth for individuals and the city through strategic investments in transportation networks that meet the needs of the 21st century.



Affordability
Lower the cost of traveling in Austin by providing affordable travel options.



Sustainability
Promote integrated designs and quality additions to the built environment while reducing impacts and promoting efficient use of public resources.



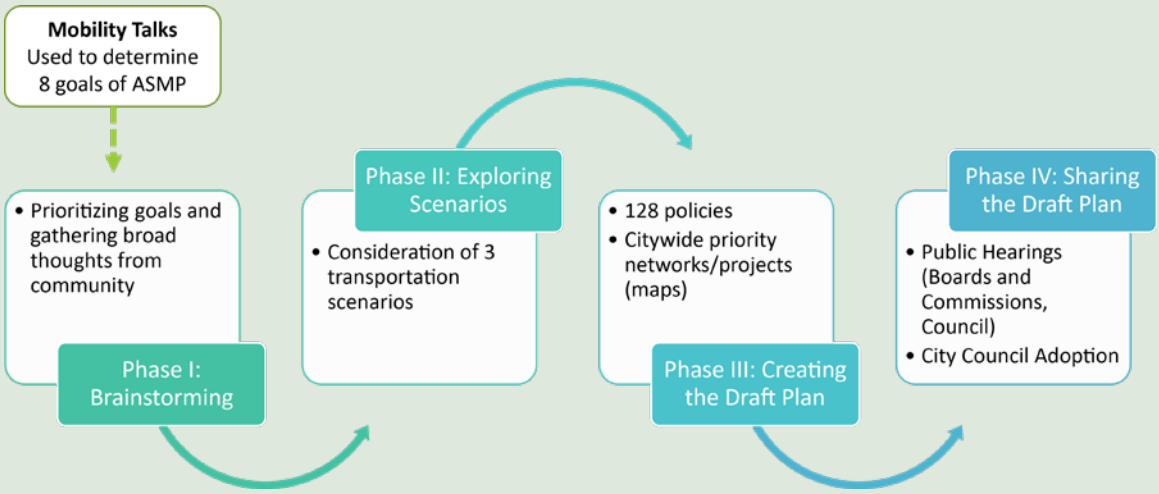
Health and Safety
Protect Austinites by lowering the risk of travel-related injury and promoting public health.



Innovation
Draw inspiration from forward-looking cities around the world, change the way we think about what's possible, and set an example for the rest of the country.

The Process

These goals were the starting point for the Austin Strategic Mobility Plan engagement efforts, which began in early 2017 and occurred over four phases. In phase one, we asked the community to prioritize the plan goals. In phase two, we wanted to get input on future transportation scenarios and what mobility strategies the community wants to pursue to achieve the goals of the plan. In the third phase of engagement, we asked for feedback on draft policies and maps that make up the future transportation network. Together, these priorities and preferences informed the development of the plan. The last phase of engagement is the adoption process where the plan is reviewed by the community. Feedback will be heard through boards and commissions, public hearings, and ultimately City Council action.



We connected with the community during events and activities throughout these phases, specifically focused on elevating the voices of populations that have historically been underrepresented in planning processes: youth, seniors, people of color, and people with disabilities. Throughout the ASMP process, we worked to create deeper and better relationships with communities across Austin.



Motivation behind the Plan and Primary Plan Objective

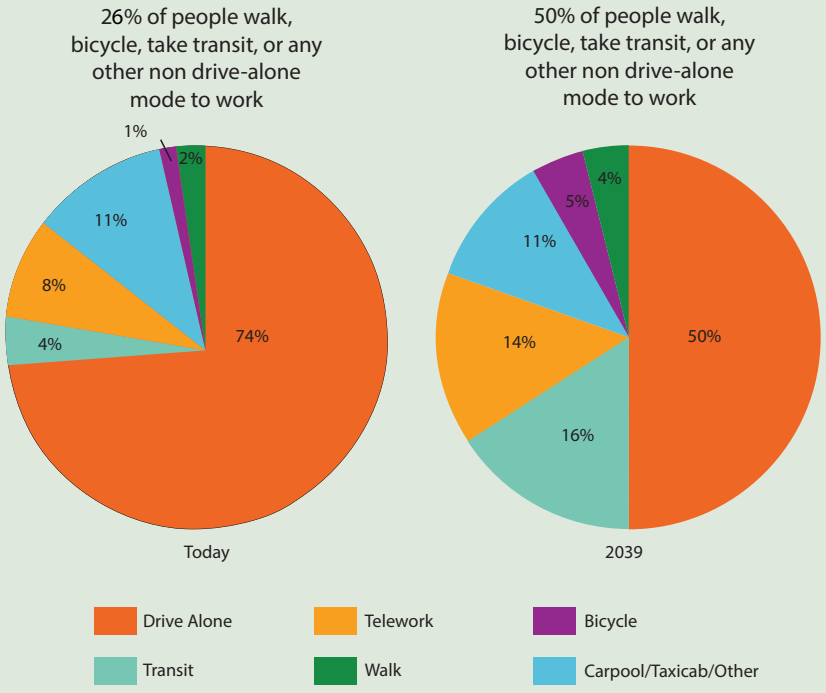
There are many factors that motivated the recommendations contained within this plan including past policy direction, what we heard from the community, our challenges, and our analysis of our projected growth and what it means for mobility.

Since our last transportation plan was adopted in 1995, Austin has added over 450,000 people and our region's population is slated to double in the next 30 years.

This growth trend is important when we consider our mode share. Our current mode share is 74% drive-alone to work, meaning 26% of working age members of our community are traveling by some other mode of transportation (taking transit, riding a bicycle, walking, carpooling, or teleworking). This measure is an important indicator of our congestion, transportation choices, and access to those choices, and it is a proxy for other community goals, such as air quality and affordability.

We conducted an analysis to understand what would happen if our mode share was maintained or if it shifted. In our most progressive multimodal scenario with a 50/50 mode share (50% drive-alone, 50% all other options combined) we can manage congestion based on our forecasted growth by 2039. This means that we could maintain approximately the same number of cars as we have on the road today, while almost doubling in population. By aggressively shifting the growth of total trips to other modes and strategically expanding roadway system capacity, where feasible, we responsibly manage congestion into the future.

There are many ways to arrive at our 50/50 mode share goal. Below is one of what could be several different transit-intensive pathways to get there. Our primary objective is to track reducing our dependence on driving alone while keeping an eye on the trends of individual modes, allowing us to adjust as new solutions and options emerge during the life of the ASMP. This analysis was critical motivation for the development of the Austin Strategic Mobility Plan.



Top Strategies to Reach 50/50 Mode Share by 2039

Reduce traffic fatalities, serious injuries by focusing on safety culture, behaviors
We must strategically promote a culture of safety by emphasizing education and encouragement focused on behaviors that contribute the most to traffic injuries and fatalities, while continuing to incorporate safe design principles into our multimodal infrastructure.

Move more people by investing in public transportation
We should invest in a complete public transportation system, with high-capacity vehicles in dedicated transit pathways, because it has the ability to move the most people in the region and through the core of Austin.

Manage congestion by managing demand
Transportation demand management (TDM) is an approach to tackling congestion through strategies that more quickly reduce our impact on the transportation network rather than adding costly capacity.

Build active transportation access for all ages and abilities on sidewalk, bicycle, and Urban Trail systems
Expand multimodal transportation choices by completing the sidewalk, bicycle, and Urban Trail systems, with a focus on completing the highest priority projects in the near-term.

Strategically add roadway capacity to improve travel efficiency
We should strategically add capacity for vehicles and multimodal travel and improve connectivity in our street grid to better distribute trips across the community in a way that preserves safety in the public right of way. Working with partners to improve intersection operations and reduce bottlenecks in the roadway system will help smooth the flow of traffic.

Connect people to services and opportunities for better health
Our transportation network should increase access to healthy food, including community amenities such as grocery stores, healthcare, workforce assistance, and childcare. By increasing choices for how we travel, we can provide the community with improved opportunities to meet these needs.

Address affordability by linking housing and transportation investments
We must coordinate housing and transportation investments to maximize affordability and minimize displacement knowing that mobility is a key component of household affordability.

Right-size and manage parking supply to manage demand
We should dynamically manage parking demand and supply to balance the needs of people and goods delivery. Dynamic parking management includes innovative curb space management and pricing as a tool to manage congestion.

Develop shared mobility options with data and emerging technology
Focus on shared mobility capabilities in the piloting of emerging technology. From public transportation to shared and on-demand mobility services, technology and data can connect our vehicles and infrastructure with people.

Build and expand community relationships with plan implementation
Recognizing the impact our transportation network has on our community, where we choose to live, and how we interact with each other, it is vital that all voices in our community are heard and are sought out to participate in the development of transportation projects and programs.

Key Action Items:

To implement the Austin Strategic Mobility Plan there are some key actions items that should be completed in the near-term. These are:

- Establish benchmarks and targets for all ASMP indicators
- Advance public transportation initiatives, including Project Connect
- Advance active transportation initiatives
- Update the transportation elements of the Land Development Code
- Expand the reach of TDM programming to more parts of the community
- Design and build improvements funded by the 2016 and 2018 bond programs
- Complete the Street Impact Fee and Non-Radioactive Hazardous Material Route Designation programs
- Participate in the CAMPO 2045 Plan
- Complete the Transportation Criteria Manual update

What's in this Plan?

Indicators + Targets: More specific measures of our goals which help us know how well we are achieving them; some indicators have identified targets necessary to make ambitious yet reasonable progress toward a goal within a specified timeline

Policies: A definite course or method of action to guide and determine present and future decisions

Actions: Steps necessary to support policies, programs, and projects

Priority Networks: Designated for the roadway, public transportation, and bicycle systems to show where modes are prioritized to improve operations

Transportation Network Maps: Identify possible projects the City may pursue in the next 20 years based on a variety of factors, including the evolving needs of the transportation network, engineering analysis, public input, and available funding

Street Network Table: Inventory of our streets and their future conditions, which will be used to identify right of way requirements

GETTING THERE TOGETHER ASMP

Introduction

Purpose of the Plan

In 2012, the City of Austin adopted the Imagine Austin Comprehensive Plan. This was the culmination of many years of planning efforts across the city, and it defined a vision for Austin as we reach our 200th anniversary in 2039. One of the key actions identified in Imagine Austin was to create a mobility plan, the Austin Strategic Mobility Plan, to guide future growth of the city's transportation network.

Austin has changed greatly in the past 20 years — socially, economically, and technologically. Given the continuous growth of Austin and its surrounding communities, the Austin Strategic Mobility Plan is an important community-driven step to absorb and enhance growth in a way that balances travel needs and creates true choices among our mobility options.

The Austin Strategic Mobility Plan is a comprehensive multimodal transportation plan for the future of our transportation network — and it is needed for us to achieve the mobility outcomes that will help to improve and sustain the quality of life for all Austinites. We want our city, and our transportation network, to be safe, accessible, and inclusive for all members of our community. And we all want to be able to get where we want to go, when we want to get there.

The Austin Strategic Mobility Plan integrates the recommendations from previous transportation plans dedicated to specific modes, such as our Sidewalk, Bicycle, and Urban Trails plans, into one comprehensive document to align them into complementary systems. Additionally, it provides the basis for systems and strategies that do not have standalone plans, like the roadway system and managing demand.

This plan presents the goals we want to achieve, the policies needed to guide us, and the actions necessary to achieve the Imagine Austin transportation vision.

Imagine Austin Transportation Vision

The vision of this plan was established in Imagine Austin. Our comprehensive plan calls for Austin to be mobile and interconnected. We envision a transportation network that is accessible and reliable, provides choices, and serves the diverse needs of our community. Imagine Austin acknowledges that we need to build a "big city" transportation network to meet our "big city" needs—a network that moves people around the city and region conveniently and safely, with or without a car.

AUSTIN IS MOBILE AND INTERCONNECTED

Austin is accessible. Our transportation network provides a wide variety of options that are efficient, reliable, and cost-effective to serve the diverse needs and capabilities of our citizens. Public and private sectors work together to improve our air quality and reduce congestion in a collaborative and creative manner.

- Interconnected development patterns support public transit and a variety of transportation choices, while reducing sprawl, congestion, travel times, and negative impacts on existing neighborhoods.
- Our integrated transportation system is well-maintained, minimizes negative impacts on natural resources, and remains affordable for all users.
- Austin promotes safe bicycle and pedestrian access with well-designed routes that provide connectivity throughout the greater Austin region. These routes are part of our comprehensive regional transportation network.

Challenges

Our current transportation network, trends, and opportunities present us with various challenges. To achieve our goals and vision of a mobile, safe, and interconnected Austin, we will have to address these challenges. Strategies to tackle these challenges motivated the recommendations in this plan.

Challenge 1: How might we lower the risk of travel-related injury and protect and promote public health?

Safety is the most important consideration in transportation decision-making. Even with that mission defining much of the work of the City, dozens of people die each year on Austin's roads. Our transportation network's most vulnerable and at-risk users, people who walk, bike, and ride motorcycles, as well as people of color, people with lower incomes, and those experiencing homelessness are disproportionately affected.

In addition to protecting Austinites from serious injury and death, transportation can affect public health in other ways. For instance, reducing vehicle miles traveled reduces emissions associated with automobiles. Emissions, specifically ground-level ozone, have health effects for at-risk populations, including children and seniors. Transportation can also promote public health by increasing access to healthy food, including communities amenities such as grocery stores, healthcare, recreational opportunities, and active transportation options for commuting or meeting daily needs that can allow for physical activity as part of a daily routine.

Challenge 2: How might we supply a multimodal transportation network (for driving, walking, bicycling and taking transit) that can meet the demands of a growing region while providing equitable access to transportation choices, opportunities, and services?

With Austin's population doubling approximately every 20-30 years, our region struggles with the demand that growth has on our transportation network. The challenge is furthered by the fact that 74 percent of Austinites drive to work or school alone. The demand on our roadways is especially evident in the traffic congestion we see during peak hours. The average driver in Austin spends more than 50 hours in traffic every year. Consequently, congestion costs each Austin commuter approximately $1,200 annually in excess fuel, vehicle wear and tear, and time lost. In total, congestion costs the region over $1 billion annually.

Traffic congestion can lead to unreliable and slower travel times, as well as other critical externalities such as inefficiencies in goods movement, emissions from vehicles idling in traffic, and reduced access to jobs and services. Unpredictable traffic makes getting around Austin difficult, and a lack of alternative travel options leaves many with no choice but to sit in traffic jams.

While growth can bring economic vibrancy to the city, an efficient and accessible multimodal transportation network is required to supply these benefits for all Austinites. Barriers in mobility connectivity have created hurdles to individuals without vehicles, or those who frequently rely on transit services to reach higher wage jobs in various parts of Austin. Communities outside the core of the city struggle to access frequent and reliable public transportation services near where they live and work. People who do live relatively close to where they work find transit uncompetitive with driving alone because of commute time.

Adding supply to the transportation network for all modes, including driving, walking, bicycling, taking transit, and emerging mobility solutions, is a desire of the community that we heard throughout engagement efforts. Participants indicated our lack of options contributes negatively to their quality of life, access to jobs, and congestion throughout the community.

This is a complicated challenge. Providing multimodal transportation infrastructure requires prioritization and trade-offs as space is finite and resources are limited. Additionally, while the community supports adding supply to the transportation network, supply for what mode or where is often debated.

Challenge 3: How might we prepare for and lead in leveraging rapidly evolving technology in transportation?

The mobility landscape is changing due to rapidly evolving technology and its use in transportation. Connectedness among City departments, other agencies, and private partners, as well as clarity in the regulatory environment, are essential for successful integration of these new technologies.

While many of the barriers in our existing transportation network, like congestion, affordability, accessibility, and environmental concerns, can be mitigated by technological advances, there may also be unintended consequences. These consequences could include increased drive-alone trips and vehicle miles traveled as a result of automated driving vehicle use. Additionally, access to mobility services that rely on smartphones or other technology are not available to all members of the community. There are also likely to be workforce and land use impacts of autonomous technologies and shared mobility services. Gaining value from new technologies in a way that integrates well with our existing infrastructure and continued development of basic transportation systems, such as our pedestrian, bicycle, and public transportation systems, will be important to success.

There are many "unknown unknowns" about what is to come and how we will respond to and adopt new technologies. There is a need to balance government resources on technology while continuing to complete our traditional transportation systems (roadway connections and active transportation systems).

Challenge 4: How might we ensure a financially and environmentally sustainable transportation network?

Efficient, strategic, and targeted mobility investments are needed to ensure the financial sustainability of the City, environmental protection, and delivery of more affordable transportation choices for residents. Today, transportation agencies are called upon to design, implement, and operate transportation systems that, in addition to providing mobility and safety, are also socially, environmentally, and economically sustainable. With constrained financial resources, the City has the challenge of most efficiently using public resources to invest in infrastructure for more affordable mobility systems.

Affordable transportation options are essential as mobility is a key factor in the affordability equation. Household affordability is defined by the combination of housing and transportation costs. Increasingly, finding affordable housing for many Austinites is a challenge. Many families, especially middle- and low-income households, are being displaced in search of cheaper housing options on the perimeter of the city, which generally lack mobility options other than driving. Moving further away for affordable housing often compounds transportation-related costs and congestion.

Many factors impact the implementation, operations, and maintenance of our transportation network. This includes not only maintaining the integrity and useful life of infrastructure, but also environmental stewardship. Balancing trade-offs with limited resources is a challenge.

Challenge 5: How might we effectively collaborate with agencies, organizations, and the Austin community around mobility decision-making?

Collaboration with the community, partner agencies, and the private sector is vital to planning for

our future mobility needs, yet remains a major challenge. Multiple communities within Austin and in the Central Texas region, including communities of color, people with disabilities, seniors, youth, and communities impacted by poverty are often underrepresented in processes leading to important decisions. We must find creative ways to remove barriers to engagement that commonly prevent historically underserved and underrepresented community members from engaging in mobility decision-making.

We also have to be context-sensitive in our decisions. New transportation infrastructure should be conscious of the traditions, desires, and behaviors of the people currently living in communities where it is being constructed.

To the community, it rarely (if ever) matters who manages or delivers a transportation project. Therefore, it is important to find common ground among the multiple agencies and private sector companies that directly or indirectly impact transportation, such as the Texas Department of Transportation, Capital Metro, Travis and other counties, school districts, and others. These challenges are different than the community challenges in that they can include regulatory barriers, varying levels of responsibility, and different views of what to prioritize.

Motivation behind the Plan

There are many factors that motivated the recommendations contained within this plan. First, Imagine Austin set the direction for our transportation network, as mobile, interconnected, accessible, multimodal, efficient, reliable, and cost-effective. Since the adoption of Imagine Austin, we have also adopted additional transportation policy that has guided the development of complete streets, our sidewalk, urban trail, and bicycle systems as well as prioritized safety as our paramount objective.

Based on our experience working to implement these plans and what we have heard from the community, we know there are many trade-offs and barriers to achieving our goals. These challenges are outlined below and have further informed the policies, projects, and actions contained in this plan.

Motivation: Past Policy

In the past decade, Austin has worked to change the focus of its transportation policies toward a multimodal network. Our City Council adopted policies that emphasized the need to grow our public transportation, bicycle, Urban Trails and sidewalk systems to meet the goals of Imagine Austin to improve livability and sustainable transportation options. These policies informed the development of the Austin Strategic Mobility Plan.

In 2014, the City of Austin adopted a Complete Streets Policy as an initial step toward implementing Imagine Austin by advancing mobility, compact and connected development patterns, public health, and safety. The Complete Streets Policy provided guidance to focus on improvements that support safe, efficient, and convenient mobility for all roadway users — pedestrians, bicyclists, transit riders, and motorists — regardless of age or ability.

Also in 2014, the City adopted Bicycle and Urban Trails plans to establish goals and guide the development of those systems to accommodate users of all ages and abilities to capture short trips and reduce the demand on the roadway system. Additionally, the City updated the Sidewalk Plan/ADA Transition Plan in 2016 to identify priorities and milestones for completing our sidewalk system. The City also increased our commitment to transportation safety in 2016 in adopting a Vision Zero goal and action plan to reduce all transportation deaths to zero.

Together these plans and policies have guided the development of our transportation network and served as starting points for the development of the Austin Strategic Mobility Plan.

Motivation: Technical Analysis

As our region's population grows, the shortcomings of our transportation network become more pronounced. Over the last sixty years, Austin's highways have shaped our growth patterns, facilitating massive outward expansion and suburbanization. Austin's developed land area sprawled from 53 square miles in 1970 to over 300 square miles in 2010. Since 2010, and the adoption of the Imagine Austin Comprehensive Plan, the total developed land area has grown to 372 square miles, creating a transportation network almost wholly dependent on cars. Since our last transportation plan was adopted in 1995, Austin has added over 450,000 people and grown to be the 11th most populous city in the country. Our region continues to see rapid population growth, historically doubling every 20-30 years.

This growth trend is important when we consider our mode share. Our current mode share is 74% drive-alone to work, meaning 26% of working age members of our community are traveling by some other mode of transportation (taking transit, riding a bicycle, walking, carpooling, or teleworking). This measure is an important indicator of our congestion, transportation choices, and access to those choices, and it is a proxy for other community goals, such as air quality, and affordability.

To understand the future demands on our transportation network, we conducted a scenario planning and modeling analysis to understand what would happen if our mode share was maintained and if it shifted. In our most progressive multimodal scenario with a 50/50 mode share (50% drive-alone, 50% all other options combined), we can manage congestion based on our forecasted growth by 2039. This means that we could maintain approximately the same number of cars as we have on the road today, while almost doubling in population. By aggressively shifting the growth of total trips to other modes and strategically expanding roadway system capacity, where feasible, we responsibly manage congestion into the future. Comparatively, continuing to pursue a modest investment in infrastructure, or a "business-as-usual" scenario, and a scenario where we do nothing at all, both showed a bleak warning of a future that is not sustainable and our goals are not met. This analysis was critical motivation for the development of the Austin Strategic Mobility Plan.

To achieve a 50/50 mode share, we have to rely significantly on public transportation. Currently, our transit mode share is 4%. A large public investment and strategic coordinated implementation of capital projects, transit system operations, and land use changes will be necessary to achieve this aggressive trip shift. Seattle has achieved a 20% transit mode share using similar strategies, proving this goal is attainable but requires a long-term commitment.

In addition to investing in our multimodal systems, we must also work to reduce the demand on the network. With strong transportation demand management (TDM) programming, centered on education and regulation, we can increase the number of people teleworking or working from home, avoiding commute trips altogether.

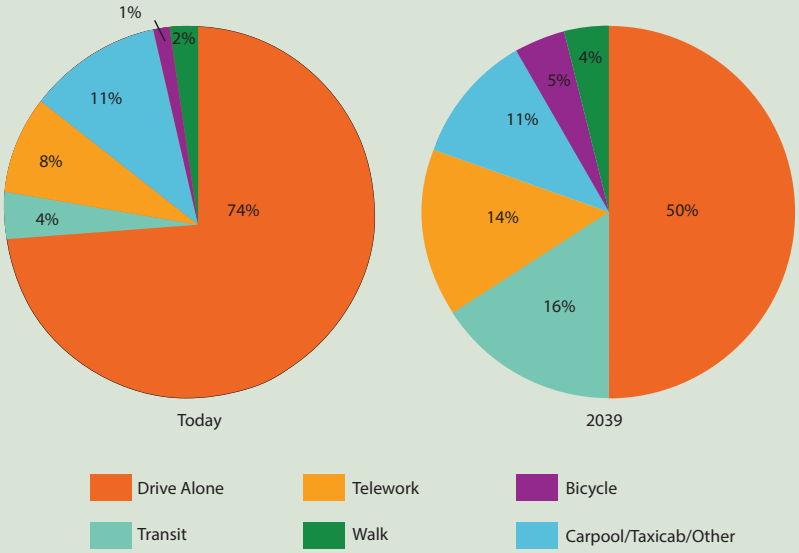
Carpooling is another mode that can be used to maximize the capacity of our current network. We don't expect to see growth in the share of this mode without significant changes to how we manage capacity on the highway system and strong TDM programming to encourage carpooling. However, we hope to maintain, if not increase, the current mode share at 11%.

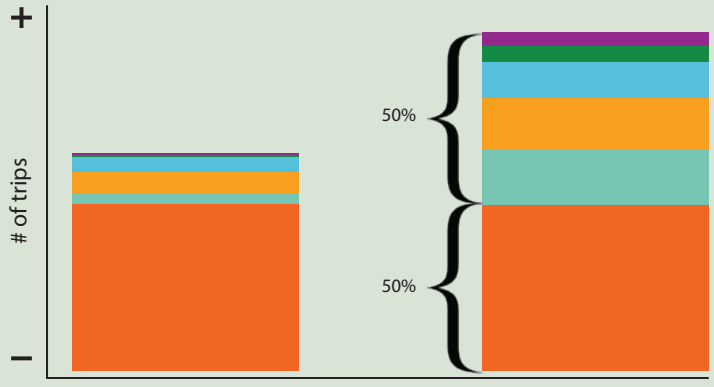
Increases in active transportation, such as walking and bicycling and other emerging modes, can also decrease the demand on the roadway system. The combined growth of the all ages and abilities bicycle network, supportive land uses, and scooters and other shared personal mobility devices offer an opportunity to capture significantly more short trips. Growth in walking trips can be achieved through improvements in the pedestrian realm supported by higher mixes of land uses and compact development as envisioned in Imagine Austin.

Maximizing all of these strategies will be necessary to achieve a 50/50 mode share and manage our congestion within Austin as the region continues to grow. As the city begins to realize this goal the benefits will be felt throughout the region, where regional mode share goals can further the impact on mobility.

What does a 50/50 mode share mean for Austin?

A 50/50 mode share means 50% of our population drives-alone to work while 50% of us use other modes. This goal will help us manage congestion as our community grows. There are many ways to arrive at our 50/50 mode share goal. Below is one of what could be several different transit-intensive pathways to get there. Our primary objective is to track reducing our dependence on driving alone while keeping an eye on the trends of individual modes, allowing us to adjust as new solutions and options emerge during the life of the ASMP. We are always striving to reduce our dependence on the single (private) automobile to 50% or less, but there is a range of solutions to get us there.





26% of people walk, bicycle, take transit, or any other non drive-alone mode to work

50% of people walk, bicycle, take transit, or any other non drive-alone mode to work

Motivation: Public Engagement

Our community has a rich history of engaging in planning for our future. The voices of our community are our greatest assets. Planning for the Austin Strategic Mobility Plan was no different. Throughout the planning process, community engagement and interaction acted as the foundation and motivated the recommendations found in this plan.

The plan is built on the outreach efforts that developed Imagine Austin and the 2016 Mobility Talks initiative. Together with the outreach conducted throughout the two year planning process for the Austin Strategic Mobility Plan, these efforts provide a strong basis for understanding the community's needs, values, and challenges.

Since 1998, the City of Austin has engaged over 60,000 individuals through various methods in an effort to shape our city based on community desires. Imagine Austin represented the single largest public engagement effort in the city's history, with over 18,500 pieces of public input. In 2016, the City initiated Mobility Talks, a series of community conversations to gather input on our transportation challenges and priorities. The Mobility Talks survey reached approximately 7,000 people, including community members from each City Council District. An additional 52 previous plans were studied as part of Mobility Talks, forming a list of key themes and mobility considerations that have risen again and again in the past two decades. The individuals who informed these plans came from all over the city and all walks of life, each bringing a unique perspective on what is most important to consider for the future of Austin's transportation network. Their opinions, priorities, and concerns were extremely important in the development of the Austin Strategic Mobility Plan.

Through Mobility Talks, and the analysis of other engagement efforts, eight mobility goals emerged as recurring themes raised by Austin residents: Commuter Delay, Travel Choice, Health & Safety, Affordability, Sustainability, Placemaking, Economic Prosperity, and Innovation.



Commuter Delay
Reduce the amount of time workers spend traveling between home and work.



Affordability
Lower the cost of traveling in Austin by providing affordable travel options.



Placemaking
Build a transportation network that encourages social interaction through quality urban design, and connects users to the many places that make Austin unique.



Sustainability
Promote integrated designs and quality additions to the built environment while reducing impacts and promoting efficient use of public resources.



Travel Choice
Promote a balanced transportation network and the ability to make informed choices based on personal needs and preferences.



Health and Safety
Protect Austinites by lowering the risk of travel-related injury and promoting public health.



Economic Prosperity
Promote economic growth for individuals and the city through strategic investments in transportation networks that meet the needs of the 21st century.



Innovation
Draw inspiration from forward-looking cities around the world, change the way we think about what's possible, and set an example for the rest of the country.

These goals were the starting point for the Austin Strategic Mobility Plan engagement efforts which began in early 2017. In an effort to hear from community members representing the diversity of Austin, we focused on engaging groups that historically have been underrepresented in past public engagement processes. These four focus populations were:

- Youth (People 15 to 24)
- Seniors (People 65 and older)
- People with Mobility Impairments
- People of Color

In prioritizing the eight goals, responses from 1,700 community members produced the following rankings:

Priority from all participants

1. Commuter Delay
2. Affordability
3. Health and Safety
4. Travel Choice
5. Sustainability
6. Placemaking
7. Economic Prosperity
8. Innovation

Priority from focus populations

1. Affordability
2. Commuter Delay
3. Travel Choice
4. Health and Safety
5. Sustainability
6. Placemaking
7. Economic Prosperity
8. Innovation

Largely, there was agreement that Commuter Delay, Affordability Travel Choice, and Health & Safety were the top goals. One important difference that the ASMP team noted in the results was the importance of transportation affordability for the focus populations.

We also surveyed community members about three mobility scenarios to determine what the community would like transportation to look like in the future. These scenarios were:

Scenario A
Scenario A emphasized roadway projects and continued the trend of investment in public transportation, bicycle, and pedestrian projects across the city.

Scenario B
Scenario B emphasized balanced investment in roadway, public transportation, bicycle, and pedestrian projects along Imagine Austin activity corridors and within activity centers.

Scenario C
Scenario C emphasized investing in public transportation, bicycle, and pedestrian projects along Imagine Austin activity corridors and within activity centers and fewer roadway projects.

Overall, 5,774 people participated in the scenario survey and nearly 2,000 of these participants were members of at least one of the four focus populations. Below are highlights of what we heard:

- 42% of the overall population chose Scenario C as the starting point, with Scenario B as the second most popular choice. Scenario C was also the most popular starting point for the focus populations, although it was chosen by only 38% of respondents; Scenario B was again second most-popular.
- The top strategy chosen, by both the overall and focus populations, to address transportation issues was to “provide more public transit service and enhance connections to/from public transit.”
- Again affordability was important to our focus populations, as the second-most-popular strategy chosen was to "offer more choices in how we travel to reduce personal costs associated with car ownership."
- All participants had the opportunity to write open comments. Positive comments about public transportation were the most common comments received for both the overall and focus populations. More than one-third of all comments we received discussed the need or desire for more transit in the city.

With this information, we drafted policy statements and transportation network maps to share with the community as an early draft of the plan. The feedback we received on the draft policies and maps informed the final plan recommendations.

Throughout the planning process, we used many different tools and engagement techniques to hear from people across our community. We built relationships with community members and groups that helped shape this plan. However, we know that we can do more to create and foster relationships with the community and hear more voices as we move forward. Lessons learned during our engagement phases have informed our recommended next steps for public interaction and will help us to reach and learn from the Austin community as we implement the plan.



Elements of the Plan

The plan is made up of several key components and is organized by chapters that reflect the comprehensive nature of the plan. These chapters contain policies to guide our decision-making, specific indicators to measure progress toward our goals, and the actions and investments we need to make to achieve them over the next 20 years.

Indicators + Targets

Each chapter contains subchapters, each with a set of indicators that spell out our goals more specifically and will help us know how well we are achieving them. For some of these indicators, there are targets for us to work toward. For those indicators that do not have targets, one of the first actions to carry out this plan will be to identify targets. In certain cases, benchmarks, which show where we currently stand in relation to achieving that indicator, are included.

Policies

The subchapters also contain policies that will be used to guide transportation decision-making. Within the discussions of the policies, specific implementation strategies from our own community or others (nationally and internationally) that inspire us have been identified.

Actions

In addition to policies on our use of data, collaboration with our partners, and strategies for being financially sound, the *Implementing Our Plan* chapter contains an Action Table of action items, which are specific efforts for us to carry out. These actions range from programs to legislative or regulatory changes, partnerships, process improvements, capital investments, and more.

Priority Networks

While this plan does not establish a mode prioritization, it identifies priority networks. Priority networks are designated for the Roadway, Public Transportation, and Bicycle systems. Priority networks are intended to provide guidance on where special treatments should be focused through strategic improvements in infrastructure and technology.

The Vehicle Priority Network is composed of the streets that are critical to the operations of the roadway system and carry the most vehicular traffic. The focus of the Vehicle Priority Network is to improve travel time reliability and to lessen the impact of temporary right of way closures on mobility. Possible improvements along the Vehicle Priority Network include signal timing and synchronization, limiting closures of the street during peak travel times, and implementing emergency vehicle preemption technology.

The Transit Priority Network includes Capital Metro's high-frequency service and planned expansions identified in Connections 2025 and Project Connect. These corridors would carry the largest share of transit riders. The focus of the Transit Priority Network is to implement transit priority treatments to improve the speed, reliability, and efficiency of public transportation and to lessen the impact of temporary right of way closures on transit service.

The Bicycle Priority Network is a short-term all ages and abilities network based on the 2014 Bicycle Plan. The Network consists of connected, protected bicycle lanes, Urban Trails and neighborhood bikeways. Streets in the Bicycle Priority Network are prioritized for near-term all ages and abilities improvements.

Where multiple priority networks overlap, additional study will be conducted to understand each role they play along the corridor and prioritize elements where there is not an opportunity to design treatments that benefit multiple users. Where right-of-way is constrained, prioritization should be given to transit and bicycle improvements over roadway improvements for private automobiles. The project development

process will provide the opportunity to further refine how multiple priority networks are treated when they are competing for the same constrained right of way. As projects and improvements occur through the life of the plan, such as changes to high-frequency transit service or implementation of an all ages and abilities bicycle facility, the priority networks will be updated to provide the latest guidance for future project development processes.

Transportation Network Maps

Maps of the various transportation systems found throughout the document offer a vision of the possible projects the City may pursue in the next 20 years based on a variety of factors, including the evolving needs of the transportation network, engineering analysis, public input, and available funding. Some of what is shown in the maps is already in process and may be either fully or partially funded. Other recommended improvements would require further analysis, funding, and a public input process to be developed and constructed.

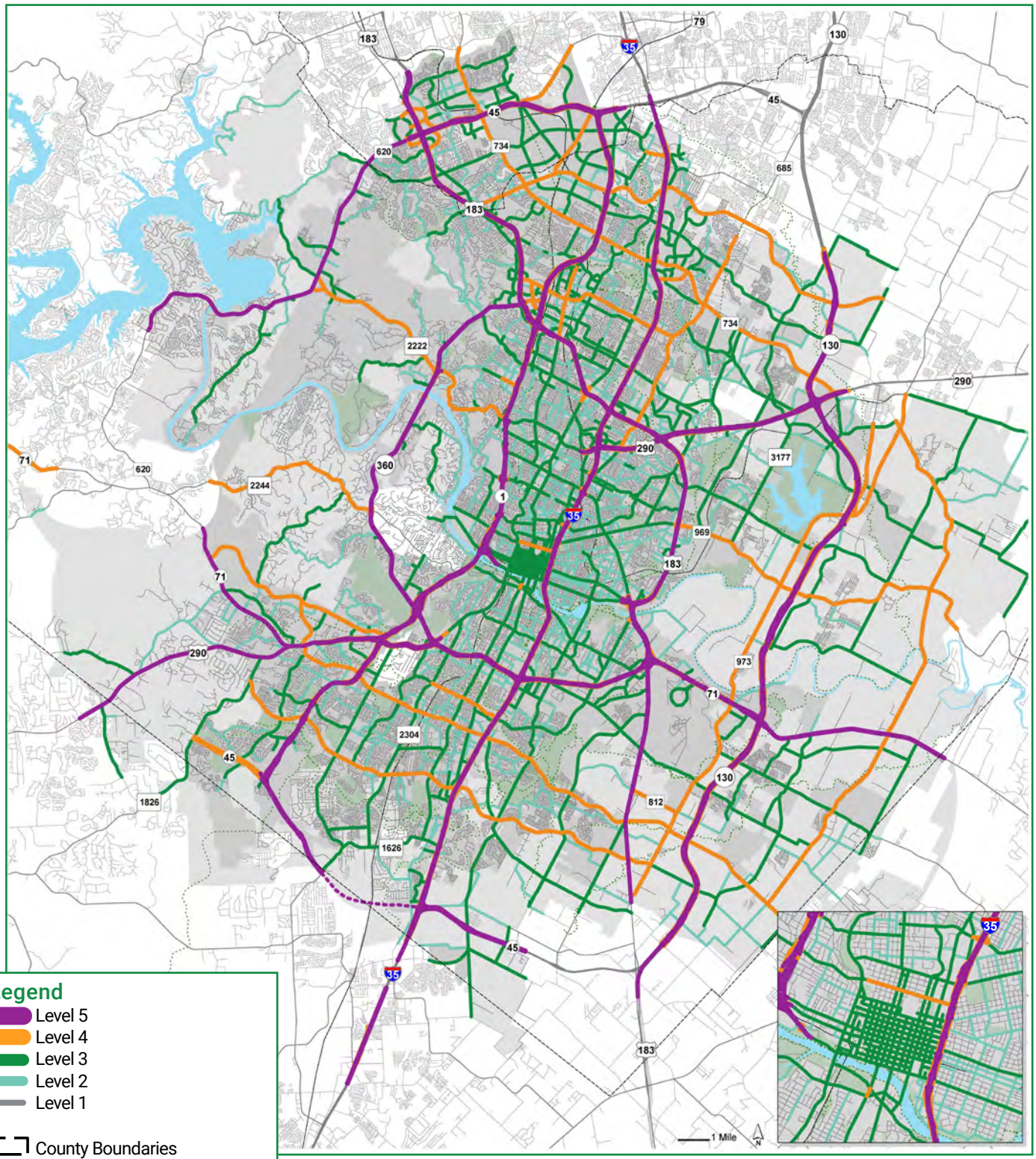
Street Network Table and Map

In addition to setting policy guidance and goals, this plan also contains an inventory of our streets and defines their future conditions to support our multimodal vision. This information is contained within the Street Network Table and Map (see Appendix B).

The Street Network Table and Map includes roads that are within the jurisdictional boundaries of the City of Austin and is used to identify right of way dedication requirements needed to accommodate future roadway conditions. These future roadway conditions are reflective of the recommended improvements in the ASMP and of updated design standards, which integrate all modes.

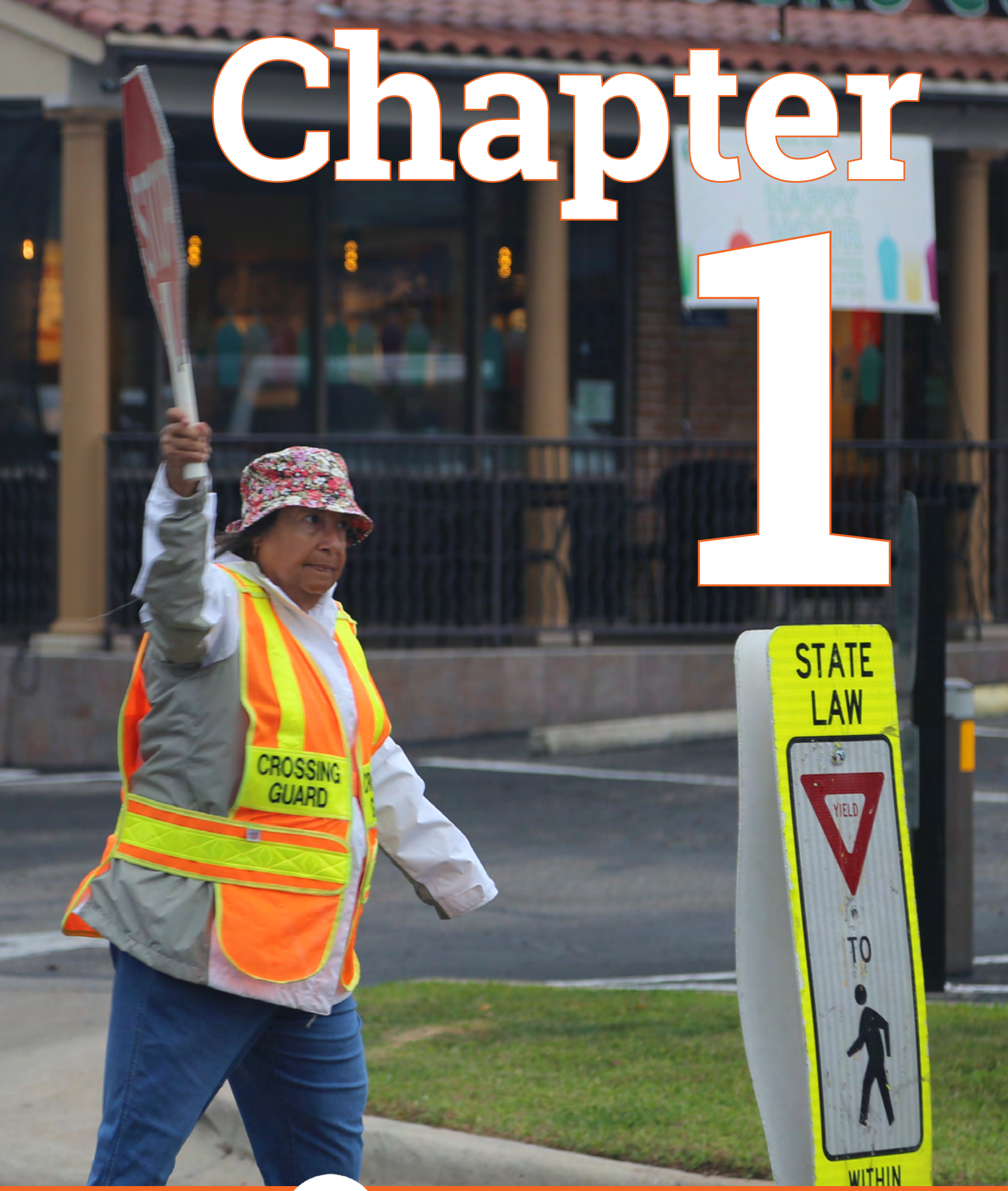
Street Network Map

ID-3



The Street Network Map includes roads that are within the jurisdictional boundaries of the City of Austin and is used to identify right of way dedication requirements needed to accommodate future roadway conditions (referred to as Dedication of Right of Way in the Land Development Code). These future roadway conditions are reflected in the Street Network Table.

Chapter 1



Prioritizing Our Safety

A safe transportation network is foundational to creating a human-centric city where everyone has safe and convenient access to employment, educational, recreational, and social opportunities. Improving transportation network safety can help achieve broader citywide goals related to public health and physical activity, access and affordability, and environmental sustainability. The policies and actions outlined in this chapter offer a data-driven and focused strategy for achieving this vision for our community.

On average, more than 70 people lose their lives on Austin area streets each year, another 450 suffer life-altering injuries, and countless other crashes and near-misses go unreported. In Travis County, motor vehicle crashes are a leading cause of death for ages 1 through 25. All told, crashes have an estimated $350 million to $500 million annual impact on the local economy. Despite these grim statistics, there is reason to be hopeful. Cities across the world, including the City of Austin, are implementing an approach to traffic safety based on the simple but powerful idea that no death on our transportation network is acceptable. Vision Zero, also known as a Safe Systems approach, holds that traffic-related serious injuries and fatalities are a preventable public health issue and that system designers, policymakers, public health professionals, law enforcement, individual road users, and others all share responsibility for improving the safety of our transportation network. The results demonstrate that countries that have implemented a Safe Systems approach have seen sharper declines in traffic fatalities than countries that have relied on more traditional approaches to addressing traffic safety.

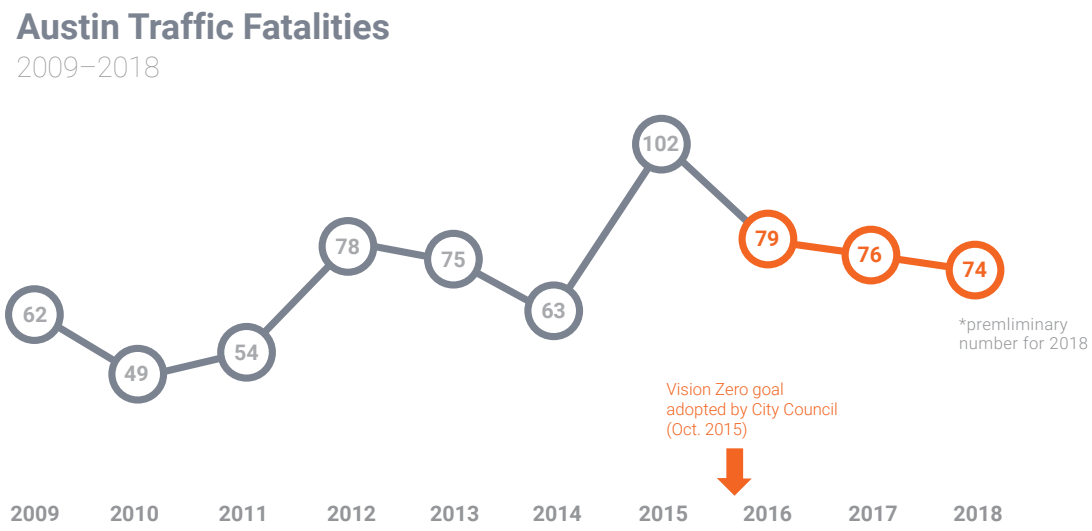
Austin's Vision Zero Commitment

The City of Austin committed to be a Vision Zero city in October 2015 when City Council amended the Imagine Austin Comprehensive Plan and added the goal of zero traffic-related fatalities in our community. This moment represented a paradigm shift in how our city approaches transportation planning, codifying in City policy the preservation of human life as the paramount priority for Austin's transportation network. In May 2016, City Council adopted the Vision Zero Action Plan, providing the city with data-driven action items to achieve zero traffic fatalities by 2025.

In just two years, Austin's commitment to Vision Zero has generated many new efforts that have set us on a new course for creating a safer city, including:

- The Transportation Safety Improvement Program, which has implemented safety improvements at 9 of the top crash intersections, secured funding for 25 more, and seen an average of 45% reduction in total crashes at locations where improvements have been made.
- The Vision Zero in Action campaign — a partnership between Austin Transportation Department, and Austin Police Department to extend the reach of enforcement against key dangerous behaviors such as speeding, failing to yield, failing to stop, and improper maneuvers.
- The completion of a Pedestrian Safety Action Plan, which offers a set of 21 action items to improve pedestrian safety and comfort citywide.
- Reaching millions of people through a multimedia educational campaign.
- Forging new partnerships with judicial professionals, public health experts, and community leaders to address the problem holistically.
- The hiring of a Transportation Safety Officer within the Austin Transportation Department to lead Vision Zero efforts.

Despite this progress much work remains to get to zero. The policies and actions included in this chapter provide a data-driven roadmap and overarching policy framework to guide Austin's Vision Zero Program into the future.



Source, APD 2009-2018

Vision Zero: A Safe Systems Approach to Traffic Safety

The policies and actions outlined in this chapter are grounded in a Safe Systems approach, taking a holistic view of the transportation network, and the interactions among and between transportation infrastructure, law enforcement, public education, individual road users and cultural norms around transportation safety. This approach starts with the understanding that humans make mistakes, and that in a complex system collisions can and will occur. Instead of trying to perfect human behavior, a Safe Systems approach seeks to improve system-wide safety by focusing upstream of the crash to impact the underlying systems and environment influencing individual behavior. Importantly, a Safe Systems approach focuses on eliminating serious injury and fatal crashes (rather than eliminating all crashes) by recognizing that there is an upper limit to the human body's tolerance for impact force, and factoring those physical limits into the design of our transportation network..

Austin's Vision Zero approach to traffic safety is based on a number of key principles:

1. Traffic-related fatalities and serious injuries are preventable.

Much like smoking or other public health issues, severe traffic crashes can be reduced by focusing on the broader environmental and societal factors, as well as individual behaviors, that lead to negative health outcomes.

2. System designers, policymakers, public safety partners, and individual road users have a shared responsibility for creating a safe transportation network.

Getting to zero requires leadership from public health, law enforcement, social service providers, transportation network designers and planners, and others to consistently engage in prioritizing systems safety through collaborative working groups and other resource sharing efforts. Clear lines of accountability with measurable benchmarks must be established to improve safety outcomes over time.

3. Decisions regarding safety strategies should be evidence-based whenever possible, and safety information should be shared openly with key partners and the public.

Use data and emerging technologies to develop a deep understanding of the risk factors that lead to severe crashes, and prioritize proven safety countermeasures to target those contributing factors. Perform routine evaluation of all safety interventions and openly share this information with the public and decision-makers to inform strategic priorities, budgets, and updates to the Vision Zero program.

4. Safety initiatives should proactively improve systems safety.

While it is tempting to only focus safety efforts on addressing high crash locations, getting to zero also requires addressing streets with high-risk characteristics to prevent crashes before they happen. Safety countermeasures and investments should primarily focus on proactively reducing systemic risk factors citywide, such as high speeds, while supplementing those initiatives with strategic efforts to address high crash locations.

5. An equitable lens should be applied to acknowledge the disparate impacts of traffic safety outcomes.

Minority and low-income communities are disproportionately affected by traffic violence. A Vision Zero approach to traffic safety prioritizes engagement efforts and safety investments in traditionally underserved communities and adopts equitable traffic enforcement practices that build in assurances against racial profiling and targeting.

High-Injury Network

The High-Injury Network (HIN) identifies streets in Austin with a relatively high number of serious injury and fatal crashes. The HIN will be used by the City as a data-informed planning tool to identify locations where engineering, education, or enforcement interventions should be prioritized to have the most impact in improving safety at high crash locations.

The HIN framework will be used in combination with analyses of systemic factors that focus on the risk characteristics of streets, irrespective of crash history, in the prioritization and implementation of safety countermeasures across the city. The HIN will be periodically updated to reflect the latest crash trends.

Austin's Combined HIN includes just 8% of the city's street network but contains nearly 70% of all serious injury or fatal crashes for all modes (2013-2017)

Methodology

Austin Transportation's Vision Zero team developed separate modal High-Injury Networks for motorcycles, bicycles, and pedestrians looking at moderate, severe, and fatal injury crashes. A separate motor vehicle HIN was developed by looking exclusively at severe and fatal injuries.[1] These separate modal networks were then combined into a single, multimodal High-Injury Network, as shown on the next page.

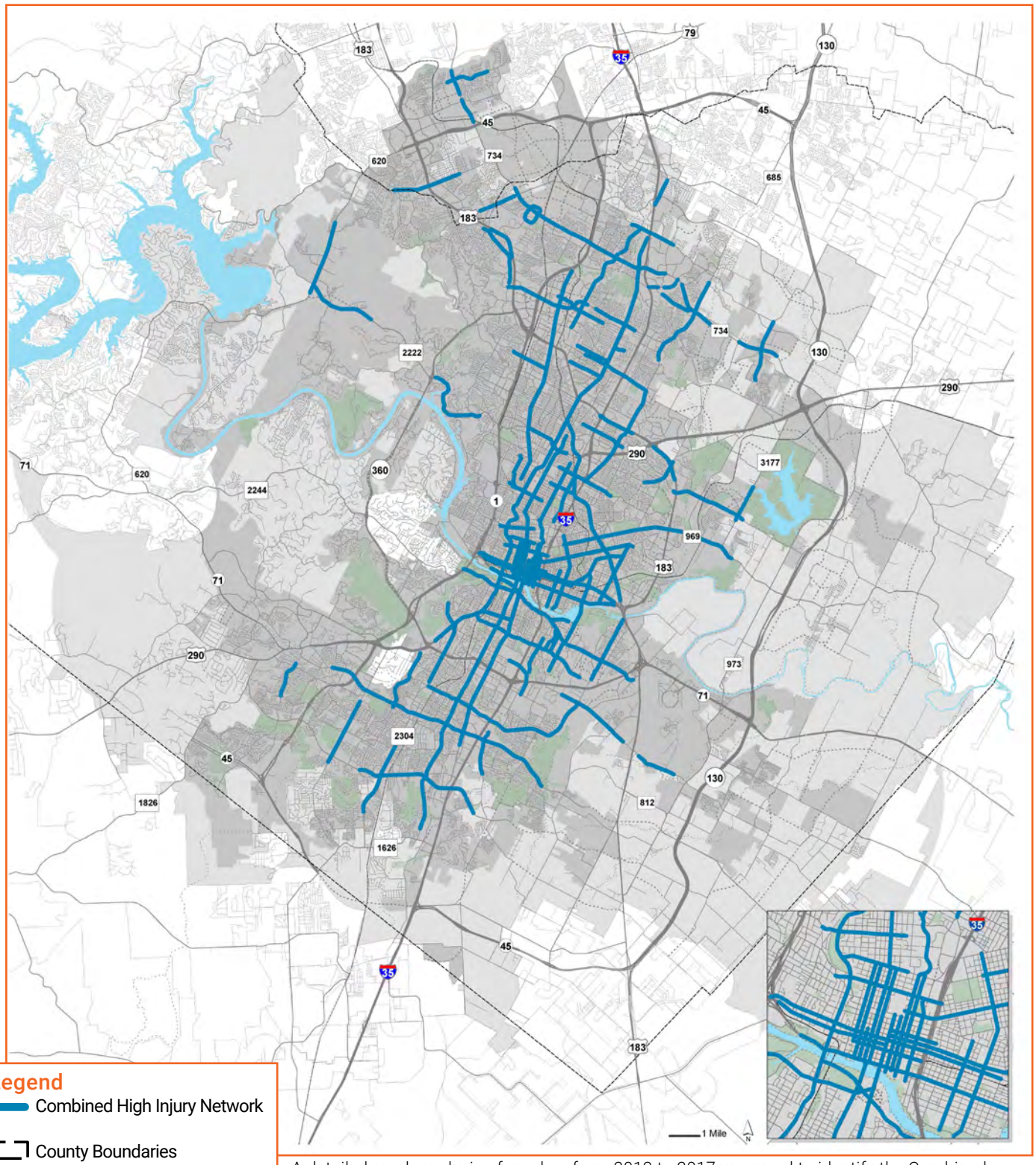
As shown below, Austin's Combined HIN includes just 8% of the city's street network but contains nearly 70% of all serious injury or fatal crashes for all modes (2013-2017).

Modal High-Injury Network (HIN)	Percentage of street network included in each modal HIN	Percentage of total crashes captured by each modal HIN	Percentage of serious injury or fatal crashes captured by each modal HIN
Pedestrian HIN	3%	62%	65%
Bicycle HIN	3%	53%	52%
Motorcycle HIN	4%	53%	59%
Motor Vehicle HIN	5%	57%	57%
Combined HIN	**8%**	**69%**	**68%**

Note that crashes occurring on access-controlled highways, such as those occurring on Interstate 35, are not included in the HIN. Including these crashes in the HIN would dramatically skew results given their frequency, which is mainly a function of increased exposure due to the high vehicle miles traveled on highways. Crashes occurring on access-controlled highways require specific countermeasures that are not always applicable to crashes occurring on city streets. Policy 5 in the Designing for Safety section provides more information on how the City of Austin will work with regional transportation partners to improve safety on access-controlled highways.

[1] Fatal and severe injuries among pedestrians, bicyclists, and motorcycles are relatively rare compared with motor vehicles, and often go unreported, meaning that the sample sizes are often small. Including moderate injury collisions, but weighting them less, compensates for the potential data shortcoming without overly skewing the data toward less severe crashes.

Combined High-Injury Network Map



A detailed crash analysis of crashes from 2013 to 2017 was used to identify the Combined High-Injury Network, which includes just 8% of the city's street network but contains nearly 70% of all serious injury or fatal crashes for all modes. For High-Injury Networks based on mode-specific crash data, see Appendix C.


CROSSING
GUARD
STATE
LAW
YIELD
TO
WITHIN
CROSSWALK

Policy Summary

Safety Culture

Policy 1 Prioritize the protection of human life over all else in the planning, design, and operation of Austin's transportation network

Policy 2 Institutionalize a culture that prioritizes transportation safety within the City of Austin

Policy 3 Optimize public safety priorities

Policy 4 Recognize the expanding needs of different users and modes on the transportation network

Designing for Safety

Policy 1 Manage for safe speeds

Policy 2 Minimize the potential for conflicts between transportation network users

Policy 3 Integrate safe design principles into the built environment

Policy 4 Improve the ability of all transportation users to see and be seen

Policy 5 Minimize the safety risks of highways

Safe Behaviors

Policy 1 Strategically implement education and enforcement initiatives around the top contributing factors of serious injury and fatal crashes

Policy 2 Align penalties for traffic violations with the severity of the offense based on traffic safety impacts



Help Austin reach zero traffic deaths

Safety Culture

Reducing traffic-related fatalities and serious injuries requires a transportation culture that prioritizes safety. As a Vision Zero city, the City of Austin must demonstrate and foster a community-wide culture that places human life at the top of our collective priorities. To achieve this goal, the City organization must lead by example and hold ourselves accountable for making continuous progress towards eliminating serious injuries and fatal crashes on our streets. It will also require the creation of a culture of openness and transparency through the collection and use of high-quality data to inform all transportation decisions. Additionally, fostering this culture will require us to better address safety in an equitable way. Past decisions about our transportation network and built environment have contributed to different communities in Austin being disproportionately impacted by traffic crashes. We must address these inequities moving forward. Finally, it will require meaningful community engagement to better understand the safety concerns of all Austinites in order to develop transportation safety solutions that respect community context. By continuing to speak with, learn from, and educate our community, we have the ability to be role models to our neighbors, make safe decisions, and not engage in behavior that increases risk and reduces safety on our transportation network. These policies lay the foundation for creating a culture that considers the protection of human life as the paramount priority for our transportation network.

> *"It seems to me that the priority of transportation should be getting to where you need to go as quickly and safely as possible. Everything else comes behind those two."*
>
> —Community Member

Indicators and Targets



Decrease traffic fatalities and serious injuries on Austin streets

Achieve zero traffic fatalities and serious injuries
(Current 5-year average is 78 fatalities per year)



Increase training of City employees on Vision Zero principles

Train 100% of newly-hired City employees and incorporate Vision Zero education into departments annually



Decrease the number of crashes involving City vehicles



Decrease the response time for emergency crews in areas not meeting current standards

Safety Culture Policy 1

Prioritize the protection of human life over all else in the planning, design, and operation of Austin's transportation network

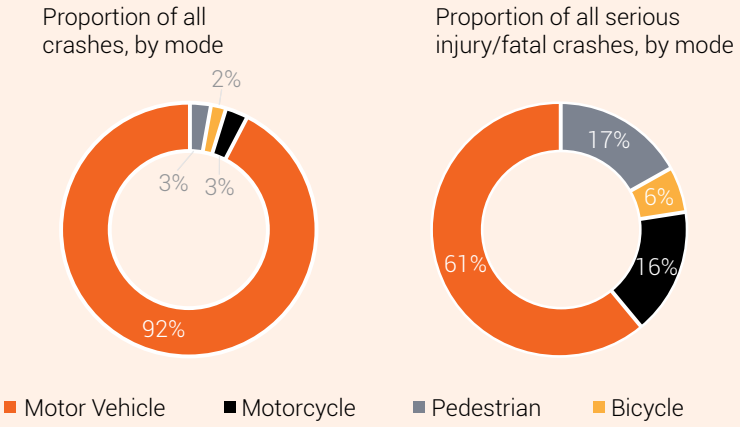
Recognize the safe limits of the human body and use that as the guiding tool when making safety decisions

The City of Austin has a duty to protect the public health, safety, and welfare of all members of our community. As a Vision Zero city, we consider traffic-related serious injuries and fatalities to be a preventable public health issue for which we have an obligation to proactively address and eventually eradicate. Prioritizing human life requires recognizing the vulnerability of certain transportation network users, such as people walking, people on bicycles or other low-speed devices, people with barriers to mobility, the elderly, the young, and people experiencing homelessness. When making decisions about the design and operation of the transportation network, we must consider the human body's ability to tolerate and survive impacts from crashes, and we must use this tolerance to guide our decisions.

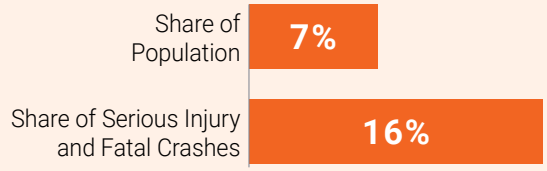


Who is most affected by severe crashes in Austin?

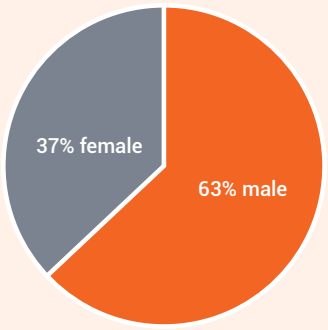
Vulnerable users make up a disproportionate share of severe crashes



Austin's Black population is substantially overrepresented in severe crashes

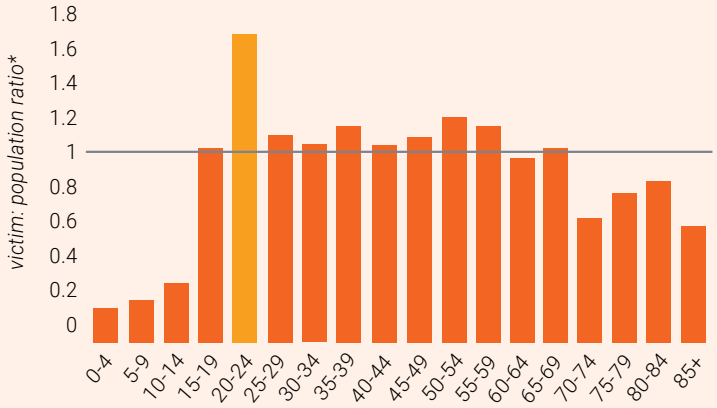


Males make up 63% of severe crash victims, but only 50% of Austin's population



share of severe crashes

Severe crash victims in the **20–24 age group** are overrepresented



**ratios greater than 1 signify overrepresentation for that age group compared with their share of the Austin population*

Data Sources:
CRIS 2013-2017, non-highway crashes
American Community Survey, 2016

"severe crash" = a crash that resulted in a serious injury of fatality

Safety Culture Policy 2

Institutionalize a culture that prioritizes transportation safety within the City of Austin

Implement plan recommendations and align policies, structures, and incentives to prioritize transportation safety across all City departments and among City employees

The City of Austin will lead by example in cultivating Austin's transportation safety culture. City staff travels our roads daily to perform their jobs, and as a major employer with a large fleet of vehicles, we have the opportunity to make a significant contribution to transportation safety. When City staff are on our network, safety must be our top priority and dictate our actions.

> *"Transportation safety culture can be defined as 'the values and beliefs shared among groups of road users and stakeholders that influence their decisions to behave or act in ways that affect traffic safety.'"*
>
> —Center for Health and Safety Culture, Montana State University, and Cambridge Systematics

Fostering an institution of safe transportation culture requires proper training programs, discipline, and incentives where needed. We can demonstrate our commitment to transportation by continuing to ensure that all staff receives training on proper driver behavior. This includes defensive driving courses and instruction on how people use different modes of transportation on the road. We can create appropriate penalties for dangerous transportation behavior while working. We can also implement programs that reward employees for demonstrating safe behaviors on the transportation network.

The City of Austin's ability to lead by example is critical for supporting the safety of the broader Austin community. In the spirit of transparency, the City of Austin must establish a culture of safety in its own institution that can be shared and followed.



Safety Culture Policy 3

Optimize public safety priorities

Manage public safety needs supported by the transportation network including street safety, emergency response, flood risk, disaster resiliency, and public health to minimize the risk of injury and death

Our community faces various risks to our health and safety—such as car crashes, fire, floods, and diseases—and transportation is integral to countering such risks. Our transportation network is vital to the mitigation of and response to these hazards, and we should work with all of the public safety agencies throughout our community to ensure that our transportation network is able to support public safety in a manner that best protects our community and minimizes risks overall.

We must do what we can to work wherever possible to improve safety and coordinate with partners to minimize the impacts of unforeseen hazards. In 2017, there were over 30,000 vehicle crashes on Austin's streets, and over 16,000 required a police report due to the level of physical damage or seriousness of the health outcome. These crashes resulted in over 450 serious injuries and 76 fatalities. Improving our community's public safety requires safe streets that are planned, designed, and maintained to minimize risk and protect human lives. While we can design for safety on our streets, we must also be aware of other risks posed by nature, such as wildfires or flooding. Agencies working to minimize these dangers, such as police, medical responders, and firefighters, rely on our transportation network to respond to incidents and provide help to our community. Emergency response also requires enhanced connectivity, so the use of devices like crash gates should be a last resort as they slow down emergency response.

Sometimes the goals for combating all of these hazards align; for example, a connected street grid benefits our ability to get around by multiple modes, public health, and emergency response, among other things. However, sometimes there are competing goals among the different agencies working to minimize risk. We believe that our community must approach public safety holistically, with a focus on creating the best outcome to minimize risk and danger to our community. When conflicting priorities arise, we must work together to develop solutions and make evidence-based decisions around policy and design that uphold the prevention of injury and the preservation of human life as the highest priorities.



Safety Culture Policy 4

Recognize the expanding needs of different users and modes on the transportation network

Consider how the transportation network is designed, constructed, and operated based on the speed and vulnerability of different users

We will work closely with all levels of government, research institutions, and the private sector to ensure the responsible deployment of new technologies in a way that enhances safety, mobility, and access for all road users. As new transportation technologies emerge, we must test how they can promote safety and mobility and determine how to safely accommodate these new modes within the transportation network. It is not always clear how and where emerging mobility solutions should be integrated into the transportation network to ensure safety for all. As these new modes are adopted, we must always keep the safety of all network users at the forefront of any planning, street design, or regulations. We must especially consider the impacts of these emerging technologies on the people who are even more exposed to hazards on our transportation network, such as people who travel by foot or bicycle.

Over generations, developments in safety have led to a comfort with prevalent modes of transportation, such as cars, buses, and bicycles. However, new modes of transportation, such as automated driving vehicles or electric scooters, require us to rethink how we allocate space and how we can integrate new technologies in our existing network safely and smoothly. Often, these modes are introduced before important safety design solutions, regulations, or safe behaviors can be determined.

We can prepare for emerging technologies by working with technology companies from the beginning and taking precautions that protect vulnerable users. Understanding new modes will allow us to develop responses and understand how we can protect users on the network. Testing and piloting technologies will give us the opportunity to examine and analyze how new technology is integrated into the transportation network and the chance to identify necessary safety precautions.

Emerging technologies offer a significant opportunity to improve the safety of our transportation network. These safety benefits will be best realized if we work with technology companies to collectively prioritize human safety, and particularly the safety of vulnerable users, in decisions regarding how these services are used and accessed.

School Safety

Austin schools are an example of where many different transportation strategies and tools are necessary to create a safe transportation network. Austin's Safe Routes to School program and Transportation Demand Management (TDM) strategies, including land use and programming, contribute to school safety. Combined, they influence the culture, design, and behaviors that are necessary to prioritize safety around our schools and throughout our transportation network.

Safe Routes to School

Safe Routes to School (SRTS) is a program whose mission is to reduce barriers that prevent students from actively traveling to school. SRTS works to reduce barriers through programs that address safety cultures and behavior, as well as through projects that address infrastructure and design. SRTS has several education initiatives. The program offers trainings for different ages ranging from toddlers through adults. These trainings show people how to safely and actively use our transportation network in many ways, from finding and using crosswalks to how to navigate on a bicycle safely. Crossing Guard training and placement is also run through SRTS. If a community requests a crossing guard, SRTS will work with local schools and their advisory committees to identify where a crossing guard would be appropriate and then train the crossing guard.

School Transportation Demand Management

TDM strategies offer schools additional tools to elevate school safety for students. Schools, as major attractors within neighborhoods and communities, draw many people to the same place in the same, narrow window of time each day. If everyone drove individually, the number of cars could overload our streets, particularly for neighborhood schools that are often located along smaller streets. Riding school buses, where they are provided, and walking or bicycling to school are TDM strategies that help reduce car use and the number of vehicles accessing our schools at one time. Implementing variable class schedules and stretching out the pick-up and drop-off times for students are other TDM strategies that can reduce the high volumes of cars at our schools.

Demand can also be better managed by providing safe multimodal connectivity to schools. A school that is sited without sufficient safe transportation access and active transportation facilities could cause traffic delays and congestion in neighborhoods as parents and buses arrive at the school. Collaboration on the criteria used to select school sites, including multimodal transportation access, can increase safety and prevent access problems in the future. We can also work with schools to increase the usage of school bus service for eligible riders to reduce driving trips.



Designing for Safety

A Safe Systems approach to traffic safety seeks to identify and address the conditions present in our transportation network that elevate the risk of serious injury and fatal crashes. These physical conditions include wide streets that encourage high speeds, lack of separation between different modes on major streets, long distances between intersections that encourage risky, mid-block crossings by pedestrians, poorly placed driveways, and inconsistent street lighting that creates poor visibility for street users. When conditions include speeding, increased pedestrian activity, or high rates of impaired or distracted driving, the risk of a crash occurring on our streets is elevated. We are working to create a transportation network that protects human life, even when individual users make mistakes; in other words, we are designing our network for safety.

> *"Pedestrian projects along corridors would allow us to safely hit our step count!"*
>
> —Community Member

Indicators and Targets



Increase the number of combined engineering, education, and enforcement strategies implemented on the High-Injury Network

Evaluate 20% of streets on the High-Injury Network annually to implement strategies to achieve safe operating speeds and conditions



Reduce serious injury and fatal crashes at locations where major capital improvement projects have been implemented

Achieve at least 40% reduction over a five-year period, on average



Increase the safety of pedestrian crossings

Implement improvements at 30 priority locations per year, at least 50% of which are on the High-Injury Network



Reduce the width and number of driveways to minimize conflicts

Designing for Safety Policy 1

Manage for safe speeds

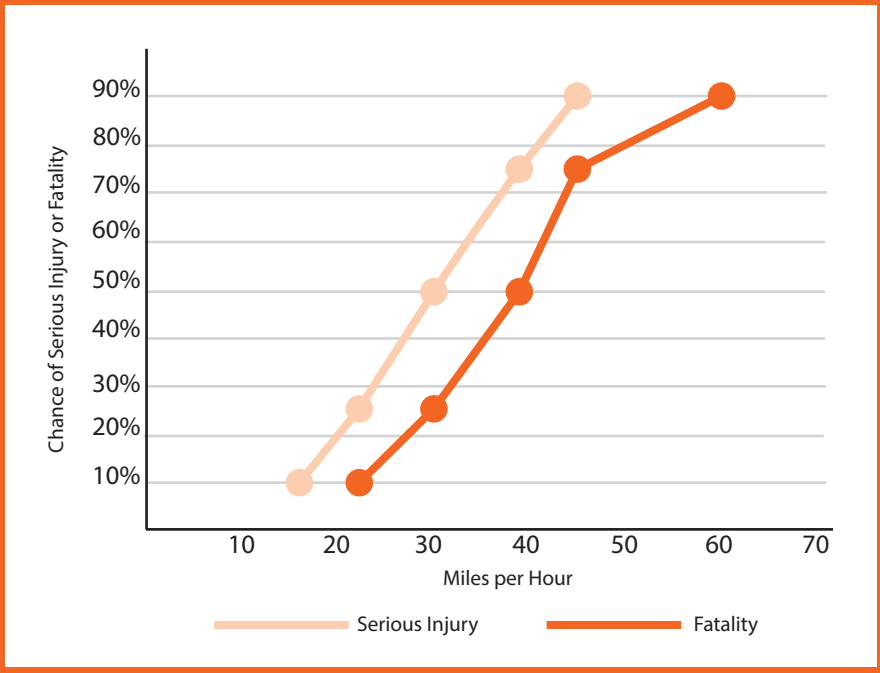
Reduce the likelihood that crashes will result in a fatality or serious injury by designing streets for safe speeds

Given the correlation between vehicle speed and crash severity, speed management is a critical focus area of Vision Zero. The goal of speed management is to minimize crashes and crash severity, using the human body's tolerance for impact force as the guiding tool.

Our approach to speed management begins with selecting safe target speeds for all streets based on their context. Target speed refers to the speed at which we want cars to drive on the street. Surrounding land uses, traffic volumes, and pedestrian activity all affect the appropriate target speed for a street. The target speeds inform the design speed, which refers to the specific geometric features or elements of a roadway necessary to achieve the target speed. We will use design criteria that are at or below the target speed of a given street. The posted speed limits are set to help communicate and reinforce safe target speeds. After setting the target speed and implementing design speeds, we analyze operating speed, which refers to the observed speed of people using the street.

Historically, many streets were designed where the operating speed influenced the design speeds and the posted speed limit. This resulted in fast drivers raising the speed limit of roads and leading to less safe design elements such as larger turning radii and wider streets. Using target speeds instead of operating speeds to influence the design speed of our streets allows our community to prioritize safety and design our streets for safety as we work to support this goal.

Chance of Pedestrian Serious Injury or Fatality Based on Impact Speed



Data Source: AAA Foundation for Traffic Safety (2011)

Speed Concepts

- **Design speed—**A selected speed used to determine the various geometric design features of the roadway.
- **Operating speed—**The speeds at which vehicles are observed operating during free flow conditions.
- **Target speed—**The desired operating speed of a street to achieve desired safety results.
- **Speed limit—**The maximum lawful vehicle speed for a specific location.

Source: Federal Highway Administration. Speed Concepts: Informational Guide. Report No. FHWA-SA-10-001. 2009

NACTO Urban Street Design Guide Recommendations

The 85th percentile of observed target speeds should fall between 10–30 mph on most urban streets. The maximum target speed for urban arterial streets is 35 mph. Some urban arterials may fall outside of built-up areas where people are likely or permitted to walk or bicycle. In these highway-like conditions, a higher target speed may be appropriate, but the use of higher speeds should generally be reserved for limited access freeways and highways and is inappropriate on urban streets, including urban arterials.

> *"At the most basic level, posted speed limits are a key communication tool influencing drivers' behavior; they send important messages about what authorities deem to be not only the legal speed, but also the appropriate speed."*
>
> —Vision Zero Network, "Taming Speed for Safety" (2018)

Designing for Safety Policy 2

Minimize the potential for conflicts between transportation network users

Prevent crashes through transportation network operations and street design that clearly communicate priorities and provide structure for safe, predictable behavior for all users

Good design invites good behaviors. By designing an intuitive and predictable network we can promote safe behaviors and prevent crashes before they occur. This means analyzing operating speeds on different roadway types and providing appropriate separation and dedicated space for each mode. It means providing adequate and reasonably-spaced safe crossings for pedestrians so that they are not forced to cross mid-block to reach their destinations in a timely manner. And finally, it means implementing low-cost, high-impact engineering countermeasures to reduce conflicts at high crash and at high crash-risk locations.



Designing for Safety Policy 3

Integrate safe design principles into the built environment

Ensure that all new development or redevelopment contributes to a safe transportation network through site design and access management

Future land development activities should reflect the current understanding of safe design principles, which contribute to a safe transportation network, and built environment. This means including standards that minimize the potential for conflicts between street users and prioritize the safety of vulnerable users in all City codes, ordinances, plans, studies, manuals, and programs governing land development.

A built environment that facilitates safe mobility will vary greatly based on context. Infill development may help create compact places, lighting increases safety for all users, and strong access management policies help minimize conflicts at driveways or in parking lots. Developing strong access management policies that address safety at entry and exit points along a roadway is a critical area of focus in this regard. The Federal Highway Administration estimates that comprehensive corridor access management strategies can reduce injury and fatal crashes on urban/suburban streets by up to 30%. We should require and incentivize reducing the number and size of curb cuts — especially those that interact with the Bicycle Priority Network — including relocating or consolidating driveways. Techniques to do this could include reducing curb cuts to minimize conflicts between modes or consolidating driveways. This means several properties would be accessed through one driveway, and requires joint use easements to allow movement into and out of the site. Raised medians, another access management strategy, can limit potentially dangerous cross-roadway movements.



Designing for Safety Policy 4

Improve the ability of all transportation users to see and be seen

Pursue lighting improvements, unobstructed sightlines, and clear pathways to increase safety for all users of the transportation network

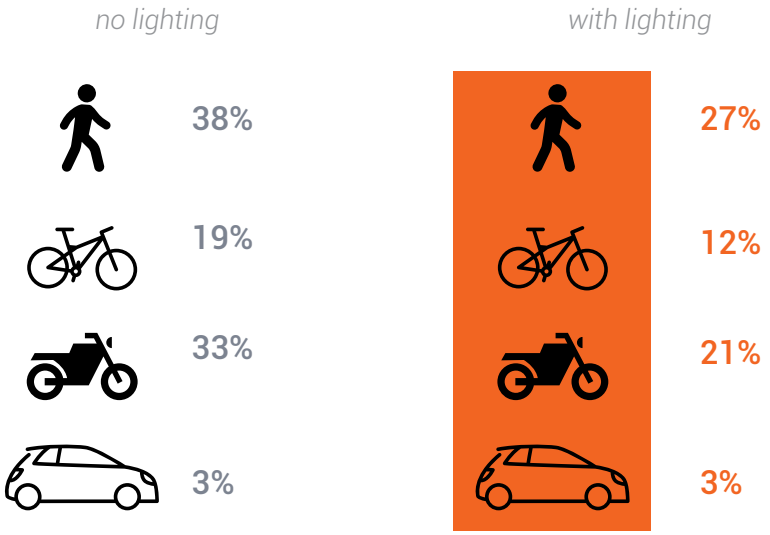
Ensuring that people can see and be seen while on our transportation network is a critical element of designing our network for safety. Visibility on our network relates to several things. Good lighting and clear sightlines, while different for people using different modes, are both important.

> *"All bus stops are currently too dark. They all need bright lighting for safety."*
>
> —Community Member

Good lighting on our transportation network is a fundamental part of a safe, well-designed network. Crashes occurring in darkness are disproportionately severe compared to crashes occurring in daylight conditions. Street lighting across our network should also be consistent at different scales. Drivers in cars need lights at certain heights and frequencies to see the street, while pedestrians have different needs to see where they are going on a sidewalk. Not only can consistent street lighting help lower risk factors across our network, but it can also improve the feeling of safety for people on our transportation network. Many people would prefer to be in well-lit areas due to the increases in both actual and perceived safety that lighting provides.

Good visibility also means ensuring clear sightlines along streets and at intersections. Properly planning and designing to ensure that trees or other vegetation do not obstruct sightlines for people entering or exiting driveways, and ensuring that all vegetation is properly maintained improves visibility. Engineering strategies, such as constructing corner bulb-outs, and enforcing parking regulations, to make sure people are parking properly in delineated spaces, will also increase the ability to see and be seen while people are on our network.

Share of nighttime crashes that result in serious injury or fatality, by mode



Designing for Safety Policy 5

Minimize the safety risks of highways

Work closely with transportation partners to ensure that the safety of vulnerable roadway users is a primary consideration in the design and operation of new highways and retrofits of existing highways

Austin's rapid growth has led to increased activity in many areas of the city that were originally designed for fast vehicular movement, particularly along access-controlled highways. While highways serve an important regional mobility function, their intersections with city streets should be designed in a way that promotes safe behaviors and minimizes the chance of severe crashes. We must partner closely with our federal, state, regional and county transportation partners to ensure that safety, particularly for vulnerable street users, is the primary consideration in new construction projects and retrofits of high-speed, access-controlled roadways within Austin.

Fatalities in Highway Crashes

Texas has the highest rate of pedestrian fatalities per fatal Interstate highway crash, as well as the highest rate of pedestrian fatalities per Interstate vehicle-mile traveled (VMT), of any US state





Safe Behaviors

While a Vision Zero approach to transportation safety emphasizes the broader environmental and social systems that contribute to severe crashes, the behaviors and decisions of individual street users play a significant role in causing crashes. In Austin, four behaviors contribute to 64% of serious injury and fatal crashes: failure to yield, distracted driving, speeding, and driving while intoxicated. We must focus on coordinated education and enforcement strategies that help people shift away from these top contributing behaviors. The policies in this subchapter also seek to advance innovative approaches toward enforcing traffic regulations and better aligning penalties for traffic violations with the severity of the offense based on traffic safety impacts.

"I would like there to be more availability to get myself and my family/friends safely to wherever we needed to be via public transport, biking, or hiking, more often, but also have the availability to still use our vehicle should the circumstances call for it."

—Community Member

Indicators and Targets



Decrease distracted and impaired driving on Austin streets

Eliminate distracted and impaired driving



Increase safety education for students and their families

Educate 50,000 students and their families annually and explore new programs with middle, high school, and local colleges and universities by 2020

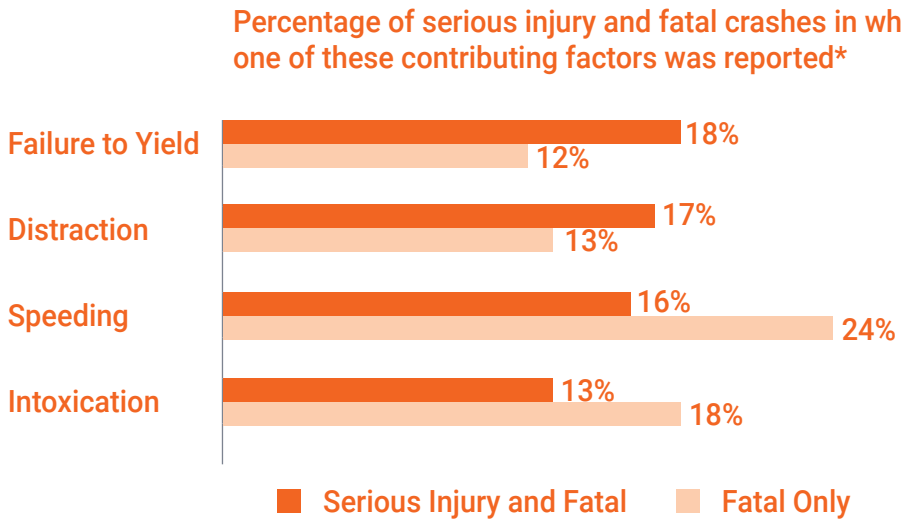


Increase targeted education and enforcement efforts on the High-Injury Network

Ensure that at least 50% of targeted education and enforcement efforts occur on the High-Injury Network

What behaviors contribute to severe crashes in Austin?

Police officers can assign one or more contributing factors to a crash in their crash report. This information provides valuable insights into some of the human behaviors that most frequently contribute to crashes in Austin. While there are dozens of potential contributing factors officers can choose from, a grouping of four factors collectively contribute to 64% of serious injury and fatal crashes in Austin: Motorist Failure to Yield, Distracted Driving, Speeding, and Driving while Intoxicated.



* Note, individual contributing factor percentages cannot be summed as many crashes have multiple contributing factors recorded.
CRIS 2013-2017, all crashes



Failure to Yield

Between 2013 and 2017 motorist and motorcyclist Failure to Yield was reported as the primary contributing factor in 18% of serious injury and fatal crashes combined, and in 12% of fatal crashes alone. Failure to Yield includes behaviors such as failing to yield to pedestrians crossing in a crosswalk or turning left across on oncoming vehicle's path. While street design plays a key role in promoting safe and predictable behavior, it is still up to individual road users to obey the rules of the road. This is especially important for people driving given their ability to inflict severe injuries on vulnerable users when they fail to yield. We seek to improve public understanding of state and local laws regarding safe travel in the right of way and implement targeted enforcement efforts to improve driver yielding rates.



Distraction

Distracted driving by a motorist or motorcyclist, including driver inattention, distraction in the vehicle, and use of mobile or cellular devices, was recorded as the primary contributing factor in 17% of fatal and serious injury crashes between 2013 and 2017. When looking only at fatal crashes, distracted driving was recorded as a contributing factor 13% of the time. Because it can be difficult for law enforcement officers to determine whether a driver was using a cell phone at the time of a crash, this behavior is likely substantially underreported. Increased enforcement of this issue is necessary to thwart the status quo and begin to change cultural norms about the acceptance of driving while talking or texting on a cell phone. We seek to address the growing distracted driving epidemic by educating the public on the dangers of driving while distracted, enforcing and strengthening existing distracted driving laws, and advancing technology-based solutions.



Speeding

Speeding was recorded as the primary contributing factor in 16% of serious injury and fatal crashes combined, and in 24% of fatal crashes alone. Speeding is likely substantially underreported as a contributing factor given the difficulty in determining the actual travel speed of the vehicle after a crash has occurred. Speeding can dramatically increase the distance needed to safely stop and make other safe driving maneuvers more difficult to perform. Similarly, small increases in speed exponentially increase the likelihood that a crash involving a vulnerable user will result in a serious injury or fatality. We seek to promote driver adherence to posted speed limits through coordinated education and enforcement campaigns and policy reforms around automated enforcement.



Intoxication

Motorist and motorcyclist intoxication was recorded as the primary contributing factor in 13% of fatal and serious injury motor vehicle crashes. When looking exclusively at fatal crashes, it was a contributing factor 18% of the time. Nationally, drunk driving crashes kill more than 10,000 people every year. Driving under the influence of drugs, alcohol, or prescription medications severely impairs a person's ability to safely operate a vehicle. We seek to eliminate drunk, drugged, and drowsy driving through coordinated education and enforcement campaigns, policy reform related to alcohol consumption, and the provision of safe transportation options.

Policy Tagline

~~Deletions~~

Additions

Safe Behaviors Policy 1

Strategically implement education and enforcement initiatives around the top contributing factors of serious injury and fatal crashes

Pair education and narrowly-focused enforcement strategies ~~initiatives~~, targeting key behaviors on freeways and high-speed corridors, with street design improvements to reinforce safe travel ~~behaviors~~ for all.

ID-4

Achieving our target of zero traffic deaths and serious injuries will require a cultural shift toward safer decisions and behaviors. Education must be the foundation of this cultural shift. We will implement city- and region-wide educational campaigns that seek to influence behavior change to encourage safer actions throughout our transportation network. We will also engage and educate specific audiences, including the media, large businesses and organizations, vehicle for hire service providers, and schoolchildren, their parents, and their educators. To maximize impacts, educational efforts will be paired with enforcement efforts and street design improvements as appropriate, using the High-Injury Network as a guide for prioritizing locations. Culturally-appropriate communication materials will be provided in various languages in order to ensure we reach all demographic groups, especially those that are most affected by traffic crashes.

Coordinating education campaigns with safety enforcement strategies will help achieve the ultimate goal of behavior change. Austin's enforcement efforts must be led by the community, informed by data, and closely monitored for equity. Using the High-Injury Network as a guide, enforcement will focus on the four most dangerous behaviors: distracted driving, intoxicated driving, speeding, and motorist failure to yield. By focusing on the most dangerous human behaviors in areas with extensive crash histories, our resources will be used most effectively and will have the biggest impact on improving traffic safety. Equity must be a central focus of an enforcement strategy to ensure that there are not inequitable disparate impacts on people of color.



Safe Behaviors Policy 2

Align penalties for traffic violations with the severity of the offense based on traffic safety impacts

Achieve positive behavior change around the top contributing factors of serious injury and fatal crashes through partnerships with law enforcement and criminal justice reform

The laws, regulations, and criminal justice policies in place today are critical to achieving positive behavior change and improving safety for all users on our transportation network. However, it is imperative that the penalties for breaking these laws reflect the severity of the offenses and support behavior change that results in a safer transportation network.

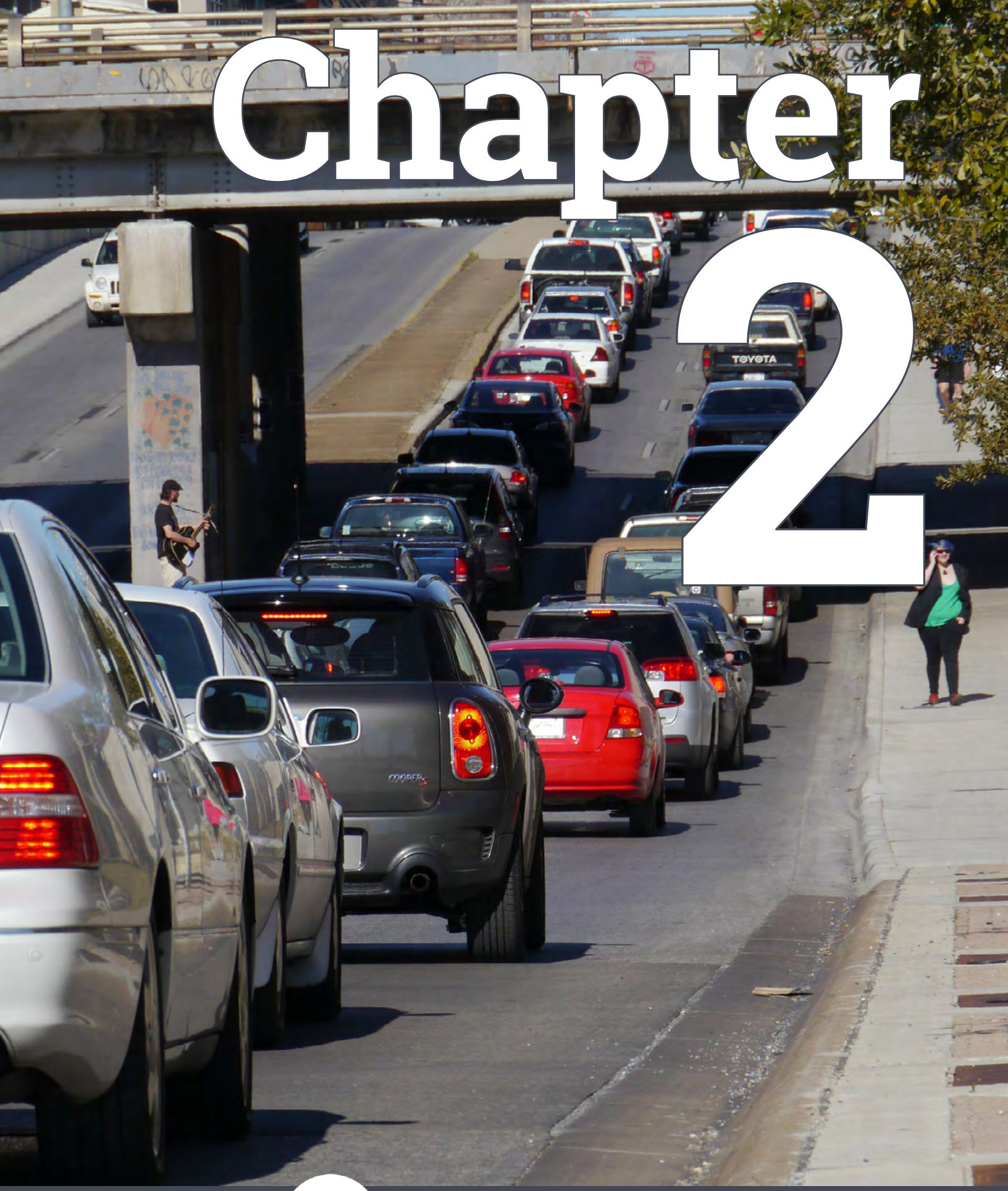
Speeding, for example, is a pervasive dangerous behavior that requires special attention from law enforcement in support of the street design strategies addressed in Designing for Safety subchapter. Without appropriate penalties and diligent enforcement, this dangerous behavior will likely be repeated and safety risks for all users will increase. One tool to explore is automated speed enforcement, a highly effective method to enforce speed limits, which is currently not allowed under Texas state law. It has been demonstrated in other states that automated speed enforcement not only catches those exceeding the speed limit, but can also deter recurring speeding violations.

Achieving positive behavior change will also require setting appropriate penalties for repeat offenders and equipping prosecutors with effective tools to secure convictions. Austin police officers have found that 19% of all reportable crashes involved people driving without a license or who had an invalid license, for example. In fact, 28% of fatal crashes in 2018 in Austin involved a driver who was driving with an invalid license or had no license. Austin's Vision Zero team will further explore the dynamics behind these and other crash trends and make data-informed recommendations to appropriately strengthen law enforcement tools, while also applying an equity lens to guard against unintended consequences.

Finally, minor offenses that do not put other transportation network users at risk, like crossing the street mid-block, should have comparably minor penalties. Offering education classes in lieu of a fine is one strategy that can help achieve positive behavior change that leads to a safer transportation network.



Chapter 2



GETTING THERE TOGETHER ASMP

Managing Our Demand

Demand on our transportation network is the use of our transportation systems. When we wish to drive our car to work or walk to the park we are signaling a desire to use that road or sidewalk; we are creating a demand for the transportation network. Rush hour, when most people are using the transportation network, is a period of high demand. When demand on our transportation network exceeds the capacity our network can supply we experience congestion.

Transportation demand is driven by several different things, and it often ebbs and flows throughout each day and throughout the year. When we need to go to work affects when we wish to travel on our transportation network. Land use also has a large influence on our demand; where and how we build our homes, workplaces, and stores dictate how we access those places. It is difficult to walk to the park if the only road available is a highway. Where we put our vehicles, whether or not we use our cars by ourselves or with people, and if we own a car at all, all affect how we move around and the demand for our transportation network.

Our transportation network is a finite resource; there is a limited amount of space in which to build or expand our network. However, the demand on our transportation network continues to grow. Historically, our urban landscape served this growing demand by focusing on supply. We would expand our transportation network's capacity through the construction of high-volume roadways. This added capacity has encouraged and incentivized car trips, most of which are drive-alone trips. However, more and larger roadways have increased the demand for our transportation network. This is not unique to Austin; new and expanded roadways have been shown to create more demand for our roads. To help alleviate the burden on what the transportation network can supply, we must focus on how we can manage our demand.

This chapter examines how to maximize the effectiveness of our transportation network. Land use planning helps us use our different transportation systems more effectively. Parking supply can influence the number of vehicle trips taken on our transportation network. We manage our curb space by determining how and when it should be used best. We also manage our demand through programming that specifically targets reducing drive-alone trips. Shared, smart mobility options make it possible for emerging technologies to reduce driving alone. Managing the demand on our transportation network is critical to most efficiently use our limited supply.


TOYOTA

Policy Summary

Land Use

Policy 1 Promote transit-supportive densities along the Transit Priority Network
Policy 2 Encourage employers to locate near public transportation
Policy 3 Create places that encourage travel choice and are connected
Policy 4 Minimize the impact of development on the roadway system by prioritizing multimodal solutions
Policy 5 Make streets great places

Parking

Policy 1 Efficiently use existing parking supply
Policy 2 Right-size future parking supply to encourage sustainable trip options
Policy 3 Coordinate on-street parking with curb management strategies for flexibility and adaptability with future parking and mobility technology

Curb Management

Policy 1 Use context to determine mobility and non-mobility curb uses
Policy 2 Manage curb space dynamically
Policy 3 Streamline objects at the curb to improve safety and mobility

Transportation Demand Management Programming

Policy 1 Implement community-wide strategies to increase use of all transportation options and manage congestion
Policy 2 Lead by example in offering, promoting, and implementing mobility options for City of Austin employees

Shared Mobility

Policy 1 Emphasize and incentivize shared mobility solutions
Policy 2 Promote seamless transfers between transportation modes and systems
Policy 3 Support the creation of Mobility Hubs



Land Use

Land use lays the foundation for how Austinites travel. Austin's historic downtown was built as a compact grid system, which allows for quick and direct access to destinations when traveling on foot, bicycle, and transit. In contrast, the sprawling development patterns seen in Austin's recent history were built as auto-centric, disconnected systems and are neither safe nor convenient for people to access using other modes of transportation. This shift away from traditional compact and connected development patterns has created an environment in which the majority of transportation infrastructure is designed for car travel, resulting in increased congestion, unsafe and impractical conditions for bicycling and walking, and challenges to public transportation's speed and reliability.

Future land use patterns must allow for more people to be able to choose to live near the places they work and play during all stages of life by requiring a mix of land uses. Allowing for mixed-use and infill development can increase access to safe and convenient transportation options beyond car travel by providing pedestrian, bicycle, and transit access to many types of nearby destinations. Creating a more compact and connected community will assist in improving Austin's affordability by reducing the necessity of owning a private automobile in order to meet one's daily needs.

> *"Progressive land use policies and affordable housing incentives on corridors and centers is essential in creating the travel patterns and transportation/ livability outcomes that we hope for."*
>
> —Community member

In comparison to low-density development, compact development can slow the loss of natural open space and agricultural lands and reduce greenhouse gas emissions associated with longer trips. Sprawling development also drives up the public costs for city services, streets, drainage infrastructure, and other infrastructure that must be continually extended to serve low-density development. More compact growth contains costs by capitalizing on the land, infrastructure, and public services already in place.

A good land use plan is also a good transportation plan, which makes it imperative that we encourage better land use and development patterns to create a more transit-supportive, multimodal, and accessible Austin.

Indicators and Targets



Increase the number of people living and working within a 1/2 mile of the Transit Priority Network



Increase the number of people living and working within a 1/2 mile of all ages and abilities bicycle facilities



Increase the number of developments contributing to transit, walking, bicycle, and shared mobility improvements



Reduce the number of drive-alone trips generated and vehicle miles traveled by new developments (by shifting trips to other modes and not by decreasing intensity)

Achieve an average 50% drive-alone trip reduction at a minimum by developments undergoing transportation analyses

Land Use Policy 1

Plan and promote transit-supportive densities along the Transit Priority Network

Use all planning tools to establish transit-supportive densities along Transit Priority Network corridors

Appropriate land use density is the foundation for efficient public transportation; dense urban areas with multiple uses including employment centers, multifamily homes, and commercial uses make high-quality transit services viable. Transit-oriented development is not just density; it is also a mix of land uses and a public realm with a pedestrian-friendly streetscape and amenities. Environments like these invite more people to live close to transit, which allows transit to run more often and connect people to more destinations.

Establishing transit-supportive densities along planned high-capacity transit is essential to its success, and to securing federal transit funding, and should be a top priority. This also aligns with established City goals to add housing near transit, especially housing affordable to Austinites with lower incomes. Certain types of affordable housing also meet Federal Transit Authority funding criteria, so affordable housing investments near the Transit Priority Network should be steered to comply with these standards when possible in order to maximize our chances of receiving Federal funding.

The Project Connect high-capacity transit routes planned in Austin run through different types of built environments, including downtown, commercial centers, already-dense mixed-use neighborhoods, and areas dominated by detached, single-family homes. Transit-supportive densities are measured for routes as a whole. Planning should be flexible to take into account the existing character of neighborhoods and community input to appropriately allocate density within transit corridors, and we must plan to achieve the transit-supportive density appropriate for the planned mode of transit. The full range of planning tools should be used to establish these densities, including zoning reviews, small area plans, density bonuses, affordable housing investments, transit-oriented development zones, and revisions of the land development code, potentially including zoning entitlements and bonuses tied to the distance from transit. The portions of the Transit Priority Network not planned for high-capacity transit should have transit-supportive densities considered in land use planning, but are a lower priority.

Other strategies to encourage this type of development include providing incentives in certain cases or enacting more permissive regulations for developments that go above and beyond base zoning requirements. Direct public investment in and management of redevelopment at major mobility hubs will ensure high levels of community benefits accompany density along the Transit Priority Network. These community benefits should include affordable housing, affordable space for arts, music, legacy and small business uses, and other amenities like green design and childcare. Bicycle facilities, sidewalks, Urban Trails and other investments that allow people of all ages and abilities to access transit should also be prioritized along the Transit Priority Network. Finally, people living downtown and near the University of Texas campus already have the lowest rate of drive-alone trips and vehicle miles traveled, and increasing density in Imagine Austin Activity Centers like these is one of the surest ways to lower those rates citywide and facilitate increased transit ridership.

Transit-Supportive Densities

Population density refers to the amount of people that live, work, or play within a specified geographic area. It is generally measured by people or units per acre. Transit-supportive density is measured as an average density across an entire corridor. This means individual segments and properties may have higher or lower densities, which helps give flexibility in planning. When enough people live, work, or play in an area, it means that public transportation serving the area can be economically, environmentally, and socially efficient.

Different contexts, including whether a place is urban or suburban, whether it is residentially- or commercially-focused, and other differences, may require different densities to be transit-supportive. Transit-supportive densities are also different for different levels of transit service; generally higher levels of service require higher density.

Within the urban and suburban contexts of Austin, Capital Metro uses context-sensitive service guidelines, based on national best practice, that consider elements referred to as the "Six D's" (destinations, distance, design, density, diversity, and demand management) that support cost-effective and useful transit service. Contiguous areas of the following densities are deemed transit-supportive and should be prioritized for fixed route bus service within walking distance (¼ mile):

> Capital Metro Residential densities of 16 people per acre* or
> Capital Metro Employment densities of 8 people per acre

**As the level of service increases to high-capacity transit, densities and other transit-supportive factors should also increase beyond the guidelines shown above.*

The City should advance the "Six D's" referenced above for the various modes of transit that will help ensure adequate ridership and achieve decreases in drive-alone trips. By achieving these transit-supportive densities and other transit supportive practices along the Transit Priority Network and other existing bus lines, Capital Metro can avoid service changes that eliminate or move routes due to lack of ridership and can support future high-capacity transit.

Land Use Policy 2

Encourage employers to locate near public transportation

Locate employment-intensive commercial zones along Transit Priority Network corridors

Most of our roadway congestion is the result of people traveling to and from work. When employers are located along corridors with high-quality and frequent transit service, employees have greater options to travel to and from the workplace, providing for congestion relief by reducing drive-alone trips during peak travel hours. These additional transit users also help to create a more robust and reliable transit network by further warranting an increase in transit frequency, making transit more attractive to other types of riders.

By properly zoning properties located near the Transit Priority Network, future development patterns will provide for efficient and reliable public transportation opportunities for people who work in Austin. We must require proper development density, including an increase in commercial, music and creative, and mixed-use developments, along these transit corridors. This can be accomplished through land planning efforts, zoning regulations, and small area planning processes to strengthen existing and future transit services.



Land Use Policy 3

Create places that encourage travel choice and are connected

Design complete communities where land use encourages convenient transportation options and all modes are integrated into the transportation network

Complete communities are places where the transportation network is made up of complete streets. These places consist of highly connected streets and pedestrian pathways, which allow for multiple travel choices. Complete streets connect people to places by encouraging walking, bicycling, and taking transit, enabling people of all ages and abilities to move around easily and safely. Certain designs and development patterns limit connectivity to neighbors, like culs-de-sac, crash gates, etc. These strategies should be used as a last resort.

> *"We need choice, connection, and safety to be prioritized."*
>
> —Community member

Land use regulations should require a proper density and mix of uses, encouraging complete communities by placing residential, employment, and commercial land uses in close proximity to one another. Regulations should also promote infill development, which provides opportunities to fill missing gaps in the transportation network. We must require transportation infrastructure for all modes to be properly constructed in conjunction with new development to be able to safely connect people to the places they need to go.

South Central Waterfront

The South Central Waterfront encompasses 118 acres directly across Lady Bird Lake from downtown. It is composed of 32 separate private properties. The South Central Waterfront Initiative promotes a vision and a set of recommendations, tools, and programs to guide redevelopment for this area over the next 20 years. The goal is to ensure that, as the area changes, every increment of change will contribute to making a great new district that:

- **Establishes a lively, safe, and attractive pedestrian environment,**
- **Expands open spaces and creates great public places,**
- **Enhances connections to and along the waterfront, and**
- **Includes 20% new affordable housing units, which is approximately 530 units.**

The Initiative's Vision Framework Plan sets a path to create a district-wide network of connected green streets, parks, trails, and public open spaces, while also ensuring appropriate density and character is retained as Central Austin develops.

Land Use Policy 4

Minimize the impact of development on the roadway system by prioritizing multimodal solutions

Safely connect people to the transit, sidewalk, bicycle, and Urban Trail Systems to offset the vehicular demand generated by development

While land development can provide assets in our community like more housing, economic opportunities, and access to services, it can also have negative impacts on our transportation network. New development can further exacerbate an already congested and incomplete transportation network, especially when historical development regulations have centered on the automobile, leaving gaps in the pedestrian, bicycle, and transit systems.

We must provide multimodal solutions in conjunction with new development to ensure that transportation impacts are dispersed among many transportation modes and that safety enhancements are constructed alongside new development projects to mitigate potential safety risks, such as connecting new sidewalks to existing sidewalks nearby. Completing these missing gaps in the transportation network for pedestrian, bicycle, and transit infrastructure during the development review process will ensure that new developments provide for more travel choices beyond driving.



Land Use Policy 5

Make streets great places

Facilitate social interaction by encouraging mixed-use developments that are served by multiple transportation modes, with active ground floor uses and welcoming public spaces

Our streets are the majority of our public spaces in Austin and can be seen as our city's largest public asset. Streets also do more than just facilitate travel from one place to another, they are places in themselves that facilitate social interaction and economic activity. The spaces between our buildings and our streets become the places where people interact with the built environment, and each other, whether that is walking on a crowded sidewalk to catch a bus or meeting a friend for coffee at a street cafe. This public space, where personal movement meets social interaction, is an important consideration when we regulate and design our land development and transportation network.

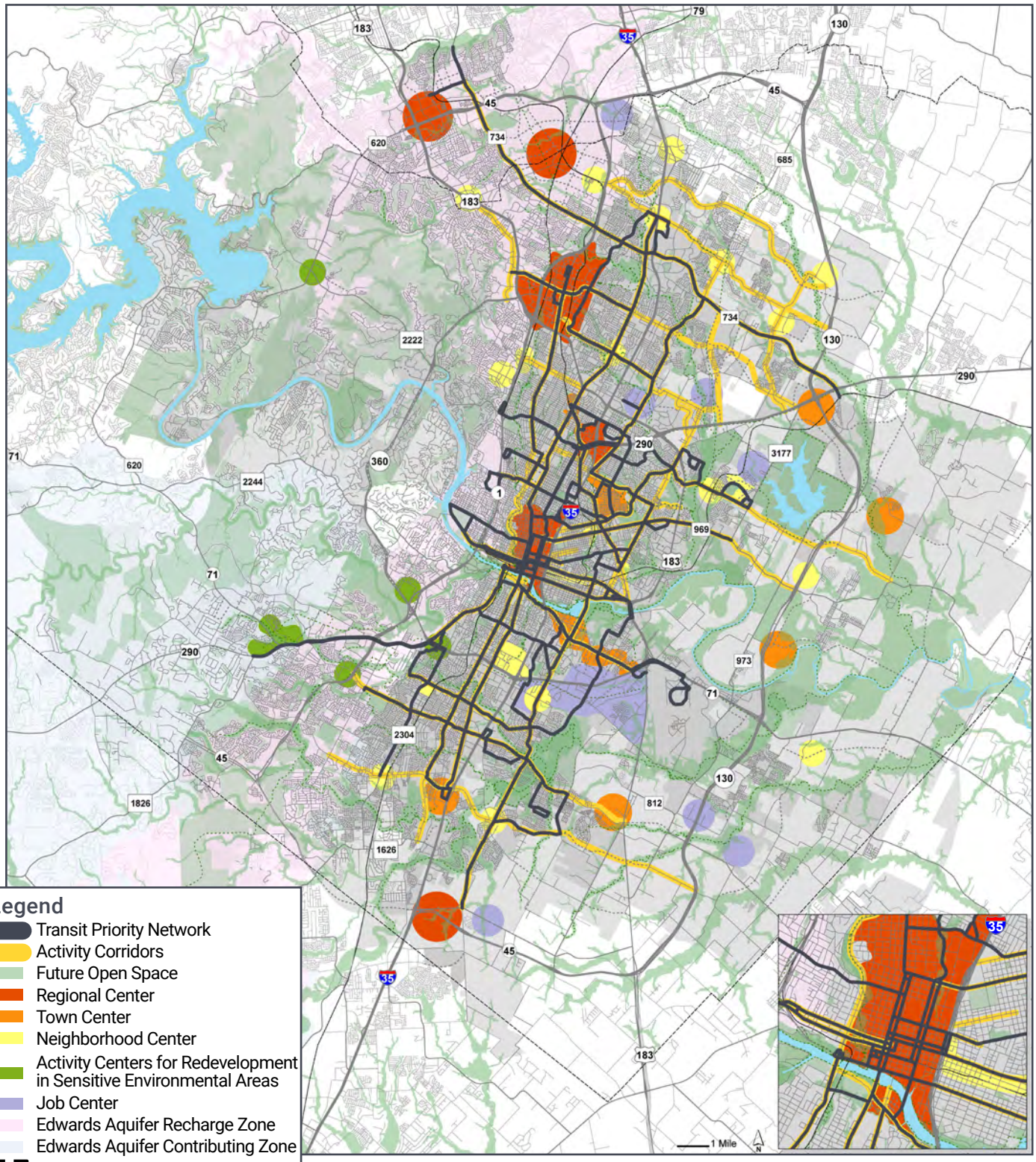
Mixed-use developments include multiple use types in close proximity to one another and follow a more traditional neighborhood design versus the sprawling development pattern historically seen in Austin. These developments allow for the opportunity to live, work, and shop within the same geographic area and provide an opportunity for livelier and better utilized public spaces. By developing a mix of uses within a more compact area, we make walking, bicycling and taking transit more attractive and easier for our community and visitors. In addition, these development types foster interaction and increase safety by increasing community awareness. Development regulations built into our land development code should require new and infill developments to utilize a mix of uses rather than a single use, encourage active ground floor uses, and require compact street design to make streets great places and facilitate safe mobility options.



Updated Map

Growth Concept Map and Transit Priority Network

ID-5



The Imagine Austin Growth Concept is supported by the Transit Priority Network, linking land use with transportation. By providing fast, reliable, and efficient transit options along these Imagine Austin Activity Corridors and into our Activity Centers we will be able to promote infill and redevelopment in these desired locations. This linkage should reduce per capita car use and increase walking, bicycling, and transit use. The Transit Priority Network should be expanded in the future to serve additional Imagine Austin Centers by regularly coordinating with Capital Metro during transit service plan updates and service changes.





Parking

Effective management of parking can improve mobility, safety, the environment, and affordability. Parking management is closely tied to land use regulations and curb management practices, and as such, they should both be written to encourage better parking management. Land use regulations should be written to ensure new developments accommodate different travel options, not just people in cars. Parking requirements should focus on maximums instead of minimums, and parking spaces should be offered to buyers and renters separately from rent or housing purchase, a practice known as "unbundling."

> *"It is time to diversify surface lots and ground floor parking amenities to help promote a vibrant street culture."*
> —Community member

Parking management could incorporate innovative curb management techniques to help reduce congestion, such as technology that alerts drivers to available spaces so they are not adding to traffic by circling in search of parking spaces. Properly pricing public parking at market rate could also help ease congestion by evenly distributing the demand across the parking system and making other travel choices attractive to more users. Flexible curb use could also enhance mobility by allowing various purposes for parking spaces during different hours of the day, such as valet parking, ridehail pickup and drop-off locations, or as public spaces such as parklets.

Parking management strategies can help shift community preferences from drive-alone trips to multimodal ones through innovative coordination of public parking spaces, enhanced transit options, and adjusted parking costs that reflect the true cost of driving. To assist these strategies, we need land use regulations that allow right-sizing of parking requirements and encourage off-site and shared use parking. Stronger enforcement of our parking regulations, whether a car has overstayed a meter, is parked in a travel or bicycle lane, or is illegally occupying an accessible space, is necessary to further help shift travel preferences from drive-alone trips to multimodal travel.

Indicators and Targets



Increase the availability of managed on-street parking

Target an average 85% parking utilization for managed on-street parking



Increase real-time information on space location and availability



Decrease the amount of parking spaces per capita



Increase the availability, distribution, and percentage of parking in Imagine Austin activity centers and along activity corridors that is accessible



Increase the percentage of developments that reduce parking

Parking Policy 1

Efficiently use existing parking supply

Implement flexible parking management strategies to leverage existing parking supply, both on-street and off-street, to help manage demand and decrease impacts on the transportation network

> How we manage our parking supply drives demand for motor vehicle use and directly affects the number of drive-alone trips.

Efficiently managing parking supply will ensure that the impact of parking is minimized on the transportation network. Driving around in search of parking contributes to congestion and can be a frustrating experience. For example, downtown Austin has an abundant parking supply both on- and off-street, yet parking availability challenges continue to persist. While on-street parking is certainly more affordable per hour than off-street parking, there is less on-street parking available and off-street parking sits unused. We must use parking management strategies to correct this imbalance, such as with performance-based parking that allows prices to be set that encourage specific availability targets for on-street parking. This management tool helps distribute parking demand across the parking supply, encouraging people to park based on their needs and location and not just where it is the cheapest.

Shared parking is another management strategy that opens up existing parking supply to be used for more than one use. In downtown Austin, one out of four off-street parking spaces is reserved for a specific private use, yet it sits unused during the busiest times of the day. An office that operates only during the day could make its parking publicly available in the evening hours. Allowing this existing parking supply to become available for public use increases our total parking supply at a lower cost than building new parking.

Shared parking should be encouraged both downtown and throughout the city, especially in commercial and mixed-use districts, by reducing regulatory barriers to shared parking and integrating existing on-street parking into more holistic district parking systems. Existing programs that restrict on-street parking for specific commercial and residential uses should be reevaluated and modernized to support our multimodal transportation network and reopen the right-of-way to the public. By directly managing demand on parking, encouraging more travel choices beyond driving, and decreasing impacts on the transportation network, these parking management concepts have potential impacts that extend beyond the limits of downtown.



Parking Policy 2

Right-size future parking supply to encourage sustainable trip options

Assess, design, and implement location-specific parking that takes into consideration surrounding network capacity and supports increased multimodal and environmentally-friendly travel choices

Minimum parking requirements have resulted in an overabundance of parking in many locations throughout Austin and have continued to encourage people to drive to their destination. These parking spaces are expensive to build and maintain, and promote automobile use even when short trips can be easily accessed by walking, bicycling, or by taking transit. More efficient use of our land should be considered when building new developments and when remodeling older properties.

Zoning codes should be modified to: reduce parking requirements; promote shared and off-site parking among neighboring properties; utilize unbundling of parking in conjunction with site-specific TDM plans; and to support walkable, mixed-use developments to lessen the need for parking. Unbundling of parking, for example, would help manage demand on the transportation network by only providing parking for those who use it and decrease project costs for the creation of affordable housing. Affordable housing, creative and music venues, and small, local businesses in neighborhoods especially would benefit from reductions in parking requirements.

Parking supply should be more actively coordinated on district levels to support adequate parking, particularly in commercial and entertainment districts. Reducing regulatory barriers to shared parking strategies and encouraging holistic, district parking strategies can help meet current needs for parking access while reducing the portion of built space used for parking. By right-sizing the number of parking spaces provided in the future, we can use our land more efficiently to allow for sustainable transportation and more welcoming places.



Parking Policy 3

Coordinate on-street parking with curb management strategies for flexibility and adaptability with future parking and mobility technology

Consider the needs of evolving transportation options when assessing the best use of parking spaces to accommodate all uses and modes

On-street parking should be coordinated with other uses of the curb to ensure the most appropriate use for certain times of the day. We can maximize the use of our existing parking supply by reducing demand using curb management strategies that prioritize mobility. The flexibility of on-street parking spaces can also allow for creative placemaking activities, such as sidewalk cafes and temporary park installations. On-street parking can also be used for ride-hailing pickup and drop-off, bicycle parking, commercial deliveries, and trash collection. The flexible use of on-street parking areas must be incorporated in a context-sensitive manner to ensure all users of the right of way have the opportunity to utilize this important public space.

Street Patios

Street patios are an extension of pedestrian space that enlivens the public realm. Also known as "parklets," street patios are converted parking spaces adjacent to businesses and leased for retail uses. Austin City Council directed the creation of the street patio program, which is overseen by Austin Transportation. In 2014, street patios were incorporated into the City's temporary sidewalk café permitting process.

Street patios support local businesses and economic vitality, create a sense of place for neighborhoods and business districts, beautify the streetscape, and create walkable destinations for pedestrians. By creating a people-oriented amenity in street space previously dedicated to vehicles, street patios are a cost-effective way for the City to partner with local private businesses to achieve our mobility goals. Although private businesses currently fund, operate, and maintain street patios, in the future we could also convert additional spaces to operate as public pocket parks.



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Curb Management

ID-6

Curb management is the flexible and efficient use of the public space ~~between building fronts and the vehicular travel lanes~~ along street edges; this is the space in which the movement of people and goods meets access. In order to utilize public curb space efficiently, clear guidance is needed to ensure curb management strategies are available to allow all users of the public realm adequate space in which to carry out their daily needs.

> *"Buses must have pull over areas so the lane can be cleared for cars or bicycles."*
> —Community member

Curb space activity encompasses an array of uses, many of which occur simultaneously and can be in conflict with one another. The following are examples of the diverse activities which occur within this public space: vehicle parking and loading; bicycle parking; transit service, shuttle, pedicab, taxicab and ridehail pickup and drop-off; trash, recycle, and compost pickup; emerging shared mobility options; wayfinding; sidewalk cafes; parklets; traffic control devices; and vegetation like trees and rain gardens. However, many activities performed within this space can be effectively coordinated to occur without conflict and with greater efficiency while also enhancing the public realm and promoting the seamless integration of mobility options.

Indicators and Targets



Reduce the number of conflicts between parking and bicycle lanes



Reduce congestion on streets that incorporate curb management strategies



Increase the number of bicycle and shared active mobility parking spaces



Increase the number of parklets and active placemaking opportunities



Increase the productivity of curb space to serve more people per hour



Reduce the number of crashes associated with conflicts at or along the curb on streets that incorporate curb management strategies

Curb Management Policy 1

Use context to determine mobility and non-mobility curb uses

Identify the most appropriate uses for curbs by considering mobility, safety, street type, surrounding land use, and location

Appropriate use of curb space varies depending on location, time of day, travel demand, and, most importantly, public safety. Additionally, geographic and land use contexts determine differing curb space needs and differing levels of management complexity. Context consideration is important for identifying the most critical uses of the curb. For example, areas within the downtown core require multiple coordination efforts to safely and efficiently allow various activities to occur within the same curb space throughout the day. In contrast, curb space located along less traveled streets may require fewer uses to occur, and therefore mean that coordinating these uses is less complex. However, both examples involve context-sensitive issues and can equally affect safety and mobility if managed incorrectly. In addition to location and land use, time of day should be considered, as peak travel times are associated with greater demand for mobility than off-peak travel times. Overall, when determining the appropriate use of curb space, safety and mobility needs are at the forefront and will need to guide curb management practices.

Without a doubt, the curb in an urban setting is more valuable than ever before due to all of the demands placed on it by various sources. As such, its value should be consistent with the policies that govern it and the associated pricing structure.

National Example: Washington D.C. Pick-Up and Drop-Off Zones

The District of Columbia's Department of Transportation (DDOT), in coordination with private ride-hailing companies and local business improvement districts (BIDs), recently implemented new pick-up and drop-off zone pilots following a successful pilot in the Golden Triangle Nightlife BID. The pilot was implemented when businesses in the area noticed increasing gridlock and safety concerns occurring during nightlife hours, much of which was resulting from ride-hailing passenger pick-up and drop-off.

After rounds of data collection and public input, the District piloted new curb management restrictions in the three-block area with the highest concentration of nightlife venues. New parking signs were used to communicate a prohibition of on-street parking between the hours of 10 PM and 7 AM from Thursday night to Sunday mornings, and ride-hailing companies agreed to share anonymized data of pick-ups and drop-offs in the area during the pilot.

The District saw a reduction in conflicts between pedestrians, vehicles, and cyclists because passenger and commercial loading now occurs directly at the curb, rather than in travel lanes. The success of the pilot has led to the implementation of 24-hour passenger and commercial loading zones in five more high-demand areas throughout Washington, D.C.

Curb Management Policy 2

Manage curb space dynamically

Flexibly allocate curb space to adapt to different uses and users

Flexible curb use is key to accommodating the dynamic needs of the different uses and users of the curb. By allowing and planning for flexible uses, curb space can be utilized more productively throughout the day. Depending on the context, different demands are created for the use of the curb at different times of the day. Just as it is important to differentiate between mobility and non-mobility uses of the curb, we must differentiate within the types of mobility and non-mobility uses. Mobility uses facilitate the movement of people and goods, whether it is walking, bicycling, taking transit, or driving. Each of these mobility uses has its own spatial and temporal needs to facilitate safe and efficient travel.

Non-mobility uses include different types of access for people and fixed uses of the curb. This non-mobility space for access is constantly changing throughout the day between people arriving at their destination and then leaving. Non-mobility uses for access can include passenger loading and unloading zones, transit stops, taxicab zones, short term parking for customers, and commercial loading zones. Simply put, when the curb is dedicated to these uses, it sits inactive between uses, which can be brief moments when demand is high and extended periods when demand is low. As a result, the productivity of these uses can range from very efficient to very poor, depending on the time of day.

Understanding when the periods of high and low demand are will help determine the flexibility of that curb space. Non-mobility, fixed uses of the curb can include long term storage of vehicles, reserved or prohibited uses, and sidewalk cafes, parklets, streetscaping infrastructure, and green space. These fixed, non-mobility uses are often seen as the least productive when compared to how many people they serve, but are important when considering the context and in promoting the pedestrian realm. Balancing the flexible use of the curb between mobility and non-mobility uses will be an evolving challenge as the city continues to grow and the transportation industry evolves. Developing clear, consistent programs and guidelines to allow flexible, user-centric use of and enhancements to curb space should be a key goal for ensuring flexible curb management.



Curb Management Policy 3

Streamline objects at the curb to improve safety and mobility

Coordinate the placement, number, and use of objects at the curb with natural features to realize multiple community benefits

Between considering the appropriate use of the curb and how it is flexibly managed, it is also important to remember how all of these moving or fixed parts fit together in the same space. The curb can become an overly crowded and complex space, making it an unsafe and unwelcoming environment. The challenge between appropriately regulating the space through signage and preventing a visually cluttered environment is real. Other temporary and fixed objects can add to the feeling of a public space being cluttered, such as where bicycles and scooters are parked or the placement of furniture. All of these features are necessary for appropriate wayfinding, creating a sense of place, and communicating the use of the curb, but require careful consideration within the limited right of way.

There are several steps we can take to confront these challenges. Coordination and planning allow small areas, streets, or districts to create and identify specific locations for street furniture, routes for wayfinding, or locations for multimodal parking. Review and enforcement of the use of right of way can help remove existing items that are not permitted or no longer necessary, as well as reduce the introduction of too many items into one space. Thoughtful and effective planning that considers the available space, different uses, and the safety and mobility of all users will help create spaces where multiple community benefits can be realized.





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Transportation Demand Management Programming

Transportation demand management (TDM) is an approach to tackling congestion through strategies that reduce our impact on the transportation network rather than add capacity. These strategies focus on helping people use the existing infrastructure in place to walk, bike, share rides, or take public transit. They also aim to reduce peak travel congestion by encouraging alternative work schedules and telework to shift travel times. Spreading demand across time also aids in managing congestion and better uses our infrastructure.

Managing our transportation demand requires a coordinated effort of thoughtful land use decisions, parking supply coordination, curb management techniques, encouragement of shared mobility, and implementation of smart TDM programming and policies. These low-cost, near-term strategies can be deployed in a much shorter timeframe than multimodal infrastructure improvements and long-term land use changes.

> *"Increased cycling, walking infrastructure, and public transportation helps keep the city more affordable and safer by reducing single motor vehicle travel."*
>
> —Community member

TDM strategies can take on many forms. In Columbus, Ohio, all downtown employees are provided free public transit passes. In San Francisco, developers are required to incorporate TDM strategies into their projects, such as bundling transit passes into their leases, unbundling parking from their leases, or building shower amenities for bicycle commuters. In Aspen, Colorado, commuting is turned into a game and residents earn points toward local rewards for every non-drive-alone trip they take. In Austin, the Smart Trips neighborhood outreach program offers free transit adventures to teach residents how to use public transit for recreational trips (note: as of 2021 Smart Trips is known as Get There ATX). No matter the approach, TDM strategies are cost-effective solutions that aim to reduce drive-alone trips, increase public transit, walking, biking, scooting, carpooling, and vanpooling trips, shift driving trips away from peak travel times, combine trips, or reduce the need to take a trip in the first place.

ID-7

Indicators and Targets



Increase the understanding of transportation options (aside from a personal vehicle) and satisfaction of users to get around Austin (rideshare, bus/train, bike, walk, etc.), reported by socioeconomic demographic measures



Increase the share of City of Austin employees commuting by walking, bicycling, sharing rides, or taking transit



Reduce vehicle miles traveled (VMT) per capita



Increase the share of Austin residents who work at home instead of commuting to work

Achieve 15% of Austin residents who work at home by 2039
(7.9% of residents worked at home between 2013 and 2017)



Increase the share of Austin residents who carpool to work

Achieve 11% of Austin residents who carpool to work by 2039
(10.8% of residents carpooled to work between 2013 and 2017)



Increase the share of work trips that are taken during off-peak hours

(51.6% of work trips leave home between 7:00 a.m. and 9:00 a.m.)



Increase the number of people reached by transportation demand management programming

TDM Programming Policy 1

Implement community-wide strategies to increase use of all transportation options and manage congestion

Encourage sustainable modes of transportation and discourage driving alone and single-purpose trips to maximize the use of our transportation network

Our community is what makes Austin such an attractive place to live, play, and work. As Austin continues to grow, we want to ensure that people have the resources they need to travel around in a safe, efficient, and affordable manner, that also contributes to (rather than deteriorates) the vibrancy of our community. In order to succeed, we need a TDM program that creates the cultural shift necessary for our community to use our existing transportation network in the most efficient ways. Developing a TDM program also complements the longer-term capital investments discussed in other parts of this plan by providing more affordable, near-term, non-infrastructure strategies to help meet our broader transportation objectives and policies.

> *"I feel like I now have better resources to share with friends and family so we can use public transportation options together."*
> —Smart Trips participant

Our first step toward creating a strong TDM program is to become a resource for how to get around Austin. We want to work toward an outcome in which our community fully understands the transportation options available to them, and, more importantly, feels comfortable using them. Only then can we achieve the remaining policy objectives outlined in this plan. In order to do so, we must develop comprehensive educational programs and targeted outreach. TDM is not a one-size-fits-all solution, so education, outreach, and other strategies must be tailored to fit each individual user's needs. A strong TDM program will tailor strategies for: residents and their daily trips and errands, commuters/employees and their employers, students and school staff (from the elementary to university level), and visitors. In addition, the program should be combined with a strong focus on collaboration that specifically identifies how it can improve transportation equity.

This policy section will provide more detail on the following key TDM strategy topics:

- Residential-focused
- Employer-, school-, and visitor-focused
- Inter-departmental and inter-agency
- Transportation equity



National Best Practices

Columbus, Ohio
Through a partnership of the regional planning commission, transit agency, and downtown property owners, Columbus, Ohio is easing downtown congestion by offering free annual bus passes to the more than 40,000+ employees who work downtown. In addition, they run a free circulator shuttle that connects employees from downtown to a retail and commercial hub known as the Short North arts district. They also made it easier for anyone to take transit by upgrading downtown bus stops to display real-time arrival information.

District of Columbia
The District of Columbia Department of Transportation provides the community with a one-stop-shop website called goDCgo. This resource caters to residents, employers, and visitors, and provides all the multimodal transportation resources needed to get around town. The goDCgo website is also where developers and businesses can understand how to comply with TDM requirements set by the district.

Seattle, Washington
Downtown Seattle is seeing significant reductions in their drive-alone rates, while the number of downtown jobs continues to increase. TDM is a large contributor to this success. Downtown Seattle businesses invest over $100 million per year in commuter benefits for commutes other than driving alone. Many employers utilize subsidized bulk transit passes, which account for half of the daily public transportation boardings. King County Metro runs the largest vanpool program in the nation, and employers comply with a statewide commute trip reduction law.

Residential-Focused TDM Strategies

Recognizing that most trips start from home, TDM strategies that focus on residents are a key element to a strong TDM program. The Smart Trips program focuses on shifting transportation behaviors at the residential level. Following national best practice TDM programs, Smart Trips Austin is designed to engage communities to try active transportation options and shift away from drive-alone trips. The program focuses on personal interactions to educate individuals on their transportation options and to overcome barriers to active travel. Transportation toolkits are distributed to households and this educational information and incentives are further solidified through community-based active programs such as group bike rides, transit adventures, and group walking activities. Information is tailored to meet the needs and interests of each household through target segmentation, customized messaging, and one-on-one interactions with Smart Trips Ambassadors that have been hired from the neighborhood. Travel choices are measured before and after implementation to evaluate program effectiveness. Much of the success of the program relies on behavioral nudge/incentive-based programs, showing the true cost of driving, and utilizing strong local policy to demonstrate the multiple benefits of sustainable transportation modes and how these benefits align with other City policies and goals.

National Example: Transportation Wallet

The Portland Bureau of Transportation teamed up with Northwest and Central-Eastside Parking Management Districts to encourage walking, taking transit, and bicycling in the districts. Residents and employees of the district can purchase an active transportation "wallet" for 85% of the cost of a parking pass or for free in exchange for their parking pass. Included in the wallet is access to the TriMet light rail and bus, the Portland streetcar, and a membership to Portland's bike share, BikeTOWN.

The Transportation Wallet (with heavily discounted transportation options) is funded by eliminating free parking and adding surcharges to parking permits in the districts. The program also frees up parking for those whose only option is to drive to these districts. In the future, the program hopes to expand citywide, include dockless mobility options, and deliver passes digitally.

Smart Trips Austin

The Smart Trips Austin program has demonstrated a successful decrease in drive-alone car use at a local level. In addition, participants have become more aware of other transportation options and are willing to integrate these modes into their trips more often.

Smart Trips Central South Program Results



The percentage of respondents ***using transit*** three days a week or more increased 2 percentage points.

Survey respondents feel ***more aware*** of transportation options in Austin because of the program.

Drive-alone mode share ***decreased 3.7%***

Respondents made an average of ***1.4 fewer drive-alone trips per week*** after the program

Survey respondents reported ***increasing their use*** of transportation options because of the program.

> *"Just talking about using better options (than driving myself), with another person, helped me to commit to do so—at least 2 days/weekly."*
>
> –Smart Trips Central South participant

> *"I have ridden buses in other cities but had never tried the bus here. I really wanted to learn but felt intimidated to try it for the first time. A Smart Trips group bus outing to the Central Library was just what I needed! I asked lots of questions and since then I have ridden the bus every time I've gone to the Central Library."*
>
> –Smart Trips Eastside participant

Employer-, School-, and Visitor-Focused TDM Strategies

Trips generated by employers, schools, and large events all need to be managed in unique ways. Tailored programming and policies can ensure that commuters have a wide range of transportation choices, that students and staff have transportation support from their schools, and that visitors can explore Austin in a sustainable way.

An example of a visitor policy is the special events ordinance that Austin City Council passed in 2018. The Office of Special Events, in collaboration with Austin Transportation, created a framework for requiring large events to accommodate and encourage sustainable transportation options to and from events. Example strategies include requiring a minimum amount of bicycle parking, discounts for traveling sustainably, prioritizing multimodal access, creating temporary park-and-ride lots, and organizing bike rides to events.

National Example: Arlington Public Schools

In 2013, Arlington Public Schools in Virginia launched APS Go!, a community-wide, school-driven process that raises awareness and provides incentives, information, and encouragement related to walking, biking, transit, car/vanpooling, and school busing. The program, which was the first initiative of its kind in the country, focuses on the transportation needs of all students and staff while also considering the broader interests of the communities located around school sites. Arlington Public Schools developed the APS Go! initiative as a comprehensive and long-term TDM plan for the district. APS Go! is a part of the school district's efforts to proactively assess the needs of the community, respond to growth and demand, and develop forward-thinking transportation programs.

Mayor's Mobility Challenge

The Mayor's Mobility Challenge was developed as a collaboration between the City of Austin and Movability, the region's transportation management association. Movability is dedicated to working hand in hand with employers to improve the region's economic vitality by connecting commuters with mobility options that save time and money. The Challenge launched as a pilot program in 2014 in an effort to reduce congestion in Austin by working with employers to develop customized mobility plans. Since this time, over 60 employers with over 120,000 employees have pledged to participate.

One key downtown employer implemented several innovative transportation solutions as part of the Challenge. It created an employee-led Transportation Committee and worked through Movability to host quarterly "transit adventures" with the Capital Metropolitan Transportation Authority (Capital Metro). The company also developed a parking incentive plan offering monthly stipends in exchange for their downtown employee parking spaces.

How have Mobility Challenge Companies changed their employee transportation benefits and programs?*

75% of companies provided free, discounted or at-cost Capital Metro transit passes

40% of companies gave cash to employees to give up their parking spot

25% of companies increased the cost of parking for each employee

93% of companies plan to begin offering commuter benefits as a result of participating in the Mobility Challenge

**2015 - 2017 Mayor's Mobility Challenge participants surveyed anonymously (16 respondents)*

Inter-Departmental and Inter-Agency TDM Strategies

A strong TDM program will succeed with collaboration. It can be challenging to change behaviors that have been ingrained in our everyday actions. It will take a coalition made up of local and regional allies to leverage policy support and increase program outreach. Strategies should be developed and implemented in partnership with departments throughout the City government, as well as local and regional partners.

The City's current Chapter 380 Performance-Based Contracts Policy (or the "incentives policy," as it is more commonly known) incentivizes businesses to locate, grow, and hire within Austin. The new vision for the policy includes a focus on reflecting today's economic conditions and addressing current community challenges. The policy includes support for small businesses, incentives for employers seeking to hire socio-economically disadvantaged individuals, and recruiting external businesses that provide community benefits beyond jobs, including transportation. The specific transportation strategies that complement the vision of this incentives policy are included in Appendix E. Examples include locating the company in a high-frequency transit corridor and incentivizing employees' use of alternative transportation modes.

National Example: San Francisco TDM Ordinance

San Francisco's transit agency, planning department, and economic development office collaborated on the San Francisco TDM Ordinance. Its primary purpose is to reduce vehicle miles traveled (VMT) generated by new development projects. The ordinance is designed to work with developers to provide more on-site amenities that will encourage smarter travel options so people can get around more easily without a car. The intent is to shift more typical car-dependent travel practices by providing a series of development-focused TDM measures. Some strategies include offering fewer parking spaces relative to surrounding neighborhoods, supplying more bicycle parking and amenities, subsidizing transit passes, and implementing delivery services facilities.

Achieving Transportation Equity through TDM Strategies

The TDM program should also be used as part of a multi-pronged approach to help reduce inequities and alleviate affordability issues in Austin. Studies have shown that affordability is not only impacted by housing costs but also by transportation costs. Transportation can be a social equalizer. When given access to low-cost transportation options, community members can reallocate funds that would have been spent on car ownership, insurance, maintenance, and gas towards other costs of living instead.

Smart Work, Learn, Play

The Housing Authority of the City of Austin (HACA) offers a program called Smart Work, Learn, Play, which aims to connect underserved communities with various opportunities by increasing their ability to use online public services, including those that increase access to transportation. HACA's digital inclusion program seeks to put an internet connection, digital literacy training, and computers in every housing authority property. The program recruits "mobility ambassadors," HACA residents who meet other residents, provide one-on-one training on how to use various digital tools to access transportation options, and advocate for transportation improvements.

National Example: Downtown Employee Subsidies

To reduce the need to own a car, the Palo Alto Transportation Management Association (TMA) subsidizes Lyft rides for downtown employees who make less than $50,000. This allows service workers who either start or end shifts outside of public transit hours to utilize public transit on one leg of the trip, without the risk of being stranded downtown if their shift ends too late. Each month, the Palo Alto TMA pays up to $10 per ride for up to 15 rides per employee. In addition, it provides free monthly transit passes for downtown workers who make less than $70,000 per year.



TDM Programming Policy 2

Lead by example in offering, promoting, and implementing mobility options for City of Austin employees

Provide comprehensive transportation benefits to all City employees to encourage sustainable travel behaviors

The City of Austin is one of the largest employers in Austin, so the manner in which its employees commute to work and home can have a large impact on traffic conditions. For well over a decade, the City has offered commuter incentives, including subsidized vanpool and transit passes. In 2017, the City established an official commute trip reduction program called Commute Connections housed in Austin Transportation. Also in 2017, Smart Commute Rewards was introduced as a new commuter incentive program under Commute Connections.

The City of Austin is leading the way by proving that City employees can limit drive-alone trips and help in managing Austin's traffic congestion. Since 2018, the City of Austin has been recognized as one of the Best Workplaces for Commuters (BWC), offering exceptional sustainable commuting options that meet national standards of excellence. As a BWC participant, the City strives to continually improve its commuter programming by offering and encouraging employees to take a sustainable commute to work by using active transportation, carpooling or vanpooling, or taking transit. Sustainable commutes help meet the City's environmental and sustainability goals by limiting emissions and waste, minimizing consumption of non-renewable resources, and minimizing the use of land. Additional peak travel time trips are reduced through employees participating in telework, working alternative hours, and working compressed schedules.

The City collaborates regularly with several community organizations, such as Movability, the Capital Area Council of Governments, and Capital Metro with the objective of identifying and promoting the transportation solutions that best serve employees' needs. When employees commute sustainably, they inspire others to do the same, causing a ripple effect that ultimately supports better traffic congestion management and preserves air quality across the community. For example, the City of Austin should lead the way to offer parking cash-out programs (one of the most effective TDM tools) to its employees as a signal to other large employers in the downtown area. Through Commute Connections, we collaborate with TDM professionals nationwide to share best practices that contribute to building an exemplary commuter program.



Commute Connections

The Commute Connections program helps City of Austin employees understand their sustainable commute options and take action to reduce their drive-alone work trips, especially during peak travel times. The ultimate goal is to minimize the impact these commutes have on traffic congestion and air quality in our region, whether through incentives or disincentives. Austin Transportation houses staff that consistently work on developing new commuter tools and informing all City employees about sustainable commute options. These employees work with other City employees one-on-one and through department-specific commute consulting events. Additionally, several offices and departments have established mobility coordinators to promote and discuss trip reduction strategies. This structure helps expand the reach of the program and increase employee participation.

> *"As employees, we learn so much about sustainable commuting options and reducing our carbon footprint. That's not something that my former employer ever discussed or encouraged."*
>
> —Austin Public Works Employee

While Austin Transportation oversees the Commute Connections Program, several departments provide tools for employees to be successful at reducing their drive-alone trips. The City ensures that employees have access to numerous mobility services, including an online employee commute resource center, commuter training opportunities, car-sharing through Zipcar, and emergency ride home options. Many employees that commute using active transportation modes have access to bike lockers and showers. Employees choosing to rideshare may be matched with a carpool buddy at myCommuteSolutions.com or join a vanpool and enjoy a monthly subsidy. Transit riders can use a free annual pass to travel on any Capital Metro route.

Austin Transportation plans to enhance Commute Connections by developing and implementing a commute trip reduction plan that is meaningful to all City offices and departments. The plan will clarify specific actions offices and departments can take toward motivating employees to travel differently, with the intent to improve overall employee commute reduction. The plan will also provide a clear vision for program oversight that would include improved tracking, training, incentives, and accountability mechanisms. The plan is expected to house realistic and achievable goals, with data collection and analysis that will be presented in an annual progress report.

Smart Commute Rewards

Smart Commute Rewards is the incentive arm of the City's Commute Connections Program. Smart Commute offers City of Austin employees various incentives to adopt a commuting habit that incorporates sustainable transportation, even for just one day a week.

In 2017, the City of Austin launched a six-month pilot project that allowed regular full- and part-time employees the opportunity to earn leave time for logging sustainable commute trips (bicycle, walk, carpool, vanpool, transit, or telework) in a trip-logging application. Ten percent, or approximately 1,300, of the City's employees, participated in the program, logging over 86,000 trips. Over the pilot period, we saw more than 50% of participants make a positive shift to reduce their drive-alone trips, including a doubling of carpool and vanpool trips. Austin Transportation has a vision to launch a year-round version of the leave time reward, sustaining and potentially increasing the motivation of participating employees. Smart Commute Rewards also hosts a number of contests during the year to help keep individuals motivated, with prizes ranging from gift cards to travel tumblers. The effect of Smart Commute trips goes beyond just helping to manage traffic congestion. Commuters realize health benefits and gain a sense of pride in helping to preserve the environment.

The success of Smart Commute Rewards has drawn interest from organizations across the country. In November 2017, the Capital Area Council of Governments celebrated the organizations and individuals who have made significant contributions to the region's air quality at the Air Central Texas Awards. Smart Commute Rewards received the 2017 Air Central Texas Public Sector Award. In 2018, the Association for Commute Transportation awarded Smart Commute Rewards with a National Award in the commuting option category of carpool for the program's achievement of doubling carpool trips.

> *"Everybody knows that they should carpool, bike, or bus, but most times they need the extra push. The rewards program is an awesome forcing mechanism to encourage folks on the brink of changing their habits to actually make the change."*
>
> –Watershed Protection Department Employee



SMART COMMUTE REWARDS launched to City of Austin employees on May 1, 2017. The program offers employees incentives (administrative leave and prizes) for taking a sustainable commute.* Smart Commute generated some impressive 2017 statistics and received the Air Central Texas Public Sector award for its innovative approach.

Number of employees registered:

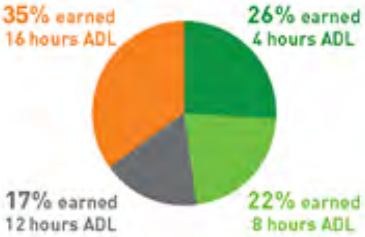


10% of the regular and civil service workforce

Administrative leave (ADL) participation: **990**



606 Smart Commute Rewards participants earned ADL



421 individuals took the survey



53% of participants made a positive shift to reduce their drive alone trips



Carpool and vanpool trips **doubled**



Nitrogen oxides reduced: **3** tons
Carbon dioxide reduced: **380** tons



Calories burned: **2,982,385**



Questions?
Email
SmartCommute@AustinTexas.gov
or call 512-974-1150.

Smart Commute Rewards

* Definition: A sustainable commute means employees leave their drive-alone habit, for even one day a week, and take a different mode to work.



Shared Mobility

Shared mobility encompasses transportation services and resources that are shared among users, either at the same time or one after another. These services can include public transportation, taxis, bike-sharing, car-sharing, ride-hailing, ride-sharing, scooter-sharing, shuttles, circulators, low-speed electric vehicles, pedicabs, and even some commercial delivery vehicles. From high-capacity public transportation, to shared and on-demand mobility services, to technology that allows our vehicles and infrastructure to be better utilized by more people, shared mobility offers many potential solutions. Whatever form it takes, shared mobility helps more people use our existing transportation network, and managing our demand this way helps to manage congestion and improve travel time reliability.

Shared mobility can have an even larger impact on our mobility landscape when it is paired with infrastructure investments, and emerging technologies such as connected, automated and electric vehicles. Integrating our resources together can decrease household transportation costs and greenhouse gas emissions, help manage congestion, and improve safety and travel choice for Austinites.

> *"Shared electric vehicles, buses, transit... Great starting point to make Austin a center for innovation and set a best practice for smart cities infrastructure and placemaking."*
>
> —Community member

We want to approach and use shared mobility technology proactively, thoughtfully, and in partnership with other public and private sector providers to advance our community's mobility goals. By connecting more people with more ways to get where they want to go safely and easily, shared mobility will be a key to meeting our mobility needs and goals for years to come.

Indicators and Targets



Increase the usage of shared mobility solutions (such as bike-sharing, car-sharing, ride-hailing, ride-sharing, scooter-sharing, etc.)



Increase the share of shared mobility trips that originate or end in areas that are historically underrepresented and underserved



Increase the coverage of shared mobility solutions



Increase the density of shared mobility vehicles



Increase the number of Mobility Hubs

Establish at least 1 Mobility Hub within a 1/2 mile of each Imagine Austin activity center



Increase the capacity of park and rides

Shared Mobility Policy 1

Emphasize and incentivize shared mobility solutions

Develop and focus robust shared mobility services and systems to provide first-mile/last-mile mobility solutions and increase shared trips on the transportation network

Promoting shared mobility has immediate community benefits of better managing our congestion, transportation costs, and emissions associated with driving alone. Individuals can benefit from having many robust shared mobility services available without needing to own a personal vehicle.

Shared mobility services that help get people from their front door to a high-frequency or high-capacity public transportation service are known as first-mile/last-mile solutions, because they make it easier to travel the first or last mile to the bus stop or train station. When shared mobility solutions work together with public transportation, more people can more conveniently connect to their destinations all around Austin. Volunteer services, such as Drive a Senior, also provide shared mobility to people who do not drive, connecting people to services in our community.

To manage the demand we place on our transportation infrastructure, we will encourage the use of shared mobility to help us improve congestion and get the most out of our roadway, sidewalk, bicycle, and Urban Trail Systems. Shared mobility comes with another benefit: increased social interaction with your family, friends, neighbors, coworkers, and people from all over the community. We emphasize shared mobility solutions not only for how they connect us to places, but for how they connect us to each other and our community.

Dockless Mobility Program

In 2018, dockless bicycles and scooters entered the Austin transportation network, providing a completely new mode of transportation for the community. There are now more than 17,000 dockless bicycles and electric-assist scooters available to use throughout the city. Since April 2018, close to two million trips have been taken on electric scooters alone. Over this time period, the Austin Transportation Department initiated a three-part management system that addresses regulation, education, and street design to best manage the relative speed and location of these micromobility devices on public right of way. This process has resulted in new rules that govern the regulation of market-driven, micromobility solutions in the public right of way, an education campaign on how to use these devices safety, and deployment of parking solutions for bikes and scooters. This work to integrate and evaluate new options in our network continues to evolve and improve. For example, in December 2018, the City of Austin partnered with the National Centers for Disease Control and Prevention to initiate the first-ever study of electric assist scooter injuries to better understand safety and injury prevention for users of this new mode. As more information is gathered through this safety study, the City of Austin will continue to adapt its three-part management model to continue integrating this emerging mobility solution while prioritizing the safety of vulnerable users.

Shared Mobility Policy 2

Promote seamless transfers between transportation modes and systems

Encourage easy and convenient transfers between transportation modes to promote multimodal solutions

A key missing piece in Austin that would help us emphasize shared mobility and manage demand is a universal source of transportation information with an integrated payment system. For many people, the convenience of driving their personal vehicle outweighs hassle caused by transferring routes or modes. The need to carry multiple forms of payment for different types of fares creates an additional obstacle. If we can reduce barriers that prevent people from choosing multimodal mobility options, we will be better equipped to manage congestion and demand.

To promote a truly multimodal transportation network in Austin, we need a seamless way to pay for transportation services, find information on routes and schedules, learn about potential delays, and transfer between one trip or mode and the next. Strategies we can pursue with public and private partners to promote these seamless transfers include technology applications for smartphones and integrated fare cards. This integrated strategy could also include a matching service to help people join carpools or to share personal vehicles with other community members. Although a universal app and payment method would help create seamless transportation transfers for many Austinites, we will also need to find additional solutions that allow community members without a smartphone or bank account to be able to use our transportation network fully.

By promoting more convenient ways to access and use all the transportation options Austin has to offer, affordable options become easier to access and use, which can help reduce a household's transportation costs. When more people can use more transportation options more easily, and fewer people need to own and drive personal cars, we can better reach our goals of improving affordability and travel choices while managing congestion.



Shared Mobility Policy 3

Support the creation of Mobility Hubs

Support and develop Mobility Hubs of different scales to serve as connection points between public and private transportation services and multimodal transportation options and to provide diverse amenities for families and users of all ages and abilities

Mobility hubs play a vital role in the network by facilitating safe and easy connections between shared travel modes, as places for people to switch from a personal vehicle to a shared mobility service. Mobility hubs are more than a typical transit station or park-and-ride facility. They create welcoming and attractive civic spaces for travelers that include amenities, information resources, and a variety of both public and private transit services. Mobility hubs can be coupled with placemaking efforts, creating safe, accessible and connected places for people to engage with fellow passengers and the wider community.

By creating mobility hubs integrated with public transportation, we can offer a wide variety of first-mile/last-mile options for people to use. Some of the services located at mobility hubs could include bike- and scooter-share, car-share, access to shuttles, and ride-hailing services. Mobility hubs should also incorporate different electric vehicle charging devices for locals and visitors alike. These mobility hubs could incorporate services like package pickup so that people can pick up mail along their trips, reducing the overall number of deliveries drivers make to individual addresses.

Mobility hubs are community spaces where we can share mobility knowledge with each other. Community programming, such as repair and maintenance classes, at mobility hubs can help people learn how to care for their personal vehicles like cars and bicycles. These spaces could also empower community members to try out and use other shared mobility options, such as showing people which bus route would be best for their trip.

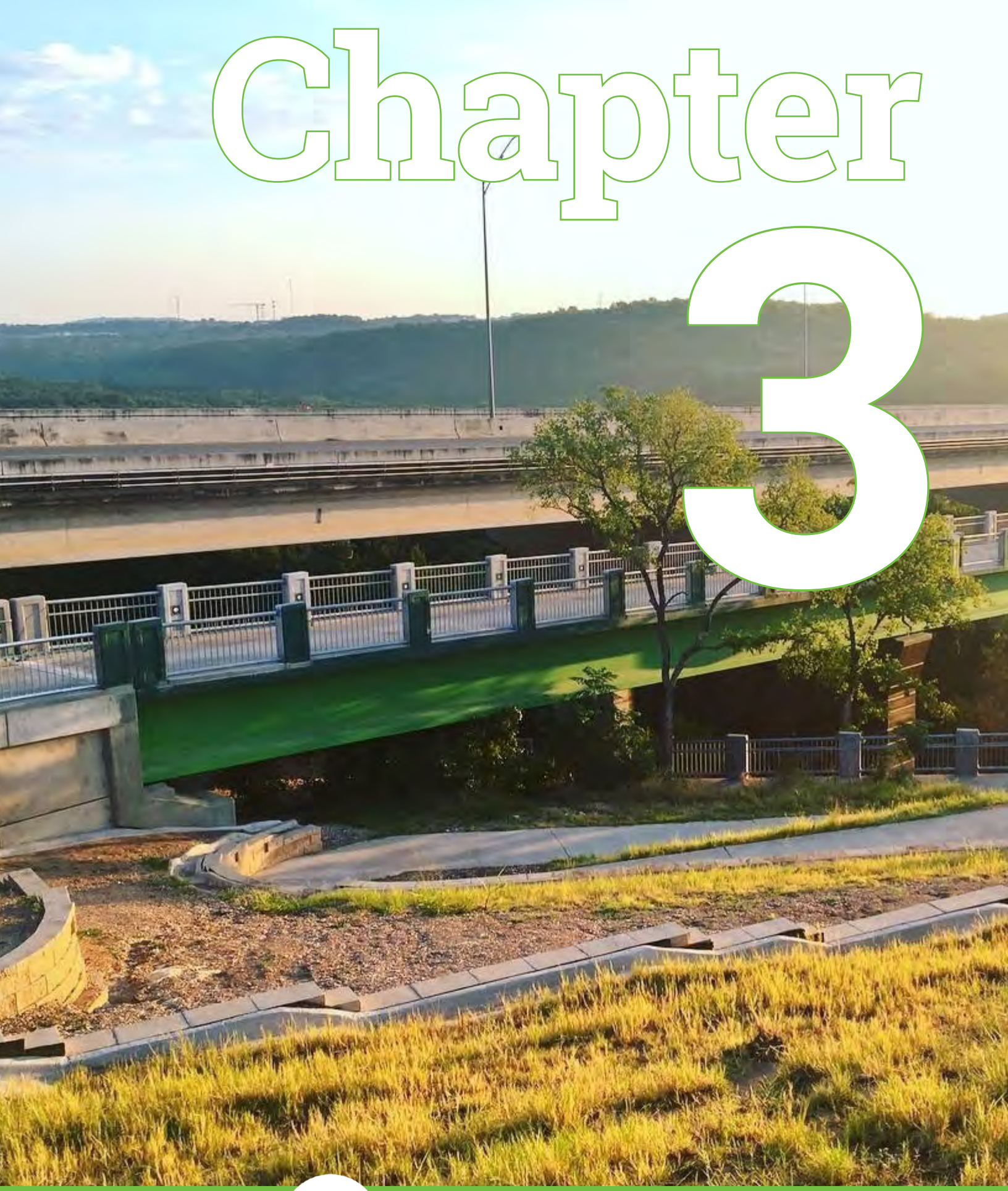
Mobility hubs must emphasize equity and access as integral design components to help guide the modes and services available at each unique location. Mobility hubs will offer a different set of services based on where they are, how many people use them, and what the needs of specific communities are, but they will all be high-quality places where we can take advantage of all the options that shared mobility has to offer. Mobility hubs should also provide diverse, family-friendly amenities.



Photo credit: Capital Metro


I'D RATHER BE DRIVING A
Titleist
6CV133
SCOOTER AND BICYCLE PARKING
SCOOTER AND BICYCLE PARKING
CITY OF AUSTIN
FOUNDED 1839

Chapter 3



GETTING THERE TOGETHER ASMP

Supplying Our Transportation Infrastructure

Austin's transportation network is made up of the infrastructure for many individual transportation systems. These systems, our sidewalks, roadways, public transportation services, bicycle facilities, and Urban Trails among others, are supplied to our community to ensure we can use our transportation network to move around our community when and how we wish.

The amount of transportation infrastructure we can supply, the amount of and width of roads, for example, is limited. Physical space and financial constraints are two major forces that limit our transportation supply, but we also know that an unlimited supply of transportation infrastructure will not solve many of the problems we face today. Larger roads with more lanes increase vehicle speeds and bring more cars to them, a concept known as "induced demand," while also increasing harmful emissions, cutting off neighborhoods and communities, reducing travel choice, and decreasing the overall safety of our transportation network.

In addition to enabling our movement, the transportation network shapes our community's physical landscape, our social expectations, and our cultural values. Decisions made in the past affect our mobility today, and the transportation decisions we make today will affect how our children move around in 20 years.

Strategically planned transportation systems that supply our network with the appropriate infrastructure, in both size and location, are what enable us to travel around our community safely, reliably, and efficiently. A complete sidewalk system is integral to connecting people, resources and opportunities across our community. Building vehicle-related improvements and expanding strategic connections both north-south and east-west are necessary to support people on our roadways. Prioritizing speed, reliability, and comfort can encourage public transportation ridership. Safe and comfortable all ages and abilities bicycle facilities and related improvements support bicycle use. Austin's Urban Trails provide transportation options that are physically separated from our streets. New transportation systems, whether they are shared micromobility options like scooters, automated driving vehicles, or something else, will expand how we provide and operate our transportation infrastructure in the future. For our entire transportation network, we must responsibly extend the useful life of infrastructure, increase its resiliency, leverage mobility improvements through capital renewal, and ensure it is available to everyone whenever and wherever they need to go. We also must recognize the growing role our airport has in our transportation network. Individual mode systems should not be considered in isolation. Rather all modes should support each other to create a strong transportation network.

This chapter presents our proposed transportation network. It builds upon the strengths that exist today but also focuses on the systems that can achieve our mobility goals over the next 20 years. The full proposed transportation network is built around infrastructure that will get us where we want to go, when we want to get there, safely and cost-effectively.



Policy Summary

Sidewalk System

Policy 1 Complete the sidewalk system
Policy 2 Make the sidewalk system accessible and comfortable for all
Policy 3 Maintain the usability of the sidewalk system
Policy 4 Ensure new development connects to the sidewalk system

Roadway System

Policy 1 Strategically provide new roadway connections and add capacity for vehicles
Policy 2 Improve travel time reliability
Policy 3 Increase the person-carrying capacity of the highway system
Policy 4 Work with regional partners to upgrade the highway system
Policy 5 Manage right of way space for all users
Policy 6 Support streets as places where people and community engage in non-mobility activity

Public Transportation System

Policy 1 Give public transportation priority
Policy 2 Enhance commuter public transportation service
Policy 3 Support local public transportation service
Policy 4 Invest in a high-capacity transit system
Policy 5 Improve the public transportation experience
Policy 6 Improve access to public transportation

Bicycle System

Policy 1 Make streets safe for bicycling
Policy 2 Complete the Bicycle Priority Network
Policy 3 Remove significant infrastructure gaps in the bicycle system
Policy 4 Provide a comfortable bicycle system with end-of-trip facilities
Policy 5 Work with partner agencies and other jurisdictions to develop a regional bicycle system
Policy 6 Maintain the usability of the bicycle system

Urban Trail System

Policy 1 Recognize the Urban Trail System as an integral part of the transportation network
Policy 2 Provide high-quality Urban Trails that can serve all users
Policy 3 Pursue opportunities to connect to and expand the Urban Trail System

Condition of Infrastructure

Policy 1 Responsibly maximize the useful life of transportation infrastructure
Policy 2 Pursue opportunities to increase mobility options during capital projects
Policy 3 Improve multimodal mobility through maintenance activities
Policy 4 Maintain the usability of all mobility infrastructure

Emerging Mobility Solutions

Policy 1 Evaluate emerging mobility solutions to meet community needs
Policy 2 Integrate emerging mobility solutions into existing transportation infrastructure systems
Policy 3 Invest in infrastructure that enables the adoption of emerging mobility technologies

Aviation

Policy 1 Expand mobility options to and from the airport
Policy 2 Increase multimodal connectivity and options on the airport campus
Policy 3 Inform visitors about Austin's mobility options
Policy 4 Prepare for and design aviation facilities to adapt to emerging mobility solutions
Policy 5 Coordinate wayfinding to, from, and at the airport



Sidewalk System

Everyone, at some point in their trip, is a pedestrian. Because of this, a complete and usable sidewalk system is necessary across all of Austin. Making Austin a more walkable city enhances our health and safety, sustainability, and economic competitiveness by improving our overall quality of life. Sidewalks also give people more options for how they move around the city. People might use sidewalks for their entire journey, as a short connection to some other mode of transportation, or for health and recreation. Since sidewalks are so critical to mobility, this makes a high-quality sidewalk system the backbone of our entire transportation network.

"I believe we must invest in additional alternative transportation including biking and pedestrian walkways."

—Community Member

We have over 2,100 miles of missing sidewalks spread throughout Austin, and it will require lots of resources to fill these gaps where sidewalks abruptly end. The Sidewalk Plan/Americans with Disabilities Act Transition Plan guides us in maintaining and improving the sidewalk system in Austin, laying out the challenges and needs of our community and the strategies we use to address them. Absent sections pose barriers for members of our community, making it difficult to access the places we go and the other modes we use to get there, like public transportation and bicycling. Missing sidewalks can cause people to use the street instead, which can lead to conflicts between vehicles and pedestrians and decreases safety.

We also have the challenge of maintaining the sidewalks we've slowly built throughout Austin's history. Our sidewalks do not function the same way today as they did when they were built, and the expected lifespan of a sidewalk is only around 75 years. As of 2016, an estimated 80% of existing sidewalks in Austin are considered functionally deficient. Clearing sidewalks overgrown with vegetation is challenging to keep up with, and preventing obstacles from blocking sidewalks requires planning, ongoing help from community members, and enforcement.

A connected and continuous sidewalk system is important to ensure that our community can move around Austin. It also provides numerous health benefits associated with active lifestyles and can help foster a dynamic public realm that makes commercial districts and neighborhoods vibrant places to be. Sidewalks are essential, and a high-quality sidewalk system will support all of our other transportation systems, providing the foundation for mobility throughout all of Austin.

Indicators and Targets



Increase the functionality of existing very high- and high-priority sidewalks

Achieve and maintain 95% functionality for very high- and high-priority sidewalks by 2026



Increase the functionality of the existing sidewalk system

Achieve and maintain 55% functionality for the sidewalk system by 2026



Increase the number of new very high- and high-priority sidewalks completed within 1/4 mile of all identified schools, public transit stops and stations, and parks, including both sides of arterial and collector streets and one side of residential streets

Complete 100% of missing very high- and high-priority sidewalks within 1/4 mile of all identified schools, public transit stops and stations, and parks by 2026



Improve the response time for sidewalk obstruction complaints



Increase the frequency of assessing the condition of the existing sidewalk system

Assess 10% of the sidewalk system annually



Increase the year-over-year miles of sidewalks constructed



Increase the share of Austin residents who walk to work

Achieve 4% of Austin residents who walk to work by 2039 (2.3% of residents walked to work between 2013 and 2017)



Increase the number of leading pedestrian intervals and pedestrian signal priority treatments

Sidewalk System Policy 1

Complete the sidewalk system

Provide a high-quality, continuous sidewalk system throughout all of Austin to meet existing and expanding demand

Sidewalks provide a safe, separated path of travel for pedestrians to get to the places they live, work and go for recreation, and provide vital connections to public transportation. They can help foster community and enhance our quality of life. The absence of sidewalks can decrease safety for pedestrians by putting them in conflict with cars. It is clear that sidewalks are an integral component of a safe and accessible pedestrian system. Walking and other active forms of transportation are also beneficial to people's health and are zero-emission ways to travel around our city.

Both the public and private sectors will be responsible for helping to complete the sidewalk system in Austin. Developers need to supply sidewalks when developing or redeveloping land, and public agencies need to construct missing sections to fill in gaps and reconstruct deficient sidewalks. To help prioritize which sidewalks to build first, the City uses scoring criteria in the Sidewalk Plan/Americans with Disabilities Act Transition Plan to rank every sidewalk in Austin. Prioritization rankings are intended as a tool to allocate limited City of Austin sidewalk resources. Just because a particular section of sidewalk is ranked as a lower priority does not mean it is not a necessary component of a complete pedestrian network.

Although we use prioritization rankings to help us know where to build and rebuild sidewalks first, we need to recognize that completing the sidewalk system is exceedingly important to reaching our mobility goals. This means we need to dedicate more resources to getting this basic infrastructure built and maintained. The demand for sidewalk investment already exists, with many community members requesting more and better pedestrian infrastructure each year. As Austin grows in the next decades, the demand for safe, quality, accessible sidewalks will only continue to grow alongside it.



Sidewalk System Policy 2

Make the sidewalk system accessible and comfortable for all

Implement sidewalk system projects and complementary transportation investments that increase accessibility to, and comfort using, the sidewalk system

Our sidewalk system is intended to be used by anyone of any age or ability in Austin. The Americans with Disabilities Act prohibits discrimination based on ability, including in transportation, and guidelines have been developed governing the design of transportation facilities to meet the requirements of this law. While the Americans with Disabilities Act is a driving factor in the design and configuration of new and existing sidewalks, the benefits of a well-designed and accessible sidewalk system can be enjoyed by the entire community. Universal design, or design that meets the needs of everyone who wishes to use it, considers the diverse needs and abilities of everyone throughout the process. From the parent with a stroller, to the senior with a walker, to the traveler with luggage, to the person using a wheelchair, everyone can enjoy a sidewalk that is accessible and comfortable. The design (and redesign) of our pedestrian infrastructure is a key component to achieving an accessible and comfortable sidewalk system.

We can also increase the comfort of our sidewalk system by adding complementary amenities. Trees, vegetation, shade structures, benches, handrails, crosswalks, signage, and many other things help pedestrians enjoy the sidewalk system while using it. These investments that support our sidewalk system should be integrated into sidewalk reconstruction projects. Transitioning all of our older sidewalks and pedestrian infrastructure to modern standards will require significant resources, but these resources are critical to expanding all of our sidewalk system to be accessible for everyone.

> *"Sidewalks would be helpful to those who need to depend on mobility scooters to be able to get to the corner store or be able to take a bus, giving them a little more independence."*
>
> –Community Member

Sidewalk System Policy 3

Maintain the usability of the sidewalk system

Proactively maintain and provide incentives to ensure our existing sidewalk system is functional and clear of obstructions

While missing sidewalks are a major concern with the sidewalk system in Austin, another and sometimes trickier problem is how to keep our existing sidewalks clear and functional. The Public Works Department is currently responsible for maintaining approximately 2,600 miles of existing sidewalks. To assess the condition of sidewalks, segments are scored A through F, based on their level of usability. Currently, only an estimated 20% of Austin sidewalks score an A or a B rating, which are considered functionally acceptable.

Vegetation impacts the usability of sidewalks by creating protrusions and obstructions that can make it difficult to get by. City Code requirements to maintain vegetation lack clarity and are infrequently enforced. Currently, the City addresses vegetation reactively by responding after community members bring obstruction issues to our staff's attention through 3-1-1. Vegetative obstruction removal costs are significantly lower than sidewalk repair and rehabilitation costs, and it is estimated that we could double the percentage of functional sidewalks in Austin from 20% to 40% if we addressed these barriers.

Other obstructions, such as dumpsters, dockless scooters, and utility poles will require increased coordination between the public and private sectors to address. A proactive approach, including clear education, incentives, and enforcement will help us all keep our sidewalks clear and usable. Implementing these strategies will dramatically increase the usability of our sidewalk system without constructing a single new sidewalk segment, and improve the quality of life and travel options for our whole community.

Vegetative Obstruction Removal Program

A proactive vegetative obstruction removal program would assess conditions throughout the City and fix problems without having to wait for a community member to lodge a complaint. It would include education for property owners about maintenance responsibilities, improved enforcement of violations, and proactive management by the City for obstructions in public rights of way. Such a program is a cost-effective strategy to help achieve a more functional sidewalk network.

Sidewalk System Policy 4

Ensure new development connects to the sidewalk system

Promote and incentivize the expansion of the sidewalk system through new development and site redevelopment

New development and redevelopment is a great opportunity to fill in missing sidewalk gaps, and to construct new segments on streets where sidewalk do not exist. Currently, by City ordinance, any new building, building relocation, or construction that increases a building's footprint by 50% or more requires the installation of sidewalks. Developers in these cases are required to either construct a sidewalk or to pay a fee in lieu. If a developer pays a fee in lieu instead of constructing a sidewalk, then those funds are set aside for future sidewalk construction in the neighborhood.

Not all development currently requires the construction of new sidewalks or the payment of fees in lieu for future sidewalks, however. A building being fully remodeled but that does not increase in gross floor area would not be held to current sidewalk installation requirements.

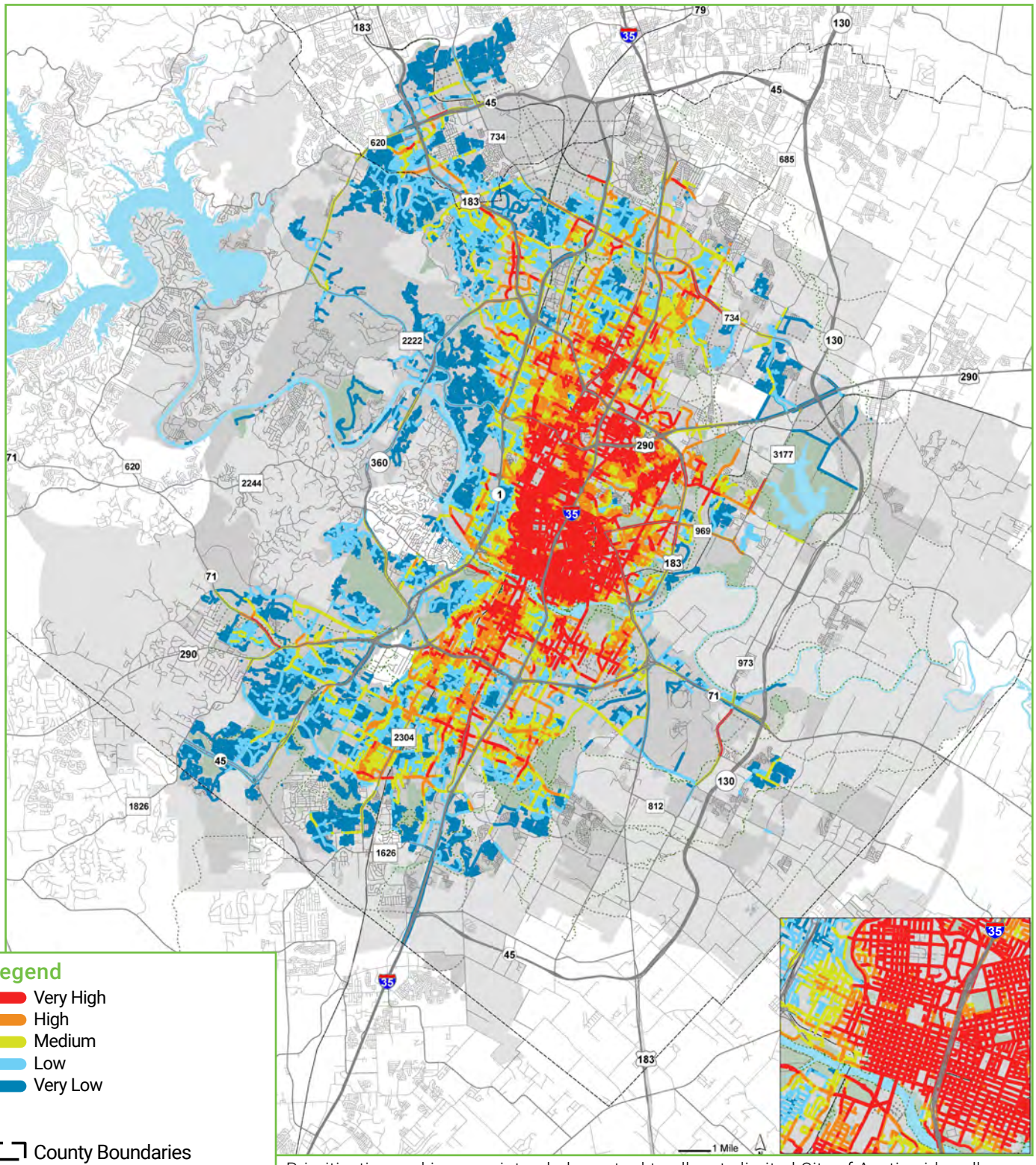
Developing strategies that require both new development and redevelopment connect to our sidewalk system will speed the completion of our sidewalk system and help us realize all the benefits that come along with high-quality sidewalks. Strategies could include requiring more types of development to construct sidewalks, or incentivizing development and redevelopment to connect to existing sidewalks. City Code could also be updated to ensure that developers upgrade existing non-functional sidewalks to increase accessibility and usability. These strategies are just some of the possible ways that development and redevelopment can help us reach a complete sidewalk network.



Updated Map

Sidewalk Prioritization Map

ID-8



Prioritization rankings are intended as a tool to allocate limited City of Austin sidewalk resources; just because a particular section of sidewalk is ranked as a lower priority does not mean it is not a necessary component of a complete pedestrian network. Consistent with City of Austin Complete Streets policies, all private and public development, redevelopment, and capital improvement projects should include ADA compliant sidewalks (or Urban Trails where appropriate) along the full length of every roadway.


Sunrise
Mini-
Mart



Roadway System

We rely on roads to get to work, school, the store, and many other places in our daily lives. The roadway system is made up of many types of roads, from the road in front of your home to the highway you use to get to work, and it is the only system dedicated to the movement of vehicles. It is necessary to have a roadway system that can transport people and goods safely and reliably. Austin's roadway system has not kept up historically with the amount of growth our region has experienced. More importantly, the roadway system was never built to manage today's population size which continues to grow. This insufficient investment in our roadway system and the number of people that use it are largely responsible for the congestion and unreliable travel times we experience today. Currently, our roadway system is concentrated north-south along I-35 and MoPac, leaving those needing to travel east/west without adequate connections. While we acknowledge that congestion cannot be solved solely by building more roadways, we can take advantage of opportunities to add roadway capacity, expand connectivity across Austin, and improve travel time reliability where we can. Leveraging funding for strategic investments at capacity bottlenecks in the roadway system will help manage congestion on a strained system.

"We need road investments to deal with short-term challenges of congestion and travel times."

—Community Member

Indicators and Targets



Improve travel time reliability

Provide predictable travel times on the Vehicle Priority Network by 2029



Increase the number of jobs accessible by vehicle in a 20 minute commute



Increase the number of roadway capacity improvements implemented



Increase the number of capacity-related intersection improvements implemented



Reduce the amount of time it takes to clear crashes from the roadway

Roadway System Policy 1

Strategically provide new roadway connections and add capacity for vehicles

Identify and develop projects that, while helping meet our mode share goals, increase vehicle capacity on our roadway system at strategic locations to manage congestion and facilitate emergency response, across a range of travel directions and distances, and prioritize connectivity of our streets for the common public good

Throughout the transportation network, there are opportunities to strategically provide new roadway connections to improve street grid connectivity and make improvements to existing roads and intersections that add vehicle capacity. These new roadways connect people to the places they want to go and these improvements help facilitate how efficiently they get there.

New roads and improvements to existing roads and intersections are necessary to keep up with the amount of growth Austin has experienced and continues to experience. In some suburban parts of Austin that continue to grow, these roadways provide the basis for how people not only get around, but they also shape their environment. In some areas of Austin these new roads and intersection improvements provide relief from a congested network by providing new alternative routes. We must also recognize the importance of new roads and improvements to existing roads and intersections in facilitating faster emergency evacuation and response, whether it is people evacuating from a wildfire or a patient being transported to the hospital.

Other opportunities to add vehicle capacity include expansion of existing roads, reconstruction of existing substandard streets, managed access along existing roads, and enhancement of capacity and efficiency at intersections of roads. Expanded road projects include adding travel lanes and constructing raised medians, as well as bicycle and pedestrian elements. A substandard street reconstruction project includes updating a road to modern standards by adding curbs, gutters, and facilities for bicycles and pedestrians. An access management project includes converting a center turn lane into a raised median and consolidating driveways for increased capacity and safety by reducing conflicts of turning vehicles. Other improvements, such as constructing turn lanes and traffic signals or even innovative intersections, such as continuous flow intersections, can also add vehicle capacity.

Delivering Capital Projects

Implementing capacity improvements on the roadway system requires a strong project delivery process in order to take them from planning to reality. As funding becomes available for study, design, and construction, the City will initiate a community engagement process. This includes notifying residents and businesses along the proposed project, holding open houses to gather stakeholder input before any improvements are implemented and during design, and determining the feasibility through detailed engineering analysis.

Roadway System Policy 2

Improve travel time reliability

Implement projects that improve travel time reliability on the Vehicle Priority Network

The Vehicle Priority Network is a subset of streets in the roadway system that carries the most vehicular traffic and are the most critical roadways to vehicle operations. This network includes more than 400 miles of City streets each carrying between 10,000 and 60,000 vehicles per day and also includes the highway system under the jurisdiction of the Texas Department of Transportation (TxDOT). Vehicle travel time is a measure of how long it takes someone to get somewhere on a typical weekday. Vehicle travel time reliability is meant to express the consistency and dependability of travel time on any given day, at any given time of day, and is measured based on the variability in travel time from the average weekday.

Travel time reliability on the Vehicle Priority Network is important because these corridors are critical for people who drive. Unexpected delays such as crashes along one's route or inclement weather impact travel time reliability. Having more predictable, reliable travel time is important to everyone trying to get around in Austin.

Improving travel time reliability on the Vehicle Priority Network can result from projects that improve mobility and safety. Access management projects can improve travel time reliability by removing conflict points in the road that result in crashes from turning vehicles. There are also opportunities to study corridors for mobility improvements through new Corridor Mobility Reports. Additional improvements could include signal timing and synchronization, limitations of street closures during peak travel times, and implementing emergency vehicle preemption technology that would allow safe management of traffic and reduced response times for emergency vehicles.

Corridor Mobility Reports

Corridor Mobility Reports were first created leading up to a successful 2010 Mobility Bond that funded the study of seven major corridors in Austin. These studies resulted in the identification of short-, medium-, and long-term recommendations that were designed to improve the safety, mobility, and connectivity of each corridor. Additional corridors were funded for study as part of the 2012 Mobility Bond, and reports for these corridors were subsequently used to develop the 2016 Mobility Bond, which partially funded construction improvements. Continuing to use Corridor Mobility Reports to identify mobility and safety improvements on additional corridors will help prepare us to construct improvements when funding becomes available in the future for design and construction.

Roadway System Policy 3

Increase the person-carrying capacity of the highway system

Collaborate with TxDOT, CTRMA, CAMPO, Capital Metro, and other agencies in the region to increase the ability of the highway system to carry more people by managing new and existing capacity

Austin's highway system carries more people than any other system in the region. The highway system is made up of I-35, Loop 1, and other various U.S. and State Highways going into, out of and around Austin. On an average day, more than 100,000 vehicles use each of those regional roadways and more than 200,000 vehicles use I-35.

We must recognize that the existing highway system does more than just carry vehicles; it moves people. Unfortunately, the number of people it moves is not enough, as most of those vehicles are only carrying a single person. Without significantly expanding the highway system we will not be able to carry more vehicles, but we know that it is not possible to expand these regional roadways enough to adequately serve the projected demand in the limited space that exists. It is imperative that we use strategies that increase the person-carrying capacity of the highway system to move more people and not just vehicles.

A highway is an access-controlled, multilane, divided facility

Increasing the highway system's capacity for people will require collaboration among transportation partners in the region, such as the TxDOT, Central Texas Regional Mobility Authority (CTRMA), Capital Area Metropolitan Planning Organization (CAMPO), Capital Metropolitan Transportation Authority (Capital Metro), and other agencies. Carpooling and vanpooling is another important strategy to further increase the number of people, rather than vehicles, on our highways. Commuter bus service from surrounding communities can carry more people in the same amount of space as several cars. However, due to induced demand, an effective strategy to increase the person-carrying capacity of the highway system is to manage any new capacity using tolled-lanes or dynamically-priced express lanes where transit has a travel time advantage, like the MoPac Express Lanes. High-occupancy vehicle lanes are a strategy to increase person-carrying capacity. Another strategy is to include access points to managed lanes that are configured to allow the efficient entrance and exit of commuter transit service. Without these strategies to manage new capacity, additional travel lanes would quickly be filled with more cars, perpetuating the congestion problem and leaving less room for more people.

MoPac Express Lanes

CTRMA implemented a solution to provide travel time reliability and relief from congestion on MoPac. Express Lanes were used as an innovative congestion management tool that allow drivers to bypass congestion when reliable travel time is needed by paying a toll. The cost of utilizing the MoPac Express Lanes is dynamic, changing throughout the day to respond to conditions on the highway. Analysis has shown that in the afternoon peak Express Lane drivers travel times are reduced by an average of 15 minutes.

Roadway System Policy 4

Work with regional partners to upgrade the highway system

Collaborate with TxDOT, CTRMA, CAMPO, and other agencies in the region to improve the safety and mobility of the existing highway system

The highway system, consisting of I-35, Loop 1, and various other US and State Highways, was built over decades, with much of its footprint established in Austin's early history. Many of these regional roadways were upgraded in the same footprint as the original system of state highways while a few others took on new alignments. With the development of the federal Interstate Highway System, Austin's highways took shape and resulted in the city's geography we know today.

Since the highway system that we know today was completed, Austin has grown up around it. Many past transportation planning efforts included the idea of expanding the highway system and building new freeways, but such efforts were never implemented. The reality that Austin faces now is that with the built environment that exists today there are no more opportunities to build new freeways through our neighborhoods, but only make improvements to safety and mobility on the highway system we have today.

The City of Austin must collaborate with TxDOT, CTRMA, CAMPO, and other agencies in the region to improve the safety and mobility of the existing highway system. Many of Austin's U.S. and State Highways still operate with traffic signals instead of overpasses and underpasses causing delay at every intersection. We must work with our regional partners to upgrade the existing highway system by constructing additional travel lanes, implementing managed lanes, and constructing grade-separated intersections.

Through the 2016 Mobility Bond, the City of Austin contributed $46 million to upgrade the Capital of Texas Highway. TxDOT matched local funds with $204 million to construct four grade-separated intersections and other improvements



Roadway System Policy 5

Manage right of way space for all users

Optimize the use of space in constrained right of way for all travel modes while planning for the ultimate capacity needs of all users

The right of way is public space used for transportation and other municipal purposes such as utilities. Our community's right of way, that includes our roadway system, has taken decades to establish and, in some instances, has not changed since the first streets were laid out in Austin. There are some opportunities to expand the right of way to accommodate future improvements, but this is not always possible. In these constrained right of way situations, it is important to evaluate how that space can be optimized in the short term for all users while considering the ultimate needs of the roadway.

We must recognize the evolving nature of our community and understand that roadways can, and should, change over time to accommodate all travel modes. Historically, Austin's roadway system was designed around the automobile, but over the last few decades demand for improved conditions and use of other travel modes has increased. This ever-changing environment, as well as our commitment to mode shift and safety for all roadway users, means that we should evaluate when it is appropriate to reallocate space to different travel modes, such as public transportation, bicycles, scooters, and pedestrians, to address our safety and mobility needs.

Over the last ten years many of Austin's roadways underwent this transformation of reallocated space, resulting in a safer, more reliable travel environment. In the last few years there has been an increased focus on transforming street space to improve safety for all roadway users and also improving transit operations. We must continue to look for opportunities to accommodate all users by expanding the right of way to include the ideal amount of space, designing elements to fit within the existing right of way, prioritizing modes within the existing right of way, or privatizing elements, such as sidewalks, through public access easements. As we plan for roadway capacity needs, we must recognize the challenge of space allocation for people across different travel modes and consider the best strategies to address potential trade-offs.



Roadway System Policy 6

ID-9

Support streets as places where people and community engage in non-mobility activity

Recognize the diverse and expanding civic needs within our right of way and promote adaptive uses of the street

The transportation right of way is one of our city's largest public land assets. Streets must be configured to allow people to move safely around the city, as streets are in every community and neighborhood, directly shaping the human experience of Austin. However, COVID-19 has made clear that our streets support more than just movement. Throughout the pandemic, our streets have been regular places for essential services, food access, physical activity, play, socializing and civic demonstration. The inability to safely gather indoors led the City to implement additional places for food pick-up, dining, and spaces for mental and physical health with initiatives like Shop the Block and Healthy Streets. As community needs for the right of way expand, these activities and experiences should be recognized in our future design and implementation processes to ensure that future activities may happen and are done safely.

We can accommodate non-mobility activities by recognizing how these activities use outdoor spaces. The right of way can be modified by: extending sidewalks, allowing for markets or dining to take place in the street, or repurposing parking for food access. We could increase the opportunity to use the right of way to vote, learn, and have safe access to other public spaces to demonstrate. As we expand the way we understand and use right of way, it is important that future strategies and projects are centered on a community's needs.



New Spread

ID-10

Non-Mobility Activity in Streets

The right of way has been a space for non-mobility activity before the pandemic and throughout. As we recognize and support this type of activity, many cities throughout the nation and world have also engaged in this type of planning. The following are international, national, and local examples of non-mobility programming in the right of way.

International & National Examples



Streets for Play

Philadelphia, PA, USA:

More than 50 years ago, Philadelphia started Playstreets. This program closes designated streets to traffic so that kids have a safe place to play and have access to nutritious meals and snacks, which are provided to kids.



Streets for Gathering & Events

Mexico City, CDMX, MX:

Every Sunday morning, Mexico City's Reforma Avenue is closed to vehicle traffic and transformed into a huge street circuit for walking, biking, and rolling. Activities like Zumba are scaled up for the large number of visitors and placed throughout the circuit.



Streets for Voting

Madison, WI, USA:

The Dream Bus is a mobile library that visits a dozen locations throughout the Madison area five days a week year round. In partnership with the Madison City Clerk's Office, the Dream Bus was used as an effort to support voter registration and provide an additional area for residents to drop off their ballots.

ID-10

Non-Mobility Activity in Streets

Local Examples



Healthy Streets

Healthy Streets Initiative:

The Healthy Streets Initiative began in May 2020, and created low speed areas for neighbors to travel and recreate safely and in a distanced manner during the COVID-19 pandemic. Healthy Streets were designed for people to more comfortably use low traffic streets and engage in a range of physical activity.



Pick up & Delivery Zones

Pickup & Delivery Zones:

In order to improve community access to curbside food pick-up, the Austin Transportation Department installed temporary customer pick-up zones in support of local restaurants that had to transition to take-out and delivery-only service.



Shop the Block

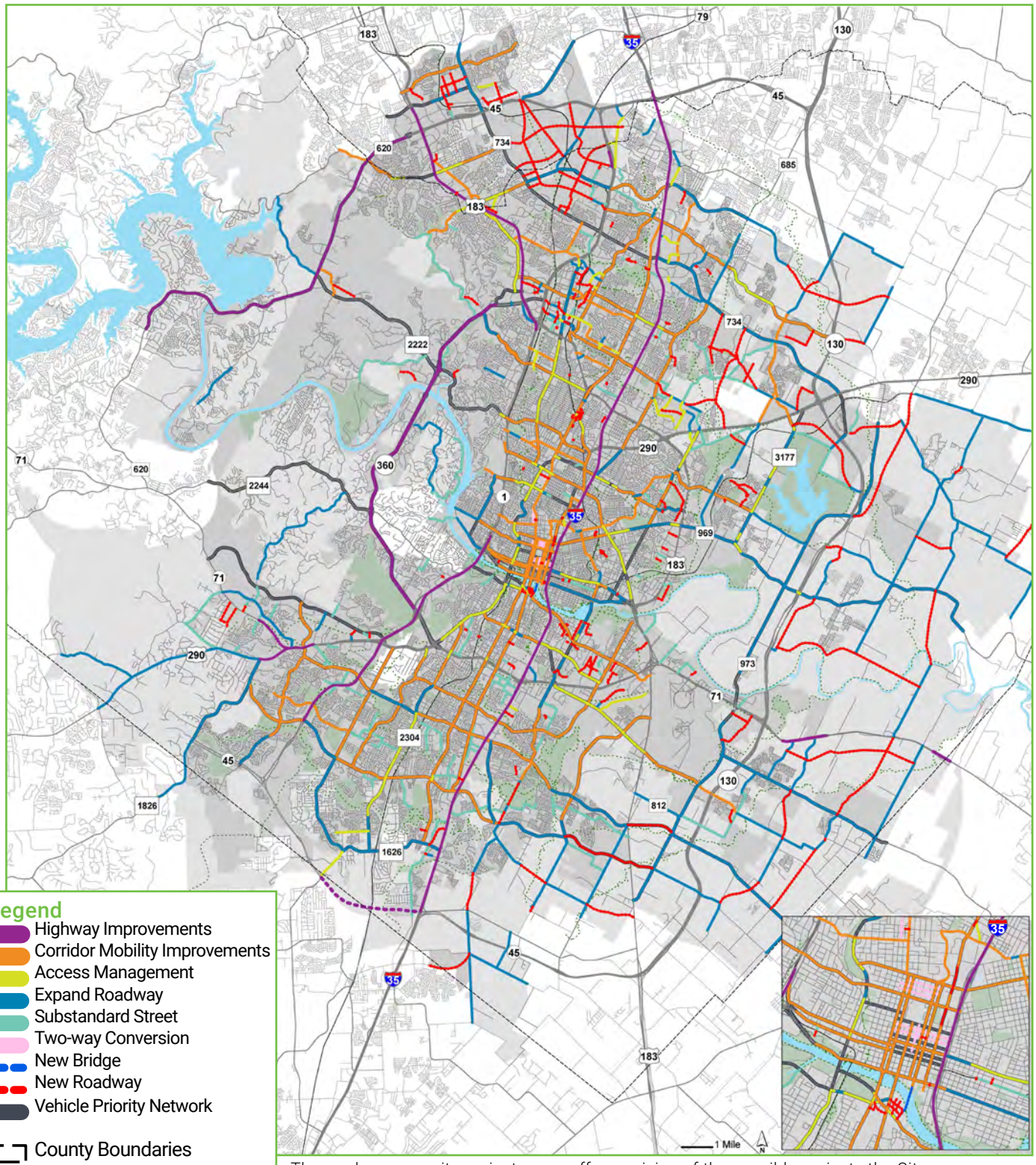
Shop the Block:

The Shop the Block pilot program allowed permitted food, beverage, or retail businesses to expand operations outdoors to private parking lots, public sidewalks, public parking spaces, or roads and alleyways in front of their establishments.

Updated Map

Roadway Capacity Projects Map

ID-11



The roadway capacity projects map offers a vision of the possible projects the City may pursue in the next 20 years based on a variety of factors, including the evolving needs of the transportation network, engineering analysis, public input, and available funding. Some of what is shown in the map is already in process and may be either fully or partially funded. Other recommended improvements would require further analysis, funding, and a public input process to be developed and constructed.

New Image

ID-12

Supply



City of Austin



Public Transportation System

The public transportation system of Austin, operated by Capital Metro and the Capital Area Rural Transportation System (CARTS), serves a wide market of people in and around Austin, including commuters, students, recreational riders, seniors, and visitors. Both service providers operate commuter transit service, bringing people into and out of Austin from rural and suburban Central Texas communities. Capital Metro also provides frequent and local transit service within the urban core of Austin's neighborhoods and down our busy streets. These services are critical to those who need it most, but every market has its own unique set of mobility needs that the different services try to provide. All people, regardless of income or ability, should have access to a transit system that accommodates their daily needs.

> *"Austin is growing and needs better public transportation…. I believe that better public transportation options will lead to less congestion."*
>
> —Community Member

Austin's north-south development pattern, largely centered on the automobile, has created a public transportation system that has had difficulty offering an option that is as time-competitive, cheap, or enjoyable as a personal vehicle. The historical focus on the north-south pattern also has resulted in insufficient transit routes to support the increasing demand for east-west connections. When transit trips take as long or longer than trips in a car, gas prices are low and free or subsidized parking is available, and the public transportation experience is not rider friendly, transit ridership goes down. Ridership is further diminished when core public transportation riders, seeking more affordable housing, move outside of the city where public transportation options are more limited.

To make public transportation a viable option, we must work with our public transportation partners and enhance services to create an experience that attracts and retains riders. Capital Metro's Connections 2025 Service Plan has already made progress towards increasing ridership by streamlining routes and increasing frequency of service on Austin's busiest streets. Project Connect, Capital Metro's high-capacity transit planning effort, can continue the trend by investing in a system that operates congestion-free, separate from traffic where possible. CARTS provides critical links between Austin and the many different suburban communities surrounding us. These efforts will move Austin and the region toward a complete public transportation system that is an attractive alternative to driving.

Indicators and Targets



Increase the share of Austin residents who take transit to work

Achieve 16% of residents who take transit to work by 2039
(3.9% of residents took transit to work between 2013 and 2017)



Improve on-time performance for transit service that operates at a frequency of 10 or more minutes



Improve bunching and excess headway for transit service that operates at a frequency of 15-minutes or less



Increase the number of transit stops that have amenities such as real-time arrival information and off-board payment, shelters, benches, and supporting safety features such as improved access and lighting



Increase the percentage of electrified fleet



Increase the number of transit priority treatments at intersections along the Transit Priority Network



Increase transit ridership

Achieve at least a 1% year over year increase



Decrease transit travel time

Decrease transit travel time to work by 10% by 2039
(Mean travel time to work was 39.5 minutes between 2013 and 2017
for residents who took transit to work)

Public Transportation System Policy 1

Give public transportation priority

Improve the speed and reliability of public transportation service on the Transit Priority Network

Speed and reliability of transit service are decisive factors in attracting and retaining riders. Speed is the ability of transit to move along a route in a reasonable amount of time, competitive with a car. Reliability is the ability of transit to arrive at stops and travel between stops at a consistent and predictable time. The Transit Priority Network consists of the highest producing, highest-frequency transit service routes operating on Austin's streets. Transit priority treatments should be implemented on the Transit Priority Network to improve both the speed and reliability of its service. In order to make transit more time-competitive and move more people on our Transit Priority Network, transit priority treatments need to be implemented to meet the needs of the different types of service and demand. These improvements to our key network routes will increase transit ridership and improve public mobility.

Transit priority treatments available to use on the Transit Priority Network include transit signal priority and synchronization, queue jump lanes, peak-hour transit-only lanes, and all-day transit-only lanes. Other considerations that affect the attractiveness, comfort, and efficiency of transit include increased frequency of service, off-board fare payment, bus stop amenities such as shelters and benches, bus stop placement, roadway pavement conditions, and safety of customers at stations and on board.



"Providing fast, reliable service is paramount to creating and operating an efficient and effective transit system. Transit agencies around the world are interested in making transit as attractive as possible and work to put improvements in place to speed and enhance bus operation."

—King County Metro Speed and Reliability Guidelines and Strategies

Transit Enhancement Program

The purpose of the Transit Enhancement Program is to improve mobility and access to opportunity for those living in and around Austin, by fostering collaborative relationships with public transportation providers, working directly with communities to understand needs and opportunities, and systematically enhancing areas of the built environment identified as transit-supportive.

This program formed out of an earlier initiative, the Transit Priority Working Group, which was organized to implement small-scale projects that would improve the speed and reliability of public transportation. The work of the Transit Priority Working Group highlighted a need for dedicated funding toward transit-priority projects. In April 2018, the City of Austin and Capital Metro executed an interlocal agreement that committed $3 million, spread over three years, towards transit-priority projects. Additionally, both the City of Austin and Capital Metro dedicated staff to oversee the program and to manage the progress of individual projects.

The Transit Enhancement Program is a collaborative program by nature. Because of this, a framework has been developed that allows the City of Austin and Capital Metro to maintain realistic expectations of one another. Within this framework, tools and processes exist that allow individual projects to be identified, prioritized, and implemented in a systematic and inclusive manner.

National Example: King County Metro Transit Speed and Reliability Guidelines and Strategies

King County Metro developed a Transit Speed and Reliability document to strengthen the partnerships Metro has built with local jurisdictions on speed and reliability improvements. The document seeks to broaden the reach of transit partnerships to a wider range of local jurisdictions and provide diverse tools to implement speed and reliability improvements. Metro's long-range plan METRO CONNECTS proposes both capital and service improvements to the Metro System, and speed and reliability improvements are a major piece of the METRO CONNECTS vision and strategy. The document is designed to help facilitate discussions between Metro and local jurisdictions to implement speed and reliability improvements throughout King County.

Public Transportation System Policy 2

Enhance commuter public transportation service

Support commuter public transportation service from outlying neighborhoods and surrounding communities into and out of Austin activity centers utilizing managed lanes

Commuter public transportation service is another critical part of the complete public transportation system, providing access to the region's major job centers from the surrounding suburban and rural communities. This transit service, provided by Capital Metro and CARTS, operates on Austin's highway system which is often stuck in the same congestion as cars. However, this type of transit service has the potential to be more productive and time-competitive by prioritizing transit on Austin's highways using flexible and managed lanes. Commuter routes are often limited due to their less frequent yet more direct "one-seat rides." However, we have seen transit ridership increase by more than 65% for routes using the express lanes on MoPac, where the speed and volume of the lanes are managed and public transit users ride toll-free. This increased value of transit can ease commuter congestion and offset new congestion as the region continues to grow, possibly deferring the need to build additional vehicle capacity.

We must work with our regional partners to expand the coverage and frequency of commuter transit service but we must also ensure it is a more attractive alternative to driving by utilizing express lanes so that it doesn't get stuck in the same congestion as cars. In order to attract riders to this service, we must also provide convenient, accessible park and ride facilities with sufficient parking and supporting services and amenities. Additionally, some park and ride facilities may serve as Mobility Hubs, which serve a critical function in the regional transportation system as the origin, destination or transfer point for a significant portion of trips.



Photo credit: Capital Metro

Public Transportation System Policy 3

Support local public transportation service

Support local public transportation service within Austin to be an affordable, efficient, convenient, and attractive alternative to driving, especially to those who need it most

Capital Metro operates local public transportation service throughout Austin in some of its lowest density neighborhoods, connecting them to higher-frequency transit service and major destinations. Local public transportation services can complement the more frequent services by completing and extending their reach. These local public transportation services do not meet the requirements for higher levels of service, but the limited service provided is critical to those who need it most. Many people that do not have consistent access to a car or cannot afford one rely on Austin's public transportation system to get where they need to go. We must recognize the importance of local public transportation service in providing this basic level of access to those who need it the most. The City of Austin is working with Capital Metro to ensure transit can operate where it is needed and when it is needed.

Local public transportation service can be supported by making sure streets can accommodate buses. Transit improvements and design considerations need to be implemented to ensure local transit service is efficient, convenient, and does not contribute to significant pavement degradation. Together these strategies will help create an attractive and affordable alternative to driving. The Connections 2025 Service Plan proposes to operate local transit service every 30 minutes, providing east-west connectivity and convenient transfers to the high-frequency transit service. As Capital Metro continues to implement their plan during service changes, the City of Austin continues to be an active partner in the process and continue to support these improvements.

> *"If we truly want to encourage people to use other modes of transport, we have to invest heavily in those other modes (as we have with roads) in order to make them attractive enough to lure drivers off roads. There are so many simple options to encourage more efficient transportation options. The city's transportation investments have created a situation where driving oneself is by far the most reliable, efficient, and pleasant option. We must make public transport competitive.*
>
> –Community Member

Public Transportation System Policy 4

Invest in a high-capacity transit system

Support the creation of a high-capacity transit system in Austin

Austin is one of the largest cities in the United States to not have a high-capacity transit system. High-capacity transit service can be any variety of high-quality transit services, including commuter rail, light rail, streetcar, bus rapid transit (BRT), and other emerging technologies. High-capacity transit service is intended to be fast, frequent, and convenient, and is differentiated by other public transportation service by operating in fully dedicated space separate from the rest of traffic, or in "dedicated transit pathways."

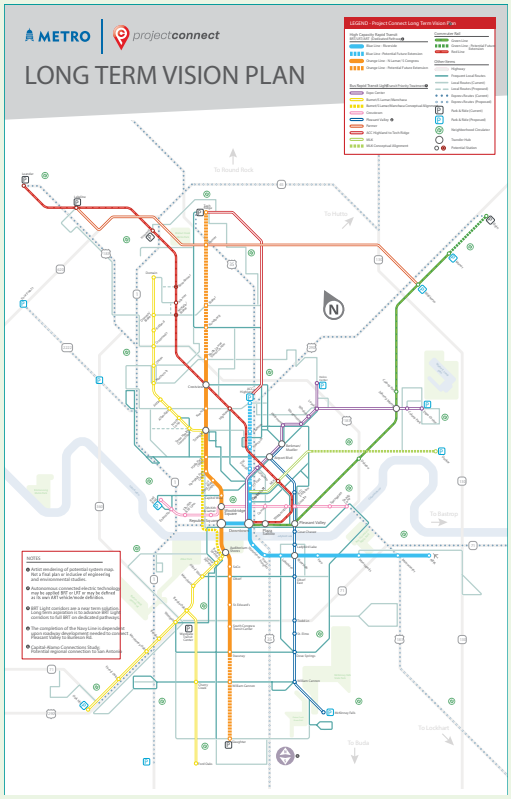
In order for the City of Austin to accomplish our mode share goals, it must create a complete transit system, including investing in high-capacity transit. High-capacity transit provides a substantially higher level of passenger capacity, speed, and reliability that will undoubtedly change the landscape of Austin, influencing where we choose to live and work, and how we choose to get around.

In 2016, Capital Metro began updating their high-capacity transit planning effort, called Project Connect. The planning effort followed the Federal Transit Administration's process to identify corridors that meet all of the criteria to support a high-capacity transit investment. These corridors are included in the Project Connect Long Term Vision Plan and include high-capacity transit operating in its own dedicated pathway. These corridors include some of Austin's highest transit ridership corridors, North Lamar, Guadalupe, South Congress, and Riverside. The City of Austin will continue to work with Capital Metro and other regional partners as Project Connect advances the Vision Plan further in 2019 and into 2020.

For the BRT Light corridors in the Project Connect Long Term Vision Plan that are not slated for dedicated transit pathways in the near-term, we must continue to advance the levels of transit service, such as by increasing frequency to less than 15 minutes on both weekdays and weekends and by providing high-capacity vehicles. We should commit to evaluating opportunities to make near-term operational improvements, including the full range of transit enhancement treatments, while pursuing longer-term opportunities to incrementally transition to operating transit in dedicated pathways in the future when transit service levels justify such a transition, in order to have a complete high-capacity transit system that connects passengers both north-south and east-west by 2039.

> *"We estimate that with Americans taking over 1,300 trips per year, a shift of transit mode share from 1.5 percent to 3 percent could accomplish anywhere from a 10 percent to 40 percent reduction in traffic fatality rates. It is time we employ public transit as a traffic safety tool because it can dramatically reduce the crash risk for individuals as well as a community. While no mode of travel is risk free, the safety of public transit is striking when observing the number of fatalities that are a result of auto crashes."*
>
> —American Public Transportation Association

Project Connect Long Term Vision Plan



Project Connect is Capital Metro's long-term vision plan to create a high-capacity public transportation network serving Austin and the Central Texas region. The goal of Project Connect is to provide the region with an efficient, sustainable public transportation system that can help relieve congestion on our transportation network. It focuses on providing short-term enhancements for its existing services such as MetroRail, MetroRapid, and MetroExpress, while also investing in a long-term high-capacity public transportation system. These long-term investments focus on several things, such as the electrification of Capital Metro's fleet, the potential automation of transit vehicles, and the use of dedicated pathways.

Dedicated pathways are separate lanes on the roadway that would allow the high-capacity vehicles to move more quickly and efficiently. These pathways could be alongside other vehicles, or above or below the ground. Where these dedicated pathways would be, what they would look like, and the specific mode of public transportation traveling in them are all questions that Capital Metro, the City, and the community are working on answering together. Capital Metro is studying the Project Connect corridors to determine how much right of way different modes and configurations require. The study results inform overall costs and what the final cross sections might look like.

Public engagement, as we learn the results of these technical analyses, is critical to ensure the public is determining how and where we move around our community. This is especially important because each Project Connect configuration will have trade-offs. For example, below-ground transit lanes allow vehicles to move extremely quickly and reliably, and don't disrupt other modes, but are also the most expensive to construct. On-street lanes are cheaper to construct, but may not allow vehicles to travel the same speeds, and may require decisions about certain modes when there is limited right of way.

As Project Connect continues moving forward, unprecedented collaboration between the community, the City, and Capital Metro is critical. So far, weekly planning meetings, a joint community advisory commission, and attendance at public events have helped guide a joint vision for growth between the City and Project Connect. As our community continues to develop and we need to make decisions about how best to achieve our mobility goals, it is important that the City and Project Connect continue to collaborate to make high-capacity transit a viable travel choice for our community.

New Spread

ID-13

Project Connect System Plan

In June 2020, City Council and Capital Metro adopted its final Project Connect System Plan. The Project Connect System Plan was an update to the Project Connect Long Term Vision Plan included in the original version of the ASMP when it was adopted in April 2019.

The System Plan was the culmination of years of work with many partners, ranging from weekly meetings between Capital Metro and Austin Transportation, to hundreds of community meetings to hear from community members. It not only identified route alignments, but determined all the specific elements and details of Project Connect, such as the specific mode for each line, the location of park and rides, and the timeline that Project Connect would follow for design and construction.

As part of the System Plan, Project Connect included an unprecedented $300 million investment in anti-displacement funds. This money, to be guided by community decisions and needs, would be used to combat displacement in Project Connect neighborhoods across Austin.



Project Connect System Plan

In November 2020, Austin voters voted to fund Project Connect; just under 58% of voters supported the $7.1 Billion Initial Investment of the System Plan. The Initial Investment is a portion of the System Plan, which will advance through development and be considered for both local and federal funding. Not all of the System Plan's elements are included in the Initial Investment.

With the support of the voters, project development for Project Connect began in earnest in 2021. The close coordination between Capital Metro and the City of Austin increased, as planning, review, and community meetings have become more frequent and expanded to include new partners, such as additional City departments. In 2021, the City and Capital Metro created the Austin Transit Partnership, the Local Government Corporation responsible for the implementation and oversight of the Project Connect system.

ID-13

Project Connect Initial Investment

Project Connect's Initial Investment includes two new light rail lines (the Orange and Blue Lines), a new MetroRail line (Green Line), as well as updates to the existing Red Line, four new enhanced MetroRapid lines, as well as the Gold Line, a MetroRapid Line that will eventually be converted into light rail. It includes upgrades to the MetroBus, MetroAccess, and MetroExpress services, fleet electrification, new park and rides, and an expansion to Capital Metro's on-demand service, Pickup. Additionally, the Initial Investment includes $300 million in anti-displacement funds to strengthen neighborhoods at risk of displacement due to Project Connect's investment.



Project Connect System Plan: Initial Investment

Orange Line: Connects North and South Austin. The Initial Investment for this line will begin at North Lamar and U.S. 183 and extend south to Stassney Lane. It will replace the current 801 MetroRapid service.

Blue Line: Connects the airport with downtown and the rest of the Project Connect System. It will reach downtown over a new bridge and connect with the rest of the System to link North and South Austin.

Green Line: Initial investment in regional rail service will connect downtown to East Austin's Colony Park.

Red Line: Expands regional rail service with new stations serving The Domain and Austin FC's stadium at McKalla Place.

MetroRapid: 4 new MetroRapid routes will provide frequent service with a limited number of stops. These new corridors are:

- Gold Line - from ACC Highland to Republic Square. (The Gold Line will begin as a MetroRapid service and could be converted eventually to light rail as a part of the System Plan.)
- Expo Center - from East Austin to UT and downtown
- Pleasant Valley - from Mueller to the Goodnight Ranch Park & Ride
- Burnet - from The Domain to Menchaca and Oak Hill

MetroExpress and Park and Rides – 9 new Park & Rides and Transit Centers are planned to accompany 3 new regional routes: Four Points - from FM 620 to downtown, Oak Hill - from the Pinnacle Park & Ride to downtown, and South MoPac - from Southwest Austin to downtown.

Public Transportation System Policy 5

Improve the public transportation experience

Develop infrastructure that promotes an attractive public transportation experience to maintain and encourage ridership throughout the city

In order to attract and retain public transportation riders, it is important that the City of Austin and its public transportation providers create a transportation service that can rival the comfort and convenience of individual automobiles. During the Connections 2025 planning effort, a survey of riders conducted found that the second highest reason riders use Capital Metro was because it is more enjoyable than driving. What makes a transit rider's experience more enjoyable is influenced by many factors, from the time traveling to the time waiting. The City of Austin and public transportation providers must emphasize quality experiences at stops and stations, in addition to frequent service, travel time, reliability, and safe, comfortable roadway pavement conditions in order to grow the number of public transportation users.

There are a variety of services and facilities that the public transportation system should offer to make the system appealing. Public transportation stops and stations should be well lit, and they should be safe, accessible and well-connected to the surrounding transportation network. Public transportation vehicles, stops and the areas surrounding stops should be clean, and the local streetscape should welcome people. Stops and stations should provide shade and a place to sit as people wait for their ride. Information, such as when vehicles are expected to arrive or how riders should pay their fare, should be provided in a clearly visible location. All of these factors are important to achieve the best overall public transportation experience.



Photo credit: Capital Metro

Public Transportation System Policy 6

Improve access to public transportation

Supply infrastructure to provide safe, expanded, and seamless multimodal access to public transportation

Access to public transportation is an essential component of the overall public transportation experience and vital to its success. Public transportation users should have as many travel options as possible to access stops and stations, from walking and bicycling, to scooting or driving. The City of Austin must continue to provide infrastructure to ensure safe, expanded, and seamless multimodal access to public transportation to not only improve the overall transit experience, but to also extend the reach of the public transportation system to more customers. Most transit trips begin and end as pedestrian trips, making it critical that we have a complete sidewalk system with safe crossings. A typical distance to walk to access transit is between 1/4 mile and 1/2 mile, or between 5 and 10 minutes. There is an even greater opportunity to access transit by bicycle, as a reasonable distance for bicycling is 2 to 3 miles. Improving access for pedestrians and bicyclists can significantly increase the market for transit and convert drive alone trips.

The City of Austin must prioritize access to transit in order to fully recognize the benefit of a complete public transportation system. If no one is able to access the system, no one will be able to use its services. The City of Austin must continue to collaborate with its public transportation providers to coordinate improvements for pedestrians and bicyclists around transit. Beyond simply constructing missing sidewalks and providing connecting bicycle facilities to stops and stations, we should also provide wider sidewalks with cafes and storefronts that encourage economic activity and a sense of place, ensure safe environments through enhanced crossings and superior design, and provide clearly visible and consistent wayfinding.

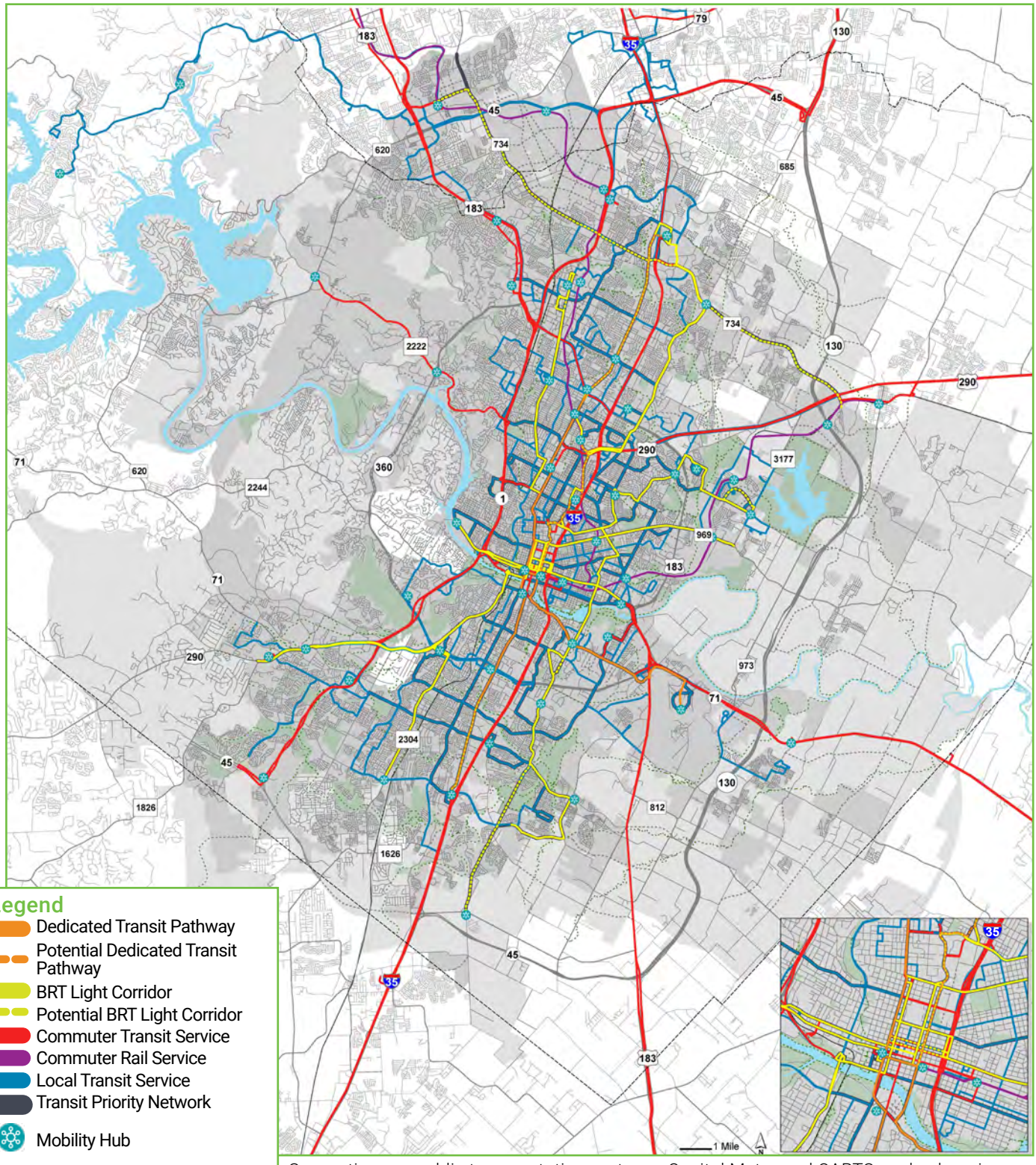
Austin 2014 Bicycle Plan: Fully Integrate Cycling with Transit Services

The 2014 Bicycle Plan identifies the importance of pairing cycling infrastructure with public transportation services. This is because bicycling has the potential to significantly improve transit service by providing a solution for the first and last mile. The range of a reasonable bicycle trip can significantly increase the potential market for transit. The Bicycle Plan recommends safe and secure bicycle parking be implemented at key transit stops. Additionally, bicycle accommodation on all bus, rail transit, and vanpool vehicles should be provided to help people seamlessly transition from one mode to another on their trip.

Updated Maps

Public Transportation System Map

ID-14



Supporting our public transportation partners, Capital Metro and CARTS, and enhancing services are crucial to creating an experience that attracts and retains riders. A complete public transportation system of high-capacity transit operating in dedicated pathways, high-frequency service with transit priority treatments, and commuter and local service supported by Mobility Hubs are identified in the map.



City of Austin



Bicycle System

People ride bicycles for different reasons. Some people ride for fun with their families on off-road trails, while other people commute by bicycle on the roads, mixing with other traffic. Some people ride to enjoy a beautiful day, while others ride because it is the quickest way to get to their destination. Regardless of how or why someone rides a bicycle in Austin, a safe and well-connected bicycle system is needed to support riders of all ages and abilities throughout the city.

"Prioritize cycling lanes and pathways with significant mileage so that they become viable commuting and travel options."

—Community Member

Our bicycle system includes, among other things, bicycle lanes, Urban Trails shared-use paths, neighborhood bikeways (quiet streets) crossing treatments for major streets, wayfinding signage, and end-of-trip facilities such as parking areas designed to make it safe, easy, and comfortable to ride a bicycle around and through our community.

A high-quality bicycle system creates a safe and comfortable experience for cyclists of all ages and abilities and supports different types of trips. Bicycling is often comfortable, time-competitive, and easier than other modes for trips up to 3 miles long. Additionally, bicycle infrastructure can accommodate emerging mobility solutions that operate at similar speeds and with similar profiles, such as scooters.

Although bicycle usage in Austin is growing, it still faces many challenges. For our bicycle system to flourish we need to develop a safer and more complete bicycle system, improve our collective understanding of how to share the limited roadway space, and enhance education and enforcement efforts on Austin's roadway laws. While Austin's bicycle network has rapidly expanded, from 2009 to 2019 we more than doubled our miles of streets with painted bicycle lanes to 260, this rapid growth has created a need for increased maintenance, parking enforcement, and street sweeping. Finally, we need to provide tools and education to help people overcome obstacles like the summer heat and our beloved hills.

Despite these challenges, Austin's bicycle system remains an important tool for helping our community achieve its mobility goals. The bicycle system helps relieve demand on our roadways, removing cars and relieving congestion. Bicycling gives people reliable mobility choices, and also provides a safe place for the new scooters and other low-speed micromobility devices to operate. As an active form of transportation, it supports increased public health while supporting our environment and helping us connect to the outdoors and our public spaces. It is important that we create and support a safe bicycle system that serves people of all ages and abilities.

Indicators and Targets



Increase the number of major roadways that have all ages and abilities bicycle facilities



Increase the linear miles of all ages and abilities facilities



Increase the number of children commuting to school by bicycle



Increase the share of Austin residents who bicycle to work

Achieve 4% of residents who bicycle to work by 2039
(1.3% of residents commuted to work by bicycle between 2013 and 2017)



Increase the share of Austin residents who live in the central city and bicycle to work

Achieve 10% of central city workforce commuting by bicycle by 2020; 15% by 2025



Decrease travel time to work by bicycle

Bicycle System Policy 1

Make streets safe for bicycling

Provide safe, comfortable bicycle facilities on roadways through all phases of all projects for people of all ages and abilities

To maximize the benefits that bicycling can bring to our community, and to achieve the high-level community goals of Imagine Austin, it is critical that our streets are safe and comfortable for people of all ages and abilities to bicycle. Since 2014 City policies and strategies have deliberately focused on implementing infrastructure that serves people of all ages and abilities through the Bicycle Plan, Urban Trails Plan, and Complete Streets Policy. Our current bicycle system reflects this. Despite this growth and shift in focus the bicycle system is still fragmented for people who are only comfortable riding on protected bicycle lanes, Urban Trails and quiet neighborhood streets.

Protected bicycle lanes provide a physical separation from vehicle traffic through bollards, traffic buttons, or concrete curb. These lanes are also separated from sidewalks to reduce conflicts with all roadway users. Protected lanes are critical to providing safe and comfortable bicycle facilities. We know over 55% of our community would ride in protected bicycle lanes, while only 15% of our community is willing to ride in a painted bicycle lane. When streets have moderate to high speeds or volumes protected bicycle lanes become necessary to accommodate people of all ages and abilities.

Not all streets require a protected lane to be safe and comfortable for people of all ages and abilities. Neighborhood bikeways enhance local streets that are often comfortable places for bicycle riders through speed and volume control, wayfinding signage, and providing crossings of major streets. Ultimately, the facility type used should be appropriate for the context with the goal of accommodating people of all ages and abilities, offering the highest degree of comfort possible where there are conflicting needs or constraints. In addition to street type, other context-appropriate facilities should be considered to increase safety for bicycle riders. Adequate lighting helps ensure that cyclists are seen by other road users, and it allows riders to see obstructions or debris in the road. A well-designed intersection includes protected treatments such as a smaller turning radius, advanced bicycle stop bars, and bicycle signal timing.

Making our streets safe also requires that we evaluate the opportunity to rethink our streets to serve all modes and all ages and abilities at every phase of every project and maintenance activity. This could take place during a large reconstruction project or when reconfiguring the striping of a street during resurfacing.

Rio Grande Street Protected Bicycle Lane

The Bicycle Priority Network aims to provide facilities for people of all ages and abilities. On busy streets, this often means offering a physical separation between riders and cars. The two-way protected cycle track on Rio Grande Street between 29th Street and Martin Luther King, Jr. Boulevard (MLK) is protected by concrete islands. Several cuts were made to allow safe turns into the businesses and residences along the west side of the street. There are also two bicycle signals at major intersections, at 24th Street and at MLK. The signal at MLK includes bicycle signal detection, which helps ensure cyclists can cross this busy street even if no cars are detected waiting at the intersection.

Before the protected bicycle lanes were installed , Rio Grande Street had only a painted bicycle lane. A study analyzing bicycle traffic before and after the installation of the protected bicycle lane showed that bicycle traffic increased by 126%.

Bicycle System Policy 2

Complete the Bicycle Priority Network

Provide a feasible, short-term, fully connected, comfortable system of on- and off-street bicycle facilities

The Bicycle Priority Network is a short-term all ages and abilities network based on the 2014 Bicycle Plan. The Network consists of connected protected bicycle lanes, Urban Trails and neighborhood bikeways. All facilities are designed to comfortably accommodate all bicyclists, regardless of their age or their comfort on a bicycle. By designing facilities for people of all ages and abilities, the Bicycle Priority Network could serve a family with young children out for a recreational ride, a commuter going to work, or people riding to meet friends across town. It is designed to allow people to use bicycling as a mode for many different types of trip, and to be a robust, connected network of bicycle facilities across Austin.

The Bicycle Priority Network is comprised of three types of bicycle facilities. The first type is protected bicycle lanes. These lanes have a physical barrier, such as concrete, between cyclists and motor vehicles. Urban Trails are the second type of facility. These are off-road, hard-weather surfaces connecting neighborhoods, parks, and greenways. The third type is "neighborhood bikeways." These are quiet, neighborhood streets that are appropriate for people of all ages and abilities to safely and comfortably use; these are most of the streets in the Bicycle Priority Network. These local, neighborhood streets are naturally more attractive for all cyclists, and can be further improved for people through smaller measures such as traffic calming, improved wayfinding signage, or improved lighting.

The Bicycle Priority Network is a collection of connected existing or cost-effective improvements to streets and trails. It is designed to allow our community to enjoy the many benefits of bicycling in the near term with modest levels of capital investment. The Network is prioritized in locations where higher levels of short trips exist to enable a shift of trips to bicycle. It supplies comfortable and connected bicycle routes for people of all ages and abilities for a financial investment that is less than most single highway projects in the Austin Area over the last decade. While the Bicycle Priority Network is a strategic investment to increase bicycle use, all streets are recommended to accommodate people of all ages and abilities as projects and private development occur.



Bicycle System Policy 3

Remove significant infrastructure gaps in the bicycle system

Ensure connectivity in the bicycle system and resolve geographic and infrastructure barriers to cycling

While Austin's bicycle system has been growing rapidly, there are still many areas that have incomplete bicycle facilities or barriers that prevent connectivity even for the system of painted bicycle infrastructure. These infrastructure gaps present opportunities to develop a better connected bicycle system to make bicycling between two adjacent areas safer and less difficult.

Infrastructure gaps can take many different forms. A gap could be the abrupt end of a bicycle lane at an intersection, a high-speed highway with a shoulder that disappears on a bridge, a creek or a railroad. Although some of these gaps represent major obstacles, some can be removed through inexpensive means such as the reconfiguration of roadway striping or improved routing and wayfinding. Other barriers do require larger capital investment. Bicycle projects that require greater investment, such as the reconstruction of a roadway, would be coupled with projects for additional modes or through support by private development.

Whatever the type or location, gaps weaken the bicycle system. Fewer people can access work, school or other necessities, even when they are close to home, without confronting the gaps. Additionally, a fractured bicycle system creates a major barrier for new people to try bicycling. To ensure that Austin's bicycle system is not a patchwork of safe and comfortable facilities, we must erase the gaps that currently exist by providing the appropriate infrastructure to link neighborhoods and areas across town.



Bicycle System Policy 4

Provide a comfortable bicycle system with end-of-trip facilities

Invest in, partner to create, and require facilities that meet end-of-trip needs

End-of-trip facilities are amenities that cyclists need for their trips in addition to a bicycle and a place to ride. Secure parking is an important end-of-trip facility, but there are other amenities that can increase bicycle ridership by increasing cyclist comfort and making more trips possible. Examples include a place to shower and change (especially during Austin's hot weather), parking locations that are numerous and close to destinations, bicycle stands for small fixes and repairs, and maps with information on bicycle routes or shops.

There are different ways Austin can supply or facilitate more end-of-trip facilities. The City should continue to provide, require, and incentivize the provision of end of trip facilities through development across Austin. Parking that is secure and protected from both theft and the elements is already in demand in many places. This demand will continue to grow as scooters and other emerging micromobility devices continue to share limited public space. Secure parking and facilities, such as longer- term parking at public transportation locations, will also facilitate combining bicycle and public transportation trips. Seamless integration of bicycle and public transportation trips significantly increases the amount of places, distances, and types of trips people can take. TDM programs and incentives can help employers and institutions to make it easier for people to shower or change after riding to a destination. Having no place to clean up, change clothes or dry off after a short ride in the Austin heat often deters people from choosing to make a trip by bicycle.



Bicycle System Policy 5

Work with partner agencies and other jurisdictions to develop a regional bicycle system

Enhance regional bicycle connectivity through the provision of inter-jurisdictional bicycle facilities

Regional partner agencies have an important role to play in the success of Austin's bicycle system. To create a connected bicycle system within Austin that is also integrated to nearby jurisdictions, destinations, and services like public transportation requires collaboration with other entities that own or manage rights of way, public lanes, or operate transportation services. Additionally, many important roads and barriers in the All Ages and Abilities Bicycle Network fall under the jurisdiction of TxDOT, counties, CTRMA, or neighboring cities, and we must work with them to fund and implement these priority connections. We must also work with transit agencies to develop and improve easy and reliable multimodal connections between cycling and public transportation infrastructure and services, extending the reach of each mode.

Since many local trips cross municipal, county and other boundaries, it is vital that different agencies and entities coordinate to ensure that a safe bicycle facility crosses jurisdictions when necessary, rather than ending abruptly. While our bicycle system is most often used for trips of three miles or less, Austin's expanding footprint creates the case for a regional bicycle system. Creating a regional bicycle system can help address regional transportation issues by allowing people who live further away from their homes, jobs, or schools to take longer trips and consider bicycling as a feasible mode of transportation. Bicycling can become even more attractive as a regional transportation mode as traffic congestion and the unreliability of motor vehicle travel times in peak periods slows down vehicle speeds and could allow time-competitive travel.

National Example: Razorback Regional Greenway

The Razorback Regional Greenway is 36 mile shared-use path that runs from Bentonville to Fayetteville, Arkansas. The greenway is primarily off-road, and connects six communities, the University of Arkansas, three major corporate headquarters, and hospitals, parks, schools, and shopping areas throughout the region.

The Razorback Regional Greenway took strong regional collaboration to complete. It was first considered in a long-range regional planning process led by the local metropolitan planning organization. The Walton Family Foundation supported the idea, recognizing its many regional economic, health, and environmental benefits. They helped spearhead collaboration among the many municipalities involved, and together with a federal grant the foundation helped fund the $38 million project.

In 2017, the Walton Family Foundation released several reports examining the greenway's economic and health effects since it opened in 2015. It has increased bicycle ridership by 24% annually, generated over $50 million in economic development annually, provided over an estimated $85 million in health savings through reduced mortality and health care benefits, and is considered a core component of the region's high quality of life.

Bicycle System Policy 6

Maintain the usability of the bicycle system

Proactively maintain the existing bicycle system, ensuring it is safe, functional, and comfortable

If we want our bicycle system to be usable, we need to make sure it is not only well-designed and complete, but well-maintained. This means that it should be easy to report hazards and debris so that they can be quickly cleared, bicycle facilities should receive proper and preventative maintenance to extend their useful life, closures and detours should be maintain the facilities comfort and directness, and roadway surfaces should be kept in a safe and comfortable condition for cyclists.

Bicycle lanes, whether they are protected or painted, require routine maintenance for the safety and comfort of cyclists. Paint wears off, physical barriers degrade and, without proper maintenance, cyclists can find themselves in a roadway space without a clearly designated lane to use. It is important that the Transportation, Public Works, Resource Recovery, and other partner departments work together to track and provide maintenance on bicycle facilities across the city.

Street surface treatments for vehicles and road drainage structures can also create conditions for cyclists that render parts of the bicycle system unusable. Rumble strips, steel grates, steel plates, and curb inlet openings are common features of roadways that do not affect cars, but can cause serious safety issues for cyclists. It is important that bicycle routes are designed in such a way to provide safe passage around these obstacles and do not assume cyclists can maneuver over them.

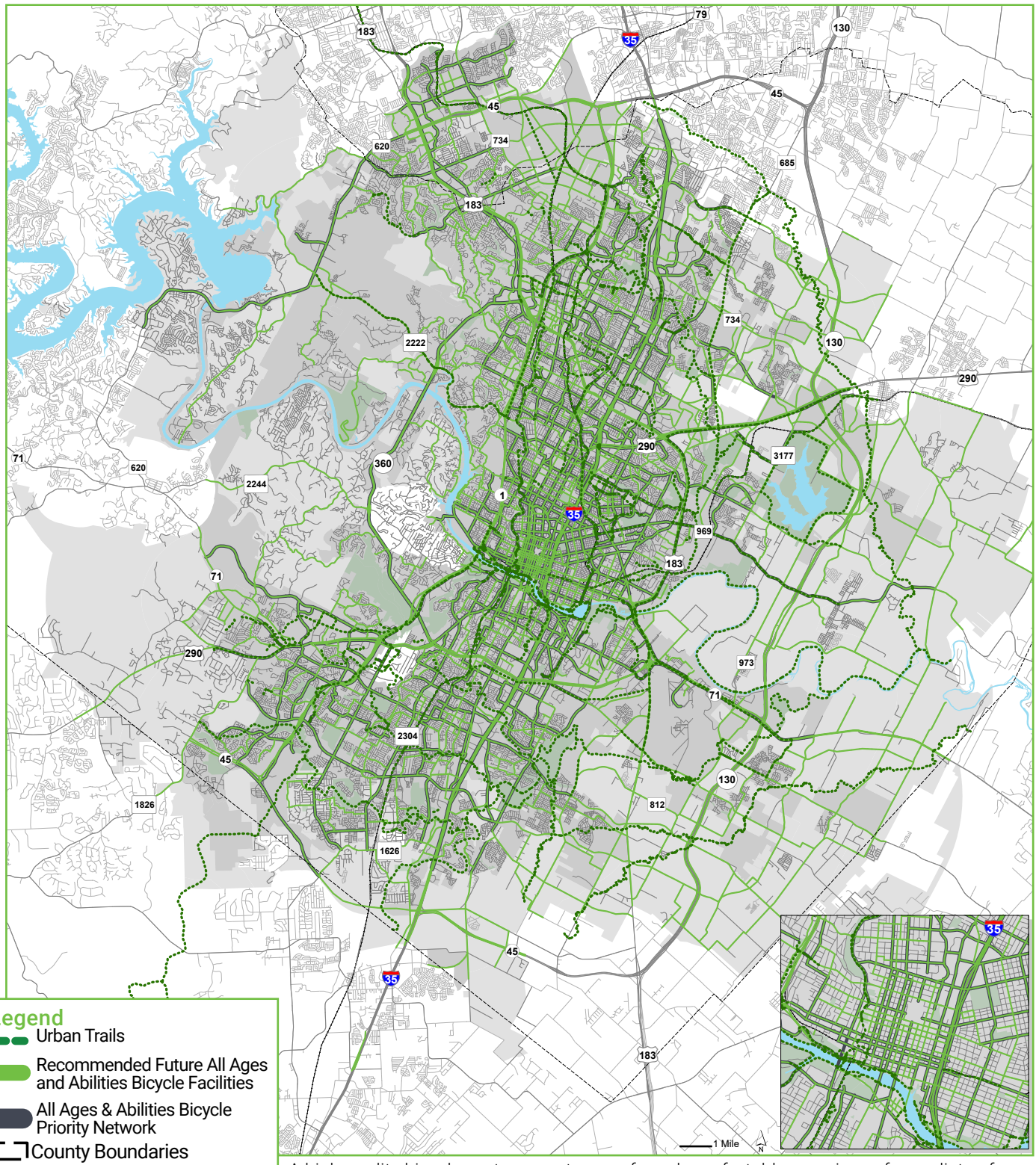
Keeping a safe and usable bicycle system also means keeping bicycle facilities clear of debris and parked vehicles. This includes having enough narrow street sweepers that can fit into our expanding network of protected lanes and adequate resources to maintain an expanding network. Having dedicated city-wide parking enforcement resources are also necessary to keep bicycle lanes clear. Creating and maintaining an efficient public input method to allow the community to report dangerous conditions, as well as quick responses by the City to conditions that make the bicycle system unsafe or unusable is also important.



Updated Map

Bicycle System Map

ID-15



A high-quality bicycle system creates a safe and comfortable experience for cyclists of all ages and abilities and supports different types of trips. All ages and abilities bicycle facilities include a range of facilities that are appropriate to the type of street, ranging from Protected Bicycle Lanes, Buffered Bicycle Lanes, Quiet Streets, and Bicycle Lanes.



City of Austin



Urban Trail System

Urban Trails are off-road trails with an all-weather surface (such as asphalt or concrete) that are wide enough to accommodate multiple people and connect seamlessly with our on-street bikeways and sidewalks. Urban Trails are physically separated from vehicle traffic, and they are a part of our active transportation system. They are used for both recreation and transportation purposes. Not all trails within Austin's trail systems are Urban Trails. Many trails have a natural surface, such as dirt, are narrowly built, and do not connect to our sidewalk or bicycle systems. The primary purpose of those natural trails is often recreation, as opposed to transportation.

> *"Increasing the miles of Urban Trails sidewalks, and bicycle facilities are most important to me."*
>
> —Community Member

The Urban Trail System's connections to the sidewalk and bicycle systems allow for both recreational and transportation uses. This gives our community the opportunity to travel across all parts of Austin by foot or other active transportation options. Urban Trails offer families and friends comfortable routes to travel together and opportunities for people to exercise. They are often a great introduction to running and bicycling, especially as a new form of travel. As off-road facilities, Urban Trails offer people a pathway that is more comfortable. Urban Trails offer our community the opportunity to integrate with nature, even within our urban ecosystem. Ecologically, Urban Trails support the use and expansion of parks and open space, and they help promote an active and healthy lifestyle with access to the outdoors.

Austin's Urban Trail System encompasses many of our community's best attributes. It showcases our beautiful natural features, offers an array of activities, and helps connect our unique and diverse neighborhoods and communities.

Indicators and Targets



Increase the linear miles of Tier I Urban Trails

Complete 100% of Tier I Urban Trails by 2029



Increase wayfinding elements on existing Urban Trails

Install wayfinding elements on 100% of existing Urban Trails by 2022



Improve lighting for existing Urban Trails

Light 100% of Urban Trails as defined by a citywide trail lighting plan by 2028



Increase trail usage



Reduce the response time to address unforeseen trail damage

Urban Trail System Policy 1

Recognize the Urban Trail System as an integral part of the transportation network

Acknowledge Urban Trails as assets that should be constructed, operated, and maintained in a manner equivalent to other parts of the transportation network

Our Urban Trails are much loved and heavily used. The Urban Trail System, just like the roadway, sidewalk, bicycle, and transit systems, is a piece of the transportation network that is important to our mobility. It is important that these trails are recognized as the critical pieces of infrastructure that they are within our community. We must supply resources for building and maintaining Urban Trails as we would to streets, bridges, bikeways, and sidewalks.

We must recognize the importance of building and maintaining the Urban Trail System across the city to create a well-built, balanced network of off-street paths for recreation and transportation purposes. We must provide important amenities such as lighting or benches so people can use the trails and have an enjoyable and comfortable experience. We must also maintain our Urban Trails so they are functional, clean, and have a long lifespan. Trimming vegetation, solving drainage issues, and removing obstructions are some frequent maintenance issues we must confront immediately upon our trails without letting them fall into disrepair. We must allocate resources in such a way to communicate value for Urban Trails that mirrors other systems of the transportation network.

Tier I and II Urban Trails

The 2014 Urban Trail Plan identified two types of Urban Trails: Tier I and Tier II. A Tier I trail has been identified as a high-priority trail. High volumes of people have access to Tier I trails for transportation and recreation purposes, and they connect significant and dense populations of people. The Urban Trail Plan identified 47 miles of Tier I trails to be constructed by 2029. Tier II trails are Urban Trails that have been identified during previous planning processes. Most Tier II trail alignments are still conceptual in nature, although some have been constructed through cost-share or development opportunities. Tier II trails represent a desired trail connection, but are considered less critical for connectivity than Tier I trails, and the Urban Trail Plan identified 360 miles of Tier II Urban Trails.

Urban Trail System Policy 2

Provide high-quality Urban Trails that can serve all users

Implement a system of Urban Trails designed for people of all ages and abilities

Urban Trails are not just for highly skilled athletes to use as training facilities. By design, the Urban Trail System is built to support all ages and abilities within our community, including seniors, young children, and people in wheelchairs. Along with our sidewalks and bicycle facilities, the Urban Trail System must be designed, built, and maintained to allow for our entire community to safely and comfortably use it. Although some trails emphasize the natural ecosystems within and around Austin, many of those trails do not allow people with mobility impairments, people using strollers, or others the opportunity to use them. On the other hand, Urban Trails provide accessibility to all people, by strictly adhering to building material and construction standards for surface materials, trail widths, slopes, and curvatures.



Urban Trail System Policy 3

Pursue opportunities to connect to and expand the Urban Trails System

Expand the Urban Trail System to connect more people to nature and provide recreation and mobility opportunities

Urban Trails have the important ability to connect our neighborhoods to the natural features, resources, and communities surrounding us. While Austin has several dozen miles of Urban Trails already, there are still many barriers to accessing these important facilities. Urban Trails can be a tool to connect the street grid to provide additional pedestrian and bicycle connectivity and shorten walking and bicycling distances. New trail connections will increase connectivity between neighborhoods, facilitate active trips, promote healthy lifestyles and outdoor experiences, and strengthen our community's connection to nature and our ecosystem.

Opportunities to expand our Urban Trail System include land development incentives and community partnerships. Austin's land development code offers multiple opportunities. Developers could be provided with incentives to include new Urban Trails and connect them to our existing networks. It is also possible to consider allowing new and expanded Urban Trails to be a mitigation technique for developers as they build or redevelop areas. Mitigation techniques are actions taken to relieve the stress on the transportation network caused by increased development in places.

Working with neighborhoods and community groups also offers the chance for increased partnerships. These partnerships offer new and innovative ways to plan, design, and maintain trails in support of neighborhoods and trail users. Allowing these groups, such as "Friends of" groups, to take on increased responsibility in the planning and care of trails can allow improvements to be identified and made more quickly. This allows limited resources to be shared equitably throughout the system.

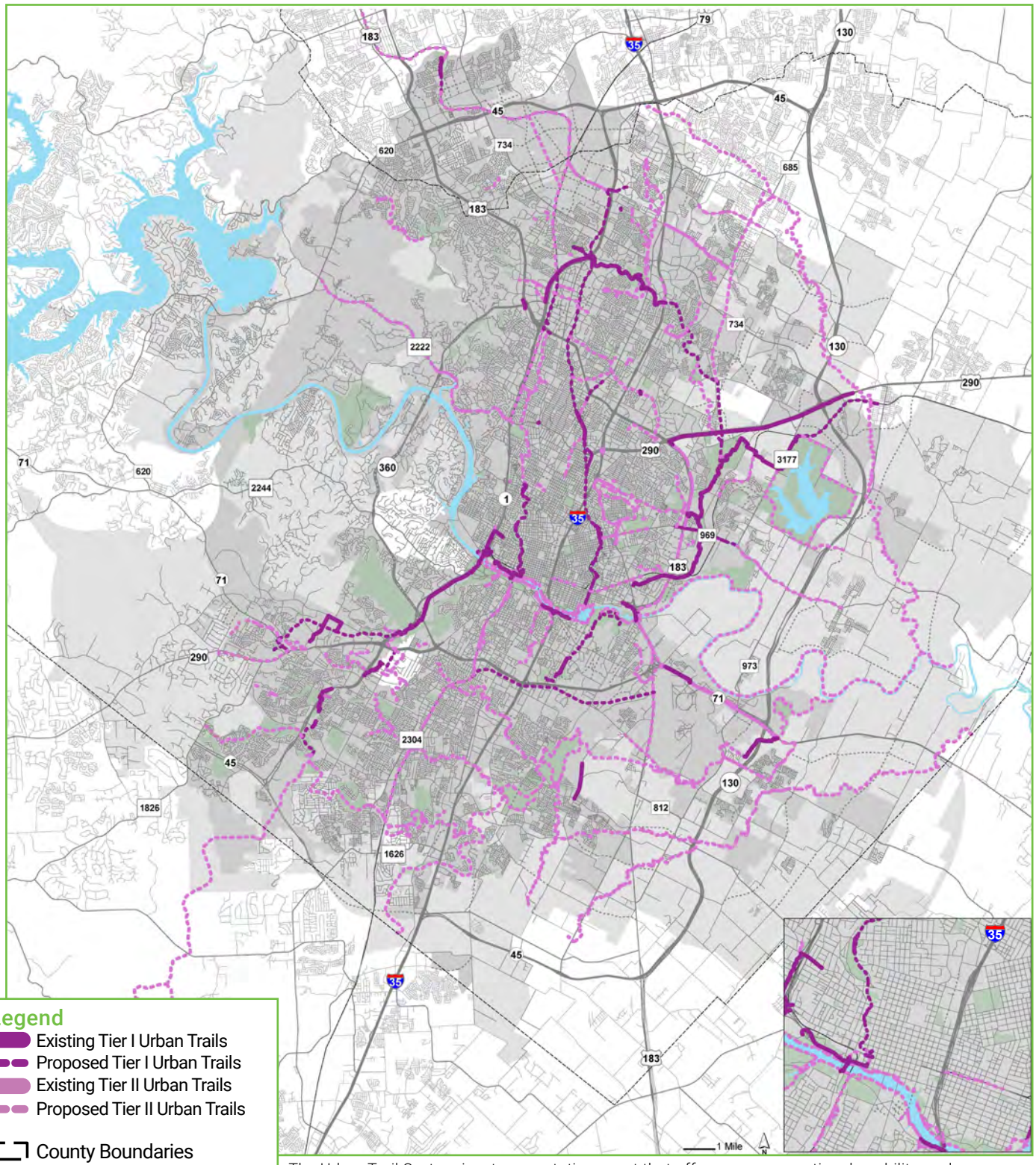
To support the expansion of this cherished community resource we should continue to explore the possibilities of new Urban Trails across our entire community when planning processes, development, and the public interest allows.

Neighborhood Partnering Program

New and expanded partnerships with neighborhood and community groups offer another opportunity for the expansion of the Urban Trail System. The City of Austin's Neighborhood Partnering Program (NPP) provides assistance to groups for small and medium improvement projects in the City's right of way or on City-owned property. Cost-sharing options in this program for community members to use include cash contributions, in-kind contributions, or donated labor. Although the cost for the planning and construction of an urban trail is higher than what a neighborhood is able to receive through NPP, NPP funding can be used to develop plans for Urban Trails. This can help begin to move a desired trail from an idea towards becoming a project, or help with the removal of small barriers to constructing an urban trail.

Urban Trail System Map

ID-16



The Urban Trail System is a transportation asset that offers many recreational, mobility, and environmental uses and benefits for our community. The Urban Trail Plan identified 47 miles of Tier I Urban Trails for transportation and recreation purposes, and they connect significant and dense populations of people. Tier II trails are Urban Trails that have been identified during previous planning processes. Most Tier II trail alignments are still conceptual in nature, although some have been constructed through cost-share or development opportunities.



Condition of Infrastructure

Our transportation infrastructure is made up of physical assets that must be well-maintained to be accessible, usable, reliable, and safe. Infrastructure assets are City-owned items with a useful life of more than one year and an acquisition cost or value of $5,000 or more. Mobility infrastructure assets include streets, bridges, sidewalks, bikeways, Urban Trails traffic signals, communication technologies, City vehicles, and aviation facilities.

It is critical to the operation of the transportation network that we have our infrastructure in good condition. Infrastructure in poor condition can result in closures, or other failures, that can compromise the reliability and safety of our network. Our transportation infrastructure supports vital activities, such as goods movement, emergency response, stormwater conveyance, and mobility for all. Our streets are also our most abundant public spaces that, if maintained in good condition, will improve the quality of our experiences as we travel from place to place.

Transportation infrastructure, along with the ability to move people and goods, is also critical to overall climate resilience and our ability to effectively manage short- and long-term impacts related to climate change and weather extremes, such as longer droughts, increased flooding, and greater wildfire risk. These impacts can not only affect the condition of our infrastructure, but our ability to access services, respond to emergencies and, when needed, evacuate.

"I think we need to continue to maintain and enhance the roads we have but put a larger focus on creating a reliable, affordable, and far-reaching public transportation network."

—Community Member

We regularly collect information and assess the condition of transportation infrastructure. It is important that we collect and maintain information on the status of our existing infrastructure, like the number and type of assets, their condition, any plans for preservation and maintenance, and what the critical needs are to keep assets safe and in operation. The data from these assessments allow us to make decisions about maintenance and capital renewal. It is also important for financial planning to consider the maintenance and replacement costs of infrastructure when investing in new or upgraded assets.

Indicators and Targets



Increase citizen satisfaction with the physical condition of major City streets



Increase citizen satisfaction with the physical condition of the Transit Priority Network



Increase citizen satisfaction with the overall maintenance of City sidewalks



Increase citizen satisfaction with the physical condition of bicycle facilities, including Urban Trails



Decrease the lane miles of City streets in poor or failing condition

(In FY2018, 26.2% of City streets were in poor or failing condition)



Increase the frequency of sweeping and maintenance of protected bicycle facilities



Improve the response time of requests for vegetation maintenance in the public right of way

Respond to 100% of requests within 2 weeks by 2039



Decrease the percentage of major bridges in poor or failing condition

(In FY 2018, 10% of major bridges were in poor or failing condition)

Condition of Infrastructure Policy 1

Responsibly maximize the useful life of transportation infrastructure

Design, maintain, and improve the condition of transportation infrastructure to reach its useful life and increase its resiliency in a fiscally responsible, context-sensitive manner

Maximizing the useful life of transportation infrastructure means that we make sure an asset lasts as long as intended, whether it is a traffic signal, bridge or roadway surface. Doing so reduces taxpayer dollars needed to prematurely replace infrastructure that should have lasted longer. By proactively maintaining transportation infrastructure, we can maximize its useful life. When maintenance is deferred, an asset becomes unreliable and may have to be taken out of service, affecting the safety and operation of our transportation network.

For example, scheduled preventative maintenance will help prolong the life of streets and bridges by protecting the surface from the effects of aging, cracking, deterioration, and water infiltration. Prolonging the life of our city streets through these methods saves taxpayer money by intervening before more costly full reconstruction of the street is needed.

Asset management strategies should be used to identify rehabilitation projects to maintain and when ultimately needed, replace assets. Additionally, new assets need to be designed to withstand changing environments and climate change impacts, like increased flooding and highly elastic soils, because resiliency will be important to realizing the useful life of infrastructure into the future.

Central Texas Extreme Weather and Climate Change Vulnerability Assessment of Regional Transportation Infrastructure

The City worked closely with CAMPO and other state, regional, and local entities to evaluate infrastructure vulnerabilities, including for roadways, bridges, and rail. The climate-related stressors that were considered as part of the assessment were flooding, drought, extreme heat, wildfire, and extreme cold. The assessment focused on "critical transportation facilities," which are those that would have the greatest impacts if they were taken out of service due to extreme weather.

The assessment determined that the nature of inland extreme weather and climate challenges may differ from those faced by coastal communities. Some risks that impact central Texas are more localized, like flooding, or chronic, like extreme heat or drought, than storm surge, a risk faced by coastal cities. The assessment also showed that critical assets are not necessarily the ones most vulnerable to extreme weather and climate change. Many critical assets are higher volume roadways that are already designed to higher standards. Older and smaller roadways, while not necessarily as "critical," may be more sensitive and need to be made more resilient.

Condition of Infrastructure Policy 2

Pursue opportunities to increase mobility options during capital renewal projects

Use street rehabilitation and reconstruction projects as opportunities to achieve future street conditions as indicated in the Street Network Table

With regular maintenance and rehabilitation, streets typically have an 80-year lifespan. Over that time, the land uses adjacent to the street and the uses of the street space can change, sometimes dramatically, as parts of our city experience significant growth. We need to use street rehabilitation and reconstruction activities as strategic opportunities to make changes to the allocation of space in the right of way based on current and future mobility and safety needs.

One example of this approach would be widening a roadway to add additional space for sidewalk and bicycle facilities, which could occur when a street is being reconstructed, thus improving mobility for pedestrians and bicyclists along that street. Another example could be the addition of a median along a street with a high volume of vehicular traffic and many driveway access points for commercial uses. The addition of the median with a street rehabilitation or reconstruction project would improve safety by reducing the potential for head-on collisions and conflicts between left-turning vehicles and more vulnerable users. The addition of the median and the resulting reduction in conflicts would also help to improve the operation of the street and increase vehicular throughput, or the number of vehicles that would be able to move through a section of a street in a given amount of time. These opportunities for street rehabilitation and reconstruction do not come along very often, which makes it even more important that we take advantage of the opportunity to improve mobility and safety for all.



Condition of Infrastructure Policy 3

Improve multimodal mobility through maintenance activities

Pursue opportunities to improve the multimodal network as part of planning transportation infrastructure maintenance

We regularly perform street preventative maintenance to improve the roadway surface and maximize the lifespan of roads through various treatment types and applications. When the City performs street maintenance activities like resurfacing, workers must reapply roadway markings and striping. This is an opportunity to allocate space differently. The space between the existing curbs can be used for travel lanes, turn lanes, parking, bicycle lanes, fire access, or other needs. These regular maintenance activities allow us to reconsider the operation of the street and the space allocated to different modes and uses.

For example, bicycle lanes have been added to certain streets through street resurfacing activities since the 2000s, quickly and cost-effectively increasing the number of miles of bicycle facilities in the transportation network. In these situations, impacts to other modes and safety are studied and streets must have certain volumes to justify adding or removing travel lanes for vehicles to accommodate bicycle lanes. In the near term, if a road is not at capacity and vehicular operations would not be significantly impacted, allocating space currently used for travel lanes for a bicycle facility, turn lane, parking, or other use in a more temporary way is an approach we should use to meet mode share goals, especially when funding for a costly street reconstruction project is not currently available.

Opportunities for Multimodal Improvements During Preventative Maintenance

Depending on where the street is in its life cycle, preventative maintenance may include surface treatments, an overlay, street rehabilitation, or full street reconstruction. Each of these treatments, applied at the appropriate point throughout the life of the street, maintains the street through its full, useful life. Each time we do preventative maintenance, it is an opportunity to reassess mobility and safety needs and, potentially, make changes that help us better achieve our goals.

Year	Treatment
0	Initial Construction (RC)
10	Surface Treatment (ST)
20	Surface Treatment (ST)
30	Standard Overlay (OL)
40	Surface Treatment (ST)
50	Rehabilitation (RH)
60	Surface Treatment (ST)
70	Surface Treatment (ST)
80	Reconstruction (RC)

Optimal Pavement Life Cycle with Preventative Maintenance



Condition of Infrastructure Policy 4

Maintain the usability of all mobility infrastructure

Proactively maintain all mobility systems, recognizing that each system has unique needs

Maintaining usability in our transportation infrastructure means that it is functional, safe, and accessible for all. In order for infrastructure to be usable, it needs to be in good condition and available. Infrastructure that is not available due to poor maintenance practices creates issues for our mobility and safety. This is especially true for users who are mobility impaired and rely on infrastructure to be accessible at all times to make their trips safely and reliably.

While a sidewalk can be completely accessible in theory because it follows proper design standards, if vegetation grows over it and blocks the pathway, then it is no longer usable. As of 2016, approximately 80% of our existing sidewalk network is functionally deficient, and, in some cases, this is due to vegetative overgrowth. We need to pursue strategies to quickly react to issues like these when they are reported and proactively work to maintain the right of way to ensure existing infrastructure is usable for everyone. Another example of proactively maintaining our transportation network is testing the flashing beacons used in school zone signs before the beginning of every school year. By proactively checking the condition of the lights on these signs, we can improve safety for all the people traveling through a school zone.

Comprehensive Infrastructure Assessments

The City regularly conducts a Comprehensive Infrastructure Assessment to account for infrastructure assets, including transportation infrastructure, and assess their condition. Infrastructure condition is dependent on multiple variables including intensity and frequency of use, weather and other environmental factors, the frequency of regular maintenance, age, human factors such as damage from crashes or other incidents, and relation to other infrastructure systems (e.g., electrical system).

Knowing this information is necessary to value assets and calculate replacement costs and remaining life. It also allows us to be proactive about managing, repairing, maintaining, rehabilitating, and replacing those assets. Infrastructure costs can be mitigated if deterioration is minimized by preventative maintenance and damage is detected early, rather than when the infrastructure is in poor or failing condition. Unanticipated emergency repairs or replacements are much more costly than work that is planned and budgeted. Having a consistent way to compile information about the transportation infrastructure conditions also allows decisions to be made about what to prioritize based on the relative needs of other assets.

Other factors such as risk, criticality, resilience, age, expected useful life, acceptable levels of service, desired performance, and capacity are important considerations in identifying capital maintenance and operational infrastructure needs.



Emerging Mobility Solutions

> *"Autonomous cars will revolutionize transportation."*
>
> —Community Member

Emerging mobility solutions can be defined as new technologies and services that are currently developing or can be expected to develop in the near term, and have the potential to enhance while also disrupt the status quo of the mobility landscape. Emerging technologies are not limited to new modes of vehicular travel, like scooters, connected and automated vehicles, low speed electric vehicles, and pedicabs. They also include innovation in operating our transportation network, such as sensors and communication systems. These technologies have the potential to move people and goods through our city in faster, safer, cleaner, more affordable, and more equitable ways. We must learn how to direct, adapt, and harness these emerging mobility solutions continuously over the next 20 years in order to meet our mobility goals.

Emerging technologies are evolving at a rapid pace. Traditional transportation options like walking, driving, taking public transportation, and bicycling will continue to be crucial ways to get around. But integrating emerging solutions into our current transportation network may improve efficiency and accessibility for our community. Automated vehicles, for example, have the potential to increase safety and accessibility for travelers, but also to create more congestion if not managed well. As with any new solution, challenges will arise that need to be addressed in order to ensure emerging options best help us balance community needs, safety concerns, and other shared values in Austin.

To maximize the benefits of emerging technologies, we must also continue to pursue collaborative partnerships and investments with local, regional, and national organizations in the public and private sectors. These partnerships help us learn from one another and create common standards related to emerging technologies.

Austin is known for its ability to embrace and encourage innovation. We prioritize solutions that improve the quality of life for Austinites by adapting technology to meet our community needs and goals. Policy development, public engagement, education, infrastructure projects, and equity are vital to the success of emerging mobility solutions.

Indicators and Targets



Increase the number of intersections with smart and connected technology that exchanges information with vehicles or devices



Increase the number of emerging mobility proposals evaluated annually

Emerging Mobility Solutions Policy 1

Evaluate emerging mobility solutions to meet community needs

Test emerging mobility techniques and technologies to better understand their impacts and opportunities and gather stakeholder input to maximize community benefits

The majority of new transportation technology innovations, from the bicycle to the airplane, were once emerging mobility solutions. As a community, Austin has often been an early adopter of technology, and new transportation solutions are no exception. We will strive to pilot emerging mobility solutions that help us meet our community goals and align with adopted plans.

Deliberate and careful testing in real-world conditions should be paired with interactive community engagement to improve community members' understanding of emerging solutions and their potential impacts. Incorporating feedback from community members will help us make decisions about where and how we use new services. This process will be continuously refined with local, regional, and national partners to ensure that we are supporting the best of emerging mobility solutions throughout the community.

Smart Mobility Technology Pilots Process

Austin Transportation has instituted a process that demonstrates, pilots, and proves emerging mobility technologies in partnership with the private sector. As an initial step in the development process, companies interested in testing their technologies in Austin must submit an Expression of Interest Form. This form allows staff to catalog and vet proposals based on municipal goals and community needs. These forms describe the company itself, the product they want the City to consider, and the municipal purposes the technology would serve.

After reviewing these interest forms, staff help companies move through three tiers of testing. The three testing tiers grow progressively, testing new features in additional locations for longer periods of time. Between each testing tier, Transportation staff conducts an analysis that assesses how well the technology worked, if it fulfilled its purpose, and if it should continue to be tested on a large scale. By the time a technology reaches the end of the process, it has been thoroughly evaluated and refined. This process helps Austin Transportation determine whether a given technology is suitable for Austin's mobility landscape.

Emerging Mobility Solutions Policy 2

Integrate emerging mobility solutions into existing transportation infrastructure systems

Incorporate emerging mobility technologies into the transportation network based on speed, size, and other safety characteristics

As emerging mobility solutions arrive in Austin, these solutions should be integrated into the current transportation network in a way that fits our needs. We will work to provide new infrastructure features, like electrification and communication systems as well as supporting systems, like data management and analysis, to accommodate new modes and transportation technologies. However, retrofitting our current systems and infrastructure takes time, and emerging solutions should be able to fit into the current transportation network in the meantime.

A good example of integrating emerging mobility solutions into our existing transportation infrastructure is using our existing Bicycle Priority Network to accommodate electric scooters. Our existing transportation network was not designed for or around the low-speed, electric scooters that are now in use in our community. However, electric scooters are very similar to bicycles due to their low-speeds and narrow profile. Our existing bicycle system infrastructure, including lanes on the street and parking off of the street, must be used in the short-term to accommodate scooters. Long-term planning will be able to take scooters, and data on their use, locations, and best safety practices, into account when designing new infrastructure systems.

For all emerging mobility solutions, we will use short-term measures to address physical and digital implementation needs until long-term improvements can be made. We will take speed, safety measures, size, and other characteristics into account when examining the best locations and ways to integrate emerging mobility solutions. We must ensure that the seamless integration of new innovations works for Austinites and makes our mobility options more effective for all.



Emerging Mobility Solutions Policy 3

Invest in infrastructure that enables the adoption of emerging mobility technologies

Invest in infrastructure that supports the adoption of emerging mobility technologies through innovative business models

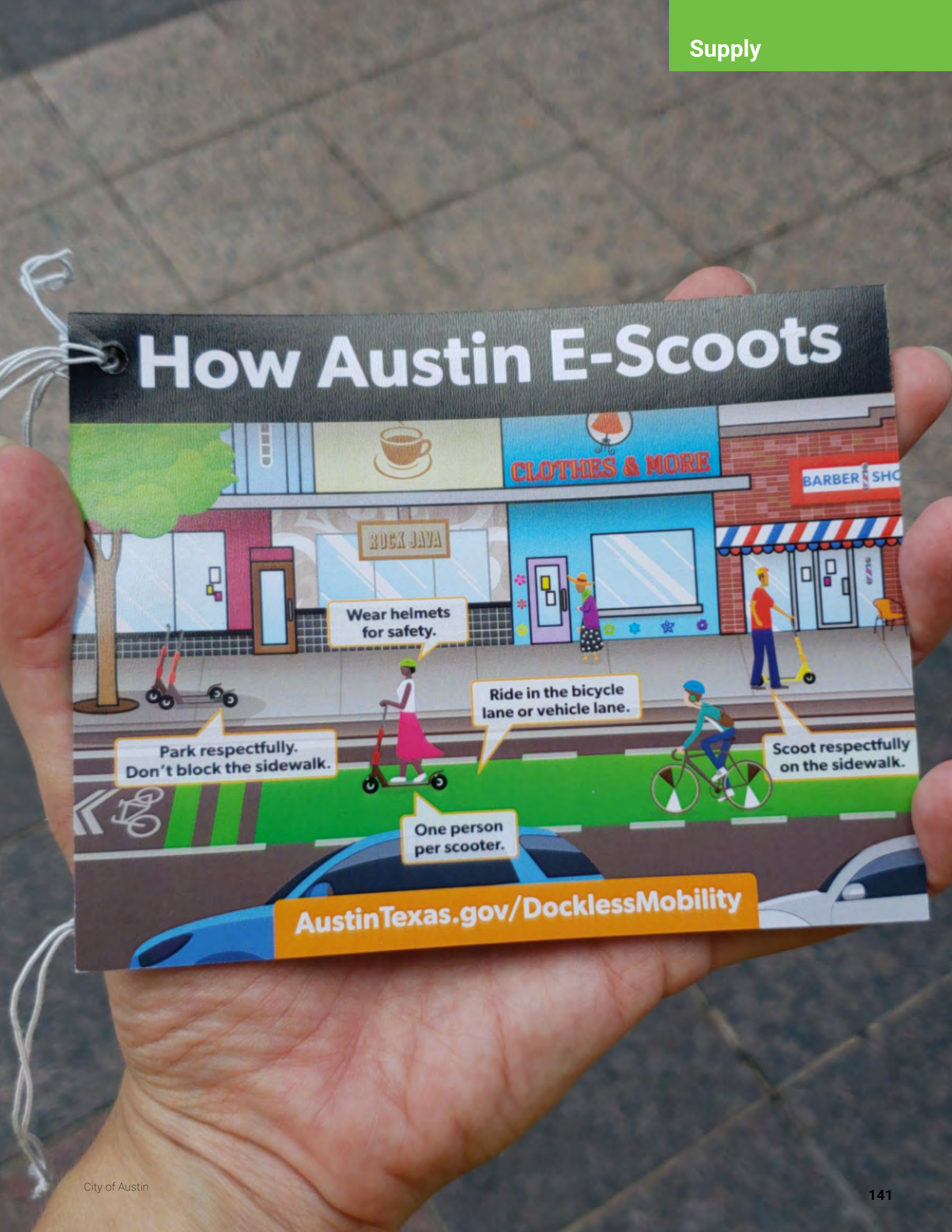
We must ensure that emerging mobility technologies and solutions contribute to the long-term viability of our transportation network. New investments in strategically planned and placed capital improvements, along with supporting features, like data analytics and processing, may be needed to help connect these emerging technologies to our transportation network. Wi-Fi and connected vehicle technology are a few examples of placemaking infrastructure that can enhance our community and improve safety, accessibility, and digital connectivity.

Investment in new types of mobility infrastructure is a long-term measure. However, both the public and private sectors can help us support our growing need for adaptable infrastructure through innovative business models and partnerships. In the long term, this investment in and development of new transportation-related infrastructure and supporting features will contribute to securing the future financial, environmental, and social sustainability needed for a truly resilient community.

Vehicle to Infrastructure Communication Technology

Communication technologies between vehicles and infrastructure are an innovative way to increase the safety, reliability, and efficiency of our transportation network. In 2018, Austin became the first city in Texas to install Vehicle to Infrastructure (V2I) technology on our transportation network. The V2I technology was installed at five major intersections in 2018, and two more intersections will receive the same technology in 2019. V2I uses digital short-range communication to connect vehicles with the traffic signal controller in real time, in essence, allowing vehicles and other devices to "talk" to each other. This can improve pedestrian and vehicle safety as part of the operations of the signalized intersection.

The small test devices can broadcast industry standard basic safety messages in the immediate vicinity of the intersection to surrounding vehicles equipped with onboard units. The basic safety messages indicate vehicle position, motion, brake system status and size, and provide vehicles with information and data, which is then used to illustrate intersection geometry using high-resolution formatting. This type of information will help future connected traffic signals and equipped vehicles communicate about pedestrian or bicyclist presence in the intersection, improve vehicle performance, and provide engineers with traffic data that can be used to improve safety and operations.



City of Austin



Aviation

While air travel is not a daily activity for most Austinites, it is an important part of our transportation network and vibrant economy. Central Texas depends on reliable air service from Austin to foster business and leisure opportunities as well as connect friends and families.

The vision for Austin-Bergstrom International Airport is "to be the airport of choice for Central Texas" and its mission is "to connect our community to the world with an Austin-style experience." As a destination city that people want to visit, and as the airport increases departure options, demand for air service continues to rise. This demand also means more airport-related jobs and local economic activity. The Austin airport generated $7.6 billion in economic activity and supports more than 74,000 jobs in the Austin area, according to a 2018 Economic Impact Study from TxDOT.

"Better connectivity to [AUS] would help promote greater levels of community and economic development."

—Community Member

Originally constructed in 1999, the Austin airport is a growing transportation hub for locals, visitors, and freight. Austin-Bergstrom currently serves more than 15 million passengers annually, beyond its original design capacity of 11 million passengers, and that number continues to grow. According to the airport's 2040 Plan to expand the airport, annual passenger volume is anticipated to grow to more than 30 million by 2040. While the majority of our airport passengers come from Travis County, in recent years passengers have come from 21 counties surrounding the greater Austin region, and even south of San Antonio. In addition to serving the Central Texas region, Austin-Bergstrom is also a reliever airport to surrounding Texas airports when they reach capacity, such as Dallas-Fort Worth, San Antonio International, George Bush Intercontinental, and Houston William P. Hobby airports. Due to this, the airport receives more flight diversions than any other airport in the country.

As more people and goods move to and from Central Texas, it is critical that our airport infrastructure and options in getting to and from the airport expand to support Austin remaining a regional and national leader. A steady increase in travelers, domestic and international flights, new technologies, and passenger safety regulations make it necessary for us to envision and position the airport to meet future needs. With expanded options in the future for transportation to and from Austin, Austin-Bergstrom International Airport could also serve as a mobility hub for communities traveling to and from the city by different modes, providing jobs and access to public transportation and other mobility services.

Indicators and Targets



Increase transportation options to and from Austin-Bergstrom International Airport



Increase shared mobility solutions on the AUS campus



Increase the number of airplane passenger seats in Austin market



Increase the number of AUS destinations

(In 2017, there were 58 domestic destinations; In 2018, there were 9 international destinations)

Aviation Policy 1

Expand mobility options to and from the airport

Increase the options for both travelers and employees to get to and from Austin-Bergstrom International Airport

As the eleventh largest city in the country, Austin visitors and residents expect many options to travel to and from the airport. In order to better manage congestion and provide options for travelers and employees to get to Austin-Bergstrom International Airport, we need to increase the number of affordable multimodal options to and from the airport. Currently, Austin-Bergstrom International Airport is not served by high-capacity transit and is only served by one frequent bus line. The airport's location southeast of Central Austin means that most people traveling to and from the airport are doing so by car, whether it is personal vehicle, taxicab, or ridehailing service, all of which add to the cost of air travel.

Providing more affordable options, such as high-capacity transit and Urban Trails to get to the airport would reduce travel costs, increase access, and decrease the space needed for parking which could be used for other aviation and commercial functions. Additional transportation options would also increase access to employment at the airport for people who do not have access to a car or are not able to drive. As passenger volumes are expected to double over the next 20 years, expanding mobility options will become even more necessary. We need to especially work with Capital Metro to plan for and provide high-capacity transit that connects to the airport.



Aviation Policy 2

Increase multimodal connectivity and options on the airport campus

Provide more ways for employees and visitors to get around the airport campus to reduce reliance on fossil fuels and encourage active transportation

With thousands of passengers and employees traversing the airport campus every day, it is important that we increase options to get around that don't require getting into a car. Currently, the transportation options on the airport campus are limited. Adding circulator services and micromobility devices, like scooters or bicycles, could help employees travel around the airport campus without having to drive a car. Active transportation modes can also decrease the reliance of airport operations on fossil fuels, reducing the airport's contribution to emissions generated by the transportation sector.

A personal rapid transit system, defined as an autonomous circulator for passengers as they arrive or depart from the airport, could greatly reduce the amount of vehicular traffic that needs to access the terminal and provide an opportunity for a regional ground transportation center or mobility hub at the airport. A personal rapid transit system would also reduce congestion at the terminal by allowing people who choose to park and those being picked up or dropped off at the airport to arrive at separate locations on the airport campus, but still make the final journey to the terminal via the same system.



Aviation Policy 3

Inform visitors about Austin's mobility options

Assist travelers in being less car-dependent when visiting Austin by providing them with convenient information to help them make mobility decisions

One of the ways we can improve the experience of visitors to Austin and reduce congestion is to inform them of their transportation options, potentially allowing them to be "car free" while in Austin. We should use technology and communication strategies to provide visitors with clear information about mobility options so they know they don't need a car to begin or end their trip to Austin. Driving around an unknown city can be stressful, and Austin offers different transportation options to travelers if they wish to be car-free. However, if we do not provide them with information on our public transportation and shared mobility systems when they arrive, they may have a difficult time learning about these systems. Visitors who have more information about mobility options, which can be delivered through tools such as display screens at the airport and mobile device applications, can make better decisions about how they can get around while in Austin.



Aviation Policy 4

Prepare for and design aviation facilities to adapt to emerging mobility solutions

Plan for, design, construct, and manage the airport campus to respond to changes in transportation preferences and technologies

As transportation to and from the airport diversifies and emerging mobility solutions enter the market, our airport needs to be adaptable. It is important that, as we expand Austin-Bergstrom International Airport to respond to increasing passenger growth, we consider the changing needs of transportation.

Currently, large portions of the airport campus are dedicated to parking private vehicles for passengers and employees. However, as high-capacity transit to the airport and automated driving vehicles become a reality, it will be necessary to repurpose facilities dedicated to housing automobiles for better uses, such as cargo facilities, other commercial uses, or facilities to support airport operations. In preparation, parking garages should be built to be adaptively reused to make the best use of airport land when parking demand decreases.

Shared mobility solutions, such as ridehailing companies also require us to adapt to accommodate waiting vehicles as well as passenger loading and unloading to ensure efficient airport operations. As dockless mobility services expand beyond the urban core, we will also need to prepare to manage the storage of these vehicles so they are accessible by passengers and employees.



Aviation Policy 5

Coordinate wayfinding to, from, and at the airport

Provide a seamless user experience when navigating to, from, and within the airport

Wayfinding is a system of signs and markings that show us how to get to where we are going. Wayfinding to and from an airport is especially important, since visitors may not be familiar with our transportation network. We can make arriving at our airport a more user-friendly part of someone's journey by having clear messaging about how they can get to their destination.

Most people who arrive in or leave Austin, whether they are residents or visitors, arrive at Austin-Bergstrom International Airport by car. For this reason, it is critical that we have clear signage along major corridors that lead to the airport to make that experience more seamless. Fixed route signs, such as the standard green highway signs, should be clear, well-maintained, and consistent. Digital signs that are dynamic and offer more information, such as how far in minutes someone is from the airport, also strengthen wayfinding. Public transportation options should have clear signs indicating which routes service the airport. As transportation options to and from the airport evolve, it is increasingly necessary to work with our partners at the TxDOT and Capital Metro to expand wayfinding tools to provide clear information on how to navigate seamlessly between the airport and different parts of Austin. Similarly, wayfinding within the airport campus should be clear and easy to understand, minimizing decision points and providing ample advance notification.

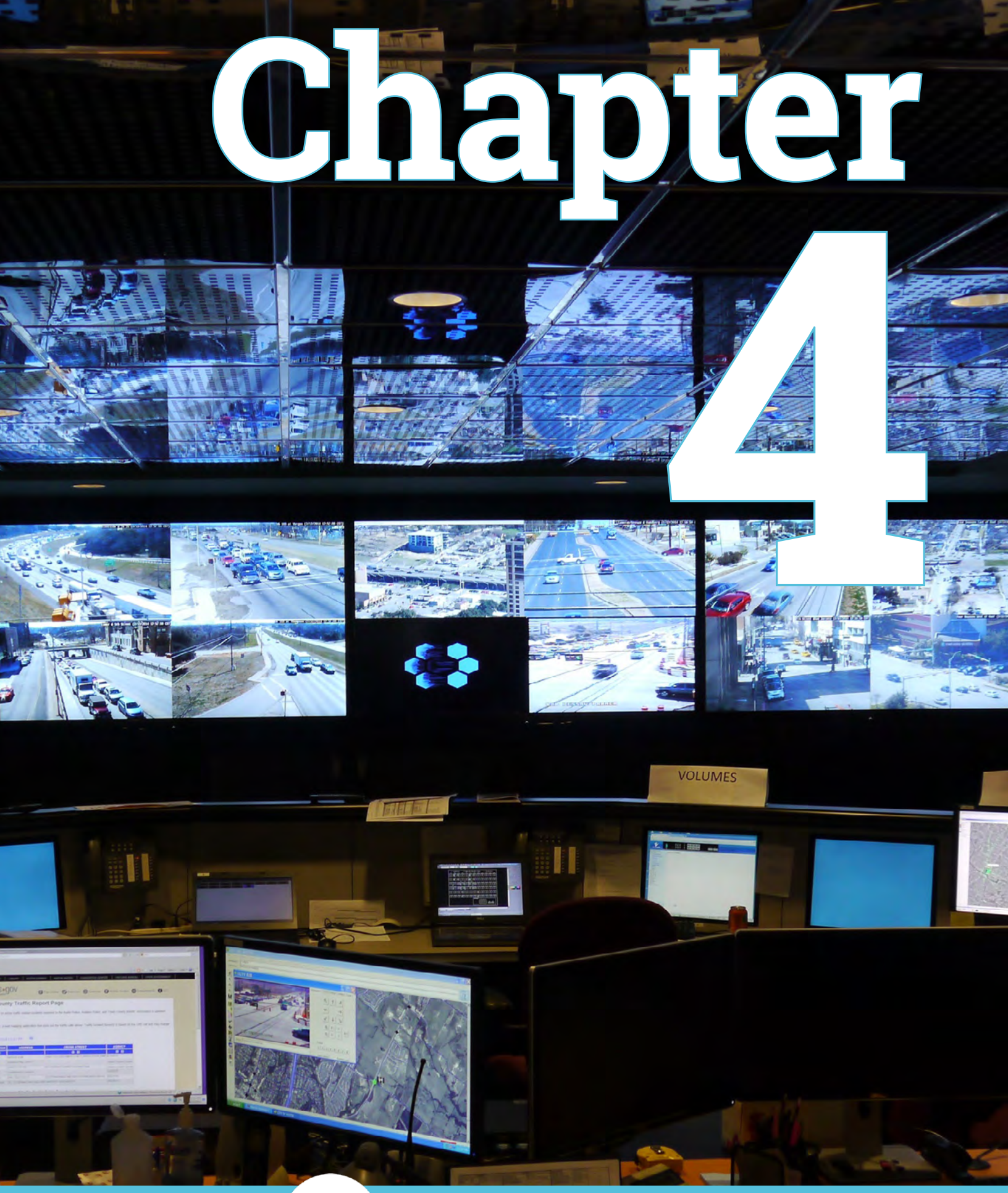
International Example: Heathrow PRT System

Heathrow Airport in London has a 21-vehicle personal rapid transit (PRT) system that connects travelers using Heathrow's Terminal 5 with its designated parking lot. Each driverless vehicle, known as a pod, is powered by electric batteries and can hold up to four people and their luggage. The PRT at Heathrow has three stations. When riders enter the pod they select their destination. Unlike traditional transit systems, the pod will go directly to the destination entered by the passenger and will not continue to a station if the riders do not select that station.

Austin Bergstrom International Airport (AUS) is exploring the possibility of a PRT system and other circulator technologies. AUS hopes these systems could offer several benefits, including decreasing roadway and curbside congestion on the airport campus. They could also provide inter-terminal and/or concourse transportation, while potentially integrating with a high-capacity transit system.



Chapter 4



GETTING THERE TOGETHER ASMP

Operating Our Transportation Network

Operating our transportation network means ensuring that all the parts of our network are running normally and correctly. Our traffic signals must be functioning, painted lines on the street must be visible, and signs must be standing so they can be read by people. Transportation network operations involve care and maintenance over these pieces of infrastructure, as well as guidelines and standards to ensure that certain events involving the transportation network are dealt with safely and efficiently.

A well-run transportation network will be able to accommodate unforeseen or temporary changes. When a traffic crash occurs, first responders must be able to access the site, and our transportation network must react to this unexpected closure. Special events like street festivals use our streets and sidewalks, removing them from the network temporarily. The construction of new buildings and infrastructure repairs are other temporary changes that affect how smoothly people move on our network. Managing and planning for these disruptions ensures that our network can continue running safely, reliably, and efficiently.

This chapter emphasizes system efficiencies. Efficiencies can be achieved through improved transportation operations, such as maintaining signal infrastructure. Better managing closures and detours on our transportation network helps people more efficiently move around or through disruptions. Clear guidelines on how to move freight on our network will improve local freight operations and increase our network's efficiencies. Well-run operations will ensure our network will be safe, reliable, and efficient for our community.


VOLUMES

Policy Summary

Transportation Operations

Policy 1 Operate the transportation network safely, reliably, and efficiently
Policy 2 Build and maintain technology infrastructure to meet the needs of all users
Policy 3 Increase real-time responsiveness to changing transportation conditions
Policy 4 Strive for connected operations across departments, agencies, and jurisdictions
Policy 5 Allocate signal timing to coincide with modal priorities
Policy 6 Manage the movement of oversize and overweight vehicles

Closures and Detours

Policy 1 Accommodate all users safely when there are closures and detours
Policy 2 Ensure detours are accessible and convenient
Policy 3 Lessen the impact of temporary right of way closures on mobility
Policy 4 Streamline and enforce closure and detour requirements
Policy 5 Include all modes and users in special event planning
Policy 6 Provide helpful information about closures and detours to partners and the public

Goods Movement

Policy 1 Support reliable freight operations and efficient goods movement through, into, and out of Austin
Policy 2 Recognize, plan for, and mitigate impacts of goods movement
Policy 3 Improve safety and predictability of hazardous materials movement through Austin
Policy 4 Support local and last-mile goods delivery innovations
Policy 5 Participate in state and regional freight planning efforts



Transportation Operations

Our infrastructure is only as effective as how we use, operate, and maintain it, and we are dedicated to managing mobility and safety for all modes that get around on our transportation network.

Transportation operations define how we safely and efficiently assign space to travelers throughout the transportation network. The most visible examples of how we operate our transportation network are through traffic signals, traffic control signs, and pavement markings. Traffic signals provide safe and efficient movements for all roadway users through an intersection. A variety of technology and infrastructure is used to operate traffic signals and to manage them remotely, and emerging technologies may improve our ability to operate more efficiently in ways we have yet to discover.

> *"Traffic signals need to be synced for better flow during peak hours."*
>
> —Community Member

Markings, which are the lines and symbols on the surface of our streets and Urban Trails help different users know where they should be and what they can do. Some examples of markings include turn lanes, parking symbols, arrows, crosswalks, dividing lines between different directions of traffic, bicycle lanes, and "stop bars" (the thick lines at an intersection or crossing that indicate where to pull up to and stop). Traffic control signs help indicate where to go, what is allowed, and what is not allowed. They are placed to improve safety and mobility for school zones, crosswalks, yielding, and parking, among other things. Traffic control signs also give us information about what is around us to help make decisions and can alert us to potential conflicts or dangerous situations.

All of the ways we operate our transportation network can help us support our mobility goals. More efficient roadways can lead to fewer vehicle emissions, helping protect our health and environment. Operations also have a big role to play in decreasing commuter delay and helping us maintain more reliable travel times.

Indicators and Targets



Increase the number of signalized intersections that can be remotely monitored

Achieve and maintain ability to remotely monitor 100% of signalized intersections by 2020



Increase the number of signalized intersections with emergency vehicle preemption capability



Increase the efficiency of detection equipment at intersections

Achieve and maintain efficient detection for all modes of transportation at 95% of locations with actuated signals by 2023



Increase the frequency of adjusting timing and phasing of signalized intersections

Assess and adjust 33% of all signalized intersections every year



Increase the number of signals and pedestrian hybrid beacons constructed or upgraded

Construct at least 75% of requests received annually that have been determined to be currently justified by an engineering study



Increase the person-carrying capacity of the transportation network



Decrease the percentage of signs and markings in poor or failing condition

Transportation Operations Policy 1

Operate the transportation network safely, reliably, and efficiently

Promote safe, reliable, and efficient mobility for all modes of transportation across the entire network

Operating our transportation network is about getting everyone where they need to go, when they want to get there, safely, reliably, and efficiently. Today transportation comes with inherent risks to travelers. While we cannot eliminate risk entirely, safety is our number one goal and we seek to reduce risk, especially to vulnerable road users. For example, a broken pedestrian push button is considered an emergency priority for repair. Another example of prioritizing safety in transportation operations is ensuring that our first responders can arrive quickly and safely using technologies such as emergency vehicle preemption.

Providing reliable operations is also an important goal. Traditionally, transportation engineers have focused their work on reducing vehicle travel time. However, vehicle travel time does not account for other factors such as safety, comfort, and predictability for the trips that we take. Although it is appealing to focus on shorter travel times, we must consider "travel time reliability," which offers a holistic view to improving transportation operations. For example, if you often encounter a crash or unusually heavy traffic on your way to work, your travel time is not very reliable. To compensate for this lack of reliability, we typically leave early, which is time that could be spent in other areas of our lives.

A successful, inclusive transportation network must also consider the different needs of people with varying mobility needs and vehicle types across all modes. People traveling by foot and bicycle may not be as visible to people who are driving and may need a head start to travel through an intersection. New strategies and devices in our transportation network can help everyone move more safely.

Waze Connected Citizens Program

Austin Transportation is a member of the Waze Connected Citizens Program (CCP), which gives City staff access to real-time anonymized traffic and incident data generated by Waze users. City staff submits data to Waze on planned road closures and detours, like those due to special events or roadway construction, so the Waze app can redirect users to take alternate routes. In exchange for sharing this data, Waze sends notifications of crashes and unusual congestion to Austin Transportation staff, who then update signal timing plans and disseminate information as appropriate to keep our transportation network operating safely, reliably, and efficiently. Through this information-sharing, the CCP helps improve travel time reliability by helping Austinites make more informed travel decisions, getting us where we want to go, when we want to get there.

Transportation Operations Policy 2

Build and maintain technology infrastructure to meet the needs of all users

Supply all modes with the necessary, innovative technology infrastructure to keep pace with the existing and future transportation network

Technology powers and influences our transportation network. Smart intersections, innovative traffic control signals, and new modes of transportation are a few of many different transportation technologies that affect the safety, reliability, and efficiency of our network. By recognizing, acquiring, and maintaining new technology that is available for all modes of transportation, we will help our transportation network grow and adapt to emerging mobility technologies as they develop.

Our transportation network must accommodate current technology and prepare for future technology. One existing technology that is becoming widespread is the pedestrian hybrid beacon. The pedestrian hybrid beacon is a button-activated traffic control signal that allows pedestrians to safely cross streets where there may not be a traffic signal. Some technology is not widely used yet, but we still must prepare for its adoption. Vehicles that use dedicated short-range communications (DSRC) to communicate with traffic signals are an emerging technology. This technology helps an intersection and vehicle communicate with each other, which increases transportation network safety and efficiency. We must pursue and integrate new technology for all modes, not just a few, so that we can increase the overall safety, reliability, and efficiency of our transportation network.

Building infrastructure to support this technology is important, but maintaining it and educating our staff and community on how this technology works is equally important. Public communication on how to use innovations like pedestrian hybrid beacons is crucial to ensuring that we properly use our infrastructure. City of Austin staff must also be trained on how to use, operate, and maintain this new technology. Proper maintenance of the technology will maximize its value to travelers and its useful lifetime. City of Austin staff must also be trained to test and incorporate new technology as it becomes available. Continuous innovations in technology require that we stay aware and knowledgeable about how we can improve our transportation infrastructure and achieve our mobility goals.



Transportation Operations Policy 3

Increase real-time responsiveness to changing transportation conditions

Mitigate safety and congestion concerns that arise from events and incidents that cause unusual traffic patterns

The City of Austin's Mobility Management Center (MMC), formerly the Transportation Management Center, is the headquarters for monitoring mobility and managing traffic in real time throughout the Austin area. The MMC is staffed every day of the week from before the morning peak travel time until after the evening peak travel time, as well as during special events. Staff at the MMC monitor the transportation network through cameras, signals, and sensors to ensure smooth operations. From the center, City staff are able to, among other things, help the transportation network accommodate construction, assist first responders at an incident, make adjustments in response to congestion, and inform travelers and agencies of unforeseen issues.

Optimal use of the MMC requires experienced and knowledgeable people, appropriate and decisive action, and collaboration among different partners to ensure the best result is realized. Adequate staffing and hours of operation are critical for effective MMC operation. When an incident does occur, MMC staff must be able to quickly address the issue, which often includes alerting emergency services and working with other partners to ensure there is a quick solution. We must be able to see and predict how the network will be affected by this crash, and use our resources to modify traffic signal operations, dispatch a signal technician to make a repair, and alert the public about the incident.

HERO Program

TxDOT and CAMPO partner together to run the Highway Emergency Response Operator (HERO) patrol service program. HERO is a free program that assists motorists in need and clears minor crashes along certain roadways. The program operates on highways in the Austin area. This includes stretches of I-35, US 183, US 290, SH 71 and MoPac/Loop 1.

The goal of the HERO program is to improve safety and keep the highways clear of incidents. The program was established in 2010 and quickly grew from covering 34 miles of roadways to the 138 miles it currently covers. HERO trucks include digital messaging that help provide information about the incident to oncoming traffic, as well as cameras and feeds to keep the Combined Transportation, Emergency & Communications Center (CTECC), a regional center for emergency response coordination, up to date on the incident.

The HERO program offers a wide variety of services, ranging from jumping dead batteries to removing debris from travel lanes to providing water to stranded motorists. The program is accessible by phone, seven days a week. It currently operates from 5 a.m. to 9 p.m. Monday- Friday, and 7 a.m. to 7 p.m. Saturday and Sunday.

Transportation Operations Policy 4

Strive for connected operations across departments, agencies, and jurisdictions

Partner across administrative and jurisdictional boundaries to ensure a seamless experience for travelers in the region

We must ensure that our community's mobility experience is consistent beyond Austin's boundaries. Travelers do not know, or care, when they move across jurisdictional boundaries while traveling. Neither do they know nor care which department or agency is responsible for providing infrastructure or staffing. For example, several major corridors within City of Austin limits are owned by the Texas Department of Transportation (TxDOT), and, conversely, several TxDOT and Travis County signals are maintained by the City of Austin. We are committed to working with our partners across jurisdictional boundaries to ensure a seamless experience for the traveler. Coordination is not only needed across these boundaries, but also within the City of Austin. We will work to continuously strengthen interdepartmental relationships to ensure a smooth experience for everyone.

To that end, we are joining with partner transportation agencies, such as TxDOT, CTRMA, and Capital Metro to create "One System" of operations for roadways. Working side by side, these agencies can communicate in real time about traffic incidents and work together to develop transportation safety and congestion management. Not only is it more efficient to combine operations, but the end result is a seamless mobility experience for the traveler.



Transportation Operations Policy 5

Allocate signal timing to coincide with modal priorities

Prioritize green time based on the priority networks and surrounding context

Much like we allocate space in our transportation network, we can also allocate time. We control the green and red times not just for our motor vehicle signals, but also our pedestrian walk signals, bicycle or transit signals, and turn arrows. This gives our transportation network flexibility when dealing with different travel demands on certain streets across different modes throughout the day. To keep our network moving as safely and efficiently as possible, we will time our signals to allow for the most efficient movements along priority networks whenever possible.

Properly-timed signals require a combination of data, technology, and evaluation. The Vehicle, Transit, and Bicycle Priority Networks deserve careful consideration and coordination when prioritizing green time for the most efficient travel of each of these modes. These roadways carry the most people and are critical to our overall transportation network. These priority networks are the basis for where we should focus signal retiming. Our equipment should also allow us to control and quickly change them to avoid interruptions and ensure smooth operations. By planning for, installing, and maintaining infrastructure that accommodates quick response across different modes of transportation, we can achieve a safe, efficient, and reliable transportation network.



Transportation Operations Policy 6

Manage the movement of oversize and overweight vehicles

Increase the reliability and sustainability of the transportation network by managing the movement of larger vehicles

To keep our network operating safely, efficiently, and reliably, it is necessary to manage the movement of certain vehicles above a certain size or weight. This management includes designating routes for the transport of hazardous materials and posting overpass height limitations for trucks and other taller vehicles.

The State of Texas defines what is considered oversize or overweight, and these designations often depend on the type and make of the vehicle. Oversize vehicles range from being 8 feet wide by 14 feet high to an almost unlimited length depending on the vehicle. Overweight vehicles range from 20,000 to 80,000 pounds gross vehicle weight.

Oversize vehicles face numerous difficulties maneuvering in cities, because they require sufficient area to make turns and must fit beneath underpasses. Overweight vehicles face similar problems and require greater stopping distances, and not all bridges can safely support their weight. In addition to the difficulties of operating these vehicles, oversize and overweight vehicles can also pose significant safety issues in urban environments. Given these vehicles' dimensions, people on foot and bicycle may not be visible below elevated truck cabs, and narrow urban streets may increase risks between these vehicles and other people traveling

Acknowledging and preparing for oversize and overweight vehicles will go a long way to safely and efficiently managing these vehicles. Setting routes for them, publishing maps, and installing and maintaining clear signage will allow these operators to plan a safe and efficient route to their destination. Collaborating on logistics, moving, and construction with companies that frequently operate oversize and overweight vehicles will also help us prepare routes so that these vehicles can reach their final destinations safely, while others on our transportation network are kept safe, as well.

National Example: goDCgo Bus and Truck Map

Washington, D.C. released a truck and bus map to help oversize vehicles manage their movements on the city's narrow streets. The map shows through routes, loading/pick-up zones, and parking locations for trucks and buses. Any restricted areas are differentiated by whether the restriction is for bus, truck, or both, and includes the size in feet of the restriction. This tool is publicly available, and it is used by the trucking industry along with the District to plan truck routes throughout the city.



Closures and Detours

Planned, temporary disruptions to our transportation network are necessary to keep our transportation network healthy and running smoothly. Regular maintenance to our transportation infrastructure, work on the utilities that run above, below, or alongside our transportation facilities, and special events such as street festivals are all important activities that require a closure along our network.

Closures and detours on our transportation network can take many forms. A work zone will often close part of the street to perform maintenance or construction activities. The closure might affect traffic lanes or sidewalks, require overhead work or be a short-term (work completed in 30 days or less) or long-term closure. As our city grows and ages, the need for these closures and detours become more frequent.

> *"Plan out the projects so detoured traffic has somewhere to flow without getting gridlocked by multiple work zones."*
>
> —Community Member

Maintenance on the transportation network is not the only reason a closure may occur. Our streets, as important public spaces, often host social and neighborhood events and activities. Special events like festivals, block parties, and parades all require the use of our transportation network, and they all result in street closures or detours. It is important that we balance the civic functions our streets support and offer, while also preserving mobility throughout our network. Natural disasters, such as flooding or wildfire, as well as traffic incidents, could also cause closures and detours on our transportation network.

Whenever they occur, detours on our transportation network must maximize safety. Detours should be limited and convenient for all to ensure that people follow the detour and do not risk injury. Information should be communicated clearly and early to the public, and detours should be planned for all modes. All detours must be accessible. Safety for workers in work zones must also be considered. The Federal Highway Administration found that, on average in 2015, a crash occurred in a work zone every five minutes across the country, and that every week there were 12 work zone crashes that resulted in at least one fatality. Enforcing our regulations and ensuring that traffic control plans are being adhered to will help us keep our closures and detours as safe as possible.

Well-planned closures and detours will strengthen our community. It is critical that we are able to perform routine and emergency maintenance on utilities and other infrastructure that live within our transportation right of way. We must also be able to use our streets for their many different functions. Well-planned temporary changes to our transportation network will allow us to accommodate closures and detours on our transportation network with as few impacts to mobility as possible.

Indicators and Targets



Decrease the number of crashes reported in work zones in City of Austin right of way

Achieve zero crashes reported in work zones in City of Austin right of way every year



Improve the review time of traffic control plans

Review 100% of traffic control plans within 9 business days



Decrease the number of closures and detours on major downtown streets during peak hours



Increase the number of special events providing and encouraging multimodal travel options

Closures and Detours Policy 1

Accommodate all users safely when there are closures and detours

Prioritize safety for all travelers and site workers over efficiency when there are changes to normal transportation operations

The safety of everyone who uses the transportation network is our top priority. This is reflected in our mobility decisions, and is no different for closures and detours on the network. All closures and detours must ensure the safety of people on the transportation network, regardless of mode. It is critical that this safety perspective includes not just people moving along the network, but the safety of anyone working within the closure, as well.

There are a variety of strategies that can be applied to help ensure safety when there are closures or detours, and the correct application of these strategies requires a careful, context-sensitive approach. Proper signage and communication of closures is imperative to ensure safe movement along our network. Enhanced crossings, such as pedestrian hybrid beacons, refuge islands, or rectangular rapid flash beacons can be used to assist pedestrians, particularly if it is in a known high-injury location. Lower speed limits, clear posted notices, and flaggers to assist roadway users will help ensure safety. Proper lighting, equipment like barriers to separate modes, and safe access to a reasonably convenient detour will all contribute significantly to elevating safety. Detours must be simple to follow, well-signed, and convenient so people will complete the detour. A safe detour must also allow people to use it without any assistance if flaggers or workers are not present.



Considering different modes when planning a temporary traffic closure or detour is critical. A sign intended for a car must be posted early enough and be large enough that a driver can see it. Steel plates, while important for covering holes, can be very dangerous for bicyclists to maneuver on or around. Proper drainage is necessary so people can walk through a site. The safe movement of everyone on our transportation network is the cornerstone of an effective transportation network, even when there are temporary closures or detours.

Closures and Detours Policy 2

Ensure detours are accessible and convenient

Create detours that take into account modal and user abilities, preferences, and capacities

Detours are often a hassle regardless of transportation mode. Whether you are a driver, bicyclist, pedestrian, or using another mode, detours present unexpected changes that typically add time to our trips. Although they are necessary to maintain the health and vitality of our transportation network and our community, detours must be context-sensitive and reflective of how people actually use and react to them. Detours must be limited whenever possible, convenient when necessary, and accessible to people with mobility impairments.

Accessible detours are mandated by the Americans with Disabilities Act of 1990 (ADA). Accessibility guidelines, from the ADA, the Manual on Traffic Control Devices, and our Transportation Criteria Manual outline the necessary steps to create an accessible detour. Accessible detours must also be maintained throughout the temporary closure. Although the location of work often changes within the work zone, it is critical that an accessible path is always available for people with mobility impairments. This includes considering the width and surface of the detour, as well as providing curb ramps that allow access to and from the detour. Proper lighting, colors with high contrasts, and audible and tactile messages are also necessary. Handrails and guide rails may also be necessary depending on the specifics of the detour.

A convenient detour must be properly planned for people across modes and of all ages and abilities. Convenience for drivers will require different signage than convenience for cyclists or pedestrians. Detour lengths will also differ based on mode, but should be as short as possible. People will only tolerate so much inconvenience, and inconvenient routes could lead someone into the street, a work zone, or other dangerous location. The length that a detour will be in place will also affect the convenience of a detour. A temporary closure in place for just a few hours will be used differently than one that is in place for several weeks.

It is important to plan out how people will actually use the detour before it is installed. "Will it cut off access to a transit stop," "can people see information about the detour," and "is there sufficient protection from motor vehicles" are just a few questions that should be asked when designing detours. By considering how different people and modes will react to a detour, we will be able to make our detours accessible and as convenient as possible for all users.



Closures and Detours Policy 3

Lessen the impact of temporary right of way closures on mobility

Limit and coordinate closures, including for special events, on the Vehicle, Transit, and Bicycle Priority Networks to minimize disruptions to transportation network operations

Routine maintenance, special events, and unforeseen issues will always require closures in the transportation network. While accommodations for maintenance and events are necessary, we should strive to maintain mobility along our priority networks.

The Vehicle, Transit, and Bicycle Priority Networks carry the most cars, public transportation riders, and bicyclists. Many of these roads are also major pedestrian thoroughfares. Due to the high volumes of people using these transportation facilities, disruptions from temporary closures are even greater. While work-hour restrictions already limit road closures on major arterials at rush hour times (6:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m.), appropriately limiting the number of closures will also help ensure our transportation network runs as smoothly as possible for as many people as possible.

There are several ways to help ensure that planned, temporary closures on the network are limited. Currently, only work in the Downtown Austin Project Coordination Zone is required to meet additional criteria for temporary closures on the transportation network. Extending this requirement to cover the Vehicle, Transit, and Bicycle Priority Networks would help ensure that projects that close streets on these networks receive extra scrutiny. Additional coordination could help concurrent projects; coordinating projects in similar locations will reduce the amount of time these priority networks are closed. Expanding work hours and permitting work to take place at night could allow street work to be completed quickly, reduce unsafe traffic exposure for workers, and lessen the impact closures have on our mobility. An overall limitation on the number of times major city streets are closed for non-emergency purposes would also help ensure our transportation network supports our mobility needs as often as possible.



Closures and Detours Policy 4

Streamline and enforce closure and detour requirements

Improve processes to enable enforcement of traffic control requirements across all projects

To occupy or close a portion of our right of way requires both a traffic control plan and an approved permit. The requirements for these differ based on the specifics of each project, and City staff review each to ensure that the closure of the transportation facility is necessary and that safety and mobility will not be affected by the closure or detour.

As our community has continued to develop, expand, and age, the number of requests to enter the right of way, either to build something new or maintain or fix something that already exists, has increased. To help ensure that the safety of transportation users, as well as of workers in work zones, is prioritized, as well as limit impacts on our transportation network, we must improve the way we process and handle requests to temporarily close transportation infrastructure.

There are several ways we can improve the way we handle temporary traffic closures. Creating standardized traffic control plans that help applicants supply the necessary information and reduce the time and effort City staff need to review these plans will help increase the amount of requests City staff can handle. Currently, it often requires more time and energy to help applicants create and correct these plans and help them through the permitting process than it takes to actually review the plan and permit.

Increasing inspections and the enforcement of violations will help ensure that work zones are adhering to their plans, are providing safe and necessary accommodations, and are completing their work quickly. Focusing inspections along priority networks will help ensure safety and mobility are the top considerations when temporary traffic closures or detours are necessary. Increased enforcement will help ensure that detours are accessible for all and that accessibility violations are addressed as quickly as possible. Locating reviewers and inspectors together in the Mobility Management Center will improve coordination among different City departments that oversee traffic control requirements.



Closures and Detours Policy 5

Include all modes and users in special event planning

Plan for special event attendees to access events through all modes of transportation and encourage shared mobility options

Special events strain the transportation network in several ways. In addition to sometimes closing streets and parts of our transportation network, they often fill our streets to capacity as many people try to go to the same place at the same time. This overwhelms our network at certain points. By facilitating and encouraging users to arrive at special events through all modes of transportation, we can help manage the demand on our transportation network that these special events generate.

Including all modes and users in special event planning will support the event itself in several ways. It will spread people across our different transportation systems, making it easier for people to arrive or depart the event. It will provide a safer environment for everyone by creating a clear plan for how pedestrians, bicyclists, and other multimodal users should arrive at or depart from the event. Planning for all modes and users also reduces conflicts between different transportation modes. Many special events attract higher numbers of pedestrians than normal, especially if there is limited or restricted parking at the event. Clearly delineating how each mode can access the event, like sharing information on where mode-specific parking areas are, or designating pick-up or drop-off locations for ride-hailing and shared mobility options will support the event and create a safer environment for both attendees and community members in general.



Planning for all modes also requires creating clear and easily understandable instructions for the public to follow. A good plan without proper implementation will not help the public understand new rules or accommodations in place for the event. Disseminating information, like setting up signage along a pedestrian route, will assist people in accessing the event. Other multimodal accommodations, such as pick up or drop-off zones for ride-hailing or mode-specific parking, should be clearly shown on maps and signage distributed to event attendees and made available to the public as well.

ACE and the Special Events Ordinance

Austin is home to numerous well-known special events. Austin City Limits, the Austin Marathon, and the Pecan Street Festival are just a few major events that draw tens of thousands of people into our community every year. These special events not only bring in lots of visitors, often causing strain on the transportation network, but they require the use of our right of way, closing parts of the network and requiring detours.

As our community has grown, the desire to host events here has, too. To help deal with the increasing number of applications for the limited amount of space in our community, the City created the Austin Center for Events (ACE). ACE is a collaborative office designed to streamline special event permitting. ACE is anchored by experts from transportation, music, police, fire, EMS, and other departments, agencies, and facilities. By combining offices and creating a "one-stop shop" for event permits, ACE is able to ease the burden on event organizers, while also reviewing the amount of available public space and resources being used each day.

Dovetailing with the creation of ACE and their event planning guidebook, the City released the Special Events Ordinance (SEO) in 2018. This ordinance helps regulate and standardize the many different events that happen in Austin. The SEO creates four tiers of events that differ based on estimated number of attendees, the length of the event, whether or not the event is at a city facility, and how many municipal resources must be dedicated to the event.

The creation of ACE and passage of the SEO have helped bring focus to the impacts special events have on our transportation network and other municipal resources. Regulation like the SEO and a centralized office such as ACE allow the City to maintain a birds-eye view of all the events around our community that could be affecting the transportation network, and it allows us to plan for these atypical conditions. By planning ahead we can support both special events, which are important social, economic, and community activities, while also ensuring the continued safety and mobility for people on our transportation network.

Closures and Detours Policy 6

Provide helpful information about closures and detours to partners and the public

Provide closure and detour information for all functional abilities to the public and coordinate closures with mobility service providers

Austin Transportation gives advanced notification of restrictions to our transportation network. These notifications allow the general public, various transportation stakeholders, and mobility service providers, including emergency service responders, to make necessary preparations and adjustments to their operations. The notification system currently depends on the type of roadway affected and the duration of the planned closure or detour. We attempt to distribute helpful information about closures and detours through a variety of methods, including Austin 3-1-1, direct public outreach by neighborhood or community communications, press releases, coordination with navigation apps, and dynamic message signs on our streets. Certain projects, by nature, entail long-term closures, like large-scale developments and capital projects, and additional notification may be necessary for longer or more major disruptions.

Moving forward, we should develop and implement tools that disseminate real-time information about active work zones. Tools like these are helpful to alert our public transportation providers, like Capital Metro and CARTS, when operational changes need to be made that could affect their service. Additionally, knowing real-time conditions about closures and detours can also help route first responders quickly and effectively in the case of an emergency.

We would like to expand the accessibility of our notification methods to alert people of all functional abilities of changes to normal transportation operations. For example, currently, we may only require diversion signs mid-block to alert a pedestrian of a smaller or shorter sidewalk closure. In some cases this is adequate notice for pedestrians to find and follow an alternate route. However, pedestrians who are blind or low-vision may not be alerted to the sign until they come upon it and would not necessarily know which way to head for an alternate route to the sidewalk closure. Exploring how innovations in closure and detour alerts, including both physical and digital systems of notifications, can assist people with mobility impairments navigate changes to our transportation network will increase the safety and usability of our network for everyone.





City of Austin



Goods Movement

Our transportation network serves a critical role in the movement of goods throughout Austin—and goods are essential to our daily lives, whether it is food, medicine, clothing, or fuel. The movement of goods through Austin is also critical to Texas' economy and position as a leader in the global economy. Austin's multimodal freight network includes roads, railways, and airports, and provides for the movement of materials and finished goods. The operation of the multimodal freight network also employs thousands of people, contributing to our thriving economy. With the projected population growth in Austin and in Texas as a whole, significant growth in freight is expected over the next few decades. Much of this growth will occur in the mega-region called the Texas Triangle (Houston-Dallas-Fort Worth-San Antonio-Austin), furthering the need for our transportation network to support this growth in the movement of goods.

> *"Shift through traffic on I35 especially truck traffic."*
> —Community Member

Goods movement can have varying impacts on communities, which must be considered in the planning of our transportation network. Not surprisingly, areas of high freight activity in Texas are also highly congested. Nine of the top 50 freight bottlenecks in the United States are found in Texas, with one being in Austin: I-35 through central Austin. Congestion erodes the safe, efficient, and reliable movement of goods, negatively impacting the end users, including Austin business owners and community members. Traffic incidents involving freight vehicles can also have impacts on our community if the materials being transported are hazardous to people or to the environment.

With the rise in e-commerce, local and last-mile goods movement is a growing need. Technology for such goods movement is quickly changing, requiring engagement between public and private sectors to minimize the potential impacts of new delivery technologies, like autonomous robots, while maximizing safety, access, and efficiency.

Indicators and Targets



Improve travel time reliability for freight operations



Improve the flow of freight traffic



Reduce the number of crashes involving non-radioactive hazardous materials



Improve the productivity of dwell time for commercial delivery vehicles



Increase the number of last-mile delivery options

Goods Movement Policy 1

Support reliable freight operations and efficient goods movement through, into, and out of Austin

Provide for the safe, efficient, and reliable movement of goods through all phases of delivery throughout Austin and along the Texas Multimodal Freight Network

To remain competitive in the economy at all levels, it is important that we support the reliable and efficient movement of goods through, into, and out of Austin. Goods that are produced locally need to make the trip to their final destinations and goods that we import need to arrive to us reliably and safely. We rely on our transportation infrastructure, including highways, railways, and airports to support the interregional and interstate movement of goods.

TxDOT identifies key roadways, railroads, ports, waterways, and airports in the Texas Multimodal Freight Network. In Austin, roads like I-35, US 290/SH 71, and SH 130, and facilities like the Austin-Bergstrom International Airport are part of this network; these roads and facilities are critical for focusing investment to improve safe and efficient goods movement. Expanding cargo and freight facilities at the airport and improving transportation operations and incident management along major corridors and highways are strategies we should pursue to support goods movement in and along the Texas Multimodal Freight Network and throughout Austin.

Kyle Heavy Tow Program

Transportation incidents involving commercial or large vehicles pose additional obstacles for our transportation network. The size of these vehicles makes clearing incident areas particularly difficult. Traditional clean-up vehicles are often unable to deal with incidents involving commercial or oversized vehicles, such as an overturned semi-trailer truck.

The City of Kyle has implemented a contract, run through their police department, that calls in heavy wrecker vehicles to clear these incidents. This heavy tow program helps manage incidents involving large vehicles, and can help minimize the effects of a large traffic incident. Programs like these are crucial to not only keeping our entire network operating as smoothly as possible, but to supporting our goods movement through, in, and out of Austin.

Goods Movement Policy 2

Recognize, plan for, and mitigate impacts of goods movement

Assess and consider equity, environmental, and mobility impacts of goods movement and proactively develop strategies to mitigate them

The movement of goods throughout our community is critical to our economy and helps ensure access to basic needs for everyone. However, there are impacts that must be recognized, planned for, and mitigated to equitably spread the effects of urban freight movement across the community. Truck traffic can contribute to congestion, add to air and noise pollution, and expose the community to hazardous materials resulting from incidents. Considering these impacts in the planning for transportation improvements and regulations can increase the equity in our community.

One way to minimize congestion impacts from freight movement would be to require deliveries at certain times of day when there are not as many users on the roadway system, such as overnight. However, there could be unintended equity consequences, such as forcing low-income jobs in the freight industry to work night shifts. We need to identify these types of unintended consequences, and potential mitigation measures, before regulating goods movement.

Additionally, we should coordinate land development for freight-heavy land uses to ensure the supply of transportation and utility infrastructure minimize impacts to surrounding land uses. Historically, industrial land uses requiring higher amounts of freight vehicles were located in underserved and underrepresented communities, especially in low-income neighborhoods of color. It is important for us to recognize these historical actions, mitigate impacts as much as possible, and minimize future disproportionate impacts from freight movement on parts of our community. As the urban core grows and has more diverse uses supported by freight operations, it is necessary to spread industrial uses and activities throughout the community to distribute the impacts and support the economy.



Goods Movement Policy 3

Improve safety and predictability of hazardous materials movement through Austin

Reduce risk to populations and environmentally sensitive areas with a designated route for non-radioactive hazardous materials movement

Our economy requires the movement of certain materials that can be hazardous to our health and environment if not planned for appropriately. Hazardous materials are substances determined to be capable of posing an unreasonable risk to health, safety, or property when transported in commerce. The movement of non-radioactive hazardous materials (NRHM) is regulated by the state of Texas when a city reaches 850,000 in population, as we did in 2013. NRHM are materials transported in types and quantities which require placards on motor vehicles that indicate the type of material. Examples of NRHM are gasoline, fireworks, chlorine, diesel fuel, sulfuric acid, and propane. However, movement of radioactive hazardous materials is regulated by the federal government, rather than state governments.

We need to direct hazardous materials being transported through Austin away from heavily populated areas, like downtown Austin, and environmentally sensitive areas, such as the Edwards Aquifer Recharge Zone. To achieve this and fulfill requirements under Texas state law, we need to designate routes through Austin for the movement of non-radioactive hazardous materials. The designation of routes requires studying populations, environmental features, and the risk of crashes. The designation of a route will lessen the probability of incidents and help emergency responders to prepare in case of an incident. Once designated, the route will require signs on the roadways to show where non-radioactive hazardous materials are allowed, and fines to help enforce the regulation.



Non-Radioactive Hazardous Materials Route Designation Study

Texas state law requires cities with a population over 850,000 people to designate routes for commercial vehicles to transport non-radioactive hazardous materials (NRHM). When our population went above this number, we initiated a formal process to designate NRHM routing through Austin. The study worked with local industry stakeholders and the public. It initially considered the feasibility of each existing roadway in our network for designation as an NRHM route. Based on feedback from the stakeholder working group and guidance from the Federal Highway Administration, the potential network for NRHM route designation was narrowed down to only through-routes on roadways classified as a principal arterial or above, and did not focus on local deliveries. Roadways with physical or legal constraints were also disqualified from being considered for NRHM route designation.

In comparing NRHM routing options, the study considered potential risk, travel time, environmental justice populations, roadway miles within the Edwards Aquifer Recharge Zone, and the number of sensitive environmental features within close proximity to the routes. Risk is a measure of the relative safety for an NRHM vehicle traveling along a specified route that considers potential impacted populations and crash probability.

The risk analysis of potential routes involves calculating the relative risk for numerous combinations of routing alternatives and identifying the through-routes which provide the safest routing option. In this study, risk for a given through-route is defined by crash probability along the roadway and potential impacted population within 0.5 miles of the roadway. North-south travel is the predominant NRHM through-routing movement for the study area. All major north-south routing options were considered for designation, including MoPac/Loop 1, SH 130, US 183, Loop 360, and I-35.

When comparing potential north-south NRHM routing options, SH 130 scored as the safest route in terms of risk for the general population as well as for populations in environmental justice areas. This routing option also has the fewest roadway miles running through the Edwards Aquifer Recharge Zone. Among the north-south NRHM routing options, I-35 and US 183 were identified as having the highest risk, as they both run through high-density areas. The stakeholder working group considered many of the roadways in West Austin to be unsuitable for NRHM route designation due to environmental concerns.

Public outreach was a crucial element that helped shape the study. This extensive process involved fifteen separate outreach events during which community members and industry stakeholders provided feedback to help guide the study and inform decision-making. Outreach also included an online forum to gather community input.

Based on community input and technical analysis, a selected route will be presented to TxDOT and the Texas Transportation Commission for approval. The City will work with TxDOT to implement the final route designations, including installing signage and setting fines.

Goods Movement Policy 4

Support local and last-mile goods delivery innovations

Improve efficiency of deliveries and increase access to goods for all by supporting new techniques and technologies

With the increase in e-commerce in recent years, local goods deliveries have increased significantly. Opportunities to improve the efficiency of goods deliveries once they arrive in Austin can reduce the impacts on congestion, reduce costs, and increase access to basic needs. Increases in traditional local goods deliveries by trucks of varying sizes means we need to be efficient in how we use curb space and loading zones, especially in areas of Austin where there is a lot of competition for that space, such as downtown.

New emerging technologies and techniques for last-mile deliveries, such as autonomous delivery robots, can achieve more flexibility in goods movement. We should work with the private sector and other jurisdictions to support and test these innovations in Austin to understand the possibilities they may serve as last-mile delivery options.

While the implications of these technologies are not always clear, it is important that we assess the benefits and impacts to the community to ensure we are reaching community goals. Mobility hubs, or locations with access to various mobility services, could serve as launching points for these emerging solutions. Mobility hubs could also incorporate delivery depot stations for customers to pick up packaged deliveries from a secured locker on their way home. This system would reduce the amount of deliveries to individual addresses and delivery vehicles on neighborhood streets.



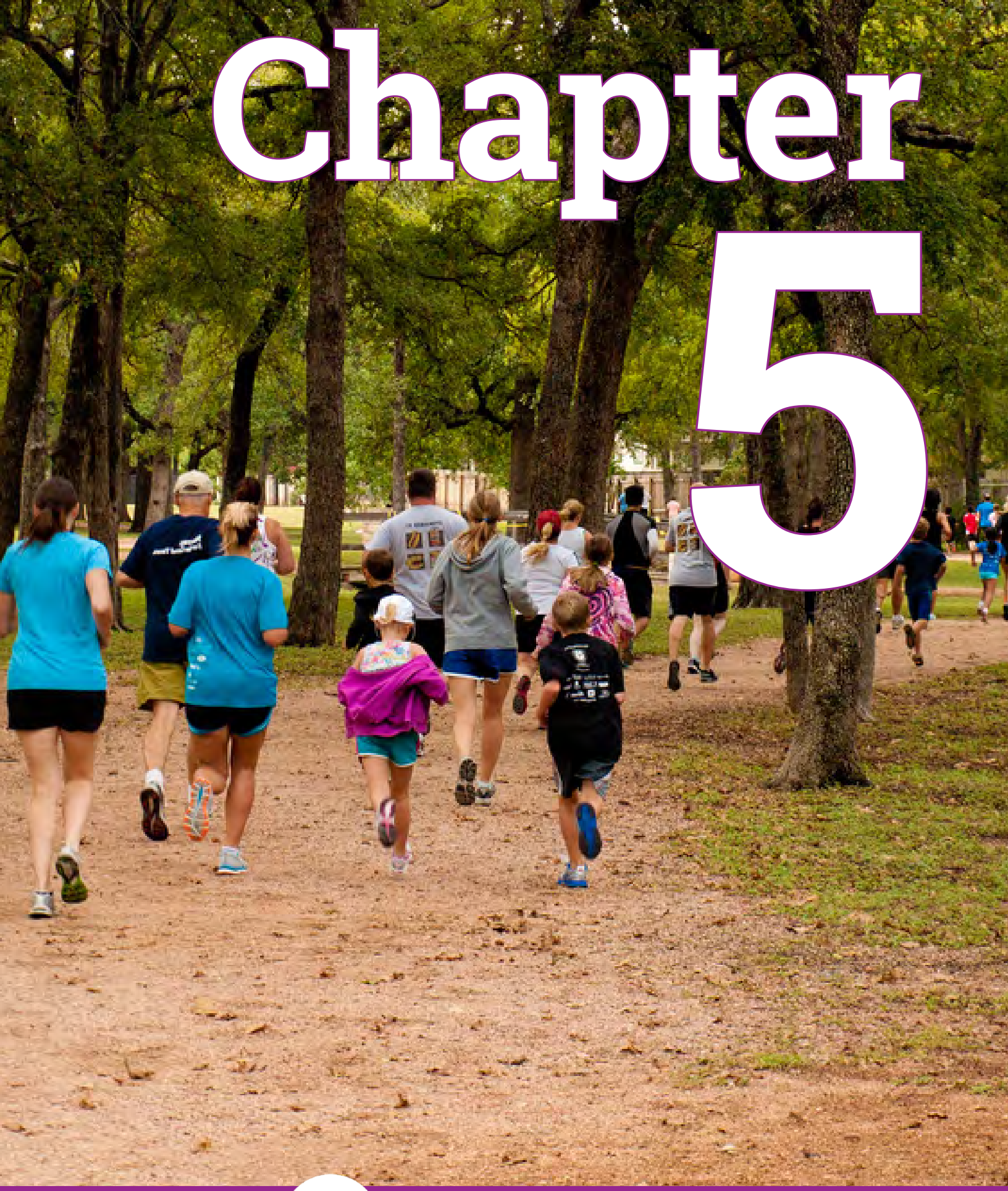
Goods Movement Policy 5

Participate in state and regional freight planning efforts

Work with industry trade groups, jurisdictions, and other entities to plan for growing demand and changes in freight operations

The majority of the goods we rely on for personal and business needs are not produced in Austin, so it is critical that we participate in efforts to plan for freight movement across the region and the state. As technology and freight operations evolve, Austin must collaborate with industry trade groups and other jurisdictions in Central Texas and across the state to prepare the community for these changes. As automated driving vehicles are used more in freight activities, we must be prepared, through infrastructure, education, and regulations, to achieve the efficiency and safety benefits of the technology. We should seek opportunities to engage with industry leaders and organizations locally and across the state to share best practices, learn about new solutions and challenges facing goods movement, and plan for the future.





Chapter 5

GETTING THERE TOGETHER ASMP

Protecting Our Health and Environment

We all want to enjoy a sustainable environment and a healthy life, physically and mentally. As Austinites, we enjoy a close connection with nature and have a strong environmental ethos. We appreciate our trails and greenways, lakes and rivers, parks and open spaces. Our environment, and the healthy lifestyle it accommodates, is a core part of what makes Austin special. Austin's urban ecosystem is our community of living things and their interactions with non-living things; our urban ecosystem is rich in natural resources and amenities, but the effects of development and climate change put the health of ourselves and our environment at risk.

Our transportation network has a large impact on our health and environment. Transportation has a significant role in encouraging healthy lifestyles and providing safe access to food, healthcare, and other social resources. Our important air, climate, water, and ecological systems are heavily impacted by our transportation network. The transportation network is just one component of our urban ecosystem, and it must coordinate with other natural and man-made systems to protect and enhance our health and environment.

This chapter lays out the importance of considering the many impacts of mobility on our public health, air and climate, water, and land and ecology systems. From improving access to healthcare, to promoting electric vehicles, from integrating stormwater management into our streets, to pursuing the preservation of open space, it is easy to see how transportation can strengthen and complement our health and environment. By ensuring transportation helps protect people and the environment from long-term effects of a changing climate and population growth, we can become a healthier, more resilient community.



Policy Summary

Public Health

Policy 1 Recognize that transportation fatalities and serious injuries are a public health crisis
Policy 2 Recognize and plan for transportation infrastructure's impact on public health
Policy 3 Provide infrastructure and programming to encourage active lifestyles and healthy living
Policy 4 Connect people to food, opportunities for physical activity, and health care using multiple transportation modes

Air and Climate

Policy 1 Reduce emissions generated by the transportation sector
Policy 2 Lead by example in reducing ozone and greenhouse gas emissions in the City's fleet
Policy 3 Choose energy efficient materials and methods in the design, construction, and operation of our transportation network
Policy 4 Increase the transportation network's adaptive capacity

Water and Stormwater

Policy 1 Use streets strategically as key components of the city's drainage, drinking water, reclaimed water, and wastewater systems
Policy 2 Integrate stormwater control measures into the transportation network
Policy 3 Optimize mobility and water management goals

Land and Ecology

Policy 1 Avoid, minimize, and mitigate adverse impacts of the transportation network on natural and cultural resources
Policy 2 Pursue designs that enhance our ecosystem
Policy 3 Support the Imagine Austin Growth Concept in a way that is sustainable, equitable, and consistent
Policy 4 Recognize and plan for trees as vital to supporting the transportation network



Public Health

Our community's health and transportation are strongly linked. A person's health and ability to make healthy choices are directly affected by where they live, work, learn, and play and by how they travel. While transportation systems directly affect our ability to access affordable, healthy food, including community amenities such as grocery stores, and healthcare, having convenient options to travel on foot, by public transportation or by bicycle provides specific health benefits. These mobility choices increase our daily physical activity, helping to prevent and manage chronic diseases like cancer, diabetes and heart disease.

"I would love to see Austin's transportation reflect the resident's active lifestyles."

—Community Member

Improving the overall health of our community is achieved through policy, systems, environmental changes, evidence-based programming and interventions that change norms and improve health behaviors. In Travis County, significant health disparities exist for chronic disease, specifically among low-income populations and populations of color. In addition to chronic diseases, these populations are disproportionately affected by traffic fatalities and serious injuries. Focused efforts on neighborhoods and populations experiencing higher disease rates and risk factors, such as obesity and lack of physical activity, are key to improving overall community health.

In addition to providing health benefits to individuals through access to basic needs and physical activity, transportation choices directly affect the environment in which we live. The quality of our air is impacted by the burning of fossil fuels for transportation, which is the largest source of air pollutants in Austin. Pollutants, including ozone, can impact respiratory health, especially for vulnerable populations like seniors, children, and those with lung diseases. Improving access to more sustainable modes of transportation and reducing our reliance on fossil fuels will be important to protecting our health as our population grows.

Indicators and Targets



Increase the percent of adults who are considered "active" or "highly active"



Increase the access by active modes to and around parks and trails



Increase the number of sidewalks, bicycle facilities, and Urban Trails that are within ZIP codes with disproportionate prevalence of chronic diseases or conditions



Increase the safe access by transit and active modes to affordable and culturally competent opportunities for healthy food, including community amenities such as grocery stores



Decrease no-show rates at safety-net providers due to difficulty traveling to appointments

Public Health Policy 1

Recognize that transportation fatalities and serious injuries are a public health crisis

Holistically address fatalities and serious injuries on the transportation network as a public health issue

In order to advance our work toward the goal of Vision Zero—zero traffic fatalities and serious injuries—we must recognize the severity and preventable nature of the problem. If a preventable disease killed more than 35,000 people each year in this country, as traffic crashes do, it could be considered an epidemic. Traffic deaths and injuries are a preventable, public health issue. Any traffic death is too many.

On average, more than 70 people lose their lives on Austin's streets each year. For each person killed, six more suffer life-altering injuries and thousands more suffer minor or moderate injuries. Half of these deaths are people walking or riding motorcycles or bicycles, even though these modes only make up about 6.5% of all commuters. A disproportionate number of minority groups and homeless individuals make up these numbers. In addition to the human loss, these injuries and fatal crashes result in more than $350 million annually in local economic impact. We must tackle this problem through education and outreach, better street design, enforcement against dangerous behaviors, and legislative changes. Recognizing the public health crisis of traffic fatalities is an integral step toward increasing awareness and dedicating the resources needed to reach our goal of Vision Zero.

> *"We honor the lives lost or irrevocably altered in traffic crashes by working toward the goal of zero deaths and serious injuries."*
>
> —2016 Vision Zero Action Plan



Public Health Policy 2

Recognize and plan for transportation infrastructure's impact on public health

Utilize health impact assessments using a health equity lens when planning for major improvements to the transportation network to understand and mitigate effects

The transportation network affects our physical, social and mental health by influencing our behaviors, such as physical activity, and exposing us to environmental elements, such as traffic safety hazards. In planning future transportation improvements, it is important that we analyze the potential health impacts, such as through health impact assessments. Health impact assessments consider the environment and populations in the area of the improvement and help identify opportunities to maximize positive health effects and minimize potential negative outcomes. Assessments allow us to understand how transportation is affecting various populations to ensure we are providing equitable opportunities for people to have healthy lives.

Health impact assessments should especially focus on areas that have historically been underserved and are disproportionately affected by chronic diseases and adverse health conditions. In addition to populations affected, other factors that should be considered when assessing health impacts include the ability to access basic needs (food, housing, healthcare, education, and other services), available transportation options, and safety concerns. Planning for major transportation improvements, such as corridor preliminary engineering and design work, should incorporate health impact assessments to assess the impacts of the recommended improvements.

South Lamar Boulevard Corridor Mobility Report–Health Impact Assessment

The City is continually working to identify short-, mid-, and long-term transportation improvements for various corridors to enhance multimodal mobility, safety, and quality of life. Recently, a corridor mobility report was completed for the South Lamar corridor. The project included a Health Impact Assessment to help the project team consider public health during the planning process, provide information on the potential health impacts of proposed plans, and develop approaches to evaluate future health outcomes related to the corridor improvements.

In regards to health, the South Lamar corridor has a number of existing assets and barriers. Assets include access to public transportation, increasing density of people and destinations, existing sidewalks and bike lanes along most of the corridor, and a public interested in walking and bicycling within the corridor area, pending infrastructure improvements. Barriers to health include lack of safe crossing opportunities, high road speeds, lack of connectivity from within neighborhoods (particularly to the east), inadequate pedestrian and bicyclist infrastructure, lack of green space and shade, and lack of bicycle parking.

The report included recommendations to make walking and bicycling a safe, convenient, and pleasant choice for those who live, work, shop, and recreate along the corridor. Resulting increases in physical activity and social interactions in the short term can have long-term public health benefits such as reductions in rates of diabetes and heart disease. Improvements related to urban trees and landscaping may have additional health-related benefits such as a reduction in heat-related illnesses. Key health-related recommendations include more street crossing opportunities and enhanced safety at existing street crossings, reduced speed limits, the addition of continuous protected bicycle lanes and wide sidewalks along the length of the corridor, and use of trees and rain gardens.

Public Health Policy 3

Provide infrastructure and programming to encourage active lifestyles and healthy living

Recognize active transportation's contribution to preventing and managing chronic diseases and supporting physical and mental well-being for people of all ages and abilities

Improvements to the built environment, especially those that encourage active lifestyles such as walking and bicycling, have been shown to increase physical activity. For example, sidewalks, trails, protected bicycle lanes, speed calming devices, expanding public transportation services including times, locations, and connections increase daily physical activity. Additionally, improvements that improve the comfort and safety of active modes, such as street trees and pedestrian lighting, can encourage walking and bicycling.

Because of the disparities in chronic disease rates in Austin, it is important to focus infrastructure and programming on historically underserved areas and those that are disproportionately affected by chronic disease and adverse health conditions.

Active lifestyles can prevent and manage chronic diseases, such as diabetes, high blood pressure, heart disease, and cancer. We can improve healthy living and promote active lifestyles by providing more programs for culturally appropriate physical activity classes that teach how to bike, walk, or ride the bus, to work or school. Austin's Smart Trips Program is one way we are reaching community members where they live to provide information and training on active transportation options.



Encouragement Programs for Physical Activity and Active Transportation

Encouragement programs can increase awareness and opportunities for individuals to take up regular physical activity, including walking, bicycling and other forms of physical activity. These programs provide information and support to help individuals reduce barriers to active transportation. They also help people stay motivated and set goals. Such programs help track daily physical activity minutes and provide group leaders for motivation and social support.

The Centers for Disease Control and Prevention recommends 150 minutes of moderate to vigorous physical activity per week. In addition to chronic disease prevention, exercise is known to increase energy and improve memory, sleep, and mood. These programs can be used in flexible locations including neighborhood exercise groups, worksites, etc. In addition to using the built environment, these programs help encourage people to both take up and continue physical activity.

Austin's Walk Texas! ACTIVE AUSTIN 10-Week Challenge is one example of an encouragement program for physical activity. The goal of the program is to help individuals begin and sustain an active lifestyle.

Program activities/Strategies:

- 10-week physical activity challenge using an activity tracking system
- Orientation sessions and group leader training
- Rewards and incentives

Program Measures:

- Increased number of individuals participating in physical activity encouragement programs
- Number of physical activity groups and events
- Increase in physical activity by group members

Public Health Policy 4

Connect people to food, opportunities for physical activity, and health care using multiple transportation modes

Develop safe, multimodal transportation options across the community, paying particular attention to efforts that increase affordable food access, opportunities for physical activity, and health care access

Transportation increases access to opportunities. By increasing choices for how we travel, we can provide the community with more opportunities to meet basic needs, such as accessing affordable, healthy food, including community amenities such as grocery stores, healthcare, and physical activity.

As Austin grows and housing in the central area becomes more expensive, people are moving away to afford housing in areas with limited access to services. This is especially true for low-income populations experiencing the largest health disparities. Thus, we should seek to increase access to service providers where people can be enrolled in and access food assistance, workforce assistance, and childcare. In addition to increasing access, we should continue to support food retail expansion initiatives and mobile healthcare service expansion.

Having affordable options for transportation, like public transportation, allows people to save money on the cost of using and maintaining a car. These savings free up disposable income for food and other needs. Plus, having opportunities for safe active transportation, using sidewalks, bicycle facilities, and Urban Trails incorporates physical activity into our daily lives. Walkable commercial and mixed-use districts can catalyze more physical activity when they support active transportation, include a rich mix of amenities and cultural anchors, and are connected to neighborhoods and affordable housing options.

Community Health Assessment and Community Health Improvement Plan

A community health assessment (CHA) is a systematic examination of a population's health status as well as key assets and challenges to its health. Communities throughout Austin and Travis County collaborate to conduct a CHA every five years to determine the priorities for the three-year Community Health Improvement Plan. Transportation continues to be a factor in community health in Austin, whether it is access to healthcare or opportunities to have healthy lifestyles. This is why it is important for us to continue to participate in the assessment process and the identification of goals, objectives, and action items for the ways transportation infrastructure, services, and programming can contribute to improving community health.



City of Austin



Air and Climate

Transportation has a direct relationship with our air and climate, which we must consider as we shape a sustainable mobility future. Austin is experiencing multiple indicators of climate change including higher temperatures, extended periods of drought, increased wildfire risk, and intense rain and flooding. Extreme weather events are projected to increase in frequency. The use of fossil fuels (oil, gasoline, diesel, coal, and natural gas) for energy and transportation creates the greenhouse gases that lead to climate change. In addition to the immediate and obvious impacts of climate change on regional weather, climate change can negatively impact the resiliency of transportation assets. Flooding can cause road closures, transportation network disruptions, and road damage. Wildfires may render roads impassable and create traffic jams resulting from evacuations. There is also the potential for roadway damage resulting from extreme variations in precipitation and soil moisture (i.e. drought followed by heavy rainfall).

"We need to maximize alternatives to single occupancy vehicles and dramatically reduce carbon emissions."

—Community Member

We must consider the impacts of transportation on our air quality and public health. The use of fossil fuels for energy and transportation also produces pollutants, such as nitrogen oxides (NOx), volatile organic compounds (VOCs), and particulate matter (PM). Overall, the leading air quality concern in Austin is ground-level ozone (O3). Ground-level ozone is not emitted directly into the air but is formed through chemical reactions between emissions of NOx and VOCs in the presence of sunlight. These gases react in the ambient, or outdoor, air, and when they interact with sunlight, ozone is formed. Transportation activity is the primary source of ozone precursors, mainly NOx emissions. While the region is currently in compliance with federal air quality standards, unhealthy levels of air quality can still be observed during the year. Elevated ozone levels can have a significant impact on human health causing many individuals to experience increased respiratory illnesses. Vulnerable populations, including children, older adults, and those with lung diseases like asthma, are more prone to be affected by increased ozone levels. In Austin, the largest source of air pollutants, including those that acutely affect human health and cause long-term climate change, come from transportation-related activities.

As a major employer and steward of transportation infrastructure and public funds, the City of Austin must continue to act to reduce emissions generated by the transportation sector. Reducing the number of drive-alone trips is key to reducing the use of fossil fuels and reducing negative impacts on regional climate and air quality. When our community travels sustainably—such as by transit, bicycling, walking, carpooling and vanpooling—they preserve Austin's environment and livability. In cases where people must drive alone, they can adjust their departure time, reduce the length of trips, or use plug-in hybrid and battery electric vehicles to help reduce greenhouse gas emissions and air pollution. Given the broader community impacts of air quality, we must work with regional partners to reduce transportation-related pollutants.

Indicators and Targets



Reduce greenhouse gas emissions

Reach net-zero community-wide greenhouse gas emissions by 2050



Reduce average ozone level region-wide

Reduce average ozone level region-wide by 0.70-1.00 parts-per-billion annually



Increase the number of carbon neutral City of Austin facilities, fleets, and operations

Achieve 100% of City of Austin facilities, fleets, and operations carbon neutral by 2020



Increase the amount of electric vehicle charging infrastructure



Increase the percent of City fleet vehicles that are shared among departments

Policy Tagline

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Additions

Air and Climate Policy 1

Reduce emissions generated by the transportation sector

ID-17

Pursue strategies and collaborate with regional partners to reduce ozone, particulate matter, and greenhouse gas emissions, including promoting sustainable transportation modes and improving traffic flow

Being able to reduce our reliance on fossil fuels is key to limiting the transportation sector's effect on ozone and greenhouse gas emissions. The growth and development of a strategically planned transportation network, which accommodates active and sustainable transportation solutions, allows individuals to move away from using vehicles which emit high levels of air pollutants. A compact and connected land development pattern, as presented in Imagine Austin, will also allow for this shift to take place. Use of strategies and behavioral changes, such as those seen within the Transportation Demand Management (TDM) Programming subchapter, can also mitigate levels of emissions which we currently observe. A robust electric vehicle charging network will help make clean energy options more attractive than fossil fuels, which will improve air quality measures. Regional partners such as the Capital Area Council of Governments (CAPCOG), the Capital Area Metropolitan Area Planning Organization (CAMPO), Capital Area Rural Transportation System (CARTS), the Texas Department of Transportation (TxDOT), the Central Texas Regional Mobility Authority (CTRMA), and the Capital Metropolitan Transportation Authority (Capital Metro) also play critical roles in alleviating emissions resulting from the transportation sector.

2019-2023 Regional Air Quality Plan

This plan is intended to guide efforts within the Austin-Round Rock Metropolitan Statistical Area (MSA) to maintain and improve air quality from 2019-2023. This is the fifth voluntary regional air quality plan adopted for the region; previous plans included the 2002 1-Hour Ozone Flex Plan, the 2004 Early Action Compact (EAC) State Implementation Plan (SIP), the 2008 8-Hour Ozone Flex Plan (8-03 Flex), and the 2013 Ozone Advance Program (OAP) Action Plan. This plan is designed to accomplish two goals:

1. **Maximize the probability of compliance with the National Ambient Air Quality Standards (NAAQS) region-wide; and**
2. **Minimize the health and environmental impacts of regional air pollution.**

Air and Climate Policy 2

Lead by example in reducing ozone and greenhouse gas emissions in the City's fleet

Focus on acquiring and using the cleanest vehicles appropriate for the job, consolidating trips, and implementing other strategies that reduce ozone precursors and greenhouse gas emissions

As an organization, the City of Austin can influence a community shift away from fossil fuels by setting an example to follow. The City of Austin's Fleet Services Department has made a commitment to incorporate a mix of battery-electric and hybrid-electric vehicles into the fleet. Our fleet electrification plan calls for 330 battery electric vehicles by 2020. Moving forward, the City of Austin will evaluate and improve fleet and fuel efficiencies, focus on using the cleanest vehicle appropriate for the jobs, consolidate trips, and set policies for fleet usage that reduce nitrogen oxide (NOx) emissions. These efforts will require pursuit of grant funding for retrofitting, repowering, and replacing older equipment when appropriate. As an organization, we should seek out new strategies which improve climate and air quality and continue to take an active role in local and regional planning initiatives.



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Additions

Air and Climate Policy 3

Choose energy efficient materials and methods in the design, construction, and operation of our transportation network

Use materials and methods that reduce carbon, conserve energy, limit waste, and support the Net-Zero Community Climate Goals

ID-18

Our transportation network's infrastructure must support the viability and reliability of different transportation choices. For the development and construction of transportation-related infrastructure to be environmentally sustainable, its operational life-cycle analysis must be energy efficient and use environmentally sustainable materials. We can also encourage contractors and partner agencies to use environmentally sensitive construction equipment and practices. We must also support Net-Zero Community Climate Goals, as expressed in the ~~Austin Community Climate Plan~~ Austin's Climate Equity Plan, when planning transportation infrastructure investments. After all, a sustainable transportation network must incorporate strategies to limit waste, conserve energy, and ultimately be environmentally sustainable to keep our community healthy and moving.

ID-19

Austin's Climate Equity Plan ~~Austin Community Climate Plan~~

ID-20

In September 2021, City Council adopted the Austin Climate Equity Plan. The plan includes the bold and aggressive goal of equitably reaching net-zero community-wide greenhouse gas emissions by 2040 with a strong emphasis on cutting emissions by 2030. The Austin Climate Equity Plan sets goals across five focus areas: Sustainable Buildings, Transportation and Land Use, Transportation Electrification, Food and Product Consumption, and Natural Systems. Right now, on-road transportation and electricity used in buildings are our largest sources of emissions; however, since energy use in our city is becoming cleaner, the transportation sector is quickly becoming our number one source of emissions. ~~The Austin Community Climate Plan identifies over 130 actions to reduce greenhouse gas emissions from the energy, transportation, and materials and waste sectors. In Travis County, approximately 35% of community-wide greenhouse gas emissions come from the transportation sector, and nearly 95% of the transportation-related greenhouse gas emissions in Travis County are from on-road vehicles (cars and trucks).~~

Air and Climate Policy 4

ID-21

Increase the transportation network's adaptive capacity

Future-proof our transportation infrastructure and operations to flexibly adapt to climate impacts

In recent years Austin has experienced several major climate-related emergencies, including extreme heat and drought, wildfires, flooding, and increasingly disastrous storms. Adaptive capacity is the ability of a system to respond to these types of events while maintaining normal functions. For example, over the course of a few days in June 2021, the City lost over 100 signals due to lightning strikes during unusually strong thunderstorms. Maintaining safe roadway operations with so many signals offline can prove challenging and reveals the need to ensure our systems can handle shocks like this in the future, in this case with technologies like back-up batteries to operate our signals. Other stressors are more long-term, such as our changing climate's effects on physical infrastructure like bridges, roads, and urban trails. We need to design and construct our transportation network to be resilient, meaning that it is robust and flexible enough to withstand the impacts of climate change. In order to prepare our city for future extreme weather, climate resiliency must be at the heart of our long-range transportation planning, as well as our day-to-day operations. This policy builds on the work of the 2018 Climate Resilience Action Plan to turn any identified or potential weaknesses in our transportation network into opportunities for improving the safety of our community.



City of Austin



Water and Stormwater

> *"Protect the creeks, water, and ecosystem."*
>
> —Community Member

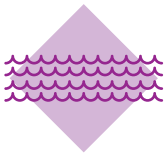
Austin lies in the heart of North America's "Flash Flood Alley" and has experienced historic flood events over the last several years. Austin has also recently experienced historic droughts that threaten our water supply. There are numerous connections between the mobility, stormwater, drinking water, reclaimed water, and wastewater systems. For example, the transportation network is not only designed for mobility, but also serves to convey stormwater to drainage infrastructure and transport users safely over waterways. In some locations, the street network serves as the primary drainage network. Similarly, the pipes that carry our drinking water, reclaimed water, and wastewater throughout the city are often buried below our streets and sidewalks. Given this degree of overlap, enhancements to one component must consider the needs of the system as a whole.

The interaction between our water systems (drinking water, reclaimed water, wastewater, and stormwater) and transportation systems is complex. Transportation infrastructure and operations can negatively impact stormwater, drinking water, reclaimed water, and wastewater systems, if not managed or mitigated by design. For stormwater systems, this impact is primarily related to the impervious cover and changes in natural drainage patterns associated with transportation infrastructure projects. Impervious cover is any surface that prevents the infiltration of water into the ground. If stormwater is not properly managed, the increased volume and velocity of runoff from streets can contribute to erosion and flooding and impair water quality by carrying pollutants into Austin's creeks.

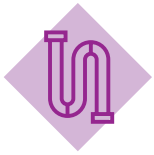
Conversely, water systems infrastructure can also negatively impact the transportation network. Many of Austin's streams are eroding near transportation infrastructure, especially in older areas of the city where development occurred before protective regulations were put in place. Excessive streambank erosion not only threatens stream stability, water quality, and aquatic ecosystems, but also impacts the reliability of the transportation and water systems, as seen in 2018 with the closure of the Shoal Creek Trail due to erosion. If rainfall overwhelms the drainage system, bridges and roadways can become flooded and impassable, potentially posing a safety risk to the public and first-responders. Finally, maintenance to our drinking water, reclaimed water, wastewater, and drainage infrastructure can damage infrastructure and disrupt transportation operations. When utility lines need to be serviced or expanded, our transportation network must temporarily close, affecting our ability to get where we need to go.

The development of our transportation network must also consider the continued protection and enhancement of our water resources. Working to a sustainable transportation future requires considering the important functions our streets and other public rights of way serve in supplying us with safe, reliable water and protecting our creeks, lakes, and aquifers.

Indicators and Targets



Reduce the risk of flooding on all roads and road crossings in the 100-year floodplain, including provision of adequate warning at dangerous crossings



Reduce the danger of street flooding created by substandard storm drains



Reduce the number of eroding stream banks that threaten roadways and trails



Reduce pollutant loads in all creeks to the maximum extent possible

Water and Stormwater Policy 1

Use streets strategically as key components of the city's drainage, drinking water, reclaimed water, and wastewater systems

Design and develop transportation infrastructure and rights of way to provide clean, safe, reliable water, effectively manage and convey stormwater runoff, and prevent or mitigate flood risk and erosion problems

Beyond just moving people, our streets also serve as critical drainage infrastructure and are home to the utilities that collect stormwater and distribute water to homes, schools, and businesses. Streets are designed to channel stormwater into storm drain pipes beneath our streets, where it is then conveyed to the creeks. If streets are not designed with this drainage function in mind, the runoff from our streets can contribute to nuisance ponding, erosion, and flooding and impair water quality by carrying pollutants into Austin's creeks. The design of a street can also affect how stormwater is able to flow through our city, especially where transportation infrastructure crosses creek systems. The construction and maintenance of bridges and culverts require holistic approaches that work with natural systems while enhancing the safety and mobility of our transportation network.

Austin can be more strategic in integrating our drinking water, reclaimed water, wastewater, stormwater, and transportation systems by effectively coordinating infrastructure improvement projects to identify potential opportunities for mutually beneficial partnerships as well as potential technical obstacles. We should also optimize the placement of utilities within our right of way to allow for utility servicing and reduce the impact of related closures on mobility. By applying various tools to each transportation project based on context, we can better manage our water and stormwater systems and increase the sustainability and resiliency of our urban ecosystems.



Land Conservation in Transportation Infrastructure Projects

Austin Transportation, working with the Watershed Protection Department, is actively engaging and collaborating with regional peer transportation agencies to enhance the environmental protections and improve stormwater management practices for major transportation projects.

These partnerships are built on a shared understanding of our responsibilities to protect sensitive environmental resources. The new joint environmental approach emphasizes working together, and includes important collaborative elements such as establishing a single point of contact to review stormwater management and environmental protection practices. Important environmental protections, such as allowing stormwater management and environmental protection planning to guide the design of transportation planning, elevated performance standards for transportation construction, increased environmental mitigation during projects, and expanded analysis and inspection of ecological resources such as trees are big steps towards protecting our environment and achieving our ecological goals.



> *"Easy access, environmentally friendly, quick, efficient, affordable transportation is what any leading city should strive for."*
>
> –Community Member

Water and Stormwater Policy 2

Integrate stormwater control measures into the transportation network

Use stormwater infrastructure strategically throughout the transportation network to protect water quality and stream health, and to improve the urban environment by integrating nature into the city

Transportation infrastructure makes up a large portion of Austin's impervious cover. When rainwater falls on impervious surfaces such as roadways and parking lots, it picks up contaminants from the roadway surface which can have a significant impact on the water quality of Austin's creeks. Effective stormwater control measures are one way to protect creek health and reduce the risk of flooding and erosion. The integration of stormwater control measures including flood detention ponds and water quality controls, such as biofiltration ponds, porous pavement, and rain gardens, needs to be considered with the development of Austin's transportation network.

In addition to improving stream health, integrating stormwater control measures into the transportation network can also improve reliability, mobility, and public safety outcomes. Stormwater control measures can enhance system reliability by reducing localized street flooding caused by undersized drainage infrastructure. Stormwater strategies can also enhance the streetscape for non-motorized transportation users by incorporating the natural world into our urban environment and serving as traffic calming measures. For example, rain gardens can be incorporated into curb extensions that protrude into the street, slowing traffic while also slowing and infiltrating runoff. Maximizing the natural function of our transportation network also fulfills an intrinsic need we have to be surrounded by the natural world, and helps us be more in tune with the ecosystem we live in.



Todd Lane Greenroads Project

The Todd Lane improvement project added 6.8 acres of new and redeveloped impervious cover to Austin's existing transportation network. In order to mitigate the impacts of this impervious cover and to comply with City code, the City of Austin worked to develop a water quality control strategy for the Todd Lane project.

In the City of Austin, development projects are required to capture a minimum volume of stormwater runoff for water quality treatment and to release the treated volume within 48 hours. Traditionally, this requirement has been met with a single, end-of-pipe, water quality control. For the Todd Lane project, however, multiple green stormwater infrastructure controls were implemented, including seven rain gardens and two partial sedimentation/ biofiltration ponds. The rain gardens and biofiltration ponds capture, filter, and help infiltrate stormwater into the soil. They also remove pollutants including suspended particles, oil, heavy metals, and other chemicals, and enhance the baseflow to the nearby Country Club West and Williamson Creeks.

Todd Lane is Austin's first completed Greenroads Project and achieved a silver certification by Greenroads Project standards. This international rating system measures and manages the sustainability of transportation projects by providing a third-party assessment to ensure that projects save money, water, energy, and reduce carbon footprints. The Todd Lane improvement project met these goals by incorporating numerous sustainable features, while also improving pedestrian, bicyclist, and motorist safety. Notably, the Todd Lane improvement project was the first in the United States to receive the maximum Greenroads Project score for Runoff Flow Control and Runoff Quality.



Water and Stormwater Policy 3

Optimize mobility and water management goals

Coordinate the development of regulations and criteria that impact mobility, drinking water, wastewater, reclaimed water, and stormwater to optimize the benefits to multiple goals and objectives

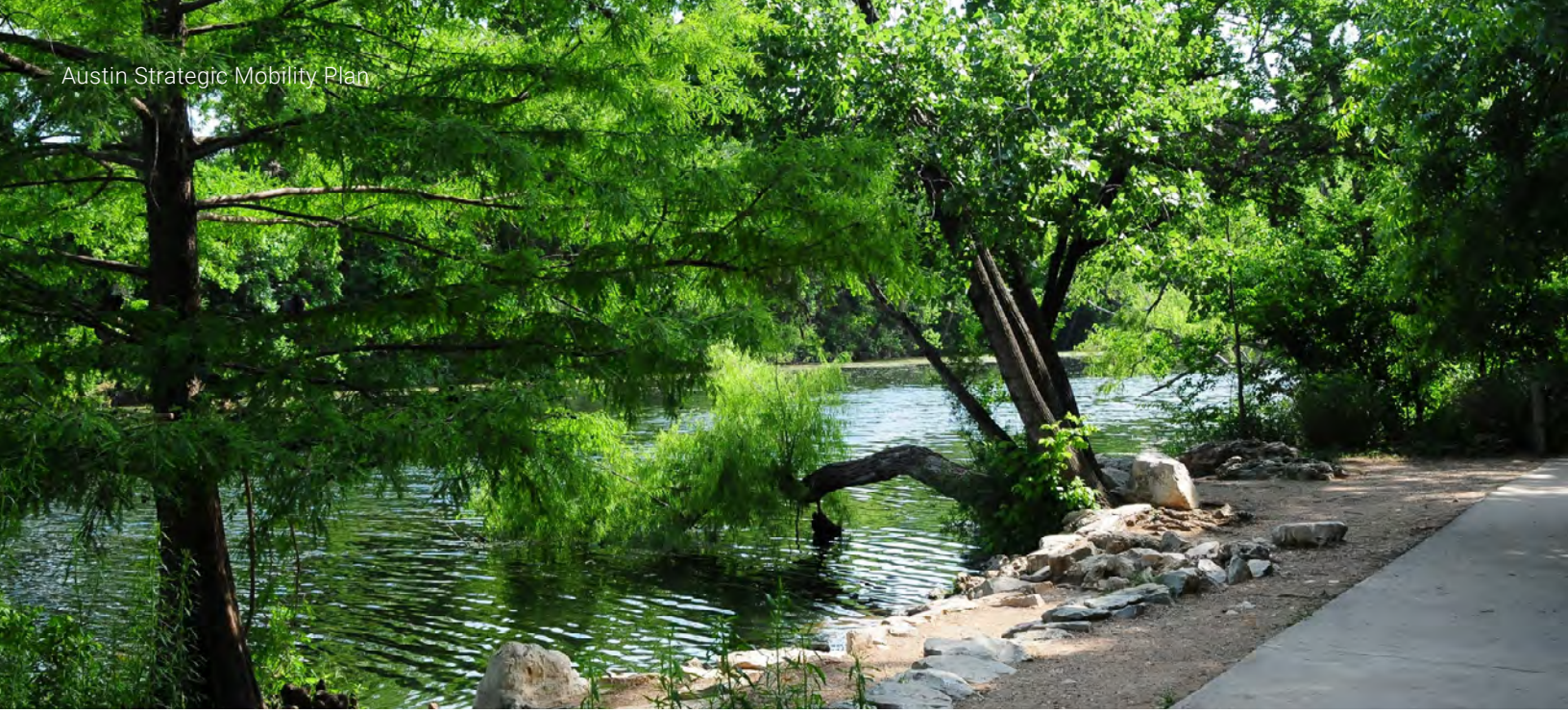
Because of the high level of interconnectedness between mobility, drinking water, reclaimed water, wastewater, and stormwater systems, many different City of Austin departments must pursue a collaborative approach to reviewing engineering and design decisions. Although review activities are primarily the responsibility of the Development Services Department, other departments assist in the process. The Watershed Protection and Public Works departments, Austin Water, Austin Transportation, Austin Fire, and Austin Energy all contribute to the coordination of development review. Each department contributes expertise during the review process, but we must work toward more proactive coordination during the project prioritization and design phases, while also incorporating community concerns and desires.

Another avenue for optimizing mobility and water management goals is through the coordination of code and criteria manuals across the various disciplines that utilize rights of way. Much like how an integrated design process makes large-scale construction projects more cost-effective, timely, and viable, a similar approach can be taken to the codes that govern mobility. Code and criteria manuals provide rules, design criteria, and guidelines for development, including mobility, water, wastewater, and stormwater infrastructure. For example, the Drainage Criteria Manual establishes standards for the design and construction of drainage systems within Austin. Similarly, the Transportation Criteria Manual presents guidelines and criteria to provide the foundation for engineering design decisions of our transportation network. Because of the need to incorporate stormwater control measures into street development and the fact that a large portion of our drainage and water distribution system is contained within our streets, the Environmental Criteria Manual, Drainage Criteria Manual, Utilities Criteria Manual, and Transportation Criteria Manual must all be aligned to optimize outcomes for each discipline.





Credit: Victor Orvalle
City of Austin



Land and Ecology

Austin is known for being environmentally conscious and we celebrate our distinct ecosystems and the abundance of biodiversity they provide. Our natural and cultural resources are an ingrained part of who we are as a community. Protecting and supporting these resources requires conscious effort in all that we do. While the primary focus of this plan is to improve mobility within Austin, we recognize transportation's potentially adverse impacts on our environment. It also has the potential to support, enhance, and provide access to these unique ecological assets.

> *"Adding trees to intersections for shade will make the choice of not to drive much easier."*
>
> —Community Member

Austin is located at the intersection of four physical geographic regions: the Edwards Plateau (known as the "Hill Country"), the Rolling Prairie, the Blackland Prairie, and the Colorado River Terraces. The city contains a variety of terrains, soils, habitats, flora, and fauna due to its location in this transitional zone. While much of Austin is urbanized, some of Central Texas' most fertile soils are located in and around Austin. The amount of open space and agricultural land in Travis County is shrinking as Austin grows and develops, which puts a strain on our water quality and wildlife. Many endangered species of birds, salamanders, and invertebrates call Austin home. Other animals, such as the Mexican free-tailed bats that roost under the Congress Avenue Bridge and countless species of birds that migrate through Austin each year along the Central Flyway for North America, are perennial visitors to our city.

Transportation infrastructure can impact our ecological resources, disturb habitat, reduce biodiversity, and increase impervious cover. These impacts can be avoided, minimized, or mitigated through careful design and construction. On the other hand, our public rights of way along streets, medians, sidewalks, and Urban Trails can positively contribute to our urban ecosystem. Considered as a whole, these areas represent the city's most significant landholding and they directly affect our public space while also connecting us to neighborhoods, parks, and open spaces. Green Streets, an important element of the City's Complete Streets policy, incorporate landscape features and stormwater controls to enhance design, mitigate the heat that is absorbed and reflected by paved surfaces and other urban features, improve air and water quality, and conserve our ecological resources. With thoughtful design, such as increasing tree canopy coverage, our transportation network can not only avoid harm to our landscape and ecosystem but enhance it and provide access to it for the benefit of all.

Indicators and Targets



Increase tree canopy along the transportation network



Increase the amount of open space preserved through transportation project mitigation



Increase the access to cultural resources

Land and Ecology Policy 1

Avoid, minimize, and mitigate adverse impacts of the transportation network on natural and cultural resources

Lessen negative impacts to natural and cultural resources of site selection, design, construction, operation, and maintenance of our transportation infrastructure

Our transportation network is essential to getting people where they want and need to go, but it has the potential to harm the natural and cultural resources that help make Austin a great place to be. Natural resources include many of the things we immediately think of when we think of the environment: greenbelts, our trees, parks and preserve lands, the Colorado River, and our creeks, ponds, and springs. While cultural resources may not necessarily be classified as "nature," they are still important to our sense of community identity and hold special meaning. Historic places and buildings, cemeteries, and iconic landmarks can all be cultural resources and must be upheld through historic preservation initiatives. By considering the impacts transportation decisions have on our environment, we can avoid or minimize harm and better practice long-term stewardship of our resources.

Thinking of the environment before the onset of construction could mean choosing an alignment for a sidewalk that avoids sensitive environmental areas, like the critical root zone of a heritage tree. In some cases, no option will entirely be able to avoid impacts to natural or cultural resources, but the mobility needs of Austinites will still call for a solution. In these cases, transportation decisions and designs should minimize the amount and severity of any impacts. Further mitigation might be required as well to help protect and sustain our valuable resources. The environmental impact of decisions and projects will always be considered. Environmental sustainability and responsible resource management will be integrated as we work to achieve our mobility goals.

City of Austin Conservation Lands

The City of Austin manages three types of conservation lands. These lands are managed by different departments and serve different purposes.

- ***Nature Preserve Lands*: There are currently 15 different nature preserves in the City. There are two types of primary preserves: the Edwards Plateau and Texas Blackland Prairie. The lands that compose these preserves are spread across the City, and they compose almost 20,000 acres. These lands are managed by the Parks and Recreation Department.**
- ***Water Quality Protection Lands*: These lands contribute to or are part of Austin's water supply. Water Quality Protection Lands are either fully-owned by the City or the City has purchased conservation easements to protect the land from development. There are currently about 26,000 acres of Water Quality Protection Lands, and these lands are overseen by Austin Water.**
- ***Balcones Canyonlands Preserve*: Different tracts of land across Austin comprise the Balcones Canyonlands Preserve. The City of Austin and Travis County jointly manage the Preserve, which has a goal of setting aside over 30,000 acres as habitat for endangered species and species of concern. The City currently manages almost 14,000 acres in the Balcones Canyonlands Preserve. Austin Water and the Parks and Recreation Department manage the Preserve, depending on the tract of land.**

Land and Ecology Policy 2

Pursue designs that enhance our ecosystem

Embrace opportunities with partner agencies to provide multiple ecosystem services that enhance the beauty and resiliency of our environment

Our mobility infrastructure can greatly enhance the beauty and resiliency of our community. The integration of nature into our mobility infrastructure can also be utilized to support sustainable development goals such as disaster resiliency efforts, community health, and environmental considerations. Along with our transportation partner agencies, such as the TxDOT, CTRMA, and Travis County, we can embrace new opportunities to strengthen our landscape as part of transportation projects.

Projects that incorporate more native vegetation into our public rights of way are one way to give back to our local ecosystem, and it is important to integrate trees in the urban environment. Other measures that reduce erosion and flooding along roadways, and even help positively impact these concerns, should be incorporated throughout the design of our transportation network. Another strategy to enhance our ecosystem could be to preserve land elsewhere in the Austin area as a part of the cost of a transportation infrastructure project through an environmentally sensitive area.

The benefits of natural ecosystems, while not always easily quantifiable, should be considered alongside mobility benefits when making transportation decisions. When planning our projects, we should aim to leave the environment better than we found it. New innovations in design, construction techniques and materials, and operations should be pursued when they can help us move towards a better, more beautiful, and more resilient transportation network and ecosystem.



Land and Ecology Policy 3

Support the Imagine Austin Growth Concept in a way that is sustainable, equitable, and consistent

Retrofit and expand the transportation network within the context and constraints of our environment to further our social, environmental, equity, and economic goals

The vision set forward in Imagine Austin directs us to become a compact and connected community. As part of the comprehensive plan, the Imagine Austin Growth Concept Map was created to illustrate how we want to accommodate new people, jobs, and transportation infrastructure with open spaces and environmental resources. It was developed with extensive public involvement and was informed by existing development patterns, planned projects, and neighborhood and small area plans. Key features of the Growth Concept Map include activity centers and corridors, which are compact and walkable places that allow people to reside, work, shop, access services, and engage in recreational activities, all without traveling far distances.

Our transportation network is one factor that guides where new development occurs in Austin. When we retrofit, reconstruct, or expand the transportation network, we must always be sensitive to the constraints of our environment. Projects that occur in sensitive environmental areas, like the Edwards Aquifer contributing zone, recharge zone, or the transition zone will require exceptional attention to water quality in their design.

Similarly, it is important that the transportation network does not direct our growth in an inequitable way. Transportation network expansion or enhancement in areas inconsistent with our Growth Concept could encourage growth in a way that negatively affects affordability and contributes to sprawl. We will consider both the microscale of the local ecosystem and the macroscale of the health of the wider Austin ecosystem, and couple equity with the environment to further not only our mobility goals, but other social, environmental, equity, and economic goals.



Land and Ecology Policy 4

Recognize and plan for trees as vital to supporting the transportation network

Provide and maintain trees in public rights of way to encourage active transportation modes, supply shade, protect pedestrians, and provide other ecosystem benefits

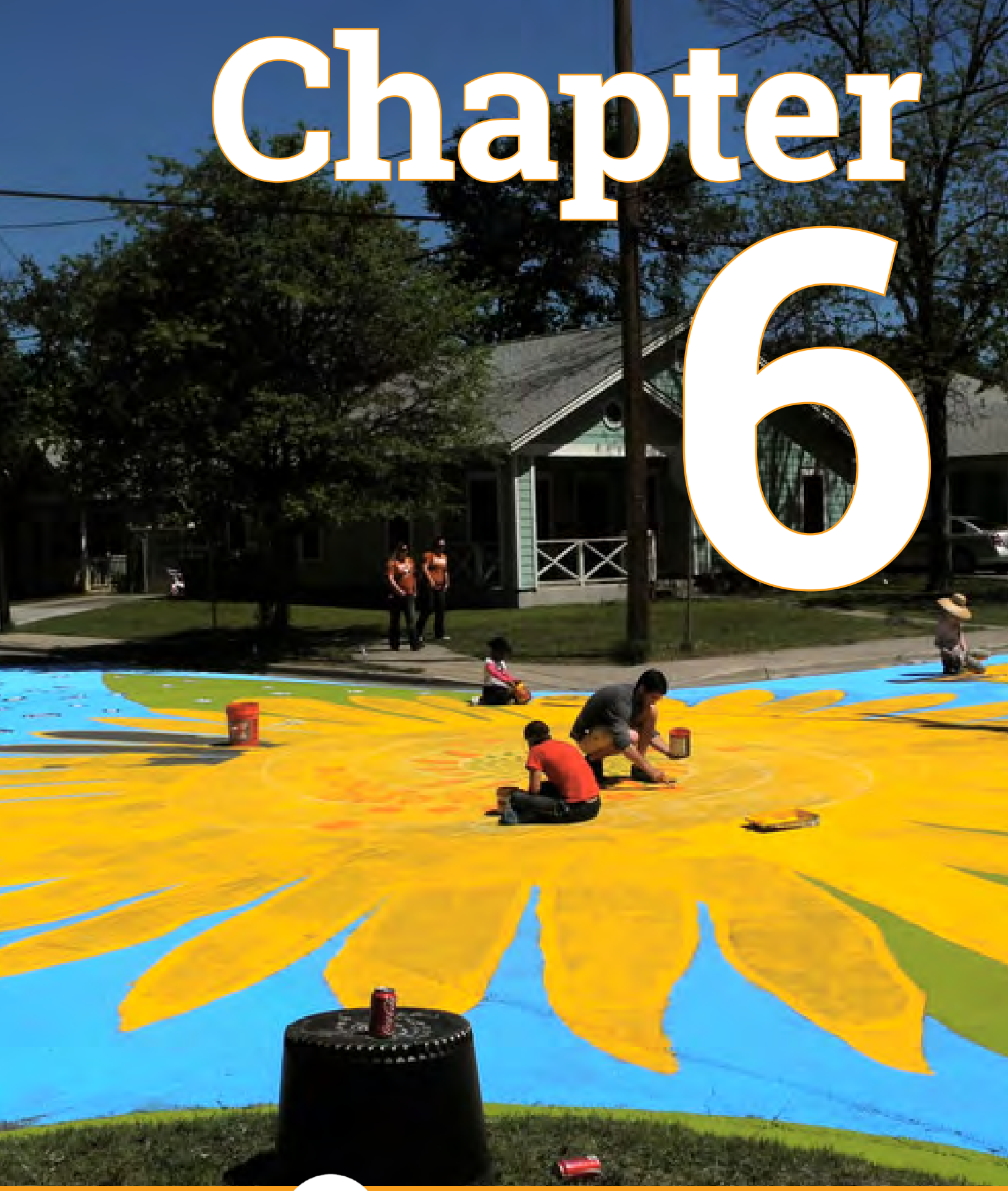
We know that a key to enhancing both the health of the environment and the health of our community lies in our urban forest. The urban forest plays an integral role in Austin's health and vitality by providing social, ecological, and economic benefits to the community and by enhancing our quality of life. Austin's Urban Forest Plan, Complete Streets policy, Climate Action Plan, and other documents offer guidance to us when we plan for trees. For people moving around Austin, trees provide beauty, shade, and act as buffers to help protect slower and more vulnerable transportation users such from conflicts with larger and faster vehicles. These benefits can help us reach our mobility goals by encouraging active forms of transportation, improving our choices for comfortable ways to get around, and increasing the sustainability of our transportation network and community as a whole.

Providing trees in public rights of way along streets, sidewalks, and Urban Trails is an important tool towards making our community more bicycle- and pedestrian-friendly. The Transportation Criteria Manual provides technical guidance on where, how, and which trees should be planted as part of transportation projects. Careful planning and integration of trees, other green infrastructure, and shade devices throughout the transportation network is also required. For example, in dense urban areas there might not be sufficient soil volume for trees to thrive without additional measures being taken.

Thoughtful landscape and street design are necessary to ensure existing and new trees are incorporated into our transportation network without reducing safety or mobility. Trees can reduce sightlines and visibility or be crash hazards if not properly planned for, placed, and maintained. Tree roots can also cause issues for underground utilities in public rights of way or increase cracking and shifting of sidewalks and Urban Trails sometimes causing obstructions or inaccessibility. Additionally, while trees provide us with shade in the day, without proper consideration of tree placement and pedestrian-scale lighting, they can also block out street lights at night. We should strive for balance in design when considering whether to avoid or move trees and in how to mitigate impacts.

Trees and other green infrastructure also need their own maintenance. Clear responsibilities and programs for care need to accompany any investment in our urban forest. The benefits that trees and other vegetation provide our ecosystem and community are astounding. We must ensure our transportation network integrates and supports trees as they are not just beneficial for the environment, but for our entire community.

Chapter 6



GETTING THERE TOGETHER ASMP

Supporting Our Community

Our community is composed of the many different, unique, and important people that create distinct, vibrant, and special neighborhoods across our city. Everything that occurs on our transportation network, from building roads to fixing sidewalks, experimenting with new signal technology to planting street trees, is done to help our community get where we want to go in a safe and reliable way.

Our transportation network is an integral part of our community. This extends past the routes or modes we choose to go to work or school. This integration is based on the deep impact our transportation network has on the ways our community grows, where we choose to live, how we interact with each other, and how we support the different communities and populations within neighborhoods. Because our transportation network exists to support our community with the many different goals, tasks, and joys of our lives, we must ensure that our network is a positive influence; it must serve all of us.

This chapter addresses how transportation supports people across our city. It begins by recognizing the inequities of past land use and transportation planning and expresses our determination to take steps to improve outcomes for all. We know that transportation is expensive and that transportation improvements can affect displacement, both for people and for businesses. We must acknowledge and confront these affordability issues by working with all our communities to retain the unique character of our neighborhoods within the growing city. Accessibility for people with mobility impairments must be emphasized throughout the transportation network. To properly learn from and support our community we must proactively listen to and work with our community. As our transportation network grows within our city, we must ensure that the network supports our community and helps us grow and thrive.



Policy Summary

Equity

Policy 1 Acknowledge and learn from the negative effects of past transportation and land use decisions
Policy 2 Amplify the voices of historically underserved and underrepresented populations
Policy 3 Partner with the public and private sectors to expand and improve mobility solutions for historically underserved communities
Policy 4 Take steps to mitigate unintended consequences when they occur
Policy 5 Prioritize serving the most vulnerable populations in Austin by supporting broader efforts to provide social services

Affordability

Policy 1 Proactively assess displacement impacts of transportation projects
Policy 2 Work with communities to mitigate displacement impacts of transportation projects
Policy 3 Reduce transportation costs as a component of household affordability

Accessibility

Policy 1 Ensure that people of all functional abilities have equitable access to the transportation network and mobility services
Policy 2 Advance public transportation and other mobility services for people with mobility impairments
Policy 3 Ensure sidewalks are safe and accessible for people with mobility impairments
Policy 4 Make all detours safe, accessible, and known to people of all functional abilities
Policy 5 Enforce accessible parking regulations

Public Interaction

Policy 1 Provide high-quality customer service, responsiveness, and transparency
Policy 2 Engage community members in transportation decisions
Policy 3 Make public engagement convenient, accessible, and meaningful
Policy 4 Evaluate interactions with the community
Policy 5 Proactively maintain community relationships
Policy 6 Create shared experiences for the public to engage with mobility options



Equity

Equity is achieved when every member of the community has a fair opportunity to live a long, healthy, and meaningful life. Embedding it into Austin's value system means changing hearts and minds, transforming local government from the inside out, eradicating disparities, and ensuring all Austin community members share in the benefits of community progress. An equitable community is one where everyone can participate and prosper, and conditions allow all of us to reach our full potential.

We can think about transportation equity in several ways:

- Geographic equity: the treatment of and funding for different geographic areas in the city of Austin is equitable based on safety and mobility needs.
- Modal equity: the treatment of and funding for different transportation modes, like walking, driving, taking public transportation, and bicycling, is equitable based on community goals and system needs.
- Travel choice equity: users of the transportation network are provided meaningful transportation mode choices that enable access to jobs, healthcare, education, public amenities, and opportunities.
- Social equity: not only treating all people fairly, but also recognizing, acknowledging, and purposefully acting to right historical wrongs and inequities caused by transportation-related decisions.

As a transportation industry, we have historically used tools to focus on geographic, modal, and travel choice equity. While these approaches to equity are critical to achieving our mobility goals, this section is primarily focused on how we can better integrate and prioritize the fourth equity approach, social equity, into our transportation decision-making. It is important to keep in mind, however, that these four forms of equity are not mutually exclusive, and strategies to address one type can overlap with and either help or hurt the other types. Further, the City recognizes that race is the primary determinant of social equity and, therefore, racial equity is the starting point for the journey towards social equity.

Inequity in access and options can be a barrier that keeps us from reaching the benefits and opportunities for prosperity Austin has to offer. It can also be cyclical, leading to intergenerational disenfranchisement that prevents multiple generations of families from establishing financial security and accessing opportunities. In Austin, as in other cities, today's inequities stem from the past, both from active decisions to disrupt communities and from passive harmful neglect. Publicly-funded transportation decision-making and systems have been part of the problem of our city's history of systemic racism, leading to the inequitable outcomes we see today. We recognize the historical harm, acknowledge these inequitable outcomes, and, through this plan, we will address inequity throughout Austin as we move forward. All aspects of transportation decision-making need to be examined through an equity lens and transformed to better serve all Austinites, especially those most harmed by past decisions.

Indicators and Targets



Increase the mobility funding allocated to areas that are historically underserved



Increase the percent of transportation projects and programs that use the Equity Assessment Tool



Increase the percent of City employees receiving mobility equity training



Increase the number and share of people participating in transportation workforce training programs

Equity Policy 1

Acknowledge and learn from the negative effects of past transportation and land use decisions

Recognize that historically communities of color, low-income communities, and people with disabilities have been most negatively impacted by transportation and land use policy and infrastructure due to barriers leading to a lack of representation and institutional power

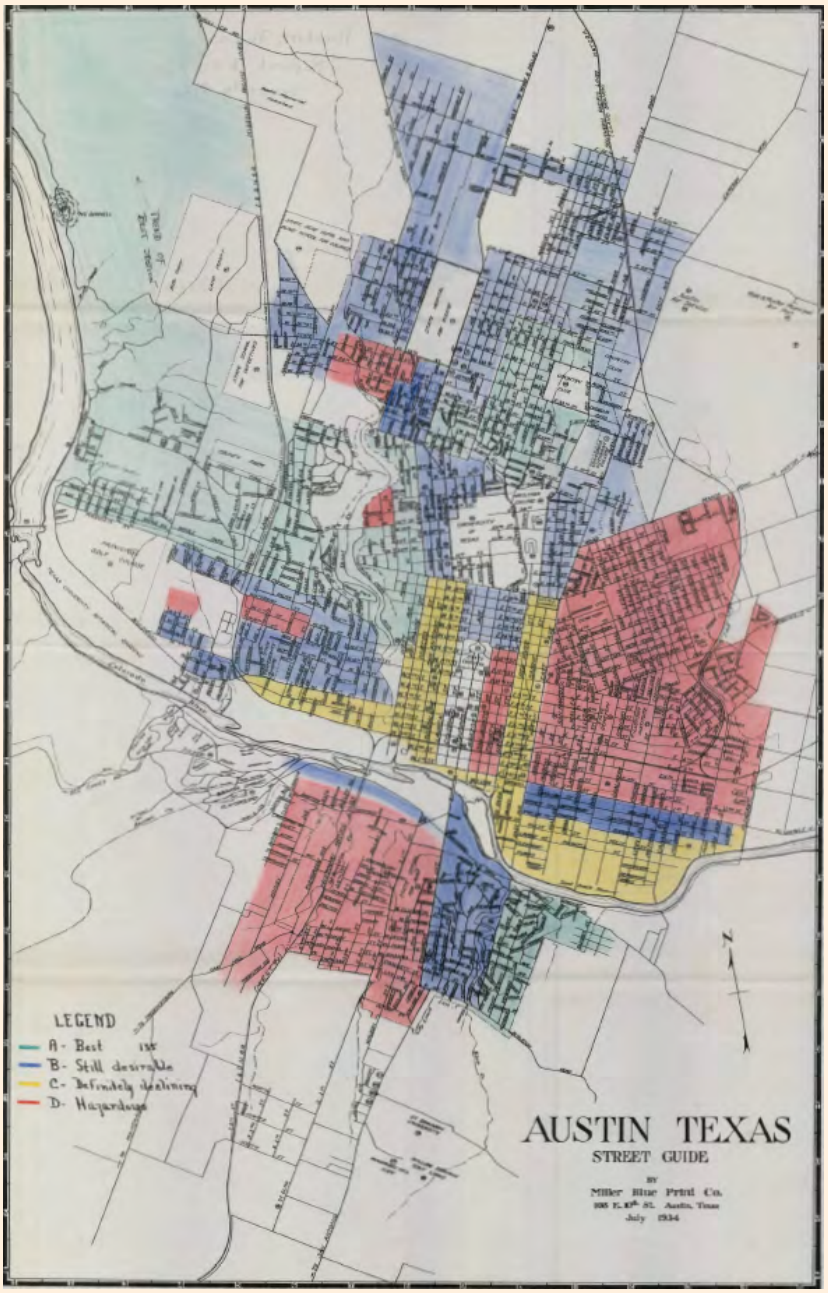
Austin has a history of systemic racism and racial inequity that continues to affect us in the present day. Decisions related to transportation and land use policy and infrastructure have resulted in the exclusion, marginalization, and discrimination of communities of color, low-income communities, and people with disabilities. Land use and transportation decisions, including the 1928 Master Plan of Austin adopted by an all-White all-male City Council, worked together to segregate non-White residents in East Austin. Black/African Americans and Hispanic/Latinx community members who tried to settle or remain in areas outside the designated "Negro District" were denied basic services such as utilities, parks, and public schools unless they moved into the district. Segregation resulting from Austin's 1928 Master Plan was deepened by later "redlining" maps depicting four levels of "residential security." The color red was given to areas, primarily in East Austin where many lower-income and/or non-White Austinites lived, which were deemed "hazardous" to extend mortgages and other financial services into. Redlining was a barrier to financial opportunities for non-white people, while at the same time increasing economic opportunities for White people, and it further encouraged spatial segregation.

Transportation planning and infrastructure decisions worked in concert with discriminatory land use policies to exacerbate inequities in Austin for communities of color. Vehicular travel on highways and other major roadways leads to increased pollution in neighborhoods located nearby. Higher rates of respiratory diseases such as asthma have been documented in many communities of color and lower-income communities who live or work close to these major roadways. Perhaps the largest and most obvious reminder of inequity and segregation in Austin is also a freeway: the double decks of Interstate 35 dividing downtown from East Austin. The highway follows along what was once East Avenue, the boundary line of the redlined "Negro District" and other parts of Austin. Today, the freeway acts as both a physical and symbolic barrier to opportunity and reminds us of the critical work left to be done to learn from and address our history.

Clarksville and the MoPac Expressway

The MoPac Expressway (Loop 1) was constructed in the 1970s through a historic Black neighborhood, Clarksville, displacing nearly a third of the neighborhood's homes and forcing many Clarksville residents to be displaced to other homes outside of the tight-knit community. Only a few years later, a proposed crosstown expressway aligned along 15th Street and Enfield Road would have wiped out the rest of Clarksville and forced the majority Black residents to move from their community in West Austin. Clarksville community members banded together to successfully oppose this crosstown freeway, although gentrification pressures continue to threaten the community today.

1935 Home Owners' Loan Corporation Residential Security Map Showing Redlining in Austin



The Home Owners' Loan Corporation (HOLC), sponsored by the U.S. federal government as part of the New Deal, was formed to offer assistance to homeowners and prevent foreclosures for those in default on their loans. The HOLC developed a series of residential security maps that deemed areas safe or hazardous to lend to. Areas in red were those deemed hazardous. These determinations further entrenched spatial segregation for many people of color into specific areas. This process is known today as "redlining."

Some negative effects of past transportation and land use decisions come from disinvestment rather than from the construction of large-scale infrastructure projects. Decades of neglect have had negative effects on neighborhoods such as Dove Springs and North Lamar where residents have had to make do without much investment in transportation infrastructure and other public and private services. Acknowledging this kind of long-term discriminatory disinvestment is just as important as acknowledging devastation caused by new construction projects.

All transportation and land use decisions need to first consider these and other historical events that have negatively impacted communities of color. Only then can we acknowledge them and create space for communities to share so that we do not repeat the same mistakes. Increasing equity throughout the transportation and land use decision-making processes will require more representative collaboration, input, ownership, and ongoing evaluation of existing and new policies to understand their implications for equity. We recognize that our decisions today will affect equity in the future.

Equity Assessment Tool

The Equity Assessment Tool, developed by the City of Austin's Equity Office, is a tool that can help all City departments in the following ways:

- **Focusing on human-centered design and building institutional empathy;**
- **Engaging community members in decision-making processes, prioritizing those adversely affected by current conditions;**
- **Bringing conscious attention to racial and other inequities and unintended consequences before decisions are made;**
- **Advancing opportunities for the improvement of outcomes for historically marginalized communities;**
- **Removing barriers to the improvement of outcomes for historically marginalized communities; and**
- **Affirming our commitment to equity, inclusion, and diversity.**

The Equity Assessment Tool can be utilized to implement new policies, practices, and programs to help identify and address the inequities that negatively impact quality of life for low-income communities in Austin, which are disproportionately communities of color. The Tool asks who will benefit or be burdened by any particular proposal, and what it does to advance racial equity or mitigate unintended consequences. It also helps departments plan for data collection, engagement, implementation, and ongoing accountability and evaluation. A department-level equity assessment will be followed by a yearly Equity Action Plan of concrete steps the department is taking to improve equity.

Austin Transportation participated in the first cohort of departments to implement the Equity Analysis Tool. Following an assessment of strengths, weaknesses, opportunities, and threats, Austin Transportation developed its first Annual Equity Action Plan for 2019. Action items identified through this process include, among others, establishing a single equity point of contact, establishing public interaction and equity policies through the ASMP to guide transportation decision-making, and establishing a public engagement and equity plan to help implement the ASMP after adoption.

Equity Policy 2

Amplify the voices of historically underserved and underrepresented populations

Ensure that all voices are represented, especially those of historically underserved and underrepresented communities, throughout the planning, development, provision, and operation of the transportation network

In an effort to include all voices that will be affected by the outcome of a transportation decision, we need to speak with many different community members who have varying opinions, beliefs, and needs. We will take meaningful steps to hear from and listen to all members of our community, but especially those that have been marginalized or shut out from past decision-making processes. Because of the history of inequity in Austin and the many barriers to institutional power that have impacted historically underserved and underrepresented communities, we must go beyond simply hearing these needs. We will amplify the voices of those who have previously been silenced and those who we are not meeting the basic needs of today. This must be done inclusively, which means bringing traditionally excluded individuals or groups into transportation processes and sharing power authentically with them.

Many community members may have lost trust in the City or other public agencies after repeatedly feeling that they were not being listened to or supported and may have stopped voicing their concerns or input. Other community members may not interact at all with the public sector because their status is undocumented or they have had negative experiences with people acting in an official capacity. It is necessary to reach out to amplify these voices that are especially underrepresented in traditional transportation decision-making, and unconventional strategies may be the best way to connect with these Austinites. Focused efforts and long-term relationship building will be needed to repair and foster trust with community members who have lost that trust over long periods of time. Actions speak loudly, so incorporating input and implementing solutions must be done in a timely manner.

To better understand where we are and to continue to improve toward a more socially equitable Austin, we must work to know who we are and are not hearing from. This means looking at public feedback data not only to learn what Austin overall needs and wants, but digging further to see what different groups that have been marginalized in the past need and want. One strategy to better amplify these community members' voices could be analyzing feedback in a way that normalizes, or gives different weights, to feedback according to whether a group is over or underrepresented in a particular data sample. Another equally important strategy is to focus public engagement attention and resources on developing and maintaining relationships with individuals and leaders of communities that have been underrepresented and underserved. Tailoring our process to integrate and amplify the experiences and needs of marginalized voices should include holding in-depth focus groups that provide rich qualitative data on people's lived experiences to directly inform transportation decision-making. New models and processes may be needed to help bridge between the City and community members. Strategies that amplify and incorporate the voices of historically silenced Austinites can help to address previously harmful decisions and ensure we are advancing mobility equitably for everyone in our community.

Equity Policy 3

Partner with the public and private sectors to expand and improve mobility solutions for historically underserved communities

Support the creation and integration of mobility solutions that address equity and access to opportunity and that maximize user choice and freedom of movement

Accessibility to and equity of multimodal transportation choices is one of Austin's City Council's top ten indicators for significant improvement in the near term. Increasing the accessibility of transportation choices for more people will be fundamental to addressing the historical inequities caused by or perpetuated in our transportation network. The fewer transportation choices and financial resources a family or neighborhood has, the greater their difficulty in accessing opportunities and services is. Limited transportation options can also lead to more constrained employment, educational, healthcare, and recreational opportunities.

> *"We need more options that provide fast reliable transportation and connects all parts of the City, particularly working class neighborhoods and areas outside of Austin."*
>
> —Community Member

The traditional transportation model to provide access to everyone involves providing partially or fully subsidized public transportation services. While expanding public transportation is one key strategy to increase access and equity, many areas of Austin do not fit the traditional public transportation service model. This can be due, for example, to development patterns and road networks that make it very difficult to provide cost-effective bus service. Service changes can create issues for people that rely on particular routes to access jobs, schools, and other opportunities.

Because one service type will not work for every person or place in Austin, we will need to partner with other service providers for more and varied solutions in addition to a high-quality public transportation system. Communities themselves should participate in planning which emerging mobility solutions do and do not work for them. We will support improvements and expansions to mobility services that prioritize social equity in an effort to better serve all of our communities, especially those who have been historically underserved.

People without cars, senior adults, and people with mobility impairments would all benefit from having more ways to get where they need to go. Communities of color, low-income communities, and people with disabilities that have been historically underserved by the City can be better served by new, innovative solutions to mobility concerns. New and emerging mobility solutions, like on-demand rideshare services, neighborhood circulators, and shared dockless mobility devices, can open up new options for many people throughout Austin currently underserved by our transportation network. We must prioritize where emerging mobility solutions are deployed to improve outcomes for historically underserved communities, and we should not limit ourselves to any one mode or service model as different communities will require different combinations of solutions. We must harness mobility technologies and partnerships with the private sector that help us address inequities of the past and expand access to opportunity in the future. By increasing our transportation choices, especially for those who need it most, we can connect people to all the opportunities and amenities Austin has to offer.

Equity Policy 4

Take steps to mitigate unintended consequences when they occur

Attempt to anticipate unintended consequences that may disproportionately affect historically underserved and underrepresented populations and proactively mitigate these effects

Well-intentioned policies and actions may still disproportionately benefit white, affluent groups, inadvertently harm marginalized groups, or—in some cases—do both. If a well-intentioned action has a positive overall outcome for our community but also has potential unintended consequences to equity, should we shy away from doing anything, leaving everything as it is in its current inequitable condition? We believe that the answer is no. We should take action and work to mitigate unintended consequences rather than simply doing nothing at all.

> *"Safety is a big issue for me. I see distracted driving all the time, and lots of unsafe driving (running lights, aggressive driving, speeding). Enforcement could be improved."*
>
> —Community Member

Take, for example, the question of safety and enforcement. We know that some groups in Austin are disproportionately affected by pedestrian crashes. Communities of color, lower-income communities, and communities with limited English proficiency have higher rates of serious pedestrian crashes than other groups. Factors in crash rates include mode of travel, transit ridership, and car-ownership. Specific demographic factors, like age, can result in more serious injuries for certain categories of people compared to others.

One strategy to mitigate safety-related consequences could be to increase and focus enforcement efforts in high-crash areas of Austin. This would potentially reduce the number of fatalities and serious injuries overall and therefore for historically underserved and underrepresented groups. However, transportation enforcement practices have been shown to have a history of racial profiling and targeting, which has resulted in a disproportionate number of stops and arrests for people of color and has eroded community trust in police relationships.

Rather than completely ignoring the potential negative effects of increased enforcement, or declining to increase enforcement activities due to potential equity impacts, we choose a third option. We will work with communities to acknowledge and understand the unintended consequences of well-intentioned actions, and work with them to mitigate these consequences. Community input and preferences will have to guide the strategies that we use to mitigate unintended consequences. There is rarely a single easy fix for complex issues like addressing street safety, and this means that we must co-create solutions alongside those most affected by an issue.

One part of a solution could be to pair any increased enforcement with racial bias training for police officers, but this alone is no guarantee of a better outcome. Other solutions that are infrastructure-based, like installing pedestrian refuge islands, can make it easier to cross the street and help to increase safety. Connecting both of these with related efforts to develop restorative justice programs and to address other root causes of traffic fatalities will be necessary to proactively, sensitively, and thoughtfully take steps to mitigate unintended consequences. We must explicitly plan to incorporate equity into all transportation decision-making through community input from the earliest stages, including decisions about increases in traffic safety enforcement, to better address the needs of those disproportionately affected by traffic injuries and fatalities.

Equity Policy 5

Prioritize serving the most vulnerable populations in Austin by supporting broader efforts to provide social services

Acknowledge transportation's role in being part of the solution to addressing root causes of homelessness and poverty by increasing access to community support services

Transportation choice and freedom of movement can be powerfully beneficial or powerfully obstructive forces in access to basic services and support. There are many ways that transportation can negatively impact people's everyday lives. Unreliable or infrequent transportation access could affect a person's job performance or access to healthcare needs, like doctor's appointments. Many community members cannot enroll in or complete programs that provide assistance for things like job placement, education, healthcare, childcare, food assistance, and many other things because they lack the ability to get to where they need to go.

While we can work towards fixing existing transportation barriers like these, we can also do more, especially for people who need it most. Transportation planning and implementation cannot ignore the complex issues it affects and is affected by, such as lack of available and affordable housing and healthcare. We will participate in broader efforts across the community to address the underlying causes of homelessness and poverty. Affordable and reliable mobility solutions that help people access the services they need are the first step for many on a much longer journey toward financial security and stable housing. Transportation can help people access opportunities across town or in their own neighborhood. By thinking of transportation as one among many community support services, we can more holistically take up the complex and interrelated root issues of chronic homelessness and poverty.



Frameworks for Equity

Different frameworks exist to help us consider and evaluate the equity implications of our transportation decisions, including:

Title VI of the Civil Rights Act of 1964

Section 106 of Title VI of the Civil Rights Act of 1964 states the following: "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." This has since been clarified to apply to both Federal entities (like the Federal Transit Authority or U.S. Department of Transportation) and all their operations and activities, and to entities that receive Federal financial assistance (such as public transportation providers like the Capital Metropolitan Transportation Administration or for construction projects where the City receives Federal grant funding). The City of Austin is committed to non-discrimination in the provision of our transportation network and will continue to work to ensure that the principles outlined in Title VI of the Civil Rights Act guide the projects we implement and the programming we provide.

Mobility Justice

Mobility Justice is a concept that focuses on the many different ways people interact with our transportation network and built environment. Individual transportation options, possibilities, or preferences are shaped by the intersection of different personal backgrounds, abilities, cultures, and geographies, among many possible influences. Mobility Justice calls for transportation planning and processes to recognize these differences.

Upholding Mobility Justice principles requires focusing on people and communities first when designing our transportation network, as opposed to the modes or infrastructure that compose the transportation network. A community's history and lived experience are critical data when planning or evaluating transportation projects, and "human infrastructure," the value of people themselves, must be integral to transportation planning in our community.

Mobility Justice recognizes that how we use our transportation network is more than just the route we walk, the bus we take, or the time of day we drive to work. It is a combination of the many cultural factors that influence who we are, and where, when, and why we are using our transportation network in the first place.



Affordability

Transportation affordability is more than just the price of gas, hailing a ride, or a bike-share membership. Transportation affordability also includes the costs of being able to live in certain neighborhoods and locations that have access to high-quality schools, businesses, shops and medical services connected by safe, effective and well-maintained transportation infrastructure. Whether it is for renters or owners, people in single-family or multi-family buildings, or commercial or residential uses, our transportation network should support affordable communities.

> *"We need more affordable housing, public transportation, safe bike lanes and infill to create a viable city center."*
>
> —Community Member

Transportation costs are often a household's second highest expense after housing.* The cost of owning a car is high, but the cost of living in a neighborhood that offers multiple transportation options and travel choices can be just as high or higher. Often, when we expand our transportation network with enhancements such as new roads, new public transportation service, or new sidewalks, the cost to rent or own a home in those neighborhoods goes up. This can lead to residential and commercial displacement as long-term communities are no longer able to afford housing, and they are forced to move further from the businesses and services they use. This leads to increased transportation costs for them as they pay more in gas and wear on their car, or they have to rely on unfamiliar or fewer transportation options in their new neighborhoods.

It is not just local community members who are vulnerable to this turn of events. Businesses also grapple with the impacts of rapidly-rising rents. If the customers these businesses have historically served no longer live in that neighborhood, these establishments must face the possibility of losing much of their business. If new residents do not patronize these establishments, these businesses may not be able to sustain themselves and could be forced to close or move.

Diminishing numbers of long-term community members and businesses unwind the fabric of many established communities. Affordable communities are important, and there is a close connection between transportation, affordability, and a high quality of life. It is critical that our transportation network supports our communities in a way that allows for sustainable neighborhood growth without necessitating the displacement of our long-term, established communities.

**For families with children, transportation costs are often the next highest expense after housing and childcare.*

Indicators and Targets



Increase the percentage of affordable housing available at 30%, 50%, 60%, and 80% MFI within 1/2 mile of Transit and Bicycle Priority Networks



Increase the number of 2 car households transitioning to 1 car households



Decrease the cost of transportation as a percentage of household budget

Affordability Policy 1

Proactively assess displacement impacts of transportation projects

Assess and consider impacts to housing and commercial affordability when planning and designing transportation infrastructure projects

We know that transportation improvements, while needed for our community, can lead to higher property values and rents. These results can eventually lead to displacement, disproportionately affecting lower income residents. It is important that we recognize this fact during the planning phase of all transportation infrastructure projects and that, before we begin the implementation of these projects, we work with our partners, develop strategies, and utilize tools to support current neighborhood residents and businesses, stopping or limiting their displacement.

There are several different ways that we can be proactive when planning and improving transportation infrastructure across Austin as outlined in the Austin Strategic Housing Blueprint (ASHB), Anti-Displacement Task Force recommendations, and other reports. Increased collaboration among City departments and partners is an important first step. Austin Transportation should work with other departments and agencies, such as City departments working on housing and real estate, and the local housing authorities, at the very beginning of planned transportation infrastructure improvements. This allows the City or private organizations the opportunity to purchase land, retain affordable housing, and implement programs to support the community before new development occurs. Even small-scale transportation improvements should be shared and integrated into plans for our partners so affordable housing can exist side-by-side with robust mobility options.

Other tools that could help local communities mitigate rising housing costs that may stem from transportation infrastructure projects include: using strategic land banking in underdeveloped areas; developing infrastructure in targeted areas to support Imagine Austin and ASHB affordable housing goals; leveraging value-capture programs such as tax increment financing or the transfer of development rights; and working with local homeowners and other City departments to take advantage of assistance programs, such as weatherization and home repair subsidies.

Assessing how transportation infrastructure projects may affect local residents will allow the City and other organizations to organize the best and most appropriate programs and services to support the current residents in the face of new costs that may accompany the new transportation infrastructure.

> *"I would also like the city to be mindful that artists, and people on low or fixed incomes commute into town to work because they have been priced out of housing."*
>
> –Community Member

Strategies for Affordable Housing

Constructing and maintaining affordable housing requires the use of context-sensitive strategies, including a range of housing types, and displacement mitigation options that might be more or less feasible or effective in different parts of Austin. These strategies may differ based on whether they are targeted at renters or homeowners, seniors or families, in the urban core or on Austin's periphery, among other things.

Strategic Land Banking

A land bank is not a financial institute, but a public- or community-owned organization that acquires, maintains, and disburses property to support community-based interests, such as providing affordable housing. The City of Austin should strategically acquire and hold land in underdeveloped Imagine Austin activity centers and corridors, making it available to private or non-profit developers, or public-led development for the construction of income-restricted affordable housing as these areas develop. Land banking may also provide affordable space for important community-oriented uses such as creative venues and workshops, nonprofit offices, music venues, and small, local businesses integrated into mixed-use projects. Of the $250 million approved by voters in the 2018 Affordable Housing Bond, $100 million is allocated to strategic land banking.

Value Capture Programs

Value capture programs are strategies used to realize the increased value that often accompanies properties when infrastructure or other improvements are implemented. Tax Increment Financing (TIF) is the most widely used of these programs to pay for affordable housing. TIF redirects some of the tax from the properties in a geographic area, designated as a Tax Increment Reinvestment Zone, to pay for improvements in the area. Other value capture programs include transfer of development rights, land value taxes, and improvement districts. Some value capture programs, such as linkage fees, which dedicate fees from market rate housing to affordable housing, are illegal in Texas.

Homeowner Assistance Programs

The City of Austin offers several homeowner assistance programs that support low- and moderate-income homeowners. These include down payment assistance for first-time buyers, weatherization assistance, and loans for home repair and accessibility modifications. These modifications could include upgrading homes to accommodate accessibility issues by installing wheelchair ramps or handrails, or other repairs that fix substandard housing conditions that range from siding to plumbing to roof repairs.

Affordability Policy 2

Work with communities to mitigate displacement impacts of transportation projects

Work collaboratively with communities to mitigate adverse impacts to housing and commercial affordability triggered by transportation projects

When transportation projects lead to displacement, the City must ensure that we are responding to the problem collaboratively, with a community-based approach. The City, or any individual department, should not make unilateral decisions on how best to handle or mitigate the situation. We must work together, led by the affected communities, to try to offset residential and commercial impacts that may occur resulting from transportation improvements. These coalitions must be diverse and representative of these communities. Different participants will bring different issues to light and different skills to the table. Educational, social, and cultural community leaders are a few examples of the different types of people that we must work with to lessen and remedy displacement that may occur as a result of transportation and land use decisions.

National Example: Twin Cities Central Corridor

Minneapolis-St. Paul's Central Corridor Light Rail (Green Line) was a $1 billion project connecting the two cities' downtowns and running through several different neighborhoods. In anticipation of this project, regional and local governments, business associations, and community groups created a railway mitigation strategy to support businesses along the rail line that would be affected by construction and potential neighborhood changes. Forgivable loans, tax help, and marketing support were just a few services offered to business owners to help them continue their operations during construction and strengthen their businesses in the long term. This collaboration began several years before construction started on the rail line, and those leading it offered services in multiple languages and met with businesses in one-to-one meetings to help them identify, create, and conduct the specific work necessary to help each business.

Affordability Policy 3

Reduce transportation costs as a component of household affordability

Reduce personal costs associated with car ownership by offering more choices in how we travel

Transportation costs are high. Unfortunately, the high costs of owning and maintaining a car are often necessary due to limited transportation options and the large distances between where people live and work. More affordable transportation options, such as public transportation, walking, or carpooling, are sometimes available, but not at all times or throughout Austin. For locations where alternative transportation options are not widely available, we must seek to improve transportation choices. For locations where these transportation choices do exist, we must make it easier, safer, and more convenient for people to utilize these options.

Creating and improving transportation options and travel choices can happen through a wide array of programs and initiatives. Transportation demand management (TDM) programs often facilitate the use of cheaper transportation modes. For example, TDM programs that make it easier to carpool can significantly reduce the amount of money households have to spend on maintenance and gas for their cars.

Our land development code should also utilize density bonus programs that help create and maintain affordable housing along the Transit Priority Network. Revising the sidewalk prioritization matrix to emphasize filling in sidewalk gaps near affordable housing, reassessing parking requirements for development, and prioritizing denser, affordable development in transit-rich areas are additional strategies that could reduce reliance on private vehicles and reduce the amount of money households spend on owning and operating a private vehicle.

Affordable Parking Program

The Affordable Parking Program is a collaborative public-private partnership between Austin Transportation, Downtown Austin Alliance, and commercial and government parking garages in downtown. The program was designed to serve hotel and service industry workers by providing cheap evening and overnight parking in existing downtown garages that typically empty out in the afternoon. Workers purchase monthly passes that typically cost $40 or less for access to a specific participating garage every day. The Affordable Parking Program has been so popular that it took less than two years for the program to expand from 200 to 2,000 parking spaces.



Photo credit: Capital Metro

Accessibility

Austin's diverse community requires an equitable transportation network that supports the safe, comfortable, and efficient movement of many different people. An equitable transportation network recognizes that people have different functional abilities and move in very different ways. People with mobility impairments, seniors, and parents with strollers are some groups among many with different functional abilities that our transportation systems must accommodate and support.

"Accessibility for people with mobility impairments must be taken into consideration."

—Community Member

It is especially important that our transportation network supports our community members most impacted by mobility barriers as they move throughout and across our network using different types of transportation. Our community's creativity, innovation, and determination are integral to creating the most accessible transportation network. This process requires creating infrastructure that is usable for all, providing services that go beyond minimum standards, and establishing transportation programs that are available to everyone. A transportation network that is safe, reliable, and efficient for people of different functional abilities is a transportation network that is safe, reliable, and efficient for our entire community.

Indicators and Targets



Increase the percentage of accessible intersections and crossings

Install or upgrade curb ramps at 100% of all intersections and crossings to meet current standards



Decrease the percentage of the sidewalk system obstructed by vegetation or other barriers



Increase the number of accessible vehicles operated by shared mobility services and providers within the Austin area



Increase the number of accessible pedestrian signals

Accessibility Policy 1

Ensure that people of all functional abilities have equitable access to the transportation network and mobility services

Provide a transportation network and travel options that allow everyone to move safely and easily across the city

Our transportation network exists to allow all users to move from one place to another safely and efficiently, and it must work for everyone regardless of functional ability. Everyone should be able to use our transportation network safely and comfortably, including people who use wheelchairs, walkers, mobility canes for the blind or low vision, supplemental oxygen, people who push strollers, older adults, and children.

A transportation network that is built and oriented for people of all functional abilities must address infrastructure and service challenges to better serve our community. Infrastructure challenges include utility poles in the middle of the sidewalks, poorly maintained sidewalks or missing sidewalks and curb ramps, and overgrown vegetation. While some people may be able to navigate obstructions in their paths, such as large cracks, curbs, or rough terrain, many others may be unable to.

There are also limited accessible public transportation options available. Limited accessible services, finite spaces for wheelchairs on public transportation, and rideshare services that do not accommodate wheelchairs reduce the transportation options available.



Photo credit: Capital Metro

Accessibility Policy 2

Advance public transportation and other mobility services for people with mobility impairments

Encourage travel options that allow people with mobility impairments to make mobility choices based on personal needs and preferences

Public transportation and other mobility services are continually working to create and improve travel options. However, it is important that these services are available to everyone. Our public transportation system must make it simple and easy for people with mobility impairments to use their programs. Wide pick-up and drop-off windows, limited service areas, and narrow qualifying criteria for riders can make it difficult for people to use these accessible services to get to their jobs, the grocery store, or visit their doctor.

New and emerging mobility services must also support people with mobility impairments. Vans and cars that are equipped to carry wheelchairs, as well as a variety of ride-hailing options, should be made available so that all people across our community have access to these important and innovative services.

Partners across regions and sectors are another important part of improving the accessibility of public transportation and emerging mobility services. Austin is a regional hub for medical services and other resources, so public transportation and emerging mobility services must also expand their reach to include regional users and providers. Partnerships with public and private transportation providers are also necessary to help people access and use the services our community offers. Regardless of jurisdictional boundaries, partnerships can establish essential connections that help overcome gaps in the accessibility of our transportation network.

Visually Accessible Transit Wayfinding

In 2018, the Capital Metropolitan Transportation Authority (Capital Metro) partnered with a private company specializing in beacon technology to pilot a system for accessible wayfinding around 15 bus stops on 2nd Street in downtown Austin. Small, internet-connected devices were attached to bus stops that transmit information to blind and low vision users via a smartphone application. The devices increase GPS location accuracy for the bus stop signs. Audible directions are provided to users by the app to guide them closer to the bus stop, which can help a person better locate where to wait for a bus. This also helps ensure a bus driver doesn't bypass the stop. The beacons can also transmit information about stop closures and detours to users, which is traditionally only provided as a posted sign that does not properly alert visually impaired people to changes in transit routes or schedules.

Accessibility Policy 3

Ensure sidewalks are safe and accessible for people with mobility impairments

Recognize that children, seniors, and people with mobility impairments face disproportional difficulties when sidewalk infrastructure is not properly provided, operated, and maintained

Sidewalks are a critical system within our transportation network. Almost all trips begin and end with the use of the sidewalk system. Currently, only about 20% of Austin's sidewalks are functionally acceptable. While people may be able to step around an overgrown bush or step over a curb without a ramp, these obstacles are much greater for seniors, children, and people with mobility impairments.

In accordance with the federal Americans with Disabilities Act (ADA), the City of Austin has adopted an ADA Transition Plan. This plan outlines the ways that our community will ensure compliance with the federal mandate that all facilities in the public right of way will be accessible to all. It was released in 2016 along with the Sidewalk Plan and included an inventory of the physical barriers to sidewalk accessibility and a schedule and methods for the removal of these barriers. The plan identified possible funding sources to assist in creating a fully accessible system, and also identified who is responsible for the implementation of the plan.

The ADA Transition Plan notes a variety of steps that needed and must continue to be, taken to ensure an accessible sidewalk system. For example, implementing a proactive vegetative-obstruction reduction system could effectively double the amount of accessible sidewalks in Austin based on 2016 numbers. Working with homeowners and businesses to educate and inform the public about who has responsibility for keeping a sidewalk functional and accessible, as well as clarifying city code about who is responsible for driveway approaches is another tool. Development-focused steps can ensure that new projects for capital improvement, private development or redevelopment, or major utilities, adhere to the Complete Streets Policy to repair and rehabilitate existing sidewalks to ADA standards.



Accessibility Policy 4

Make all detours safe, accessible, and known to people of all functional abilities

Ensure that all detours are safe and convenient for people with mobility impairments and that changes to the transportation network are communicated in advance

Closures and detours on the transportation network can be a hassle for everyone, but they are necessary. However, unexpected changes to the transportation network may have serious consequences if they are not well-planned or communicated, particularly for people with mobility impairments.

Unexpected transportation network closures, poor communication of route changes, or detours that end at an inaccessible location can put people with mobility needs at risk if they are unable to safely travel where they need to go. When the City of Austin plans to temporarily close a street, for any reason, we must make sure that the closure is adequately planned and communicated for all. These communications may include using tactile, digital, or mobile methods.

Our right of way Mobility Guidelines are rules and regulations that people and companies must follow when implementing closures and detours, in order to make sure that public pathways are still accessible. Enforcing these guidelines in regards to the distance of detours, and clarifying and expanding the distance and methods to advertise the detour, will help create routes that are efficient and safe for people of all functional abilities.



Accessibility Policy 5

Enforce accessible parking regulations

Enforce violations of rules and regulations for vehicles illegally parked in or occupying accessible parking spaces

Accessible parking is necessary to facilitate the movement and safety of people with mobility impairments. However, it is possible for people to take advantage of and misuse accessible parking spaces, which can force people with mobility impairments to face barriers reaching their destinations. When people illegally take up accessible parking spaces without a parking placard, they take away an essential mobility asset from those who need it most.

City codes and regulations, such as our land development code and the Transportation Criteria Manual, determine our accessible parking requirements. They specify important requirements, such as where accessible parking spaces are required, how many accompany development, and the size of the spaces. Properly developing and adhering to these requirements will help ensure accessible parking spaces are developed for those who need them.

We must be stringent in our enforcement of accessible parking regulations. In addition to traditional enforcement, community enforcement is another strategy to help ensure that our accessible parking spaces are being used properly. This would involve training community members to help maintain accessibility in their neighborhoods by issuing citations for illegal parking in an accessible space. This would also ease the demand on the City of Austin's resources.

National Example: Accessible Parking Enforcement in Houston

The City of Houston's Volunteer Parking Enforcement Program is a mayoral initiative aimed to curb the misuse and abuse of accessible parking violations. It is designed to ensure that accessible spaces are used only by people who need these spaces. Community members who are interested in preserving these spots for their proper use attend a four-hour training. Afterward, these volunteers can write citations for someone parking illegally in accessible spaces anywhere within the city's limits.


SOUTH CONGRESS
NE & MORE



Public Interaction

Meaningful and informative interactions with the people and communities of Austin are integral to successfully addressing our mobility needs. Some ways people interact with the City of Austin include submitting service requests for us to supply and manage mobility services, asking for information on how our transportation networks work, and requesting permits to use the transportation right of way. For more direct feedback on transportation network operations, people communicate with the City of Austin through Austin 3-1-1 or input processes on mobility plans and projects.

Achieving our mobility goals requires numerous and ongoing public engagement efforts to best understand and communicate with our community. We must engage the community respectfully, thoughtfully, and consistently if we expect them to attend our meetings, participate in public processes, or consider different transportation options.

> *"I really appreciate your involvement in our neighborhood and your help in the meetings we are having."*
>
> —Community Member

Major transportation construction projects, like the 2016 Mobility Bond, have demonstrated that ongoing public engagement is necessary to create transformative change that meets our community's needs. As we move forward, we must listen to and work with the entire Austin community to facilitate this change.

We must ensure that we are hearing from a variety of Austin neighborhoods and communities, especially communities that have historically been underserved. To ensure an inclusive public engagement process, we must use whatever tools we can to hear from a variety of people that is diverse and representative of Austin.

Indicators and Targets



Increase the amount of mobility project materials and other City transportation information available in the City's target languages



Increase the amount and diversity (digital, analog, and in-person) of mobility-related public engagement activities



Increase the demographic and geographic representativeness of mobility public engagement processes



Increase the satisfaction of participants with the outcomes of mobility engagement



Increase the number and percentage of people reached through mobility education campaigns



Improve the response time for mobility-related customer service requests



Increase the amount of mobility project materials and other City transportation information available at or below an 8th-grade reading level

Public Interaction Policy 1

Provide high-quality customer service, responsiveness, and transparency

Reduce response time in investigating and addressing citizen requests, and make customer service information readily available, accessible, reliable, and usable

In many ways the City of Austin is a customer service organization. All mobility departments' services affect the community in direct and indirect ways, such as engineering studies, traffic signal management, and road closure permits. Public processes are necessary for us to learn about and shape transportation and mobility goals within Austin. To best serve our community, our work must demonstrate respect, responsiveness, and transparency. To ensure quality service to the public, we must answer requests for permits or maintenance in a timely manner and provide clear communications on our work.

All public communications must be comprehensive, thorough and prompt. We must actively listen to, address, and document questions and feedback from the community. We must respond to permit submissions and requests for information quickly. Conversations, whether on the phone, electronically, or in-person, must be handled professionally. Notes, presentations, and rosters from meetings should be uploaded and available online soon after the meeting, in a format that is accessible for all. Our webpage should be easy to navigate across different platforms and we should use language that is easily understood. We must also be able to provide paper copies of information when needed or requested, knowing that not everyone uses or has access to a computer. All of these strategies can help improve the quality of our customer service.

Finally, all our actions should be guided by ethics and public trust. We must be forthright with the community in discussing decisions and changes. Transparency helps to keep our community informed and included, which builds trust in our processes, decisions, and actions.

Austin 3-1-1 and Service Requests

Austin 3-1-1 is the primary point of contact between the community and the City of Austin. It began In 2001 for police non-emergency calls to reduce the number of calls to 9-1-1 and has since expanded to include additional City services. Austin 3-1-1 now receives over 1 million calls per year that result in more than 200,000 service requests across City departments. We field many transportation questions and service requests from community members through 3-1-1. It is the best way to alert the City to mobility issues, whether it is a pothole that needs to be filled or a stop sign that needs replacement.

These requests help direct us to problems on the transportation network, but they do not direct prioritization of projects or decide what programs or infrastructure are designed or constructed. Transportation staff address repairs and maintenance issues as quickly as possible, and critical safety and emergency issues are addressed even on nights and weekends. However, requests for new infrastructure often need to meet certain criteria to be evaluated fully for implementation. Many pieces of infrastructure in the City, such as sidewalks and Urban Trails are prioritized through criteria to ensure that this infrastructure is built where it is needed most for the transportation network, not simply in the location that receives the most 3-1-1 requests.

Public Interaction Policy 2

Engage community members in transportation decisions

Include interested and affected community members when making decisions in the planning, design, construction, and operation of transportation projects and programs

Planning decisions must be inclusive and public, because they affect how people get around in their daily lives. In many cases our decisions can have an impact on people's safety, financial health, or economic prosperity. Because of this, engaging people in mobility decisions is incredibly important.

Because our planning is community-based, we must engage the many different communities of Austin in our process. We must ask them what issues they face, how they would like their transportation network to operate, and what it should look like. Our knowledge and expertise should be used to guide community decisions throughout these processes, not to make decisions for them.

In particular, we must engage people from communities that have been historically underserved and underrepresented. Public participation in the past has often been limited to people from certain places or people of certain demographic characteristics. This has resulted in transportation policies, programs, and infrastructure that have historically been and continue to be inequitable in access, connectivity, health, and wealth. Our public engagement should strive to engage with people we have not historically spoken with to ensure these community members have the opportunity to make decisions and give input on transportation decisions.

A successful community engagement process includes open lines of communication with people so we can share information on new projects or programs, ask for community feedback, and receive requests and questions from the community. When projects in certain areas are being considered or planned, we must work even harder to ensure that the people most affected by the project have the opportunity to engage with us. Strategies that can help us reach out to people include mailing notices to nearby homes and businesses, knocking on doors to alert people to upcoming meetings, and posting signs around the project area. This outreach process must continue from planning through to construction. We must communicate with our community when a project is completed. This demonstrates how their time and input has brought mobility improvements to their neighborhood.



Public Interaction Policy 3

Make public engagement convenient, accessible, and meaningful

Consider the many different ways, methods, and places to interact with the community, and work to make all community engagement simple, easy, and comprehensible to the community

To successfully and meaningfully engage the Austin community, we must make community-based and thoughtful decisions about how to engage people. This cannot be a one-size-fits-all approach; we know there is a great diversity of people and thought, even within a single neighborhood. The activities that attract people, how people hear about our events or surveys (through friends, social media, email, their local library), and how they absorb our information (by sight, through discussion, reading a pamphlet) all differ based on personal preferences, culture, language, age, and other unique attributes. These differences require that we work extra hard to engage everyone.

There are many important ways we can improve our engagement and make it as inclusive as possible. To eliminate language barriers, we must translate materials into multiple languages, and provide as many speakers of different languages at meetings as possible, especially in areas where we know certain languages are widely spoken. We must also work to make material accessible to people who are blind or have visual impairments through the use of accessible technology and formats. This includes using colors on maps or in presentations that do not pose difficulties for people who are colorblind, ensuring digital materials are compatible with screen-reading technology, and having print materials available in Braille, for instance.

In all our communications, we need to use words and phrases that are easily understood. We must eliminate or limit jargon and write to a reading level that most people can follow without feeling intimidated or excluded. We must be mindful of the words and phrases we use, and we must take the time to make sure people understand what we are saying. We must co-create and test out our methods and materials ahead of time with various community members to help us determine changes we need to make.

Our events should be held at times and in locations that are convenient for a diverse community of people. Our staff should travel to people whenever possible, rather than have people travel to us. Meetings should be located in areas accessible by different modes of transportation, with accommodations such as accessible sidewalks, nearby bus stops, and bicycle facilities.

Perhaps most importantly, our engagement must be thoughtful and concise to be respectful of people's time. We must take the time to ask the right questions and be mindful that people have many priorities to manage in their lives.

Public Interaction Policy 4

Evaluate interactions with the community

Review and examine public-facing activities to make sure objectives are achieved

We must track and evaluate all interactions with the community, in order to measure progress. The nature of this information is qualitative, which we can use to consider what we learned, who we heard from, and how we acquired this information. Much like measuring the number of transit riders per hour, our evaluations of community interactions provide insight on the people we are reaching, what topics matter, desired outcomes and potential actions to take in future public engagement activities.

Our evaluations of engagement activities must also involve a public process. We can provide feedback forms after an event or meeting to determine what, if anything, should be changed to improve a future event. Should an interpreter be hired for a specific language? Did people have difficulties understanding what we were asking or how we were asking questions? Are we hearing from a representative sampling of people? We must be nimble in our engagement and be able to modify our activities as we learn what does and does not work.

At the conclusion of projects or programs we must also evaluate the entirety of our engagement. What lessons can we learn from this round of community engagement? Interacting with the public and engaging with the Austin community is ongoing and continuous, and these lessons can be shared throughout the entire City of Austin government to help improve standards and practices.

Language Access Planning

It is estimated that 13% of Austin residents speak English less than "very well," according to the 2016 American Community Survey. If they are only released in English, our official City notices and important community information is much less likely to be received or understood by people with limited English proficiency. In an effort to reach and hear from these underserved multilingual voices, we must be able to communicate in the languages our community uses. We should be able to communicate high-priority information and receive feedback in the following languages commonly spoken in Austin by those with limited English proficiency:

- **Arabic**
- **Burmese**
- **Chinese (traditional and simplified)**
- **Hindi**
- **Korean**
- **Spanish**
- **Vietnamese**

Achieving better language inclusion must include both the translation of written materials and official communications, and the interpretation of spoken communication in-person and over-the-phone. A Language Access Implementation Plan is currently in development for the City of Austin and will help guide public interaction expectations and strategies for reaching and serving people with limited English proficiency.

Public Interaction Policy 5

Proactively maintain community relationships

Recognize and guarantee that the cultivation and maintenance of community relationships is undertaken by the City of Austin

As a provider of community services and information, we must bear the responsibility to build relationships with communities. Creating successful relationships is a complex and time-consuming commitment that requires energy, dedication, and sensitivity, and many people do not know, are not comfortable with, or do not have the ability to create a relationship with a large institution like the City of Austin. Maintaining community relationships will benefit us and the community as a whole. A close relationship with a community helps to open a dialogue where people can share their opinions, concerns, and desires regarding transportation needs.

We must use all the avenues we have available to identify community leaders and groups, underserved and underrepresented people, small business associations, and all other Austin community members to ensure that everyone has the opportunity to participate in our transportation planning processes. When we approach a community to ask for opinions on a street redesign or ask them what they want to see in their neighborhood, it is often difficult to get many or varied voices. A strong relationship with local, cultural, and social groups, institutions, and businesses will help us spread the word about our work and facilitate the community input we need.

We also must consider the amount of work that goes into the creation and maintenance of these relationships. Often, people provide their time, effort, thoughts, and opinions without compensation in order to make transportation better in Austin. The burdens of time and energy required to start and maintain relationships must be on our shoulders. We should clearly define our relationships with community members and community-based organizations so that they are mutually beneficial and not one-sided.

Once our community relationships are established, a strong and successful relationship requires us to continue putting in the time and energy to maintain that relationship. Attending meetings and events, sending out information in newsletters, and maintaining different methods of communication are just a few elements that help maintain a relationship with the community.



Public Interaction Policy 6

Create shared experiences for the public to engage with mobility options

Employ nontraditional public engagement techniques that emphasize hands-on interactions and personal experience to educate community members and facilitate adoption of travel options

We must go beyond traditional public engagement tools by devising and implementing new ideas, activities, and ways to interact with the public and derive meaningful community feedback. In traditional surveys, we ask our community to commit their free time to answer questions about their opinions, concerns, and desires for their city. Public meetings and surveys can, however, become monotonous, overused tools lacking attractive, hands-on activities. If we depend too much on the same tools, we risk not attracting a broad enough audience to engage with us.

To effectively engage our community or deliver information, we must consider new methods beyond traditional surveys or public meetings. We should attend community events that attract the general public, and not limit ourselves to activities that attract only the most passionate transportation advocates. We should be advertising opportunities for input on social media, in newspapers, on buses, and in other places that people will see or hear about them.

When new mobility options emerge we should give people the opportunity to test out these alternatives to understand how they could be integrated into their daily lives. By providing hands-on opportunities for the public to engage personally with emerging mobility solutions, it encourages future use of these options and gives us more feedback for future improvements. Our engagement activities should be as creative and innovative as our street and neighborhood design.

Transit Adventures with Capital Metro

Capital Metro's Transit Adventure is an innovative and free program that identifies activities around Austin and offers people public transportation directions and free Capital Metro passes to take transit to the event. The program also covers admission to the event. The goal is to increase people's comfort with public transportation and teach people travel skills, such as how to read a public transportation map or load a bicycle onto a bus.

Adventures are comprehensively planned and led by a Capital Metro employee. In addition to providing free transit passes and covering event admission, Capital Metro plans the full travel schedule, and is there with participants before transit arrives, while they are traveling, and when they are returning after the event ends. They help answer any questions that arise and try to make people comfortable using public transportation. In addition to planning Transit Adventures that are open to the public, Capital Metro also works with organizations, offices, and neighborhood groups to plan their own Transit Adventure.

Chapter 7



GETTING THERE TOGETHER ASMP

Implementing Our Plan

The policies and indicators in the ASMP have been created to help our community get where we want to go when we want to get there, safely and cost-effectively. To do this, the ASMP sets an ambitious objective where in 2039, 50% of our community drives alone to work and 50% of our community uses other modes. This is a big task. Currently, 74% of our community drives alone to work, while 26% uses other modes.

The ASMP's policies set the guidelines we need to follow to ensure that our transportation network is safe, offers us transportation options, reduces our costs, improves our health and environment, supports our community's prosperity, and helps foster innovation and livable spaces. However, a good plan is only as strong as its implementation. To strengthen our policies, we must back them with actions

The actions we take will be strategic. Data, both quantitative and qualitative, must be the foundation of the decisions we make. Sound financial judgment and innovative financial strategies must be considered to ensure that the many projects, programs, and initiatives that make up our transportation network are undertaken cost-effectively. We must also approach solutions with partners. Our transportation network relies on many different partners. Our community members, other towns and counties, regional and state agencies, schools, and public transportation providers are just a few of the many different partners with whom we must work. By using data to inform our decisions, using sound financial judgment, and working with our partners, we will turn the ASMP from words on a page into decisive and positive action in our community.



Policy Summary

Data

Policy 1 Protect privacy and use data responsibly
Policy 2 Operate in a manner where data are open and accessible by default
Policy 3 Use data to make informed decisions

Collaboration

Policy 1 Collaborate with internal departments, regional partners, and outside agencies
Policy 2 Synchronize transportation infrastructure projects with other public capital investments
Policy 3 Utilize private development to improve the transportation network
Policy 4 Co-locate public services and facilities
Policy 5 Balance mobility needs with utility needs
Policy 6 Work with the community to incorporate public art and beautification into transportation infrastructure
Policy 7 Support interregional transportation options
Policy 8 Support larger CIty efforts for diaster preparedness and emergency response

Financial Strategies

Policy 1 Ensure long-term, viable funding models to plan, finance, and maintain the transportation network
Policy 2 Operate in a fiscally responsible manner
Policy 3 Consider the life-cycle costs of ownership when planning and budgeting transportation infrastructure projects
Policy 4 Allocate resources equitably across modes to achieve the goals of the ASMP



Data

Transportation decisions are guided by our goals, knowledge, and policy, but are informed by the data we collect. Qualitative and quantitative data are vital components to making the best decisions to support a safe, reliable, and efficient transportation network for our entire community.

"Let's rely on good empirical evidence in making transportation decisions."
—Community Member

Quantitative data reveal important measurable aspects of our transportation network, such as how many cars travel on a road over the course of a day, the location of fatal or serious injury crashes, or where people are taking dockless transportation services. On the other hand, qualitative data can reveal personal behaviors and preferences, such as why people choose to take the bus instead of walking, what type of infrastructure people want in their neighborhood, or how to best communicate closures or detours to the community. In order to understand the challenges we face, plan how to solve them, and monitor progress, we must collect both kinds of data on a consistent and thorough basis.

Collecting data is only the first step towards an effective data-informed transportation network. As our technology and ability to capture and interpret data increases and improves, the data we collect grows quickly. Increased volumes of collected data require responsible management, use, and protection of data. Responsible management includes making data public in an accessible, anonymous form so that our community, and those outside of it, have the ability to access and analyze it. Sharing data leads to the innovations necessary to improve our transportation network.

A data-informed transportation network must be the outcome of our collection, storage, and use of data. This includes identifying the data we must collect, acquiring that data, using it to plan and operate our network, and then evaluating the changes we make. From project designation to evaluation, quantitative and qualitative data must inform our decisions. Data are critical to plan, operate, maintain, and evaluate a safe, reliable, and efficient transportation network.

Indicators and Targets



Increase the percentage of City mobility datasets that are open and accessible to the public



Increase the number of City mobility spatial datasets that are mapped



Increase the amount of real-time mobility information available to the public



Increase the number of data sources to inform planning and implementation



Increase the use of open-source software to manage, analyze, and share data



Increase the percentage of City mobility datasets that are regularly maintained

Data Policy 1

Protect privacy and use data responsibly

Ensure sensitive data are protected, anonymized, and accessed ethically

The evolution of technology has occurred swiftly across the world. About 10 years after the introduction of the smartphone, more than 86% of Austin community members now own smartphones. With this pervasive use of smartphones comes an increasingly invasive risk to privacy. Smartphones allow technologies such as Bluetooth and Wi-Fi to passively track your location using sensors. While this technology is instrumental in understanding travel patterns and travel time when aggregated and processed, it is possible that the unprocessed data could be used to identify individual people if not handled responsibly. On the user end, smartphone users actively accept permissions from a number of applications that access and store personal information every day. Privacy protection is both the responsibility of those passively tracking our information and our own. While this information is critical to the planning and implementation process, we must protect the privacy and security of its users. We must use the data responsibly and ethically to ensure it will always be available for planning and implementation. In order to do so, the City must adopt standards for organizing different types of data and create interlocal data-sharing agreements that all uphold privacy as a priority.

Dockless Mobility Data

The introduction of dockless mobility devices has created a wealth of new transportation data. These modes have been adopted quickly, resulting in over two million trips worth of data that can be used to improve our transportation network. The City has been working with companies to ensure that data is handled securely, while also being used to improve safety and mobility on our transportation network.

To be transparent and help gain additional perspectives, City staff has made anonymized trip data available to the public. In addition to emphasizing the importance of keeping data open for all, this allows more people to consider and analyze this data, allowing new analysis and insight into our transportation network.

This high volume of new data has required the City to confront a host of questions about how to responsibly use this data. Since this data is generated by personal devices, it contains personally identifiable information. Therefore, the city is anonymizing this data before releasing it, and following civic, industry, and academic best practices and standards to ensure that transportation data is both secure and usable.

Data Policy 2

Operate in a manner where data are open and accessible by default

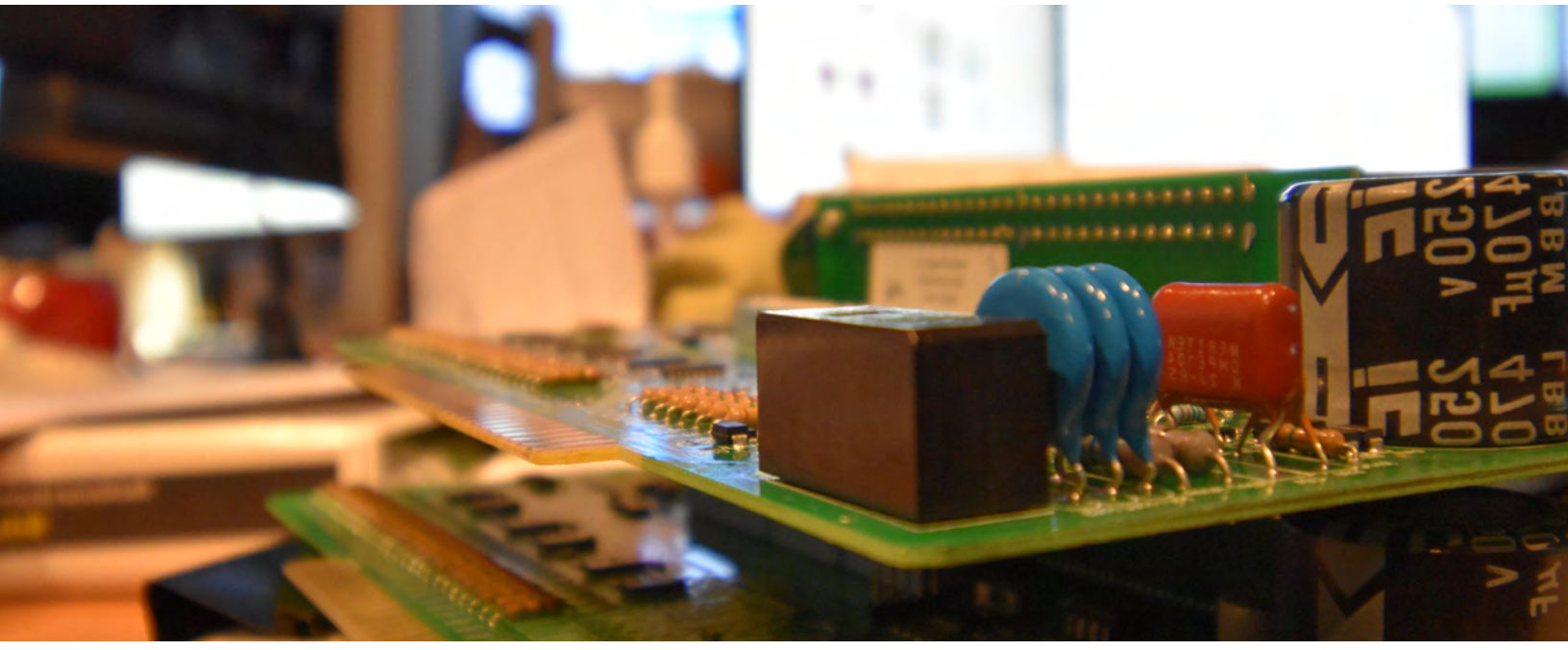
Promote openness and transparency by sharing data in user-friendly and accessible formats for community use and accountability

As we collect data to implement the plan and monitor progress we must operate in a manner that is open and transparent. This means the data we collect should proactively be made available to the public at the same time. In fact, due to laws like the Freedom of Information Act, most government data that is not subject to valid privacy, security, or privilege limitations is public data by law, and therefore should be made open and made available for others to use.

Through open data, community members are empowered with more information and can be active participants in the decision-making process. This practice of publishing open data also allows governments to share what they are doing, which helps to build trust through transparency.

In order to build a more trusting, collaborative, decision-making process, we must take steps to proactively share information. There are many ways to share data openly, whether it is through the Austin Open Data Portal or some other online platform. These online data portals provide easy access to open data and information about our city government. Open data that can be published online can include both "raw" data that hasn't been analyzed and information that has been analyzed, processed, organized, structured or presented in a given context and consists of things like reports, charts, and other documents. We must strive to share both raw and processed data openly.

> *"We encourage the use of public data that the City of Austin has published to spark innovation, promote public collaboration, increase government transparency, and inform decision making."*
>
> –Austin's Open Data Portal



Data Policy 3

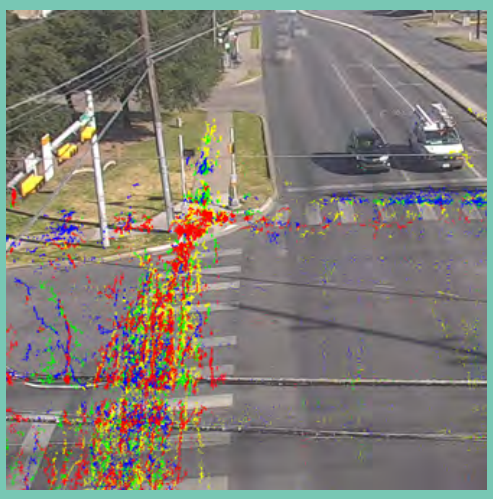
Use data to make informed decisions

Proactively collect and consider quality data to prioritize, implement, and evaluate transportation programs and infrastructure projects

Implementation of the plan is guided by policy, but is informed by data. We must continue to collect and consider quality data to prioritize and implement transportation programs and infrastructure projects. Proactively collecting data before and after a program or project is implemented will also allow us to better evaluate its effectiveness. Using data to verify observations and instincts will allow us to develop a deeper understanding of issues and clearly communicate them to the community. This approach to making informed decisions also further builds trust through transparency.

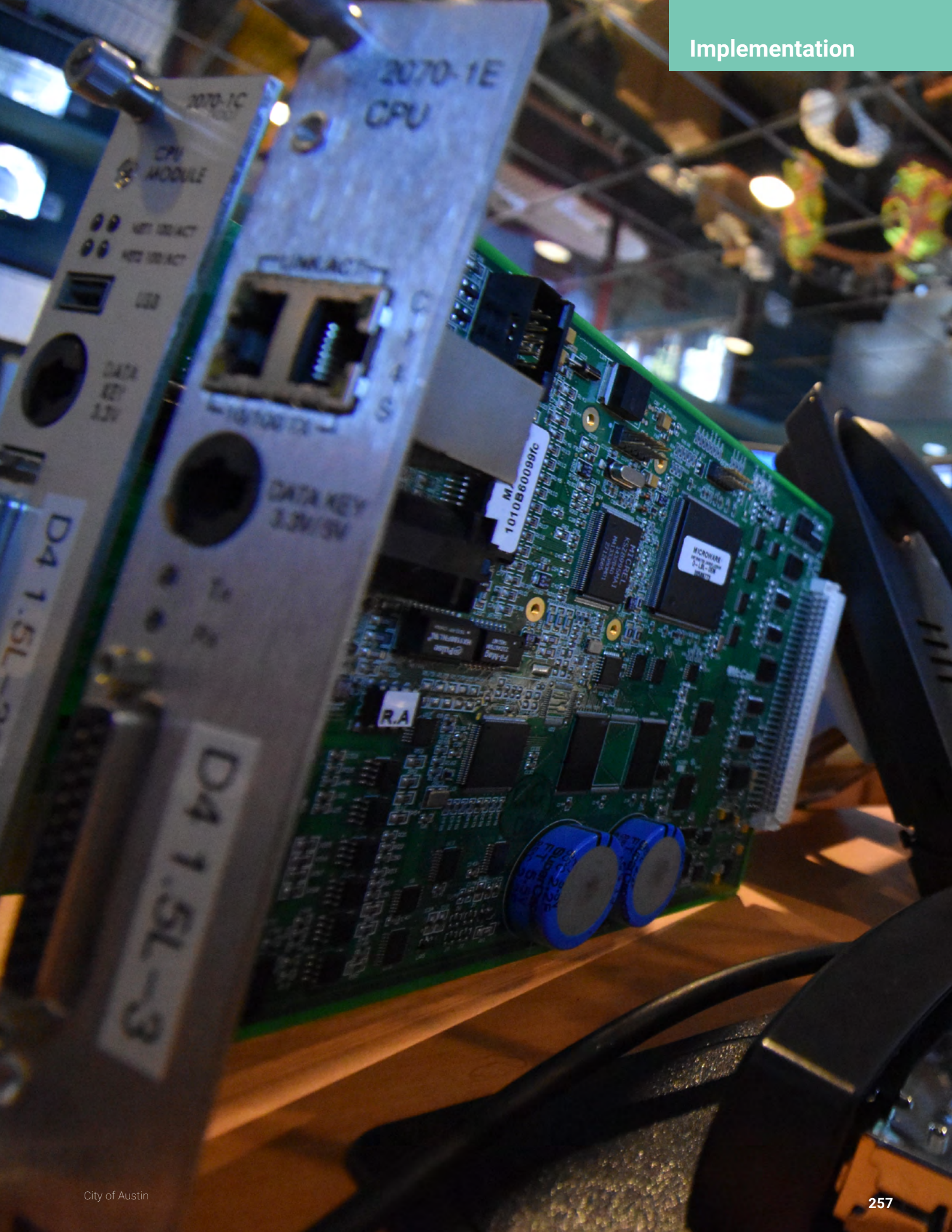
By developing and investing in a more robust data collection and analysis process, the City will be better positioned to make informed decisions. Throughout the implementation of the plan there will be a need to collect many different types of data, such as travel data from vehicles, public transit ridership, bicycle and pedestrian counts, and even survey data. This may include working with private entities and data providers to access data the City cannot otherwise obtain. This information must be managed in a sustainable, scalable, and repeatable way and we must prepare to adapt to new technologies and practices.

Using Data to Improve Safety



Although it may look odd, every piece of color in the photo to the right represents the actual path someone took to cross the intersection. Austin Transportation is partnering with the University of Texas Center for Transportation Research to use the City's existing traffic monitoring cameras, to take pictures like these in order to obtain data on driver-pedestrian interactions at busy intersections.

The data collected from this project will provide new insights into where people are currently crossing the street and how far out of their way they might be willing to walk to use a safe crossing. This information will help identify and prioritize locations where new infrastructure can help reduce risky pedestrian behaviors, such as crossing mid-block on high-speed arterial roads. Longer term, this technology has the potential to help identify where and how often near misses between drivers and pedestrians are occurring so we can implement countermeasures to prevent crashes before they happen.


2070-1E
CPU
2070-1C
CPU MODULE
DATA KEY
R.A



Collaboration

To plan, build, operate, and maintain our transportation network, we must work with our local communities, public agencies, and the private sector. Local, regional, state, and federal entities should strive to collaboratively pursue mobility improvement initiatives in ways that are seamless and transparent between jurisdictions. We must be able to work together toward a common goal in order to enhance the transportation network for the benefit of all users. These common goals must seek to benefit the greater good, and we must be able to identify short-term needs as we pursue long-term goals. In order to achieve these goals, we partner with community-based organizations, residents, neighborhood groups, and businesses. Just as important are key partners, such as the Texas Department of Transportation (TxDOT), Capital Area Metropolitan Planning Organization (CAMPO), Central Texas Regional Mobility Authority (CTRMA), Capital Area Council of Governments (CAPCOG), Capital Metropolitan Transportation Authority (Capital Metro), Capital Area Rural Transportation System (CARTS), counties, municipalities, universities, school districts, and others.

"The City and Capital Metro need to work more effectively together to provide a more balanced/ effective transportation system."

—Community Member

External agencies are key collaborators to improving our transportation network and, together with internal City departments, make day-to-day operations and maintenance activities possible. While we work to improve the short- and long-term outcomes of our transportation network we need to coordinate our planning with others who use our streets for utilities, drainage, and other critical public services. Alignment must be carried over into the construction and implementation of transportation infrastructure and other capital improvement projects. Finally, we must work with the private sector to help us build projects and improvements that enhance mobility and safety initiatives throughout Austin. Improving the lives of all Austinites is the forefront of all collaborative efforts.

Indicators and Targets



Increase the number of transportation projects, programs, and initiatives that are coordinated across City of Austin departments



Increase the number of transportation projects, programs, and initiatives that are coordinated with partner agencies



Increase the number of transportation projects that are coordinated through multi-departmental construction planning activities



Increase the number of partnerships with private development to contribute to transportation improvements



Increase the number of City facilities offering multiple services



Increase the number of joint capital renewal and utility projects



Increase the number of long-distance travel options into and out of Austin



Increase the number of opportunities for art in the transportation network

Collaboration Policy 1

Collaborate with internal departments, regional partners, and outside agencies

Identify and pursue opportunities to strengthen local and regional policies, programs, and projects through partnerships

Partnerships are mutually beneficial relationships with a commitment to a common goal. Collaboration between TxDOT, CTRMA, Capital Metro, counties, school districts, and others must be used to improve local and regional mobility for all. These relationships will result in more effective policies, programs, and projects. For example, our work with CAMPO on the 2045 Regional Transportation Plan is critical to our region's shared success. We must strengthen our partnership with TxDOT to ensure the highway system throughout Austin is improved. In addition to highways such as I-35 and MoPac/Loop 1, TxDOT has jurisdiction over many important Austin roadways, including parts of Cesar Chavez Street, North Lamar Boulevard, and South Congress Avenue. This makes coordinating with TxDOT on programs and projects across our transportation network especially important. Our continued partnership with Travis County, to coordinate our transportation plans in our shared jurisdiction, will be critical to those living just outside of our city limits. This is even more important with our growing affordability crisis as individuals and families move further outside of Austin itself. We must also continue to strengthen our partnership with Capital Metro to improve public transportation services operated on our streets and, even more importantly, to ensure high-capacity transit can be implemented. When spearheaded by multiple groups, the initiatives laid out in this plan will not only improve the lives of Austinites, but everyone who calls Central Texas home.

I-35: Capital Area Corridor

The I-35 Corridor Implementation Plan, developed by TxDOT in partnership with the City of Austin and other regional transportation agencies, identifies projects that can be constructed to reduce congestion within the I-35 Corridor and improve efficiency. These projects include:

- **Downtown Access Roadway and Riverside Interchange: This project would develop new access ramps to and from downtown Austin with circulation and distribution lanes between Riverside Drive and East Cesar Chavez Street. This project allows for future transit and highway capacity additions in the I-35 Corridor.**
- **Oltorf, Stassney, and William Cannon Overpass and Interchange Replacements: These projects would reconstruct frontage road access and intersections at each of the arterials. Work may include replacing the existing arterial overpasses, adding U-turn structures, and other safety improvements.**
- **US 183 Fully-Directional Interchange Completion: This project would connect the north and east ramp pairs, providing direct access between North I-35 and US 183.**
- **Regional Transportation Management Center and I-35 Integrated Corridor Management: This project would include using new technologies that would initially focus on the I-35 Corridor to manage peak hour traffic flow, construction activities, crash and weather-related diversions, and special event surges. Data from the new management center would provide actionable pre-trip and en-route traveler information; improved signalization and traveler information systems on surrounding, parallel, and feeder arterials are also included in the management center.**

City of Austin Mobility Roles

Mobility in Austin is the responsibility of many different departments within the City of Austin government.

Austin Transportation Department
Austin Transportation is responsible for general mobility, including the planning, operation and management of the Austin transportation network.

Aviation Department
Aviation is responsible for overseeing Austin-Bergstrom International Airport, which serves more than 14 million passengers annually.

Corridor Program Office
The Corridor Program Office was established in 2016 to manage the City of Austin's investments in major transportation corridors funded by the 2016 Mobility Bond.

Economic Development Department
Economic Development contributes to the implementation of mobility infrastructure needs on small area and citywide plans, special planning initiatives, redevelopment, and specialized economic development and policy initiatives.

Fleet Services Department
Fleet Services manages and maintains the vehicles owned and operated by the City of Austin.

Parks and Recreation Department
Parks and Recreation is responsible for public trail development and management on City parkland. These trails provide both recreational and mobility benefits.

Planning and Zoning Department
Planning and Zoning develops and updates the City's comprehensive plan in addition to a variety of small area plans including neighborhood plans, corridor plans, area-specific master plans, and other plans.

Public Works Department
Public Works is responsible for the planning and establishment of use, design, and construction standards for projects in the public right of way and on City property. They develop and implement the sidewalk and Urban Trail Systems as well as the Safe Routes to School program. They also maintain the City's network of roadways, bridges, sidewalks and curb ramps.

Collaboration Policy 2

Synchronize transportation infrastructure projects with other public capital investments

Coordinate with other infrastructure projects in the same locations early in the planning process to increase cost-effectiveness and minimize disruptions in the community

Transportation-related capital investment and infrastructure projects are able to be completed in a more timely and cost-effective manner if all groups are participating in an integrated design process. An integrated design process means "digging once" and getting all involved entities on board and in a collaborative environment before a project begins. Different projects from different groups within the City or its partners often happen in the same location, and being able to minimize the cost to build these projects and the amount of disruption to our mobility is important. Doing so can also reduce overall construction time. If we can synchronize planning, engineering, design, and construction processes from the onset of project development, we can deliver a more sustainable product.

For example, if we are able to coordinate sidewalk improvements with drainage improvements on a particular street, we can limit the time required for a closure by doing both types of improvements at once. Prolonged mobility and other public infrastructure-related projects can lead to disruptions in the community, such as an increase in congestion and disruption to normal traffic patterns. Potential actions which could limit financial, environmental, social, and time-related disruptions might be lost if we do not proactively work to synchronize projects through true collaboration.



Collaboration Policy 3

Improve the transportation network through private development

Seek opportunities to coordinate with and harness private capital investments to rehabilitate, expand, and connect transportation infrastructure

We must work with private developers to harness opportunities to rehabilitate, expand, and connect transportation infrastructure. We can achieve more as a community if both the public and private sectors contribute to improving our transportation network. Private facilities must connect to our larger, public systems to ensure that people can easily move throughout our community using different transportation modes. For example, sidewalks within a development must connect to our greater sidewalk system to ensure that using a sidewalk is a safe and viable method of travel for people.

This coordination is critical to ensuring that growth pays for growth, but it will also result in improved mobility, a better-built environment, and economic development for all. It is critical that this coordination occurs throughout the development process, from site selection and feasibility, to early layout and design, and especially while identifying transportation mitigation needs.

Incorporating private development into our transportation safely, smoothly, and conveniently is necessary as our community grows. Private infrastructure cannot exist separately from our public infrastructure. Through the land development code and criteria manual update processes and street impact fee study, we must work with the development community to create a clear understanding of what is required and ensure that it is equitable, predictable, and transparent.



Collaboration Policy 4

Co-locate public services and facilities

Reduce mobility barriers to accessing opportunities and services by locating comprehensive social services in one place

We can make it easier to access social services by working with our partners. Mobility initiatives must be planned and implemented in collaboration with social service initiatives. This makes it easier for those who seek public assistance to receive what they need in order to access opportunities. The benefits of job assistance programs, education, childcare services, food assistance, public health services, and other necessities are realized only when these services are able to be accessed by those who need them the most. Transportation barriers, whether they are physical, economic, or social, affect the ability of individuals and families to be able to access our community's social services.

Often, community members need to get to many different types of appointments and run several different types of errands in the same day. When our service providers are spread out geographically across the city, rather than strategically co-located, a person might only have the option to drive to get to all the different locations by the time they need to. On the other hand, co-locating services like libraries, clinics, and food pantries together helps because people need to make fewer trips to access the social services they need and to take advantage of various opportunities. We should coordinate in advance on the planning and placement of these kinds of multi-service centers, so that they may be easily and safely accessed by multiple modes. Doing this can help reduce barriers to accessing social services and also offer people more transportation choices to get to the services they use.



Collaboration Policy 5

Balance mobility needs with utility needs

Optimize mobility and utility needs when planning for street cross sections and allocation of space in the right of way and when operating the transportation network

Transportation infrastructure shares the right of way with much of the City's utility infrastructure. Our utilities, which are often buried beneath the ground or located overhead, must have enough space to operate to their full and safe capacity. Utilities operating within the right of way typically include drinking water, reclaimed water, and wastewater, gas, and electric transmission infrastructure, along with communication infrastructure provided by private entities. Our street design directly affects where these utilities are located.

The width of our pavement dictates the space where utilities are buried, and as we reallocate street space above ground among different modes, it also is important to consider the utilities beneath the ground and how they can be accessed. Certain types of utilities require separation from one another, which can have unintended impacts on street widths and limit the ability to place street trees and other transportation infrastructure. We know that overly-wide streets increase speeds, resulting in potential safety risks. Although utility separation standards may reduce utility maintenance costs, they can increase transportation costs and require speed management strategies. Mobility and utility needs, as well as social and environmental factors, should all be considered and allocated in a way that best serves all Austinites.



Collaboration Policy 6

Work with the community to incorporate public art and beautification into transportation infrastructure

Reflect our community values and make places more inviting by incorporating public art into the transportation network

Art is an important part of making streets great places. Transportation infrastructure, from signal cabinets to streetscapes, offers opportunities for public art and beautification that reflects our unique neighborhoods and communities. By incorporating art and valuing aesthetics in the design of our transportation infrastructure, we can strengthen our community and create a sense of place. We can also help to provide economic opportunity and recognition for local artists by displaying their work.

Art for transportation infrastructure must be chosen thoughtfully. It is important that we work with the community to identify art and artists that are from, supported by, and reflective of that community. Art can be empowering, and we want to use it to empower our local communities, in addition to beautifying the infrastructure itself. We are proud that the City of Austin was the first municipality in Texas to make a commitment to include works of art in public infrastructure projects, and we must continue to work together to create visually appealing transportation infrastructure that reflects the important values and unique nature of our communities and neighborhoods.



Collaboration Policy 7

Support interregional transportation options

Work with public and private partners to improve and expand long-distance travel options to and from Austin

For many of us, when we think of transportation, we think about how we are going to get to our school, store, or workplace, which means we are probably imagining local transportation options like walking, driving, taking public transportation, and bicycling. But long-distance travel options and solutions are also important to consider in order to meet our community needs. Flying into or out of Austin-Bergstrom International Airport is one of the ways we venture outside of Austin. Taking a regional, state, or even international bus or train is another way that we travel long distances to see family and friends, take a vacation, or make a work-related trip. We can even choose to bicycle around Central Texas on our system of trails and shared use paths.

Having multiple long-distance travel options can help reduce the need to own a personal vehicle. For instance, if you can accomplish most all of your trips during a regular day in Austin without needing to own a personal vehicle, but need a personal vehicle to travel to see your grandparents in Houston several times a month, you could be able to reduce your transportation costs if there was an affordable and reliable transportation option between the two cities. Supporting multimodal long-distance travel options can help us meet many mobility goals and assist us with connecting to our family and friends, and to all the opportunities surrounding communities have to offer.

To support these longer-distance types of trips and travel, we will need to work closely with partners in both the public and private sectors. We should be a leader for other governmental agencies and municipalities when planning transportation infrastructure and services. We should also work to convene and streamline private bus and passenger train options into our existing and planned mobility hubs, so that Austinites and visitors alike can conveniently transfer between local and long-distance travel.

Railroads

Railroads serve important transportation functions. They move freight, bring travelers into and out of the region, and they offer a high-capacity transportation mode. Additionally, many railroad rights of way already exist, allowing us to create new multimodal opportunities more efficiently in space already dedicated to mobility.

While railroads provide many benefits, they also pose challenges. Railroad tracks create barriers that can separate neighborhoods. Where railroads crossings on our roads and Urban Trails can be difficult and dangerous intersections to navigate. Trains may also transport hazardous goods, and they can create noise as they move through communities.

Like all modes, we must balance the benefits and challenges that railroads pose. We must continue to improve connectivity across railroad tracks, while also increasing our connectivity to them. We must improve the safety of crossings and support nearby neighborhoods, while we take advantage of the opportunity to connect our community and economy to the greater state, national, and international opportunities railroads offer.

New Policy

Collaboration Policy 8

ID-22

Support larger City efforts for disaster preparedness and emergency response

Coordinate with local and regional partners to protect and support our community during extreme events

Emergencies and disasters in our city, such as extreme weather and the pandemic, have major impacts on our transportation system. For example, Winter Storm Uri revealed not only how vulnerable our infrastructure is, but also how vulnerable we are as a community when major systems like the electrical grid fail, leading to system failure in the transportation network. This highlights the need for improved disaster preparedness and emergency response planning within the City and across our region in order to ensure all members of our community can find and reach safety, especially those who are most at risk. Emergency response actions include identifying egress and ingress routes for community members, developing mobility plans for resilience hubs and resource distribution sites, and creating emergency communication plans for community members and the City as an organization. Developing these items before another emergency better prepares us to assist our community immediately as events occur. Learning from each major event is also critical in order to prepare for the next emergency. We should conduct post-event reports and collaborate across City departments to create emergency response plans, acknowledging transportation's critical role in these plans. Coordination with regional transportation partners on disaster preparedness and emergency response is also essential for continued access and movement in the event of an emergency, whether this is helping people reach medical centers or move to safety during a wildfire.



ID-23

Winter Storm Uri

In February 2021, Austin, along with most of the state of Texas, was hit by freezing temperatures, snow, and ice storms, known as Winter Storm Uri. This unprecedented winter weather event left many without power for days, affected travel and mobility, and caused significant structural damage. Many lives were lost due to the cold temperatures, power outages, and dangerous conditions.

Immediately following Winter Storm Uri, the City Manager directed City staff to conduct a full analysis of the City's actions in order to assess what occurred before, during, and after the storm to ensure our community's safety and resilience in the face of any future extreme weather event or disaster. In March 2021, Austin City Council created the Winter Storm Uri Task Force. This task force held listening sessions to hear from our community about their personal experiences during the storm event.

The Task Force compiled key findings, and released them in July 2021.The findings are summarized in 10 categories and the following feedback on transportation was heard:

- "The lack of equipment to clear roads, and the lack of skill of emergency services personnel to use the equipment in inclement weather, was unacceptable. People could not drive to places with power, but citizens rationally expected trained emergency services to be able to do so. Some emergency vehicles were stranded, including those trying to transport others or provide medical response."
- "Many people with disabilities rely on public transit and ride shares for transportation. The storm presented significant impacts to people with disabilities. Without transportation options, they lost access to caregivers, groceries, medical supplies, etc. There was a lack of dissemination about emergency transportation options for people with disabilities."
- "The extent of the damage was so extensive and enduring that the City resources were exhausted, and it took much longer to clear roads, repair downed power lines, collect debris from fallen trees, etc."

The following recommendations were created and published in the report:

- "The city needs to address emergency services training and procedures to be able to operate continually and act in emergency weather situations."
- "The city needs access to snow and ice removal equipment, generators, chains and tools to install them on tires, and more 4-wheel drive vehicles. There should be a supply of environmentally sound materials for icy roads (salt may pollute groundwater)."
- "There needs to be a plan to coordinate transportation between the city and TXDOT to connect outlying regions. A transit system is needed for people with disabilities, seniors, and others with restricted access to provide water, food, supplies and emergency equipment."

This post-event report, as well as other reports from partner agencies, recognizes and prioritizes the need for disaster preparedness and emergency response actions within Austin Transportation, the City of Austin, and with community and regional partners. We must all work together to best prepare for future extreme events.



Financial Strategies

Mobility funding comes from multiple sources. Typical sources include voter-approved bonds, other forms of debt, cash/operating transfers, grants, the development review process, and through partnership with other transportation agencies and the private sector. Our funding for infrastructure and its operations and maintenance must be sustainable and must also be spent responsibly. Fiduciary responsibility is about providing good value to taxpayers and making sure that services are supported by reliable revenue streams in the future. Fiscally-responsible planning, operations, and maintenance is important as mobility infrastructure needs always outweigh available funding sources. We must act sustainably to realize the vision and goals of the Austin Strategic Mobility Plan by finding ways to prioritize funding to ensure spending best meets the mobility needs across our community. Providing transparency on how programs are prioritized, cost estimates that include ongoing operating and maintenance costs, and updates on project status contribute to creating trust amongst citizens, city government and elected officials. We will continue identifying paths to maximize our return on investments and utilizing new tools to help growth pay for growth in order to meet the needs of our community and our mobility goals. To be responsible stewards of public resources we must continue to follow our financial policies and practices that have given the City high bond ratings, and we must provide proper accounting of the use of public funds for transparency. A strategic approach to financial sustainability includes best matching funding sources and opportunities with needs. In addition, the thoughtful funding towards completion of not-yet-mature systems that make up the transportation network, as well as the improvement of existing systems, should be considered.

"I believe there are ways we can fix traffic delays without a large financial investment."
—Community Member

Indicators and Targets



Increase funding to implement high and very-high priority sidewalks, all ages and abilities bicycle facilities, Tier I Urban Trails transit enhancements, and high-capacity transit

Complete all systems by 2039 or sooner



Increase funding to implement transportation demand management strategies



Increase number of streets where preventative maintenance activities also improve multimodal mobility and safety



Increase funding sources and cost-sharing opportunities



Increase the accuracy of mobility capital annual spending plans

Achieve being within 5% of spending plans every year

Financial Strategies Policy 1

Ensure long-term, viable funding models to plan, finance, and maintain the transportation network

Identify and implement sustainable funding strategies to supply, operate, and maintain transportation assets and programs that meet the community's mobility needs

Sustainable funding models are reliable and consistent sources of funding that will not typically run out. Because different sources of funding may be used to construct mobility infrastructure than are used to operate or maintain it once it is built, it is important to identify methods to fund all of these aspects of our transportation network. Construction of mobility infrastructure can, and typically does, rely on bonds. Construction costs are definable, and because we know exactly how much money we should be spending on a project it is reasonable to use a bond to cover those costs. However, careful consideration should be made when seeking bonds to fund ongoing capital renewal of our infrastructure because as we continue to build more infrastructure, the more we have to extend ourselves to keep up with capital renewal needs. It is reasonable, though, to utilize bond funding for critical needs for capital renewal or reinvestment in aging infrastructure when the outcome would otherwise be detrimental to our safety and mobility.

Additionally, operations and maintenance costs vary, and it is important that money is regularly allocated to pay for routine maintenance. Adequately budgeting money for maintenance allows us to create and fulfill our routine maintenance schedule, which will allow the infrastructure to achieve its full life-cycle. It is critical that when we plan to build new infrastructure that our operating budgets fully account for the operations and maintenance costs out into the future, including the ultimate need for capital renewal.

In order to make the most of our infrastructure, and maximize our return on investment, it is vital that we plan for the continuation or expansion of successful programs that help us do that through outreach and education. Providing transparency and stakeholder input in the prioritization of transportation investments is key to establishing a sustainable funding model. We will continue to use traditional funding strategies and explore other funding models that have the potential to help us meet our mobility goals.

Street Impact Fees

Street Impact Fees (SIF) are a one-time fee for new development that goes towards capital projects that increase vehicle capacity. This is a transparent, equitable, and predictable method for growth to pay for growth. The City of Austin is conducting a study to create a Street Impact Fee as an implementation tool for the ASMP. SIFs go towards construction costs of capital improvements that are included in the Roadway Capacity Plan (RCP), which is a subset of all projects in the ASMP. The RCP includes improvements to roadways, such as additional lanes, bridges, and other appurtenances of the roadway (e.g., sidewalks, bicycle facilities, and lighting), and also includes improvements to intersections, such as signals and turn lanes.

Financial Strategies Policy 2

Operate in a fiscally responsible manner

Be responsible stewards of public resources in the design, construction, operation, and maintenance of the transportation network

We will continue to demonstrate financial stewardship by following the policies and practices that have earned the City our high bond ratings. We will also strengthen formation, management, and accountability around contracts and grants, and align resource allocation (i.e., time and money) with mobility needs in ways that yield the greatest impact in support of our mobility goals. Accountability and transparency in project development and implementation is key to building and maintaining the public trust and our ability to deliver our mobility projects and programs. This requires appropriate Asset Management strategies to budget, finance, and deliver the needed infrastructure at the lowest possible total cost to the public. Applying Asset Management principles is sound engineering and financial practice for operating our transportation infrastructure. Also, reporting on the results of expenditures and program activities will assist in tying the financial investment to the services that the community experiences. This increases the understanding of how mobility investments and services impact the community.



Definitions of funding sources

Transportation User Fees: A fee assessed each month as part of the electricity bill to residents and businesses based on traffic levels generated by each dwelling unit or business. This is typically used for maintenance and repair of infrastructure.

Parking Management Fund: Money from parking pay stations, parking meters and the permitting fees for taxicabs, chauffeur, and limousines go into the Parking Management Fund. These funds are reinvested into the transportation network, with a focus on the downtown area. In addition to parking upgrades, parking meter revenue also funds the Great Streets Initiative, wayfinding, and downtown maintenance.

General Fund: The primary fund for cash reserves of the city. Money in the General Fund is unallocated and can be put towards different projects or programs. Only a small portion of mobility functions of the city are funded through General Fund.

Development Review Fees: Development revenue comprises the various permit, application, and inspection fees associated with residential and commercial development. These fees are restrained by a requirement of State law that they not exceed the City's cost of providing the services for which they are charged.

Use of Right of Way fees: Fees are assessed for the permission, inspection, coordination, and review of all work occurring in the City's right of way. Special events also pay these fees. Use of right of way fees are part of the City's "One-Stop-Shop," which oversees a variety of City fees, ranging from public health to commercial development.

General Obligation Bonds: When voters consider bond propositions on an election ballot, they are considering allowing the City to issue GO bonds. These bonds give cities a tool to raise funds for capital improvement projects, such as roads, bridges, bikeways and Urban Trails and parks, that are otherwise not funded by City revenue. Voter-approved GO bonds are repaid through property taxes. The property tax rate is composed of two parts: the Operations and Maintenance rate and the debt service rate. The debt service rate is set in order to generate the revenue necessary to make the City's payments for tax-supported debt. When voters approve bond propositions, the City does not issue all of the debt immediately. Instead, debt issuances are spread out over several years according to the annual spending needs of the bond program.

Revenue Bonds: Revenue bonds are repaid from a specific revenue source which does not affect the property tax rate.

Certificates of Obligation: A certificate of obligation (CO) is used to obtain quick financing for real property and construction. COs are secured by the full faith and credit of the City and are repaid over a 20-year period. According to Texas state law, the City's intent to issue a certificate must be published in the local newspaper 30 days in advance. COs do not require voter approval unless 5% of qualified voters sign a petition to put it on the ballot and file it with the City Clerk.

Grants: Grants are funds disbursed by one party—often a government department, corporation, foundation, or trust—to a recipient, which is often a nonprofit or government entity, educational institution, a business or an individual. Most grants are made to fund a specific project and require some level of compliance and reporting. Additionally, a funding "match" is often required at a certain split, e.g. 80-20 in which the grant recipient provides 20% of total project cost and receives a grant for the remaining 80%.

Tax Increment Financing: Known as TIF, this is a method to use future gains in taxes to subsidize current improvements, which are projected to create the conditions for projected tax gains. The completion of a public or private project often results in an increase in the value of surrounding real estate, which generates additional tax revenue. The Waller Creek Tunnel project is an example of a TIF-funded project.

Public Improvement Districts: A Public Improvement District (PID) is a defined geographical area established to provide specific types of improvements or maintenance within the area, which are financed by taxation of the properties within the PID. PIDs are established through approval by City Council at the request of members of the PID. PIDs can provide a means to fund services and improvements to meet community needs that could not otherwise be constructed. Examples include the Austin Downtown Public Improvement District, created in 1993, and the South Congress Avenue PID.

Public-private partnerships: These partnerships take many forms. These partnerships are agreements between a private entity and the City where the private entity provides a service typically provided by the City in exchange for any profits gained after providing the service and fulfilling any additional private obligations.

Financial Strategies Policy 3

Consider the life-cycle costs of ownership when planning and budgeting transportation infrastructure projects

Use economic, engineering, community, and environmental considerations to strategically and systematically assess the design, operation, and maintenance of transportation infrastructure

Infrastructure assets have life-cycles that can span decades. In Austin, the estimated lifespan of a street is approximately 67 years. Over that time, infrastructure is subject to heavy use, exposure to the elements, and other factors that contribute to an asset's deterioration. When adding new capacity, we must keep in mind the full cost of operating and maintaining this infrastructure over the long term.

Understanding life-cycle costs is crucial to making informed decisions regarding our infrastructure. Municipalities often focus more on the initial costs incurred in building or acquiring infrastructure assets than they do on the costs of operating and maintaining those assets. Initial costs may only capture a fraction of the total costs associated with infrastructure; in some cases, these initial costs can represent as little as 20 percent of total life-cycle costs.

Life-cycle cost analysis considers initial construction costs, rehabilitation costs at different points of the lifespan, and any salvage value of materials. It also considers the comparative costs of using different material types to do the construction; depending on the materials used to construct streets, the initial cost of construction may vary, as will the frequency and cost of rehabilitation at various points of a street's lifespan. Choosing one material over another may result in higher initial construction costs. However, the chosen material may hold up to more wear and tear and be less expensive to rehabilitate over the street's lifespan.

Historically, our Capital Improvement Program has been focused on restoring or replacing existing infrastructure, a process known as capital renewal. The 2016 Mobility Bond saw a focus on new capacity instead. New capacity is important for our transportation network to support our developing community, but it also requires increased capital renewal costs. When adding new capacity, we must keep in mind the full cost of operating and maintaining this infrastructure over the long term, and we must make sure the costs for operating and maintaining infrastructure throughout its life cycle are indexed to our capital investment.



Financial Strategies Policy 4

Allocate resources equitably across modes to achieve the goals of the ASMP

Prioritize funding for mobility assets and programs equitably to close the gap in public resources between modes and to support community goals

In order to achieve a future where 50 percent of people use modes to get to work other than driving alone, we must prioritize funding equitably to the modes that will have the greatest impact toward achieving that outcome. Within the many individual transportation systems, there are many low-cost, high-impact improvements to local mobility that could be made to encourage people to walk, ride a bicycle, or take transit. These low-cost improvements have been identified in our individual modal plans and historically are funded individually because they are standalone improvements like building a sidewalk or creating a bicycle lane. We must increase the funding of these individual transportation systems to catch up with the amount of need identified and make significant progress toward their completion.

In addition to these low-cost, high-impact improvements, there are higher-cost yet even greater-impact improvements identified in this plan based on the results of integrating the individual transportation system plans under one comprehensive multimodal plan. Multiple overlapping system needs present opportunities to combine improvements under a single comprehensive project. This approach to combining multiple improvements under one corridor mobility project has been used on our major corridors, where there are missing sidewalks, unsafe bicycle facilities, outdated signal infrastructure, and inefficient transit service.

Starting in 2010, corridor mobility reports were funded to study each corridor's multimodal mobility and safety needs and identify a comprehensive list of improvements. Subsequently, more corridors have been funded to be studied, and the improvements identified have begun to be funded for construction. We must continue to study and fund improvements along our city's major corridors to improve mobility, safety, and connectivity for all modes of transportation.

At a larger geographic scale, we must continue to contribute to regional mobility needs, such as improvements to Loop 360 to construct grade-separated intersections that replace existing traffic signals. These contributions to regional mobility, in the form of purchasing required right of way for improvements or providing local matching funds, are often met with state or federal funds that help accelerate projects that otherwise could be left unfunded for years. However, these higher-cost regional mobility improvements should not redirect funding that would otherwise go toward serving our local and corridor mobility needs. This is why it is important to explore new funding opportunities, such as a street impact fee, to contribute to our regional needs.

As Imagine Austin stated, we must build a "big-city" transportation network to meet our big city needs—a network that moves people around the city and region conveniently and safely, with or without a car. This includes partnering with Capital Metro and other transportation agencies to build a complete public transportation system, with high-capacity vehicles in dedicated transit pathways, that serves the region and core of Austin. Funding these systems equitably does not mean equally—funding equitably means funding each system relative to its needs and the investment's contribution toward reaching our mode share goals.



Action Table

The Austin Strategic Mobility Plan sets the 20-year vision for our transportation network. As Austin continues to grow, the plan will be used to guide investment. On the following pages are action items that we will take to realize the goals of the Austin Strategic Mobility Plan.

The Action Table is organized by the chapters and subchapters of the plan and includes 280 specific actions to begin the implementation process. These actions range from programs to legislative or regulatory changes, partnerships, process improvements, capital investments, and more. The list of actions is not exhaustive— the City, working with other agencies and the community, will continue day-to-day activities that also contribute to plan implementation.

As a complex, living document—meaning many of the actions contain multiple steps and processes—some actions in the plan may take years to progress from plan to implementation. The actions, as well as the indicators found in each chapter, will serve as a framework for annual updates to report on our progress.

While the City of Austin, and Austin Transportation specifically, will lead the implementation of many capital investments and recommendations, some will occur through partnerships where other City departments, transportation agencies, or public or private organizations will lead, with the City collaborating or supporting.

Prioritizing Our Safety

Safety Culture

Action Item	Description
1 Vision Zero leadership team	Form a multi-disciplinary Vision Zero City leadership team to provide guidance and direction on priorities, including subject matter experts to lead specific initiatives around engineering, enforcement, education, communications, data, evaluation, and policy.
2 Vision Zero curriculum	Develop and deliver Vision Zero curriculum in City-offered continuing education and new employee orientation, law enforcement training, media outreach and other community engagement opportunities.
3 Vision Zero key performance indicators	Align City of Austin Key Performance Indicators related to Vision Zero with safety policies and objectives outlined in the ASMP and the City's Strategic Direction 2023.
4 Large fleet safety	Encourage and incentivize businesses and organizations with large fleets, including vehicles for hire, to equip fleets with telematics, provide the City with access to safety data, and disseminate training materials to educate drivers about safe driving behaviors.
ID-24 **5** Police training enhancement	Provide additional Vision Zero-related context within the Police Training Academy curriculum and annual continuing education, including racial and demographic data, modal trends with a focus on vulnerable users, and key safe systems concepts. ~~Enhance education of needs and safety considerations of vulnerable transportation users within Police Training Academy curriculum and annual continuing education.~~
6 Mobility and public safety strategies	Collaborate across departments to further strategies to optimize mobility, transportation safety, and emergency access, including fire apparatus design, street design standards and connectivity, development review process improvements, new fire stations, and more.

Designing for Safety

Action Item	Description
7 Transportation Criteria Manual	Update the Transportation Criteria Manual and other relevant guidelines and manuals to minimize the potential for conflicts between road users and prioritize the safety of vulnerable users.
8 Engineering countermeasures on the High-Injury Network	Focus on reducing conflicts on the High-Injury Network and at high-risk locations by systematically implementing both major reconstruction and rapid implementation of low-cost, high-impact engineering countermeasures.
9 Speed management guidelines	Develop a comprehensive data-driven approach to speed management to evaluate systemwide speeds and make recommendations for reforming speed setting methodology, implementing countermeasures to address streets with documented speeding concerns, and adopting street design guidelines that help achieve desired safety results systemwide.
10 School-specific Safe Routes to School plans	Proactively develop Safe Routes to School plans for individual schools.
11 Safety guidelines for traffic signalization	Update relevant guidelines for data-informed intersection and signal operations to minimize user conflicts and prioritize the safety of each mode.
12 Visibility improvements	Enhance street, sidewalk and trail lighting citywide, remove right of way obstructions, and provide high visibility signs and markings in high priority areas, in compliance with International Dark Sky Association standards, where possible.

Modified Action Item | New Action Item

~~Deletions~~ Additions

Designing for Safety

Action Item	Description
13 Systemic safety analysis ~~Right turn on red restrictions~~	Analyze the systemic issues which lead to crashes~~, including right turns on red,~~ to determine appropriate policy recommendations and systemic treatments to apply city-wide.
14 High-Injury Network	Update the High-Injury Network on a regular basis to inform planning and prioritization.
15 Fire code street width requirements	Evaluate street clear width requirement in the fire code for emergency vehicle access to optimize safety for all street uses.
16 Transportation safety analyses	Evaluate existing processes for transportation safety analysis for the development review process and as part of capital project development.

ID-25

Safe Behaviors

Action Item	Description
17 Safety education campaigns	Implement education campaigns promoting transportation safety culture and safe street design, as well as targeted campaigns around the top human behaviors which contribute to serious injury and fatal crashes. Use surveys to gauge awareness of transportation safety issues.
18 Education in-lieu of fine	Work with partners to develop and provide an optional education course for bicyclists and pedestrians cited for traffic violations to take in lieu of a fine.
19 Integrate active transportation into driving curriculum	Partner with entities teaching drivers education, administering driving exams, and teaching defensive driving to include information on walking, bicycling, and transit.
20 Efforts to reduce top traffic violations	Work with the community to identify methods to reduce top traffic violations that contribute to serious injury and fatal crashes, focusing efforts on the High-Injury Network, while safeguarding against racial profiling and targeting.
21 Legislative safety efforts	Support legislative efforts to enable Texas cities to enact policies which support Vision Zero, including, but not limited to, slower default speed limits and the local use of automated enforcement systems.
22 Alternative adjudication programming	Research and collaborate with public safety partners on the creation of alternative adjudication programs for certain offenders or offenses, which prioritize understanding and behavior change over a fines and fees model.

ID-26

Managing Our Demand

Land Use

Action Item	Description
23 Land Development Code update	Update the land development code to: -require a more compact and connected street network -revise zoning and/or bonuses to allow for and incentivize transit-supportive densities and require an appropriate mixture of land uses along the Transit Priority Network and within a 1/2 mile of planned high-capacity transit, in a manner that blends-in with, and is sensitive to, existing forms of housing -incentivize shared driveways for all types of development -allow for missing middle housing types, including mixed-use infill development types -reduce barriers to access high-quality childcare.
24 Car-free spaces	Explore the process to convert right of way to car-free space, such as active transportation malls.
25 Corridor-based land use planning	Conduct corridor-based land use planning in parallel with corridor mobility planning and implementation to calibrate zoning and land development code requirements with needs, constraints, and opportunities to create cohesive multimodal corridors, quality built environment, and context-sensitive development that aligns with Federal Transit Administration transit supportive density ratings of “Medium-High” (for the Project Connect BRT Light Corridors) and “High” (for the Project Connect Dedicated Transit Pathways and Commuter Rail Service) within ½ mile of planned high-capacity transit investments.
26 High-frequency transit and transit proximity definitions	Clarify definition for high-frequency public transportation, as well as the preferred travel shed distance for proximity to public transportation to be used in City land use and transportation planning efforts.
27 Placemaking construction	Identify necessary resources to carry out and maintain placemaking and beautification opportunities including partnering with private service providers.
28 Open Streets events	Create partnerships to organize open street events, like Ciclovias, that will open the streets to people by closing them to cars. These events are intended to highlight how streets can be safely used by residents, encourage healthy activities, and provide a free community event.

Parking

Action Item	Description
29 Land Development Code parking requirements update	Update the land development code to: -allow for and promote shared and off-site parking and remove barriers where they exist -allow for reduced or zero parking minimums based on the context, excepting the required provision of accessible parking -consider the use of context-sensitive parking maximums -encourage the unbundling of parking -review existing parking exemptions and incentives for parking -require parking structures, where they are necessary, to be constructed to allow for easy retrofitting to other land use types -increase electric vehicle "charger ready" parking -increase parking for bicycles and shared micromobility vehicles -consider requirements or incentives for short-term parking spaces/zones

New Action Item

~~Deletions~~ Additions

Parking

Action Item	Description
30 Parking management and pricing standards	Update the City's parking management and pricing standards and procedures to reflect the true cost of driving and parking as well as support mode share goals.
31 Parking and Transportation Management Districts	Identify and implement geographical Parking and Transportation Management Districts in coordination with local business and neighborhood districts.
32 Parking and active placemaking	Update parking policies to encourage active placemaking.
33 Managed shared parking	Explore opportunities to implement managed shared parking with private garage owners.
34 Standardized parking data	Work with current and future partners to standardize platforms, data, and data formats to better assess parking utilization and needs and facilitate new parking strategies.

ID-27

Curb Management

Action Item	Description
35 Inventory curb uses	Inventory curb uses across the city.
36 Curb management plan	Update our curb management activities into a cohesive, citywide curb management plan that considers among other things, parking and transportation management districts, dynamic curb pricing, revenue implications, flexible curb use, dockless vehicle parking, context-sensitive and ecologically-supportive design, wayfinding, and permitting.

Transportation Demand Management Programming

Action Item	Description
37 Citywide TDM plan	Draft and implement a citywide TDM plan, similar to other modal plans, that will help identify specific inter-departmental and inter-agency TDM strategies that support the mobility plan goals, acknowledging that not all members of the community have access to or skills to use the internet. Include TDM strategies in small area plans, such as the Austin Core Transportation Plan.
38 End-of-trip facilities	Establish and provide incentives and/or requirements for end-of-trip facilities in private developments and public facilities including short- and long-term parking for bicycle and shared micromobility devices, shower and locker facilities, and bicycle maintenance stands.
39 TDM website	Develop a one-stop-shop transportation website for residents, commuters, employers, institutions, and visitors.
40 Trip-supportive tools	Increase the amount of trip-supportive tools, such as real-time transportation screens in buildings, transit arrival times at bus stops, wayfinding, and trip planning services and apps.
41 TDM monitoring and evaluation	Monitor TDM programs through both quantitative and qualitative metrics. Collect baseline data to measure needs and attitudes of transportation users. Measure the return on investment in terms of mode shift, sustainability, livability, and public health.

Transportation Demand Management Programming

Action Item	Description
42 Citywide employer TDM strategies	Create and implement various strategies for employers that operate within the city limits to encourage fewer drive-alone trips, especially during peak congested times. Strategies can include: -telework and flextime encouragement policy, -parking management strategies, -area-specific subsidized public transit, -subsidized multimodal transportation packages citywide or by district, -education on commuter program implementation, -tailored outreach to new and relocating businesses to provide support on how to change commuter patterns, -incentive programs for bicycling, etc.
43 Commuter benefits ordinance	Create and implement a commuter benefits ordinance by requiring organizations and businesses over a certain size to offer commuter multimodal benefits. This ordinance could also encourage or require a specific mode split commitment for companies.
44 Transportation management association	Continue supporting Austin's local transportation management association.
45 Chapter 380 TDM strategies	Update regularly a list of strategies to provide employers with information on key strategies to include in a commuter program to encourage fewer drive alone trips. This toolkit will also inform Economic Development Department's Chapter 380 policy.
ID-28 **46** Get There ATX Program ~~Smart Trips program~~	Continue to implement and expand the ~~Smart Trips~~ Get There ATX program to include a new mover pilot program to educate residents who have made a recent life change and are open to updating their commuting habits. Incorporate an equity lens to reduce financial barriers.
47 School TDM program	Collaborate with schools to develop a comprehensive school TDM program to reduce vehicle trips to and from schools and reduce air pollution near schools. Create and distribute collateral that can provide staff, parents, and students with a better understanding of transportation emissions and sustainable transportation options. Encourage schools to fully subsidize public transit for students and staff.
48 School bus service	Work with schools to increase usage of school bus service for eligible students. Work with school districts and schools to consider changes to eligibility criteria for school bus service.
49 Visitor TDM coordination	Coordinate with key stakeholders (chambers of commerce, tourism board, hotels, major conferences, major events, etc.) to ensure visitors are aware of sustainable transportation options. Provide hotels and short-term rental sites with information and collateral materials to inform guests of local transportation options.
50 Special events TDM	Enforce the Special Events Ordinance and develop tailored TDM programming for special events.
51 Inter-departmental collaboration and integration of TDM policies	Identify key opportunities for collaboration and integration of TDM into City departmental policies and programs (e.g. Austin Energy's Green Building Certification Program, Office of Special Events, Real Estate Services, Economic Development Department's Chapter 380 policy).
52 Development review process and TDM	Encourage or require a specific mode split commitment for new developments or major changes of land use. Prioritize TDM strategies as the first choice for development project mitigation strategies. TDM strategies could be incentivized in exchange for a density bonus or reduced parking requirements.

Transportation Demand Management Programming

Action Item	Description
53 Government employer TDM strategies	Seek partnerships with various federal, state, and local government agencies and universities that are major employers within Austin to encourage employees to telework or to take public transportation and other modes to work and disincentivize employees to drive alone to work.
54 Regional TDM collaboration	Collaborate with CAMPO's regional TDM plan efforts to implement prioritized TDM strategies regionwide.
55 Statewide TDM Policies	Support state-level legislative actions such as highway congestion management through TDM, statewide telework policies, TDM as a construction project requirement, etc.
56 Congestion pricing	Implement congestion pricing in regional centers as a method of managing demand at peak travel times.
57 Barriers to multimodal transportation	Work with partners to develop and promote discounted passes for carshare, bike-share, scooter-share, and public transit for low-income community members. Expand access to the internet and technology to enable equity in use of telecommuting, access to shared mobility services and ride hailing, etc.
58 Targeted TDM education and programming	Develop targeted educational materials marketed to Austin's historically underrepresented and underserved communities. Target programs and tailored one-on-one education on transportation options to these communities.
59 City employee commuter program	Continue to implement and strengthen the City of Austin's employee commute program. Provide incentives to employees to reduce their drive-alone trips. Provide multimodal options for mid-day trips to reduce the desire to bring a vehicle to work.
60 Parking policies for City employees	Phase out the practice of providing free parking spaces to City of Austin employees working in transit-rich locations. Develop and implement a permanent parking cash-out program for City buildings in areas with managed parking.
61 City telework, flexible schedule, and hoteling policy	Strengthen City of Austin policy to support teleworking and provide employees with the opportunity to use shared worksites close to where employees live (remote workstations known as hoteling). Provide employees with the technology to work remotely. Where flexible schedules are allowed, encourage employees to consider compressed work weeks and work schedules that avoid the morning and evening peak congested times.
62 City facility colocation	Select City of Austin facilities and proactively develop City land assets in transit-rich locations with the goals of supporting multimodal commute options, consolidated City functions, and improved access for community members.

Shared Mobility

Action Item	Description
63 Shared mobility services using managed and tolled lanes	Seek regional recognition of registered private mass transit vanpool/shuttle operators to access regional tolled and managed lanes for free.
64 Integrated transportation and payment platform	Pursue regional integrated multimodal transportation and payment platform, including a cell phone app and integrated payment method, with options for those without smartphones and the unbanked.
65 Mobility hubs	Create family-friendly multimodal mobility hubs, including park-and-rides, adjacent to transit stops to offer a variety of first- and last-mile mobility options and a complete trip experience. Incorporate community-knowledge sharing, maintenance programming, and integrate civic space where strategic.

Shared Mobility

Action Item	Description
66 Shared micromobility parking	Establish a shared micromobility and bicycle parking program or fund a public-private partnership to provide appropriate parking spaces in the right of way, at public facilities, transit stops, and on private property. Develop priorities for locating dockless vehicle parking.
67 Bicycle and shared micromobility parking at transit stations and mobility hubs	Coordinate with Capital Metro to provide short- and long-term parking for bicycles and shared micromobility devices at all existing and proposed transit stations, existing and future park-and-ride lots, and rail stations. Prioritize highly used transit facilities to include long-term covered and secure parking for bicycles and shared micromobility devices.
68 Expand shared micromobility systems	Support the expansion of shared micromobility systems, including private services and bike share systems.
69 Carshare expansion	Support the expansion of carshare and other innovative sharing services in Austin, especially in and for low-income communities, communities and neighborhoods with low vehicle-ownership rates, and in places with limited transportation services. Prioritize electric vehicles with low ownership costs and zero emissions.
70 Surface parking lot utilization	Explore opportunities to work with property owners to better utilize surface parking lots as mobility hubs, including park and ride opportunities to complement and enhance shared mobility solutions.

Supplying Our Transportation Infrastructure

Sidewalk System

Action Item	Description
71 Sidewalk construction	Construct all high- and very-high priority sidewalk segments and address ADA barriers and gaps in the sidewalk system according to the Sidewalk Plan/ADA Transition Plan.
72 Land Development Code sidewalks update	Update land development code per recommendations in Appendix I of the Sidewalk Plan/ ADA Transition Plan to ensure development adequately addresses sidewalks and does not create new gaps in the sidewalk system. This includes evaluating the fee-in-lieu program and how neighborhoods participate in the program.
73 Neighborhood shared streets pilot	Pilot a Neighborhood Shared Streets Program to evaluate alternative strategies for safe and cost effective pedestrian access.
74 Council Member sidewalk prioritization input	Develop a transparent system for working with Council Members to utilize their local knowledge and resources as one of the refining filters in selecting near-term potential construction projects from the list of very high and high priority sidewalks identified in the prioritization process.
75 Vegetative obstruction removal program	Develop and implement an ongoing program to improve sidewalk functionality by promoting property owner vegetation maintenance responsibilities, enforcing violations, and proactively managing public vegetation obstructions. Include an appeasement approach for those who are unable to maintain vegetation due to cost or physical or mental capabilities.
76 Sidewalk condition assessment program	Implement ongoing sidewalk condition assessment.
77 Property owner maintenance responsibilities	Revise City Code to clarify the responsibility of property owners for maintenance of trees and vegetation above or adjacent to sidewalks.

New Action Item

~~Deletions~~ Additions

Roadway System

Action Item	Description
78 Prioritization for new roadways	Develop a prioritization process for the design and construction of new roadway connections and capacity projects that emphasizes improving the street grid pattern and connecting sustainable modes.
79 Roadway capacity projects	Develop projects that increase person capacity on our roadway system at strategic locations to manage congestion, facilitate emergency response, and provide connectivity. Lane additions and roadway widening along the Transit and Bicycle Priority Networks should prioritize dedication of space for the priority modes.
80 Vehicle Priority Network improvements	Identify and create a prioritization process for operational improvements along the Vehicle Priority Network.
81 Managed lanes	Advocate for and support managed lanes on existing and new highways. Support free access to those facilities for public transportation to increase the carrying capacity of the highway system.
82 Quick-build street design projects	Use temporary and low-cost implementation of new street design features as needed to test and demonstrate how space could be used differently to accommodate all modes safely.
83 Regional highway improvements	Collaborate with TxDOT, CTRMA, Capital Metro, and other agencies on highway improvement projects.
84 Capital project delivery	Expand the capital project delivery capabilities of the Austin Transportation Department.
85 Corridor mobility reports	Conduct corridor mobility reports on additional corridors citywide. Prioritize corridors based on a variety of factors (land use context, emerging developments, geographic equity, historical investment, safety needs, etc.).
86 Regional evacuation study	Participate in a regional evacuation study to determine: -evacuation routes and zones -critical locations for transportation network improvements -strategies for managing evacuation demand, including contraflow lanes -information provision strategies during evacuations
87 Neighborhood-focused data collection	Develop a data collection effort to support the implementation of traffic management strategies within and around existing neighborhoods to mitigate disruptions caused by changing travel patterns and surrounding roadway improvements.
88 SH45 guidance	If TxDOT continues to move forward with construction of SH45, the City of Austin will work with TxDOT staff to ensure that the projects are developed in the most environmentally sensitive manner possible.
89 Austin Core Transportation Plan	Complete the Austin Core Transportation (ACT) Plan, an update to the 2002 Downtown Access and Mobility Plan. The ACT will serve as a decision-making tool for downtown transportation planning, project development, operations, and demand management, with the goal of making decisions more transparent and predictable for all stakeholders. Outcomes include the identification of TDM strategies, multimodal projects, priority segments, and spatial needs to support mobility to, from, and within downtown for all users. The ACT Plan study area includes the Central Business District, South Central Waterfront, connections to MoPac and I-35, and adjacent neighborhoods, including the Rainey neighborhood.
90 Priority Network access management	Develop comprehensive access management guidelines along the Vehicle and Transit Priority Networks to improve safety while considering multimodal mobility impacts.

ID-29

Roadway System

Action Item	Description
ID-30 **91** Update the Great Streets Standards	Update the Great Street Standards from the 2001 Great Streets Master Plan. These standards guide the design and criteria for streets in Downtown Austin with the goal of ensuring appropriate distribution of Right of Way between roadway and sidewalk uses and the prioritization of the pedestrian in our most urban spaces. Ensure new standards continue to prioritize pedestrians, consider updated public transportation, bicycle, and micromobility best practices, and balance the needs of a growing residential and employment center. Updated standards should include direction on lighting, wayfinding, shade, and micromobility storage and encourage active street level uses, in addition to transportation infrastructure.

Public Transportation System

Action Item	Description
92 Transit in the Transportation Criteria Manual	Update the transportation criteria manual to include public transportation design criteria.
93 Transit Enhancement Program	Develop Transit Enhancement Program guidelines that include strategies for transit enhancement treatments, criteria for when to apply them, and metrics for periodic review of high-capacity transit corridors and initiation of lane dedication. These guidelines will be developed with public input and documented in the Transportation Criteria Manual.
94 Implement near-term transit priority improvements	Implement near-term transit priority improvements in conjunction with regional public and private providers.
95 Identify near-term transit projects	Identify additional near-term transit priority improvements and transit-supportive projects through the Transit Enhancement Program.
96 Project Connect Long Term Vision Plan	Partner with Capital Metro to plan for and implement the Project Connect Long Term Vision Plan.
97 Commuter public transportation service	Work with Capital Metro, CARTS, and TxDOT to expand and improve commuter public transportation service.
98 Transit service changes	Partner with Capital Metro to plan for and implement transit service changes.
99 Transit stops and stations improvements	Partner with Capital Metro during the development review process to improve transit stops and stations and access to these facilities.
100 Last-mile mobility and transit information together	Integrate last-mile mobility route and use information into Capital Metro transit route maps, signs, and routing apps. Integrate transit information into bicycle information systems.
101 Improvements to transit efficiency	Work with Capital Metro and other partners to continue to increase the efficiency and capacity of transit service along the Transit Priority Network and Commuter Rail using strategies such as incremental increases in frequency, off-board fare payment, level boarding platforms, far-side stop placement, and higher capacity vehicles with multi-door and left-side boarding to grow transit capacity, speed, and ridership.
102 Transit stop siting	Work with Capital Metro to provide optimal siting for transit stops including consolidating stops, achieving optimal stop spacing, far side stop placement, and availability of safe pedestrian crossings.
103 Improved public transportation experience	Work with Capital Metro and other partners to improve the comfort and user experience along the Transit Priority Network and commuter rail lines using strategies such as enhanced transit stop amenities, shade trees, real time arrival information at transit stops, off board fare payment, quality roadway pavement, and electrification of fleet.

Public Transportation System

Action Item	Description
104 Pedestrian crossings at transit stops	Work with Capital Metro to provide safe pedestrian crossings at all transit stops through stop location selection and the modification or provision of pedestrian crossing safety treatments.

Bicycle System

Action Item	Description
105 Construct bicycle facilities	Implement context-sensitive bicycle facilities on the Bicycle Priority Network through processes defined in the 2014 Bicycle Plan. Establish new timetables for implementation of facilities recommended in the Bicycle Plan and identify funding amounts currently needed for timely completion.
106 Bicycle access and new connections	Evaluate opportunities for bicycle access and new connections where barriers or gaps exist.
107 Bicycle Priority Network access management	Assess streets on the Bicycle Priority Network for access management and other bicyclist safety measures, such as opportunities to enhance intersections for bicycle mobility and safety.
108 Bicycle wayfinding plan	Develop and implement a comprehensive citywide bicycle wayfinding system.
109 Bicycle facility maintenance	Ensure that bicycle facilities are maintained including keeping pavement, physical barriers, markings, signage, signal detection in good condition and free of debris and other impediments. Implement consistent maintenance routines, especially for high-usage bicycle routes.
110 Parking in bike lanes	Identify locations along the Bicycle Priority Network that do not have appropriate parking restriction signage and implement signage to prevent parking in bicycle facilities.
111 Enhance bicycle education	Enhance bicycling education within Police Training Academy curriculum and annual continuing education.
112 Funding for regional bicycle system	Develop regional interlocal funding mechanisms to ensure proportionate and efficient funding of inter-city bicycle network.

Urban Trail System

Action Item	Description
113 Construct Urban Trails	Implement Tier I Urban Trails and identify alignments and designs for Tier II Urban Trails according to the 2014 Urban Trails Plan.
114 Urban Trail access points and new connections	Identify and build access points and new connections to the Urban Trail system and identify locations where trails could provide connectivity in the transportation network.
115 Urban Trail maintenance assessments	Complete condition assessments on all existing Urban Trails to inform maintenance planning.
116 Ongoing urban trail maintenance budget	Create an operations and maintenance annual budget dedicated to Urban Trails to include dedicated staff time to maintain functionality standards and contingency funding for emergency repairs.
117 Urban Trail wayfinding	Develop and implement a wayfinding plan for all existing Urban Trails

Modified Action Items

~~Deletions~~ Additions

Urban Trail System

Action Item	Description
ID-31 **118** Urban Trails lighting plan	Develop ~~and implement~~ a lighting plan for all existing Urban Trails and shared use paths. Partner with Austin Energy to implement lighting along these trails and paths and develop a maintenance strategy.
119 Placemaking opportunities on Urban Trails	Incorporate placemaking opportunities into existing and future Urban Trail designs to attract Austinites of all ages and abilities.

Condition of Infrastructure

Action Item	Description
120 Asset management inventory	Create a comprehensive asset condition database of City-owned or City-maintained mobility assets.
121 Life-cycle costs	Evaluate and revise city standards to ensure capital project scoping includes life-cycle costs.
122 Vegetation removal process	Improve business processes for responding to vegetation removal requests within two weeks for City-owned property.
ID-32 **123** Climate change integration	Integrate climate change considerations into decision-making for capital investments ~~and improvements decision making~~. Design for resilience to address climate change and other stressors using strategies such as enhancing designs where there is a higher risk of damage; designing roadways and sidewalks for weak soils and expansive clays; armoring bridges and roadways in flood prone areas; and making trails along creeks durable for the long term.
ID-33 **124** Proactive maintenance schedules	Develop a proactive maintenance schedule for all transportation infrastructure~~.~~ that accounts for demographics, Priority Networks, and vehicular-volume projections. Updated street maintenance schedules should ensure that street maintenance anticipates, strategizes, plans and budgets for a sustainable level of service while also allowing access to perform the necessary maintenance. Schedules should include core infrastructure and appurtenances, and should be updated every 5 years based on updated forecasts.

Emerging Mobility Solutions

Action Item	Description
125 Encourage use of common technology platforms	Update criteria and Requests for Proposals to encourage the use of common technology platforms, rather than exclusive or proprietary platforms.
126 Micromobility data sharing	Require that shared micromobility operators share data to assess their impact and integrate new services into the City's transportation plans.
127 Bike infrastructure as a place to allow scooters and other emerging micromobility	Use bicycle infrastructure, in particular the Bicycle Priority Network, to provide a safe place for scooters and other shared micromobility devices that do not exceed maximum federal e-bike power and speed limits and may be regulated to lower thresholds through state and local regulation.
128 Automated driving outreach	Coordinate outreach and education programs on automated driving vehicles with other public and private organizations.
129 Emerging mobility jobs taskforce	Create a regional task force for new job training and educational opportunities for developing new technology skills sets and retraining those with legacy occupations.
130 Connected vehicle data tracking	Set up process to track and analyze data gathered from connected vehicles.

Emerging Mobility Solutions

Action Item	Description
131 Connected vehicle testing	Test Dedicated Short Range Communication (DSRC) technology for vehicle to infrastructure (V2I) and 5G V2V and V2I for reciprocal safety messages and communications effectiveness.
132 Automated driving research	Support local and regional research analyzing the potential for self-parking vehicles, driverless vehicles, and other future car models.
133 Automated driving coordination	Work with leading cities and organizations to help craft automated driving vehicle policies and practices in accordance with Imagine Austin and other City plans.
134 Staff training for emerging mobility solutions	Ensure adequate training for staff to operate, implement, and manage emerging mobility solutions as they become available and get incorporated into our transportation network.

Aviation

Action Item	Description
135 Airport expansion	Expand the airport to address passenger growth and continue connecting Central Texas to the world, in alignment with the Austin-Bergstrom International Airport 2040 Plan.
136 High-frequency transit service to AUS	Work with Capital Metro to expand high-frequency transit service and connect high-capacity transit to Austin-Bergstrom International Airport.
137 New ground transportation center at AUS	Explore a new ground transportation center to improve access to the airport via public transportation and other mobility services and connect to on-site personal rapid transit system.
138 Personal rapid transit system at AUS	Explore a personal rapid transit system, or other type of circulator, to connect parking areas and pick-up/drop-off points to terminal facilities.
139 Shared mobility solutions at AUS	Develop on-campus shared mobility solutions (e.g., bikeshare, scooter share) for use by employees at Austin-Bergstrom International Airport.
140 Wayfinding to AUS	Collaborate with partners to improve wayfinding to the airport for multiple modes.
141 Mobility option resources at AUS	Provide information on mobility options through various communication tools to passengers at Austin-Bergstrom International Airport.
142 Bicycle access at AUS	Explore the creation of all ages and abilities bicycle access to and between all airport terminals.

Operating Our Transportation Network

Transportation Operations

Action Item	Description
143 Pedestrian crossing improvements	Develop guidance, evaluate, and implement pedestrian crossing improvements, including leading pedestrian intervals and pedestrian scrambles, at signalized intersections with high pedestrian volumes and at signalized crossing locations with high potential for pedestrian crossings.
144 Priority Network signals	Develop guidance for and evaluate mode-specific signals, signal timing, signal phasing, and detection along the Priority Networks.

Transportation Operations

Action Item	Description
145 Mobility violation enforcement	Explore opportunities to expand enforcement of mobility-related violations such as illegal loading and unloading, driving in transit-only lanes, blocking the box, etc.
146 Inventory transportation signs	Complete and maintain an inventory of all signs and markings that are part of our transportation network, and use technology to maintain signs in real-time.
147 Oversize and overweight vehicles	Set standards for oversize and overweight vehicles traveling within City of Austin, and consider regulations of these vehicles.
148 Specialty markings maintenance	Develop inventories and maintenance criteria for all specialty markings and vertical delineation devices.
149 Incident management	Implement strategies identified in the Regional Incident Management Strategic Plan and Performance Assessment, such as expanding the HERO program to cover more highways and regional arterial roadways, in order to improve the safety and reliability of our transportation network.

Closures and Detours

Action Item	Description
150 Disruption minimization on Priority Networks	Establish and enforce criteria that limits closures and detours on the Vehicle, Transit, and Bicycle Priority Networks.
151 Multimodal temporary traffic controls	Establish standards in the event of construction or street closures, temporary traffic controls, and special events that affect transit routes, bicycle facilities, or Urban Trails that maintain the quality, safety, directness, and comfort of the existing facilities and routes. Incorporate bicycle and pedestrian detours as a requirement within the scope of work for all projects that affect bicycle routes and any multi-use trails, with the cost of these detours being established and set forth in the Transportation Criteria Manual.
152 Traffic control plan templates	Create premade traffic control plan templates to facilitate closure and detour applications.
153 Active work zone tool	Develop and implement a tool that disseminates real-time information about active work zones.
154 Inspection patrol practices	Update and implement inspection patrol practices to prioritize inspecting work zones according to mobility and safety impacts.

Closures and Detours

Action Item	Description
155 Advanced notifications	Explore innovative notification techniques to supply advanced notification of closures and detours for all modes.
156 Work zone monitoring	Enhance enforcement efforts around work zones within the right of way through the use of existing technology, including the Mobility Management Center.
157 One-Stop-Shop	Coordinate and consolidate permitting processes in a One-Stop-Shop.
158 Construction hour limitations	Explore and evaluate the impacts of extending allowable hours for street maintenance and construction in the right of way.
159 Special events transportation planning	Coordinate with and encourage special events to have sustainable modes and promote information of how to use them to access the event. This may include valet bicycle parking, temporary park and ride lots, etc.

Modified Action Item

~~Deletions~~ Additions

Goods Movement

Action Item	Description
160 Local goods movement plan	Develop a local goods movement plan to identify the challenges and opportunities to improving goods movement in Austin, including last-mile delivery solutions. As part of a local goods movement plan, conduct an hourly freight movement study. Establish freight network designations and criteria.
161 Industrial land use siting	Identify transportation infrastructure assets and other criteria to inform the siting of industrial land uses, warehousing, logistics, manufacturing, and other freight-intensive uses, especially in Imagine Austin Job Centers.
162 Freight planning organizations	Participate in regional, state, and national organizations focused on freight planning activities to inform local plans and practices.
163 Trucking industry collaboration	Collaborate with the trucking and logistics industry to shift delivery vehicles off major transportation thoroughfares and priority networks during peak times. Encourage the use of smaller vehicles for freight delivery and/or alternative delivery methods such as bicycle delivery, remote delivery, etc. within our most dense activity centers.
164 Interregional transportation for freight	Increase interregional transportation options, such as high-capacity transit, to facilitate goods movement.
165 Last-mile delivery assessment tool	Create an assessment tool for last-mile delivery solutions to evaluate their efficiency, safety, access, and equity benefits.
166 Test and evaluate delivery technology ~~robots~~	Issue a Request for Information to test delivery technology ~~robots~~ in select neighborhoods to determine use rates and identify infrastructure issues. Consider regulating size, weight, and authorized locations of last-mile delivery solutions to create citywide standards.
167 Cargo and belly freight at AUS	Expand cargo and belly freight facilities at Austin-Bergstrom International Airport according to the adopted Airport Plan to meet growing needs.
168 Non-radioactive hazardous materials routes	Work with TxDOT to complete the non-radioactive hazardous materials route designation study and implement route designations.

ID-34

Protecting Our Health and Environment

Public Health

Action Item	Description
169 Establish baseline of healthy food and physical activity assets and opportunities	Support public health partners in establishing baseline data of existing community assets (e.g., grocery stores, urban gardens, community gardens, green space, trails, parks, etc.) and opportunities for healthy food and physical activity.
170 Health Impact Assessment criteria	Develop criteria for where, when, and how to conduct health impact assessments, and what criteria should be assessed.
171 Walkability and bikability evaluations	Develop a method to evaluate pedestrian and bicycle accommodations. Conduct pedestrian and bicycle evaluations early in mobility project design phase.
172 Expand transportation options to healthcare	Work with public and private transportation providers and public health partners to expand and enhance transportation options (e.g., number of accessible vehicles in the region, variety of transportation options to healthcare) for members of the community who have difficulty reliably traveling to healthcare appointments.

Public Health

Action Item	Description
173 Reduce unhealthy behaviors	Work with public health partners and law enforcement to advocate for measures to reduce unhealthy behaviors, including binge drinking and impaired driving (e.g., restrictions on unlimited drink specials, enhance enforcement of laws on alcohol sales to minors, etc.).
174 Encouragement programs	Expand and connect existing physical activity encouragement programs to encourage use of active transportation infrastructure.
ID-35 **175** Access to food and markets, including grocery stores	Work with Capital Metro to support and improve access to healthy food and grocery stores (e.g., increased routing and frequency of bus routes, new transit maps, audio/visual ads and announcements about healthy food resources), with a focus on food deserts. Explore ~~the~~ opportunities to develop a Safe Routes to Markets program to inform transportation planning~~.~~, and facilitate the implementation of recommendations from studies or projects assessing connecting people in food deserts to healthy food.
176 CHA/CHIP participation	Continue to participate and contribute to Austin/Travis County Community Health Assessments and Community Health Improvement Planning (CHA/CHIP).
177 Access to community amenities	Explore opportunities to improve the transportation network to increase access to community amenities, such as grocery stores, childcare, and healthcare.
ID-36 **178** Resilience Hub mobility planning	Create and implement mobility plans for City Resilience hubs, with specific attention on supporting vulnerable populations.

Air and Climate

Action Item	Description
179 Reduce impacts of global warming	Support policy changes to set incremental and long-term goals to continue to make Austin the leading city in the nation in the effort to reduce the negative impacts of global warming, in accordance with the Austin's Climate Equity Plan.
180 TERM implementation	Reduce emissions by improving the efficiency of the transportation network by implementing transportation emission reduction measures (TERMs) such as intersection improvements, traffic signal synchronization improvements, bicycle and pedestrian facilities, high-occupancy vehicle lanes, major traffic flow improvements, park and ride lots, intelligent transportation system (ITS), and transit projects.
181 Carbon footprint resources	Promote programs for individuals to manage their own carbon footprint. Develop an interactive website where residents and employers can monitor their greenhouse gas emissions against others.
182 Electric vehicle support	Initiate public private partnerships that promote, market, and provide electric vehicle support. Expand current efforts and utilize these vehicles as a distributed storage technology.
183 Electric vehicle charging expansion	Support growth of public and private charging station deployments by offering rebates, operational support, outreach, and special public charging rates to include support of low income populations.
184 EV360	Continue to leverage the residential electric vehicle time-of-use rate pilot "EV360" to develop lessons learned and best practices for consideration in a wider roll-out of this service.
185 Austin SHINES	Complete the Austin SHINES project, which includes assessing the value and business case for integrating stationary distributed energy storage. Leverage findings to determine applicability to electric vehicle (EV) batteries.
ID-37 **186** External education and outreach to fleet owners	Perform education and outreach to fleet owners on how to conduct a business evaluation of fleet usage, including fleet electrification, operation and right-sizing analysis, and identify which incentives are available to replace older, higher-emission vehicles.

Modified Action Item | New Action Item

~~Deletions~~ Additions

Air and Climate

Action Item	Description	
187 City fleet access and size	Explore opportunities to right-size the City's fleet and update and improve criteria for when City employees qualify for a City vehicle.	
188 City fleet improvement	Move towards a zero-emissions light-duty fleet, including electric and alternative modes of transportation. Continue to increase fleet fuel efficiency per existing fleet plans. ~~Where appropriate, continue to increase the purchase of alternative fuels and vehicles, such as E85, flex fuel, B20, propane, CNG, hybrid, and electric.~~ Establish policies that prioritize the use of vehicles and equipment with low nitrogen oxide emission rates.	ID-38
189 City idling restrictions	Enforce idling restriction policies for use of City of Austin's vehicles, equipment, and property.	
190 Vehicle replacement	Seek funding to accelerate replacement of older, higher-emitting vehicles and equipment with newer, cleaner vehicles and equipment, such as Texas Emission Reduction Plan (TERP) grants. Update the Construction Emissions Toolkit for contractors and encourage contractors to use Tier 4 construction equipment and 2010 and later trucks in any road construction projects.	
191 Air quality outreach	Increase promotion, collaboration, and outreach about the relationship between public health and air quality. Include education on Ozone Action Days and anti-idling restrictions. Collaborate with regional partners to understand, plan for, and mitigate impacts of potential future non-attainment designations.	
192 Climate vulnerability	Integrate a climate vulnerability assessment in addition to a social vulnerability assessment into programming, project implementation, engagement efforts, and decision-making, with an emphasis on serving historically underserved communities and neighborhoods disproportionately affected by climate hazards.	ID-39
193 Dust mitigation plans	Enhance dust mitigation plans, with consideration of rescheduling activities during high PM2.5 days, for transportation construction projects in alignment with our City commitments and best practices outlined in local and regional air quality plans.	ID-40
194 Electric Vehicle Community Needs Assessment	Work with City and community partners to complete an Electric Vehicle Community Needs Assessment to identify the intersections of mobility challenges, transportation electrification, and racial and economic justice.	ID-41

Water and Stormwater

Action Item	Description
195 Criteria manual coordination	Update Transportation Criteria Manual and other City criteria manuals to minimize impacts to waterways through the use of appropriate transportation network design and stormwater infrastructure, while balancing mobility needs.
196 Water and mobility overlap analysis	Study high priority mobility and watershed problem areas to identify potential partnership opportunities to reach mutually beneficial outcomes.
197 Water and mobility planning coordination	Establish a consistent process for effective review and coordination between City departments responsible for mobility and stormwater infrastructure projects to identify opportunities for coordination in planning phases. Use this process to proactively identify technical challenges for code compliance and potential opportunities for partnership.
198 Permeable surface treatments	Evaluate the use of permeable surface treatments to promote the infiltration and treatment of stormwater.

Land and Ecology

Action Item	Description
199 Environmental project checklist	Formalize current processes to evaluate and consider environmental features in development of transportation projects. Publish checklists for projects online to increase transparency.
200 Land preservation	Establish criteria for transportation projects to include within their scope the preservation of land for offsite pedestrian facilities, habitats, and open space.
201 Native vegetation standards	Create standards for City transportation projects to incorporate vegetation, and especially local vegetation, as part of their scope and work with partner agencies to do the same.
202 Street tree survey and preservation	Conduct a survey of street trees and develop tools to preserve trees 2" and greater.
203 Street trees	Update guidelines to increase street tree requirements during the development review process.
204 Green streets	Update the Land Development Code and related criteria manuals to include Green Streets policies.
205 Cultural resource list	Work with the community to compile and update a list of cultural resources in Austin.
206 Impacts of growth and development	Update administrative process to provide staff comments on potential annexations, PIDs, MUDs, and PUDs to include information on multimodality, connectivity, and impact on mode share goals.
ID-42 **207** Environmental Product Declarations	Explore incorporating Environmental Product Declarations into projects that utilize large-impact materials like concrete, steel, aluminum and glass as part of the materials sourcing for mobility infrastructure.

Supporting Our Community

Equity

Action Item	Description
208 Historic investment patterns analysis	Evaluate historic resource investment and disinvestment, considering location and populations benefited/burdened, to better understand future needs through an equity lens.
209 Equity analysis zones	Identify a framework to designate geographic zones that will be used in analyzing the equity of programming, project implementation, and engagement efforts related to transportation. The criteria should consider race, income, car-ownership, educational attainment, housing tenure, transit availability, language spoken at home, age, disability status, and other factors to help focus efforts on historically underrepresented and underserved communities.
210 Austin history of mobility equity resources	Collaborate with community members to document past inequities, struggles, and triumphs related to transportation and mobility, especially including moments that affected communities of color, low-income communities, and people with disabilities.
211 Institutional racism memo	Produce a memo from the City Manager acknowledging racist and inequitable transportation policies of the past (and present) and calling for all City officials and employees to join in a commitment to educate themselves and to begin immediately to do their part to deliver meaningful change.

Equity

Action Item	Description
212 Single equity point of contact for Mobility Outcome	Establish a single point of contact within the Mobility Outcome to identify equity priorities and evaluate the effectiveness of community engagement efforts. Participating departments should maintain consistent communication with the single point of contact and be two-way conduits for information.
213 Equity Assessment Tool in transportation projects	Update or expand the Equity Assessment Tool to better address infrastructure projects, including addressing capital renewal needs, criticality, and risk and incorporate the tool into transportation planning and projects.
214 Mobility equity training for City employees	Develop mobility equity training for City of Austin employees. Require all mobility outcome department employees complete the training.
215 Workforce inclusion goals	Embed local workforce inclusion goals into the scopes of transportation projects, with an emphasis on historically underserved and underrepresented communities.
216 Transportation workforce training programs	Create transportation workforce training programs and internships, particularly for historically underserved and underrepresented communities.

Affordability

Action Item	Description
217 Land Development Code affordability updates	Support Land Development Code changes that strengthen SMART or other affordable housing incentive programs, as well as parking reductions for income-restricted affordable housing near or along transit corridors and small-scale housing across Austin.
218 Affordability analysis tool	Develop an affordability analysis tool to conduct real estate analysis that projects how much rents or property values may go up due to major infrastructure investments.
219 Affordable housing near transportation infrastructure	Collaborate with partners to preserve and increase affordable housing near major transportation investments.

Affordability

Action Item	Description
220 Market studies	Include market studies to analyze commercial affordability in the small area planning process.
221 Land trust	Support the development of a City land trust to develop or preserve affordable housing options, especially along the Transit Priority Network and with access to other multimodal systems.
222 Infrastructure scoring reassessment	Update infrastructure scoring matrices used for prioritization to include and reflect affordable housing.
223 Free and low-cost transportation tool	Create comprehensive, user-friendly resource connecting community members with free or low-cost transportation to services such as healthcare, workforce training, and education. Support 3-1-1 or another appropriate entity with central dispatch capabilities to provide callers with information and assist with scheduling rides. Promote awareness of existing free or low-cost transportation resources such as Drive a Senior or bulk discounts for public transportation passes.
224 Bulk discount public transit passes for low-income residents	Advertise the bulk discount for public transit passes for low-income residents, including in multi-family residential developments, to employers with many low-income employees, and to service providers or organizations with low-income clients or members.

Affordability

Action Item	Description
225 Affordable Parking Program	Continue the Affordable Parking program and increase outreach to potential participants to provide application assistance.
226 Austin Energy incentives	Develop tie-ins to Austin Energy electric transportation incentive programs to ensure access for lower-income community members and renters.
227 Creatively subsidize transportation options	Explore creative ways to subsidize multimodal transportation use, such as toll reductions for carpools within managed lanes or low-cost or free bicycle repairs and tools.

Accessibility

Action Item	Description
228 Public collaboration	Ensure working groups, commissions, and public processes related to mobility have representation for people with mobility impairments.
229 Accessible parking code revisions	Re-examine requirements for parking garage height clearance, parking garages gate entrances, and spacing and siting of accessible parking spaces. Co-create any revisions alongside people with mobility impairments and people who provide services to them.
230 Above the bare minimum	Study incentive tools for City and private developers to design accessible infrastructure to a more usable level above the "bare minimum" required by federal law.
231 City project guidelines for obstruction and barrier removal	Encourage all City departments to develop policies regarding their responsibility to remove accessibility barriers within the scope of their projects.
232 Accessible parking enforcement	Implement program to allow community enforcement of accessible parking violations.
233 Accessible temporary traffic controls	Explore expanded guidelines and notification systems specifically for accessible closures and detours.

Accessibility

Action Item	Description
234 Accessible ride-hailing	Work with public and private operators to ensure that transportation network companies operating in Austin include accessible vehicles, are responsive to accessible requests, and offer customer service and sensitivity training to drivers providing service to riders of all ages and abilities.
235 MetroAccess	Work with Cap Metro on updating MetroAccess program to narrow pick-up windows and expand coverage for people who were previously served by MetroAccess but are no longer served due to route changes.
236 DeafSpace design	Implement DeafSpace practice and design in transportation planning and projects.

Public Interaction

Action Item	Description
237 Online plan and performance	Create an online platform containing the Austin Strategic Mobility Plan, including adopted policy, action items, objectives, and multimodal street network table. Include performance measurements towards objectives and interactive maps.
238 Community organization partnership guidelines	Establish guidelines for how the City of Austin works with community organizations in mutually beneficial partnerships.

Public Interaction

Action Item	Description
239 Improved 3-1-1 response	Audit and analyze 3-1-1 calls related to transportation issues, considering calls per capita in certain areas of Austin. Coordinate to improve service response time and outcomes for community members.
240 Public Engagement Program	Create a Public Engagement Program to guide the Austin Transportation Department and consult with other mobility departments in proactively creating and maintaining high-quality, consistent relationships with community members and improve community-informed transportation decisions.
241 Reading level standards	Determine and set standards for the reading level of written materials and other communication policies that increase understanding. Update printed and digital materials to match these standards.
242 Common Spanish-language vocabulary list	Work with Spanish-speaking community members and staff to identify a standard Spanish translation for common mobility-related words and phrases to increase consistency and comprehension of translated materials.
243 Community ambassadors	Implement community ambassadors to ensure culturally relevant and language-appropriate mobility programming combined with local neighborhood knowledge.
244 Infrastructure encouragement and activation	Celebrate and activate new multimodal infrastructure through celebrations, events, and trainings through partnership with schools, institutions, businesses, and community groups.
245 Public initiatives focused on exploring transportation options	Promote and market educational campaigns like Mobility Month, Bike to Work Day, Dump the Pump Day, ATX Detour Day, Ozone Action Days, and others.
246 Pedestrian right-of-way public education	Educate the public on their role in keeping sidewalks clear and functional including vegetation removal, motor vehicle and dockless vehicle parking, and trash cart placement.

Implementing Our Plan

Data

Action Item	Description
247 Setting ASMP benchmarks and targets	Gather current data to set benchmarks and targets for all indicators within one year of plan adoption.
248 Non-work data collection	Explore and identify ways to measure and track non-work-related trips.
249 Demographic data	Develop standards for collecting and analyzing demographic data to ensure representative community participation in transportation decision-making.
250 Data collection and analysis	Expand mobility data collection and analysis capabilities to support planning, programming, project delivery, and monitoring.
251 Collect and publish multimodal data	Regularly collect, analyze, and publish local transportation data, including monitored counts, traffic violations and incidents, and routing data for all modes of transportation.
252 Data standards	Adopt standards for publishing open data that consider data organization and privacy protections.
253 Improve data sharing	Create a platform and process to better organize, analyze, and share data, including geospatial data and maps, across City departments and agencies.

Data

Action Item	Description
254 Transportation data dashboards	Continue to use and expand new capacity, operations, and maintenance public-facing dashboards.
255 Real-time transit data	Work with Capital Metro to improve and share real-time, geographic data of routes and route segments including travel times to inform operational improvements, transportation management, and customer experience.
256 Transportation "data rodeo"	Support efforts to create a single point of access for regional transportation data and analytics, known as the Data Rodeo. This two-way open data sharing portal will improve how transportation providers, including businesses and government entities, offer effective mobility.
257 Post-implementation review	Conduct regular post-implementation review of new or redesigned transportation facilities to ensure that safety and mobility goals are adequately being met.

Collaboration

Action Item	Description
258 Transportation Criteria Manual	Coordinate with external stakeholders to update the Transportation Criteria Manual to: -modernize transportation impact analysis requirements to align with ASMP mode share goals -supplement intersection level of service (and/or consider removing it) with the inclusion of VMT per person-trip and target mode share as measures of a development's impact -change the language of these analyses to include person trips in addition to vehicle trips -develop tools or models to provide local data specific to person-trip generation by mode and parking generation and utilization -incentivize low VMT per person-trip and high non-SOV mode share developments -focus on Transportation Demand Management (TDM) strategies as a first step to transportation mitigation -develop tools or models specific to the City of Austin that predicts the impacts of TDM strategies on person-trip generation and parking demands -develop tools to monitor and successfully implement TDM strategies where applied
259 Land Development Code	Coordinate with City departments and external stakeholders to update transportation-related elements of the Land Development Code.
260 Interdepartmental collaboration	Continue to collaborate across City departments and partner agencies on long-range capital improvements planning, major initiatives and work programs, and long-range budgets.
261 Travis County collaboration	Coordinate with Travis County on the implementation of projects within our shared jurisdictions.
262 CAMPO collaboration	Coordinate with CAMPO on updates to the Regional Transportation Plan.
263 TxDOT collaboration	Coordinate with TxDOT on the Mobility 35 project and other regional projects.
264 School and City partnerships	Increase efforts to collaborate with schools to educate and encourage walking, biking, taking public transit or school bus, and sharing rides to school for students and employees. Collaborate with local non-profits that provide transportation education programs.
265 School siting agreements	Work with local schools and school districts to periodically review and reevaluate school site selection criteria to include appropriate transportation demand and safety considerations.

New Action Item

~~Deletions~~ Additions

Collaboration

Action Item	Description
266 Transit collaboration	Continue to strengthen partnerships between the City of Austin, Capital Metro, other area public transportation providers, school districts, and other governmental entities.
267 Capital Metro collaboration	Coordinate with Capital Metro on the implementation of the Project Connect Long Term Vision Plan.
268 Right of way preservation	Partner with our regional transportation partners and jurisdictions to incrementally preserve and acquire right of way.
269 Interregional transportation service	Support the development of dedicated pathways for interregional transit service.
270 Interregional transportation terminals	Partner with private and public mass transportation providers to identify locations of shared interregional terminals integrated with the Transit Priority Network.
271 Private development incentives	Incentivize the development community to implement mobility enhancement projects and programs, beyond any existing requirements.
272 Private "dig once" incentives	Explore ways to incentivize private sector collaboration to minimize disruptions in the right of way.
273 Internal "dig once" opportunities	Continue to identify ""dig once"" opportunities to ensure that capital renewal projects including street maintenance and rehabilitation, sidewalk repair, drainage, and renewal of wet and dry utilities are coordinated where possible to minimize disruptions to the transportation network and reduce costs.
274 Co-location of services	Locate public-facing support services together in a facility or on the same site and prioritize connectivity to these locations via all multimodal systems and priority networks.
275 Scaling up Neighborhood Partnering Program	Review the Neighborhood Partnering Program, and similar community-led partnering programs, and the types of mobility projects granted to maximize the use of these programs as tools to achieve mobility goals.
277 Disaster preparedness and emergency response	Coordinate with local and regional partners to create a toolkit for disaster preparedness, with emergency response and evacuation as a focus. Engage local emergency managers to create actionable plans and guidelines that keep public safety as a consideration in strategy development. Conduct post-event reviews and develop additional recommendations from lessons learned.
278 Regional Transportation Management Center	Coordinate with regional transportation partners (TxDOT, CTRMA, Capital Metro, etc.) to explore the feasibility of coming together in a single facility to manage the regional transportation system as one system working across jurisdictional boundaries to respond to and actively manage daily congestion and incidents.

ID-43

ID-44

Financial Strategies

Action Item	Description
279 Project implementation plans	Develop an implementation plan similar to the State of Texas process, which includes a long-range unfunded plan, mid-range unfunded plan, and a 5-year funded plan for roadway capacity projects.
280 Private sector investment in transportation	Conduct a comprehensive inventory of existing City of Austin development fees, requirements, and policies that require private sector investments in transportation infrastructure and analyze whether existing tools balance public and private investment and/or are supporting desired development patterns and the goals of this plan.

Financial Strategies

Action Item	Description
281 Budget alignment	Regularly evaluate budgets for alignment with desired outcomes as defined by the Strategic Direction, this plan, and other related City-adopted plans.
282 Annual mobility planning	Overlay mode plans to discover opportunities to reduce costs by coordinating projects, similar to the current Local Mobility Annual Plan process for the 2016 Mobility Bond.
283 Local infrastructure funding	Identify barriers to local funding of transportation infrastructure and explore additional tools.
284 Street Impact Fee	Implement a Street Impact Fee policy and program.
285 TUF funds for sidewalks	Prioritize and facilitate the use of Transportation User Fee funds in maintaining the sidewalk system.
286 Funding for mobility infrastructure at transit stations and mobility hubs	Partner with Capital Metro to pursue transit grant funding to expand active transportation and shared micromobility infrastructure feeding transit stations and mobility hubs, and review opportunities during redevelopment to provide family-friendly civic space where needed for mobility hubs.
287 Dedicated funding for TDM programs	Allocate and utilize transportation revenue and funding to make TDM programs self-sustaining and provide greater incentives in the future.
288 Grant match reserve fund	Establish a grant match reserve fund to be available to use for the local match requirements of federal and state grants.
289 Testing before investing	Discover opportunities to reduce costs by testing strategies before investing significant resources in long-term infrastructure projects.

List of Appendices

A. Acronyms and Glossary

B. Street Network Table and Map

C. Maps

D. List of Attached Plans

E. Chapter 380 Strategies

Acronyms

APTA:
American Public Transportation Association

ASMP:
Austin Strategic Mobility Plan

CAMPO:
Capital Area Metropolitan Planning Organization

CAPCOG:
Capital Area Council of Governments

Capital Metro:
Capital Metropolitan Transportation Authority

CARTS:
Capital Area Rural Transportation System

CTECC:
Combined Transportation, Emergency, and Communications Center

CTRMA:
Central Texas Regional Mobility Authority

DAA:
Downtown Austin Alliance

FHWA:
Federal Highway Administration

FTA:
Federal Transit Administration

HACA:
Housing Authority of the City of Austin

HERO Program:
Highway Emergency Response Operator Patrol Service Program

SRTS:
Safe Routes to School

TxDOT:
Texas Department of Transportation

Glossary

2016 Mobility Bond–

Approved in November 2016, this $720 million mobility bond package includes funding for Regional Mobility Projects ($101M), Corridor Improvement Projects ($482M), and Local Mobility Projects ($137M). The local projects are broken down into sidewalks ($37.5M), safe routes to school ($27.5M), Urban Trails ($26M), bikeways ($20M), fatality reduction strategies ($15M), substandard-street/capital renewal ($11M). This bond marks the largest one time investment in Austin's transportation network.

access management–

Proactive management of vehicular access points to land parcels adjacent to roadways to reduce conflicts between roadway users and improving roadway efficiency. Strategies include driveway consolidations and center medians with designated access points.

access-controlled–

Type of roadway, typically higher speed, where access is limited and/or regulated for safety and efficiency.

Americans with Disabilities Act (ADA)–

Federal legislation passed in 1990 that prohibits discrimination against people with disabilities. The law made it illegal to discriminate against a person with disabilities in terms of employment opportunities, access to transportation, public accommodations, communications and government activities. The law prohibits private employers, state and local governments, employment agencies and labor unions from discriminating against people with disabilities. The ADA guidelines were most recently updated in 2017.

Austin Metropolitan Area Transportation Plan (AMATP)–

Adopted in 1995 by ordinance, the 2025 AMATP policy document and roadway table guided transportation improvements and development review and served as the transportation element of the comprehensive plan. The ASMP will replace the AMATP.

automated driving vehicles–

New motor vehicle technology that increasingly transfers responsibility from human drivers to computerized cars. There are varying levels of vehicle autonomy, ranging from features such as cruise control to the potential full automation of vehicles that do not require any human input.

bicycle facilities–

Infrastructure and provisions to accommodate or encourage bicycling, including on-street painted or protected bicycle lanes, off-street paths, and parking and storage facilities.

Bicycle Priority Network–

A short-term all ages and abilities network based on the 2014 Bicycle Plan. The Network consists of connected, protected bicycle lanes, Urban Trails and neighborhood bikeways. Streets in the Bicycle Priority Network are prioritized for near-term all ages and abilities improvements.

Bus Rapid Transit (BRT)–

A high-quality bus-based transit system that delivers faster, more reliable service through the provision of dedicated lanes, with bus lanes and stations typically aligned to the center of the road, off-board fare collection, and more frequent operations. Because BRT contains features similar to a light rail system, it is more reliable, convenient, and faster than regular bus service.

capacity–

The number of people which can be carried by a mode of transportation under given conditions. One common measure of capacity is vehicles per hour through an intersection. Capacity in transit operations is measured as the maximum number of passengers that can be carried past a single point on a fixed route, in a given period of time.

capital renewal–

The planned rehabilitation and replacement of infrastructure assets to reach their useful life.

carpool–

An arrangement between people to make a regular journey in a single vehicle, typically with each person taking turns to drive the others to the destination.

car-share–

A model of car rental primarily designed for short periods of time and shorter distance trips. These services are attractive to customers who make only occasional use of a vehicle as well as others who would like occasional access to a vehicle of a different type than they use day-to-day.

commuter rail–

A passenger rail transportation service that primarily operates between a city center or urban core to outer suburbs or other locations that draw large numbers of commuters.

connected vehicles–

A car or other vehicle that is equipped with Internet access, a 5G network, and usually also with a wireless local area network. This allows the car to share internet access and data with other devices both inside and outside the vehicle. Connected vehicles are a vital aspect of automated driving vehicles as the vehicles will have to be connected with each other to share data, destinations, and upcoming driving maneuvers to ensure the safety of riders. Connected vehicles are able to transfer important mobility data between vehicles and other infrastructure that allows the transportation network to optimize movement, deal with service interruptions, or perform important safety tasks.

curb space–

The space along the curb frontage of a street, which can be allocated for different uses, such as parking, travel lanes, bicycle facilities, commercial loading, valet services, etc.

dedicated transit pathways–

Separate lanes on the roadway that would allow the high-capacity vehicles to move more quickly and efficiently.

dockless mobility–

Systems consisting of devices for rent, such as bicycles or scooters, that do not require fixed docking stations for users to receive or return units. Payment typically occurs in the form of a mobile phone application.

drive-alone trip–

A trip taken in a privately-operated vehicle whose only occupant is the driver.

end-of-trip facilities–

Amenities that support active transportation users during and at the end of their trip, such as showers, parking, locker rooms, and bicycle repair stands.

extraterritorial jurisdiction (ETJ)–

The unincorporated land located within a given distance (dependent upon its population) of a city's municipal boundaries that is not within the city limits or the extraterritorial jurisdiction of another city and is the territory where a city is authorized to annex land.

first-mile/last-mile mobility solutions–

The short, but at times inconvenient, distance at the beginning and end of a trip (typically on public transportation). Solutions for first- and last-mile portions of a trip include walking and bicycling as well as emerging shared modes.

functionally acceptable–

A maintenance designation indicating that transportation facilities can be used safely and comfortably for people of all ages and abilities.

grade-separated intersections–

An intersection where two transportation routes cross at different heights. This allows the continued flow of vehicles as the routes cross each other, and can consist of a mixture of roads, footpaths, railways, canals, bridges, overpasses, tunnels, or a combination of facilities

high-capacity public transportation–

Transit that carries a larger volume of passengers using larger vehicles and/or more frequent service than a standard fixed route bus system. High-capacity transit can operate on exclusive rights-of-way such as a rail track or dedicated pathway. The main goal of high-capacity transit is to provide faster, more convenient, and more reliable service for a larger number of passengers.

high-frequency public transportation–

Transit service that operates every 15 minutes (or more frequently) throughout most of the day on weekdays and Saturdays, increasing reliability and improving opportunities for riders by providing more rides throughout the day.

highway system–

A network of controlled-access high-speed roadways that connect across state borders to form the National Highway System in the United States. Highways may be maintained by state transportation agencies, regional mobility authorities, local municipalities, or federal agencies.

historically underserved and underrepresented–

Communities of people who have typically not been included, equitably planned for or equitably engaged with during civic and cultural planning. These communities often have a lack of representation and face barriers to institutional power. While the definition of these communities may be fluid, a non-comprehensive list of historically underrepresented or underserved communities generally includes people of color, people of low- and moderate-income, recent immigrants, people with mobility impairments, youth, seniors, those struggling with mental illness or homelessness, people with limited English proficiency, and LGBTQ+ individuals.

Imagine Austin Comprehensive Plan–

The City's comprehensive plan, adopted unanimously by Austin City Council in 2012. The plan was created with input from thousands of Austinites and established a community vision of a city of complete communities where all Austinites have access to the amenities, transportation, services, and opportunities that fulfill their material, social, and economic needs.

land development code–

Ordinances enacted by City Council for the regulation of any aspect of development and includes zoning, rezoning, permitted use, parking, special exception use, prohibited use, planned development district, zoning district, overlay zoning district, subdivision, building construction, or sign, landscape, land use, or similar regulations controlling the development or use of land.

light rail–

A railway with a “light volume” traffic capacity compared to “heavy rail.” Light rail may use shared or exclusive rights of way, high or low platform loading, and multi-car trains or single cars traveling on fixed rails. Light rail is usually electric-powered and is also known as light rail, streetcar, trolley car, and tramway.

managed lanes–

A type of highway lane that is operated with a management scheme, such as lane use restrictions or variable tolling, to optimize traffic flow, vehicle throughput, or both.

micromobility–

Any small, human or electric-powered transportation mode such as bikes, e-bikes, scooters, e-scooters or any other small, lightweight vehicle that is being used as a transportation resource.

mobility hub–

Locations where multiple transportation modes and services are available. These spaces can be of different sizes and scales, ranging from a large complex built around a park and ride facility to a small shared area where dockless vehicles, ride-hailing spaces, and location wayfinding are available. Mobility hubs often include additional amenities and uses such as concentration of employment, housing, shopping, and/or recreation.

Mobility Management Center (MMC)–

The City of Austin's headquarters for monitoring and managing traffic throughout the Austin area. The MMC is staffed seven days a week through peak travel times, and may be staffed continuously through large events. From the MMC, engineers and technicians monitor traffic patterns and adjust signal timing in response to traffic needs. Crews may be dispatched from the MMC as needed to respond to downed or malfunctioning traffic signals.

mode share–

The percentage of trips taken by each type of transportation. This statistic comes from the US Census in regards to a person's primary mode of travel to work. For example, 74% of people in Austin drive alone in a car, so the mode share for driving alone is 74%.

placemaking–

The process of creating squares, plazas, parks, streets, and waterfronts that will attract people because these places are pleasurable or interesting.

Project Connect Long Term Vision Plan–

Capital Metro's long-term vision plan to create a high-capacity public transportation network serving Austin and the Central Texas region. It focuses on providing short-term enhancements for its existing services while also investing in a long-term high-capacity public transportation system.

right-of-way–

Right-of-way has two definitions, one relating to the width of property, such as a street including sidewalks; the other relating to who has the right to proceed with their movement. More specifically, when we talk about street design, we take into account what will fit within that street's right-of-way to accommodate all modes, minimize cost, and efficiently manage roadway space. When we talk about moving people through an intersection, we may say, "pedestrians have the right-of-way in the crosswalk," meaning other modes of transportation have to yield to people walking.

Roadway Capacity Plan (RCP)–

Roadway improvements which would be eligible for funding through Street Impact Fees, including projects that are designed to increase capacity in the City's roadway system based on growth projected over 10 years. The improvements include things like new road alignments, road widenings, turning lanes, as well as intersection improvements, such as new signals and roundabouts. The RCP is reflected in the ASMP and associated Street Network Table.

shared-use paths–

Off-street transportation facilities designed to be used safely and comfortable for active transportation modes.

signal priority–

A tool to give special treatment to specific modes at an intersection. Signal priority helps increase the amount of people who can move through an intersection during a single signal phase, and can be a powerful tool to improve transportation network reliability and travel time. Signal priority can be given to any transportation mode, but is often seen when pedestrians, bicycles, or transit vehicles receive a green signal before cars to enhance safety and movement through the intersection.

substandard streets–

Publicly owned roadways within the City of Austin's jurisdiction that do not meet current City of Austin requirements because they have pavement widths that are less than 24 feet and typically lack some curb and gutter, drainage, bicycle accommodations, and sidewalk infrastructure. The 2016 Mobility Bond provides preliminary engineering funding for nine substandard streets. These improvements include reconstructing substandard streets to modern standards by adding curbs, gutters, and facilities for pedestrians and bicycles. Improving substandard roadways adds additional capacity, increases safety, and improves drainage.

temporary traffic control –

A process establishing a work zone or other temporary closure of a transportation facility, providing related transportation management, and temporary street signage and markings.

Transit Priority Network–

Includes Capital Metro's high-frequency service and planned expansions identified in Connections 2025 and Project Connect. These corridors would carry the largest share of transit riders. The focus of the Transit Priority Network is to implement transit priority treatments to improve the speed, reliability, and efficiency of public transportation and to lessen the impact of temporary right of way closures on transit service.

transit-only lanes–

Lanes often implemented in congested areas to help transit vehicles maintain an efficient and reliable schedule. These lanes are marked and can be dedicated at all times of the day or limited to peak traffic hours. Often side-running and may allow right turning for vehicles.

Transportation Criteria Manual (TCM)–

One of the City's technical criteria manuals containing the published rules guiding the design and operations of transportation infrastructure and facilities. The TCM provides criteria referenced in the land development code and is available to the public.

Transportation Demand Management (TDM)–

The application of strategies and policies to reduce travel demand, or to redistribute this demand in space or in time. In transportation, as in any network, managing demand can be a time-efficient and cost-effective alternative to increasing capacity.

vehicle miles traveled (VMT)–

A measure of the amount of travel for all vehicles in a geographic region over a given period of time, typically a one-year period. This measure is used in transportation planning for a variety of purposes.

Vehicle Priority Network–

Composed of the streets that are critical to the operations of the roadway system and carry the most vehicular traffic. The focus of the Vehicle Priority Network is to improve travel time reliability and to lessen the impact of temporary right-of-way closures on mobility.

Vision Zero–

An international movement that aspires to reduce the number of people who die or are seriously injured in traffic crashes to zero. Austin's Vision Zero Action Plan, adopted in 2016, defines a community-wide approach to reach this goal. It focuses on five core strategies: education, engineering, evaluation, enforcement, and policy.

vulnerable user –

A transportation network user that is not shielded by a protective shell.

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Text
~~Deletions~~
Additions

Street Network Table and Map

The Street Network Table and Map includes roads that are within the jurisdictional boundaries of the City of Austin and is used to identify right of way dedication requirements needed to accommodate future roadway conditions (referred to as Dedication of Right of Way in the Land Development Code). These future roadway conditions are reflective of the recommended improvements in the ASMP. The right of way widths in the table are based on typical cross-section standards in the Transportation Criteria Manual (TCM) that reference roadways by "Level" instead of "Functional Classification." The right of way widths are reflective of ~~existing constraints to the built environment and the ability to feasibly acquire right of way for future improvements~~ the TCM or updated Engineering Plans that may supersede the TCM. The ~~Street Network Table~~ TCM strives to minimize negative impacts of expanding right of way for future mobility needs by including a process to minimize ~~maintaining the existing right of way or minimizing~~ the additional amount of right of way needed using flexible design criteria. Where there are right of way constraints compared to the ideal right of way, further study is required to prioritize design elements or determine ROW acquisition. Right of way widths identified in the table are used as a starting point during the land development process to establish proper building placement in respect to the location of the future curb. Street Levels 2, 3, and 4 (collectors, minor arterials, and major arterials) identified in the Street Network Map were evaluated for right of way constraints and future requirements reflect the ideal width ~~or were adjusted to fit within a compact design~~in the TCM or relevant Engineering Plan. The right of way requirements for Level 2, 3, and 4 streets are included in the Street Network Table. Level 1 streets have updated design standards in the TCM and the appropriate cross-section shall be selected based on adjacent maximum building heights and are for residential adjacent land uses only.~~(local streets) with improvements identified are included in the Street Network Table. Level 1 streets without improvements identified were not evaluated for right of way constraints and are all required to be 50 feet in constrained conditions and 60 feet in greenfield developments.~~

ID-45

The Street Network Table does not include specific right of way requirements for roads fully within the jurisdiction of the Texas Department of Transportation (TxDOT). TxDOT roadways include highways and freeways (Level 5), frontage roads (Level 4), and other TxDOT facilities (Levels 2, 3, and 4) identified in the Street Network Map. The amount of right of way required to be dedicated along these roadways will be coordinated with TxDOT at the time of development based on the most up to date plans. Some roadways that are included in the Street Network Table that are also within the jurisdiction of TxDOT are noted as such in the ROW Remarks column and will require coordination with TxDOT for future improvements and right of way requirements, including over and underpasses and major urban roadways. Additionally, some roadways that are included in the table that are under the jurisdiction of Travis County, within the City of Austin Extraterritorial Jurisdiction, or an adjacent jurisdiction are noted as such in the ROW Remarks column and are only included for reference and coordination opportunities. Please refer to Travis County or the appropriate jurisdiction for right of way requirements.

A link to the Street Network Table and Street Network Map can be found at www.austintexas.gov/asmp

ID-45

Turn Lane Length (Distance to Driveway)		
LEVEL	URBAN	SUBURBAN
Level 2	205 feet	240 feet
Level 3	305 feet	360 feet
Level 4	365 feet	430 feet

Turn Lane Width				
	Level 1	Level 2	Level 3	Level 4
Level 1	–	–	–	–
Level 2	–	+14 feet	+14 feet	+14 feet
Level 3	–	+14 feet	+14 feet	+14 feet
Level 4	–	+14 feet	+14 feet	+14 feet

In addition to the right of way that is identified along the roadway in the Street Network Table, additional travel lanes, right-turn lanes, and left-turn pockets may be necessary based on more detailed studies. At intersections, additional right of way for Level 2 streets will be required to accommodate left-turn pockets at intersecting Level 2, 3, and 4 streets. Above is a matrix of additional right of way needed to accommodate turn lanes as referenced in the TCM. ~~a right turn contained within the influence, also listed below. A more detailed study can be completed to shorten the influence area or to determine that these improvements that would require additional right of way are not necessary.~~ For street segments with dedicated transit pathways, additional right of way will be required to accommodate left turn lanes at intersections if included in the most up to date Engineering Plans ~~or else they must be in line with station locations as I~~. Left turns within the pathway are prohibited and signalized crossings must be coordinated with the City and Project Connect.

Further, if on-street parking is desired at the time of development additional right of way may also be required if it was not identified in the Street Network Table.

Amendments to the Street Network Table and Map will be processed when right of way requirements change based on project details determined during the project development process. The City's Traffic Engineer has the authority to make certain operational changes to a roadway within the right of way to improve safety and mobility and therefore, changes to the Street Network Table that do not impact the adopted right of way widths will be processed administratively. Any modifications that may change the adopted right of way widths in the Street Network Table will be processed as formal amendments to the plan, requiring City Council approval. These operational changes will follow the standard stakeholder and project development process that is in practice in advance of any changes being implemented. Changes to the roadway that include transit priority treatments and dedicated pathways will be coordinated with Capital Metro.

Updated Maps

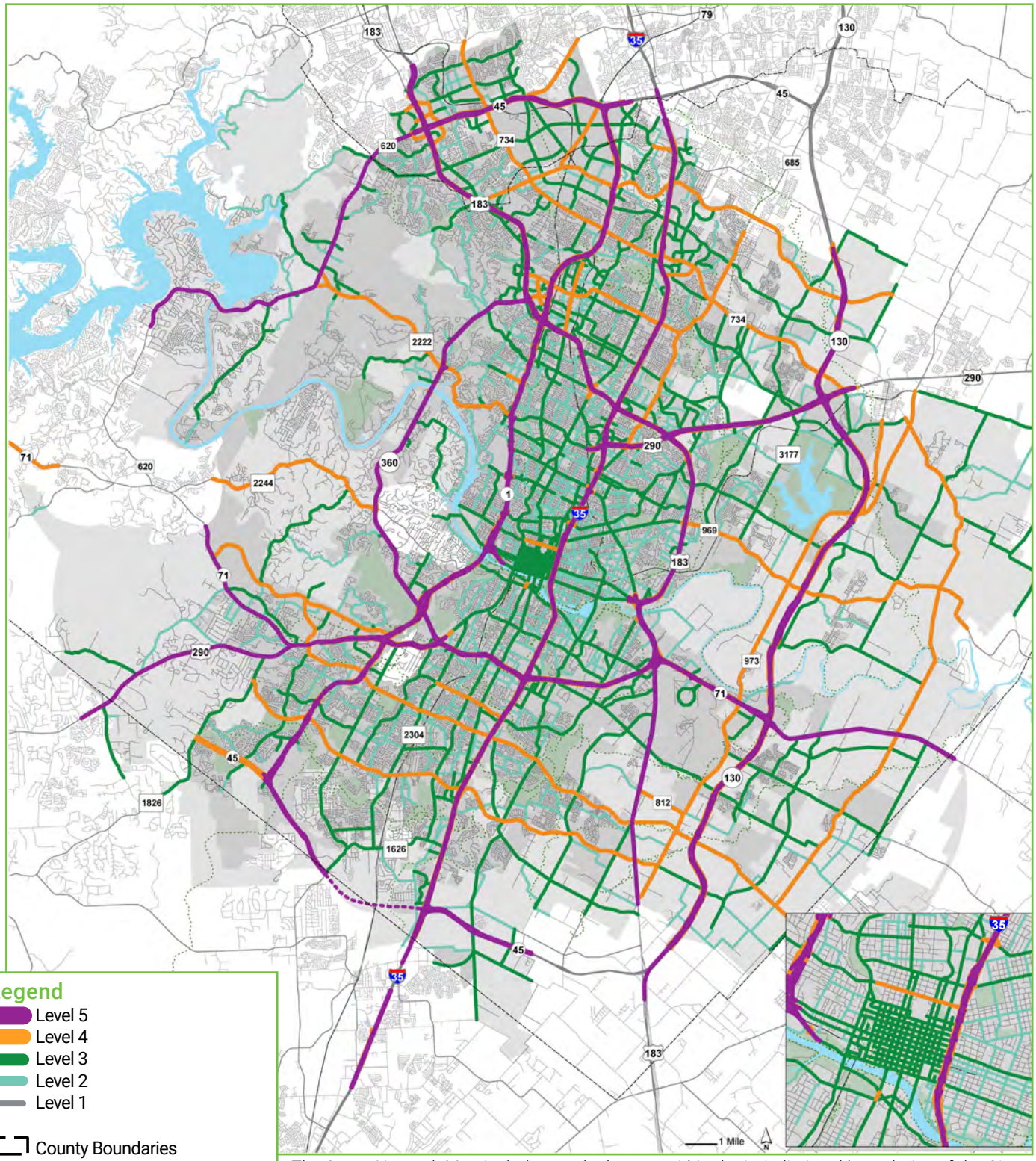
Maps

All the maps included in the Austin Strategic Mobility Plan have been reprinted in this appendix for ease of reference and use.

ID-46

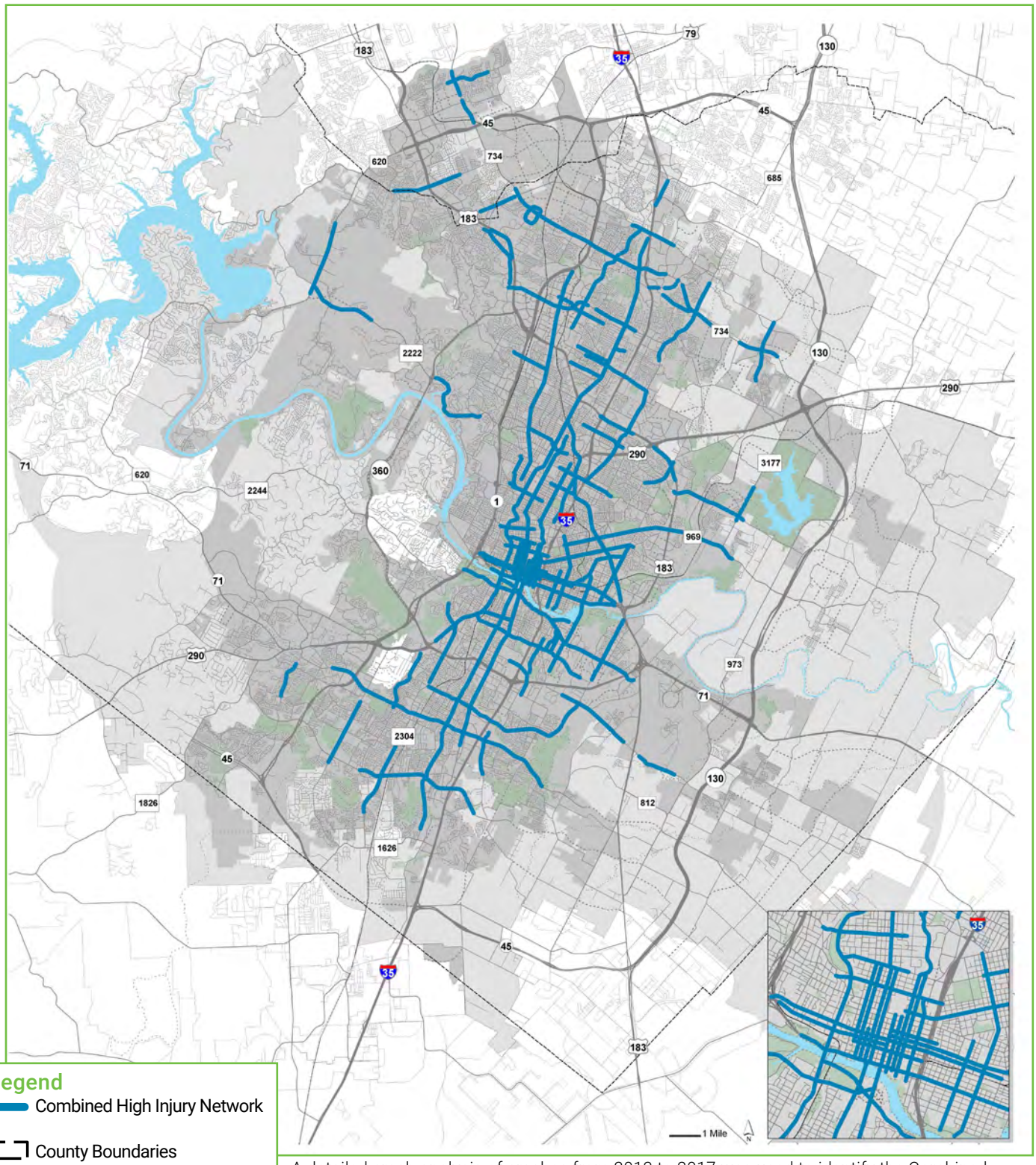
- **Street Network Map**
- **Combined High-Injury Network Map**
  - **Pedestrian High-Injury Network Map**
  - **Bicycle High-Injury Network Map**
  - **Motorcycle High-Injury Network Map**
  - **Vehicle High-Injury Network Map**
- **Imagine Austin Growth Concept and Transit Priority Network Map**
- **Sidewalk Prioritization Map**
- **Roadway Capacity Projects Map**
- **Public Transportation System Map**
- **Bicycle System Map**
- **Urban Trail System Map**

ID-46 Street Network Map



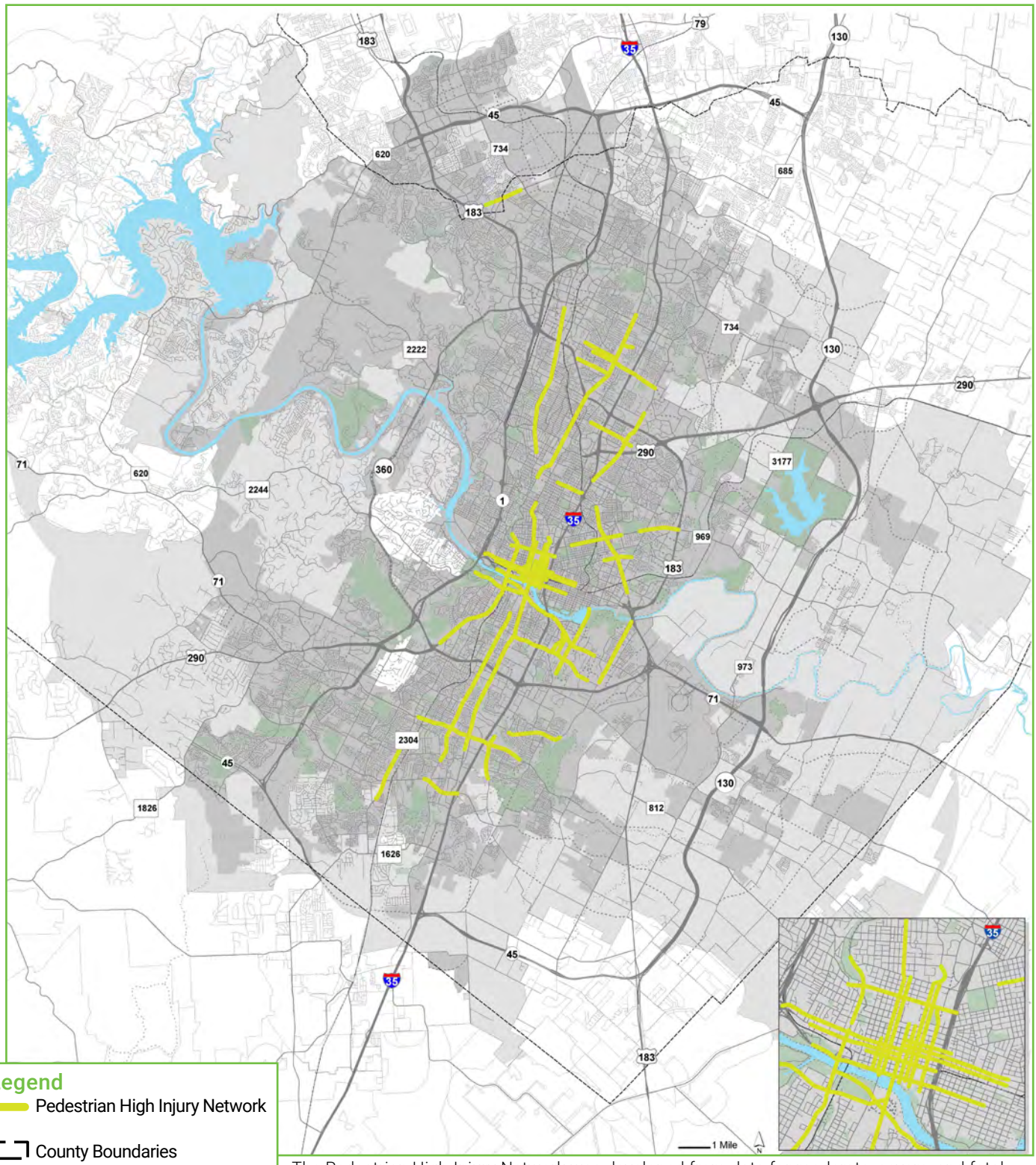
The Street Network Map includes roads that are within the jurisdictional boundaries of the City of Austin and is used to identify right of way dedication requirements needed to accommodate future roadway conditions (referred to as Dedication of Right of Way in the Land Development Code). These future roadway conditions are reflected in the Street Network Table.

Combined High-Injury Network Map



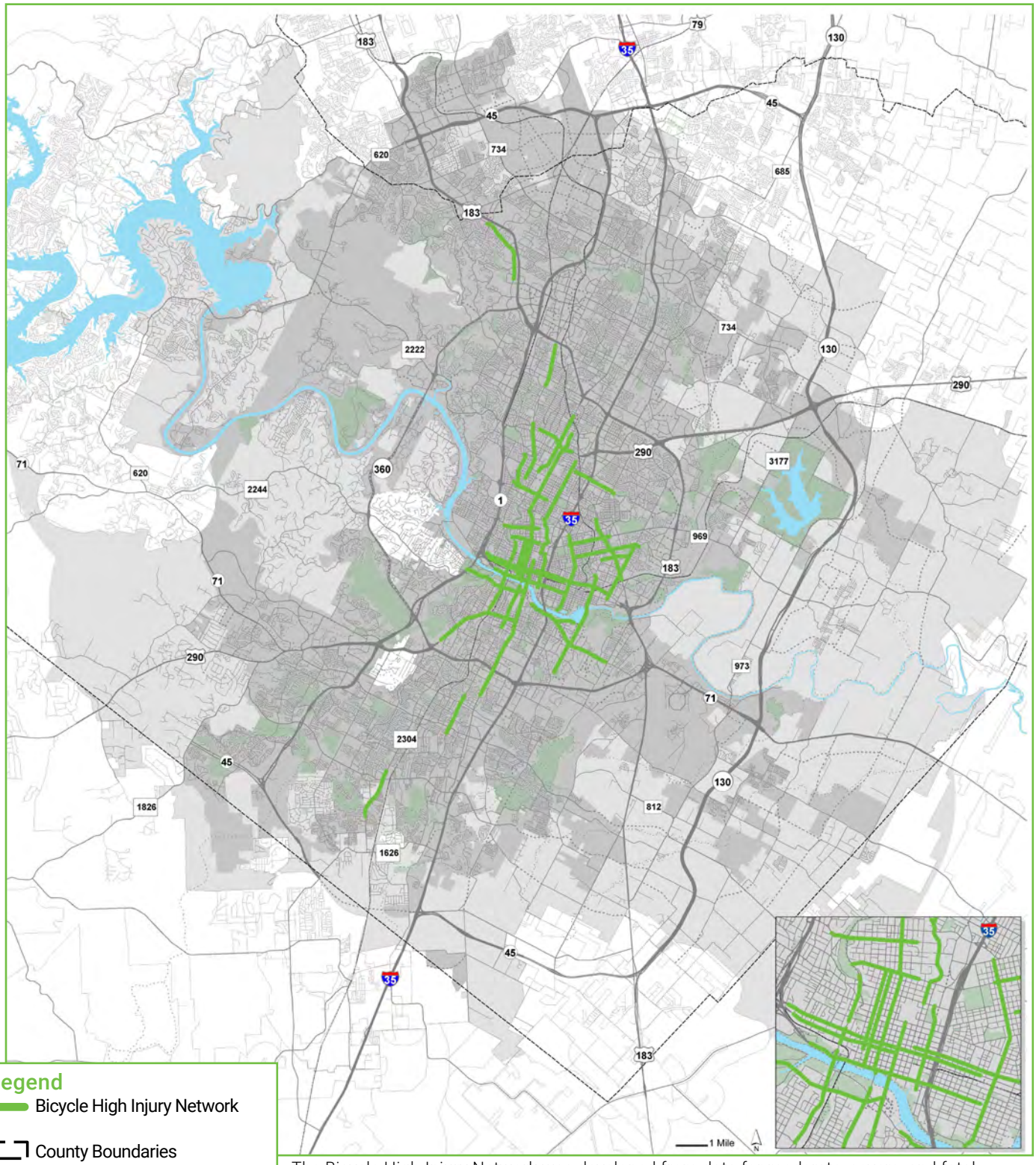
A detailed crash analysis of crashes from 2013 to 2017 was used to identify the Combined High-Injury Network, which includes just 8% of the city's street network but contains nearly 70% of all serious injury or fatal crashes for all modes.

Pedestrian High-Injury Network Map



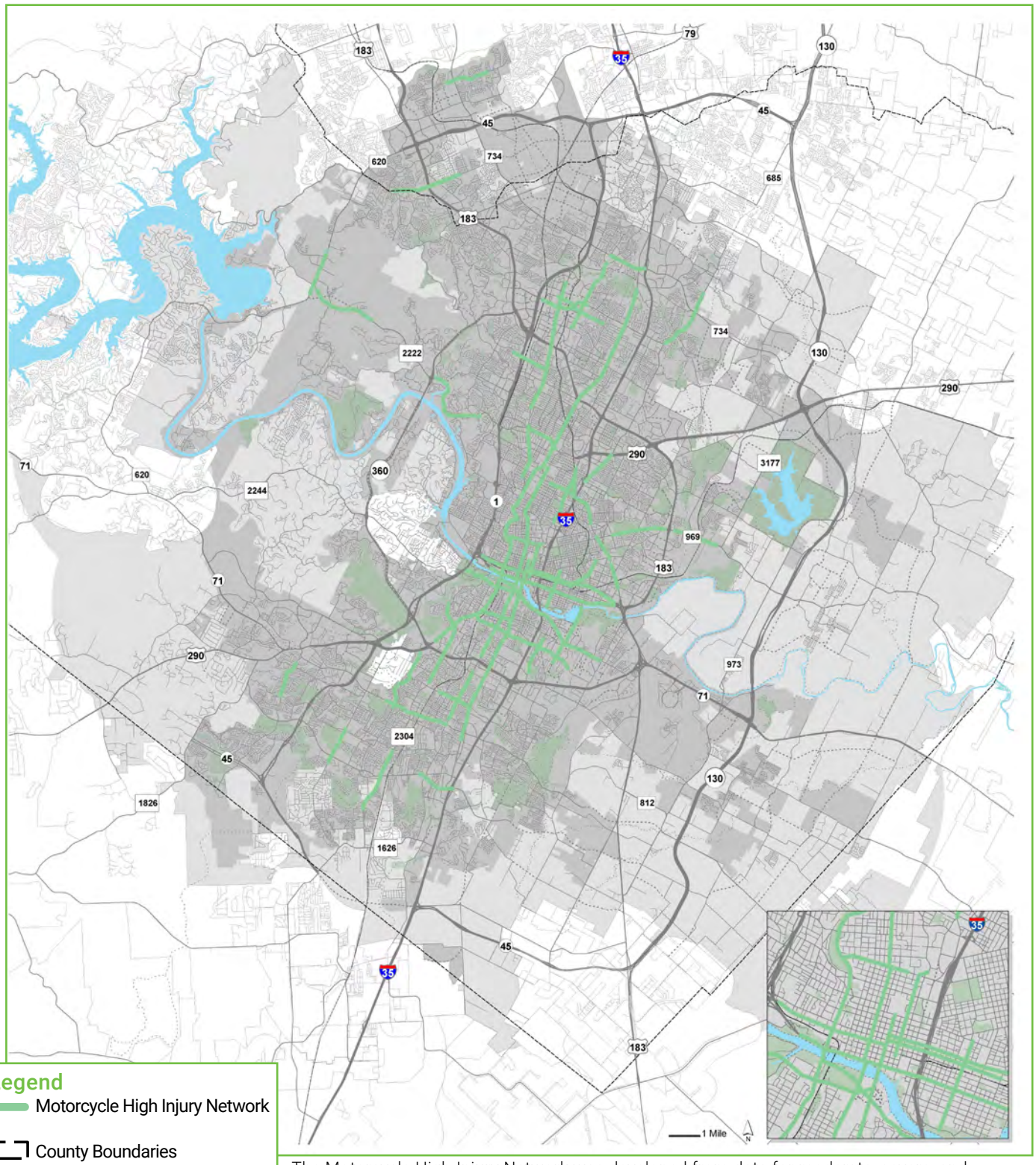
The Pedestrian High-Injury Network was developed from data for moderate, severe, and fatal injury crashes. Moderate injuries were included because fatal and severe injuries among pedestrians, bicyclists, and motorcycles are relatively rare compared with motor vehicles, and often go unreported, meaning that the sample sizes are often small. Crashes occurring on access-controlled highways are also not included in the HIN, as including these results would dramatically skew results given the high number of vehicle miles traveled on these roadways.

Bicycle High-Injury Network Map



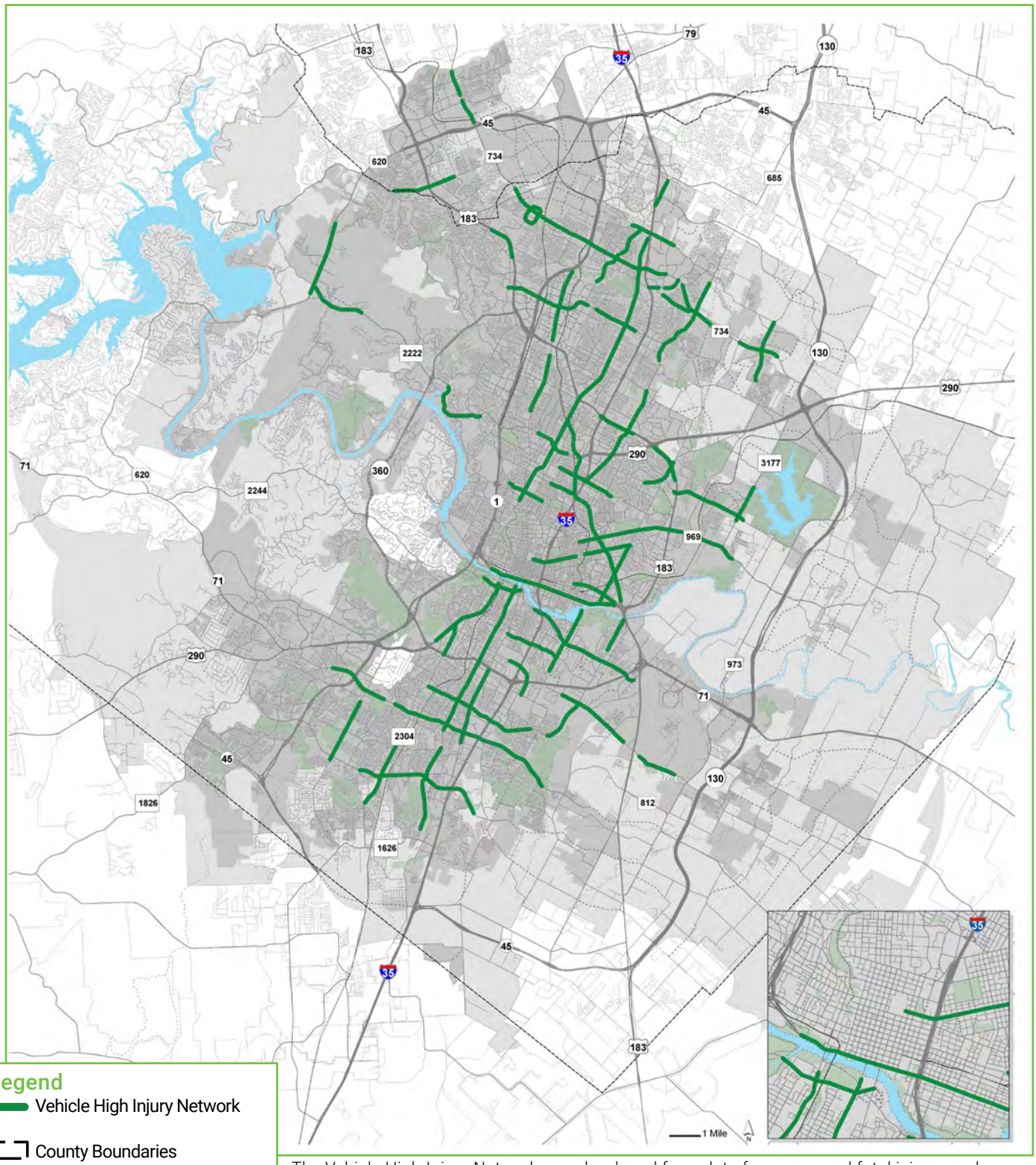
The Bicycle High-Injury Network was developed from data for moderate, severe, and fatal injury crashes. Moderate injuries were included because fatal and severe injuries among pedestrians, bicyclists, and motorcycles are relatively rare compared with motor vehicles, and often go unreported, meaning that the sample sizes are often small. Crashes occurring on access-controlled highways are also not included in the HIN, as including these results would dramatically skew results given the high number of vehicle miles traveled on these roadways.

Motorcycle High-Injury Network Map



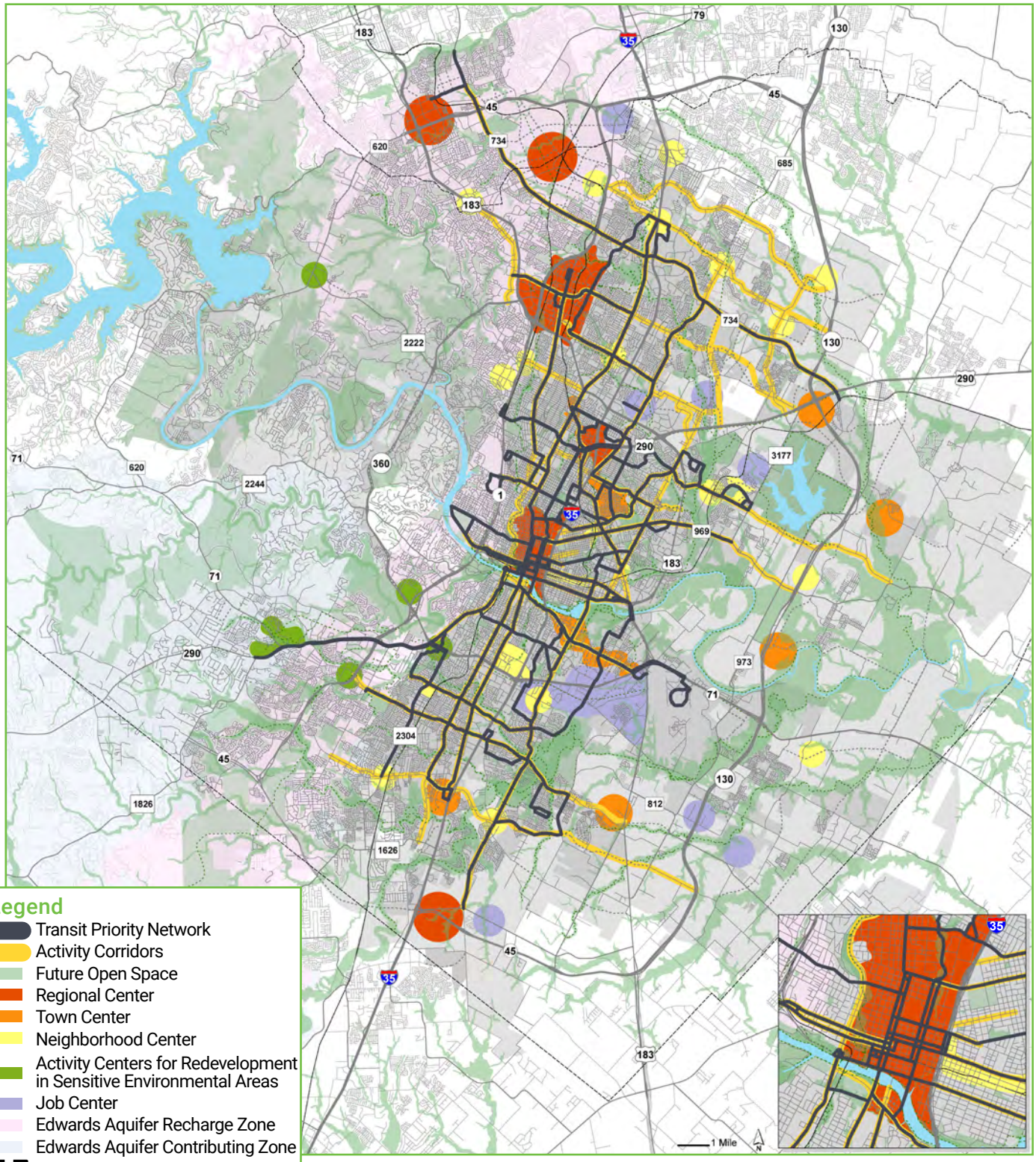
The Motorcycle High-Injury Network was developed from data for moderate, severe, and fatal injury crashes. Moderate injuries were included because fatal and severe injuries among pedestrians, bicyclists, and motorcycles are relatively rare compared with motor vehicles, and often go unreported, meaning that the sample sizes are often small. Crashes occurring on access-controlled highways are also not included in the HIN, as including these results would dramatically skew results given the high number of vehicle miles traveled on these roadways.

Vehicle High-Injury Network Map



The Vehicle High-Injury Network was developed from data for severe and fatal injury crashes. Crashes occurring on access-controlled highways are also not included in the HIN, as including these results would dramatically skew results given the high number of vehicle miles traveled on these roadways.

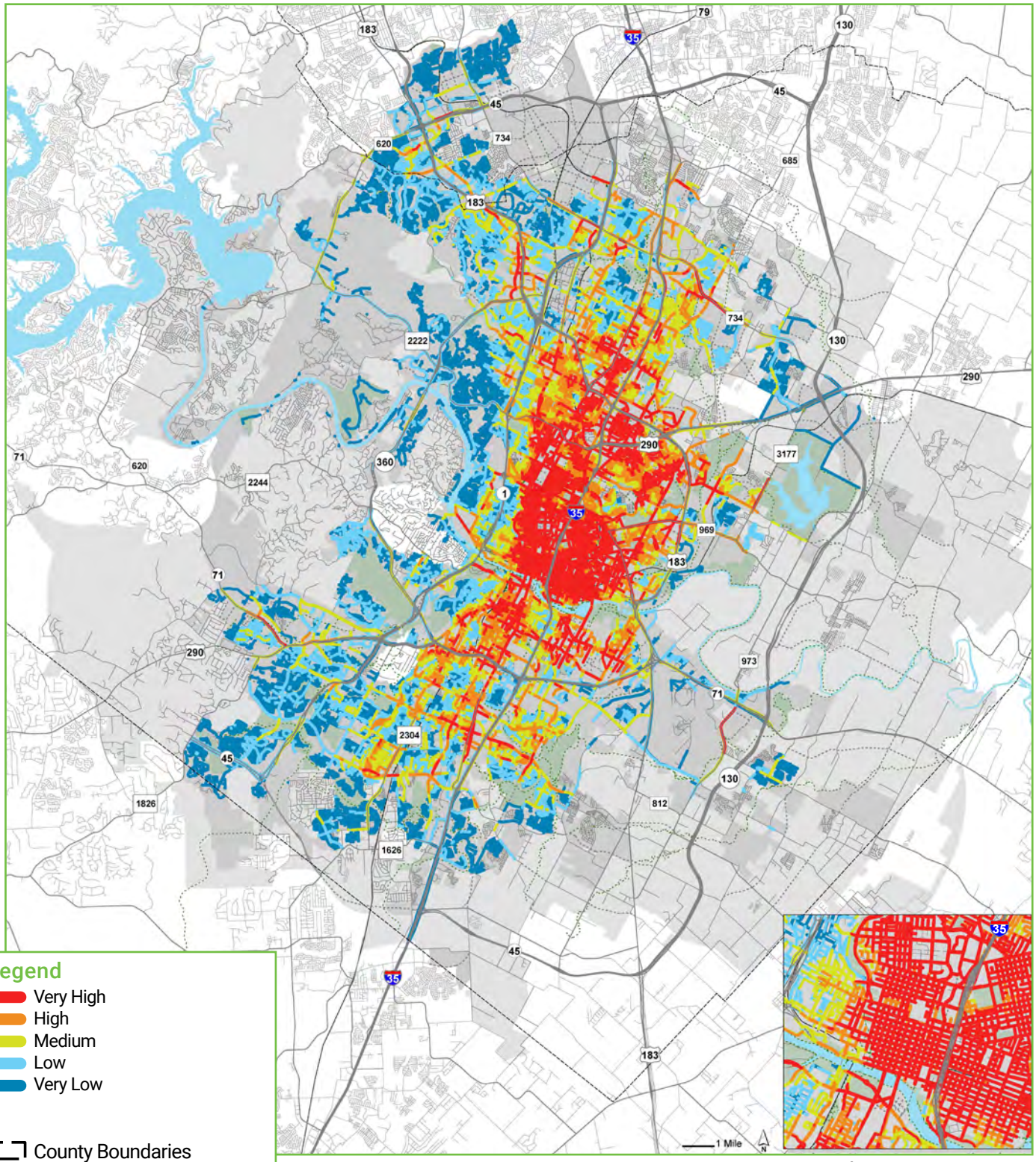
ID-46 Growth Concept Map and Transit Priority Network



The Imagine Austin Growth Concept is supported by the Transit Priority Network, linking land use with transportation. By providing fast, reliable, and efficient transit options along these Imagine Austin Activity Corridors and into our Activity Centers we will be able to promote infill and redevelopment in these desired locations. This linkage should reduce per capita car use and increase walking, bicycling, and transit use.

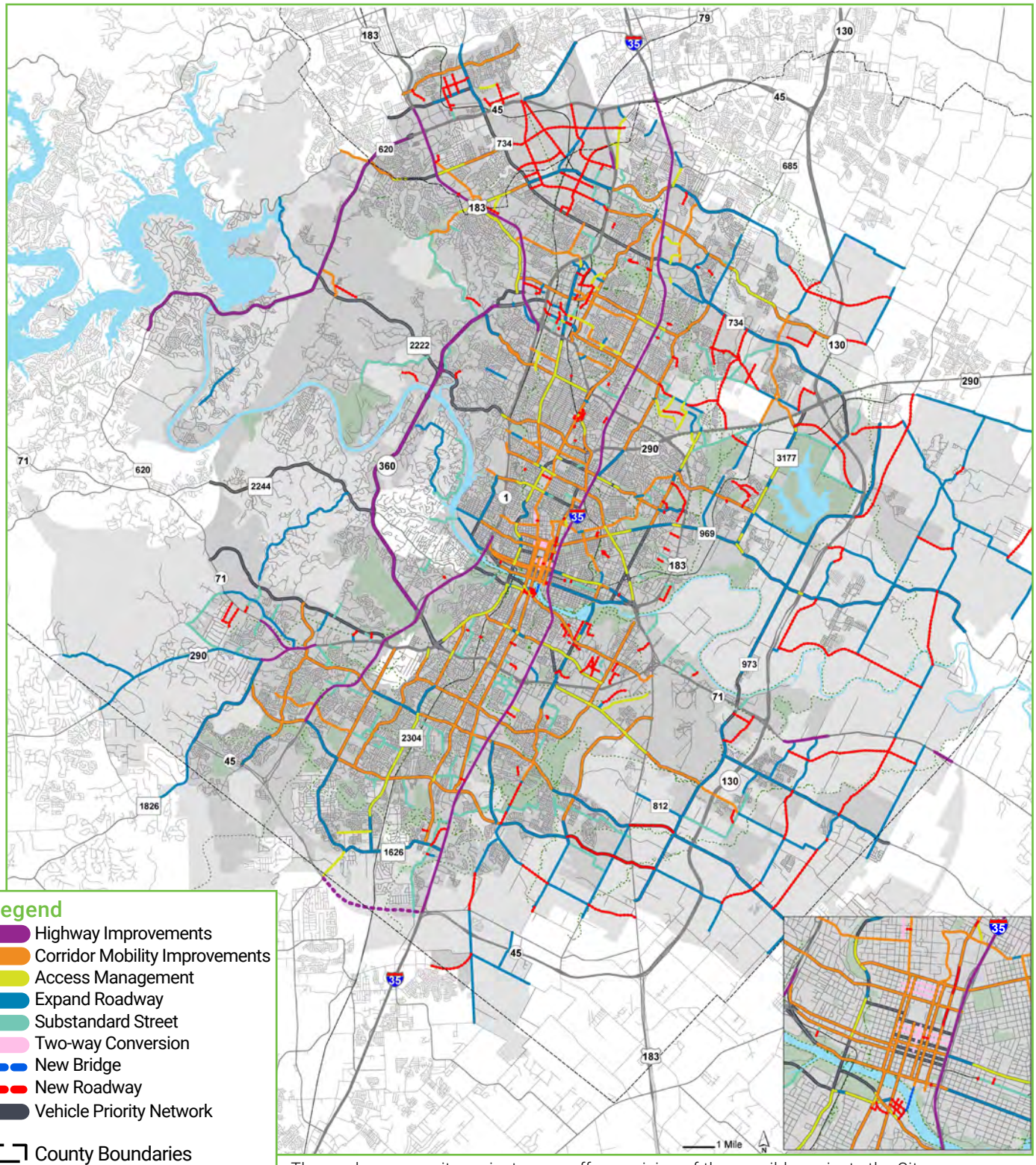
Sidewalk Prioritization Map

ID-46



Prioritization rankings are intended as a tool to allocate limited City of Austin sidewalk resources; just because a particular section of sidewalk is ranked as a lower priority does not mean it is not a necessary component of a complete pedestrian network. Consistent with City of Austin Complete Streets policies, all private and public development, redevelopment, and capital improvement projects should include ADA compliant sidewalks (or Urban Trails where appropriate) along the full length of every roadway.

ID-46 Roadway Capacity Projects Map

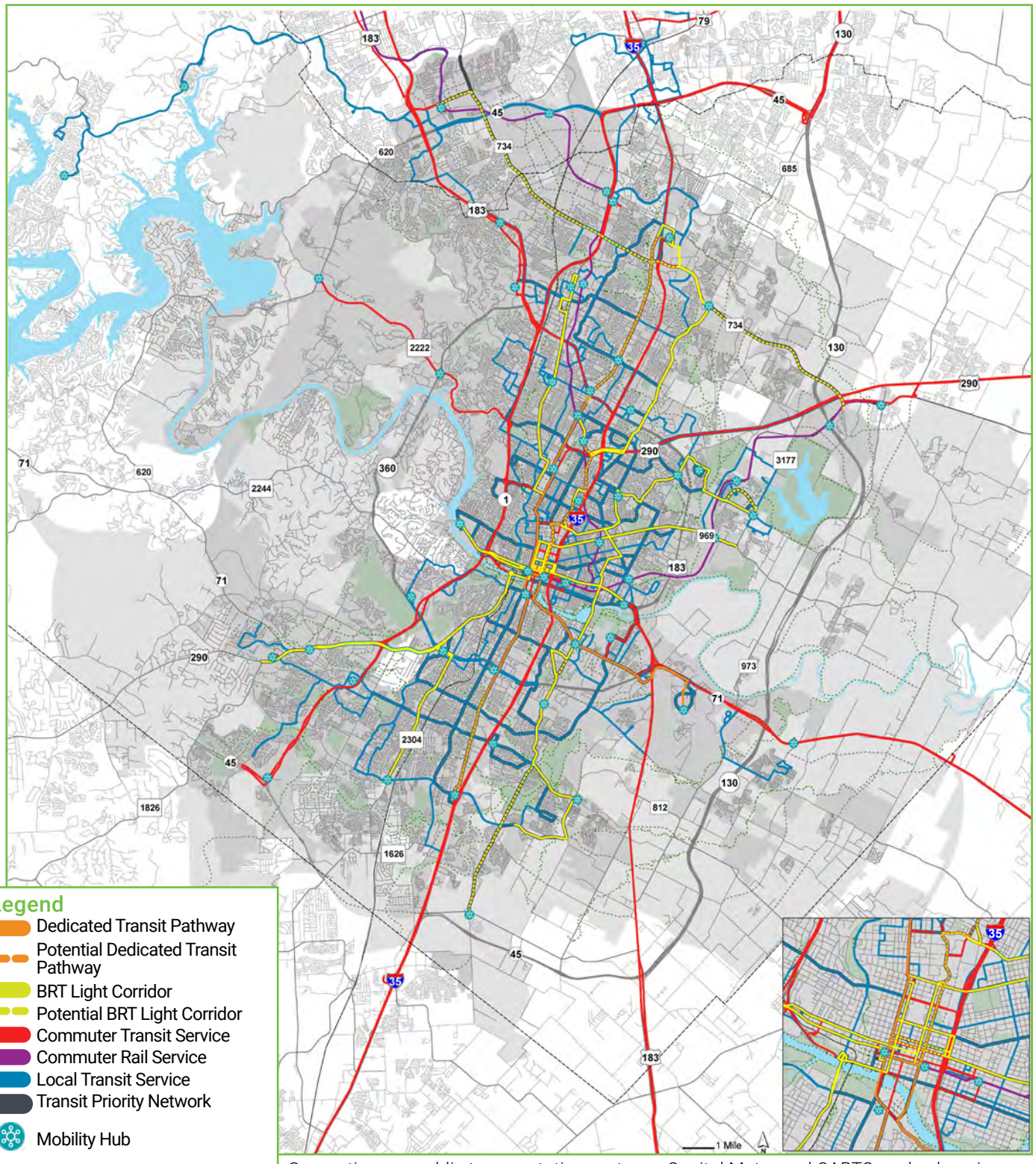


The roadway capacity projects map offers a vision of the possible projects the City may pursue in the next 20 years based on a variety of factors, including the evolving needs of the transportation network, engineering analysis, public input, and available funding. Some of what is shown in the map is already in process and may be either fully or partially funded. Other recommended improvements would require further analysis, funding, and a public input process to be developed and constructed.

Updated Maps

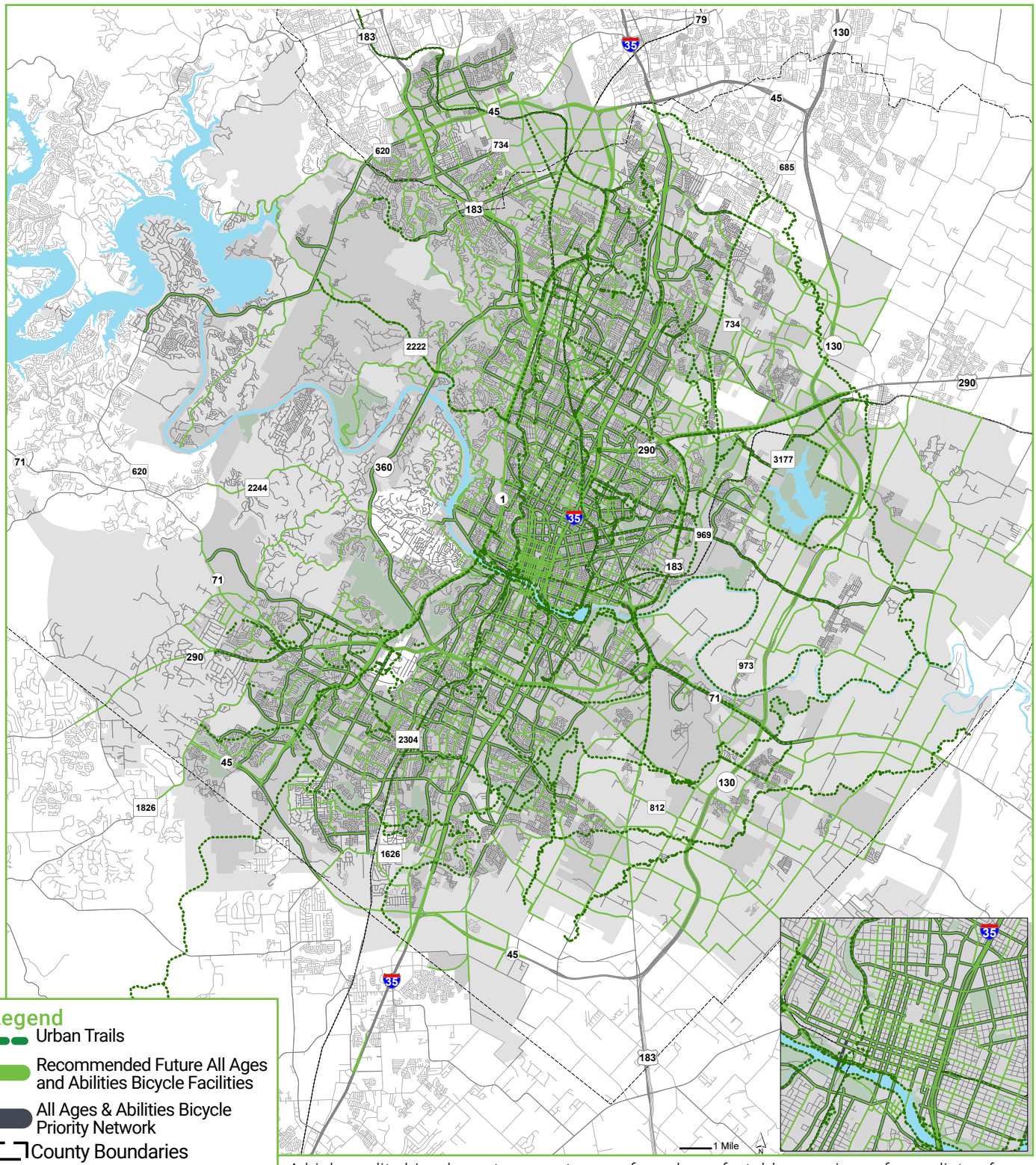
Public Transportation System Map

ID-46



Supporting our public transportation partners, Capital Metro and CARTS, and enhancing services are crucial to creating an experience that attracts and retains riders. A complete public transportation system of high-capacity transit operating in dedicated pathways, high-frequency service with transit priority treatments, and commuter and local service supported by Mobility Hubs are identified in the map.

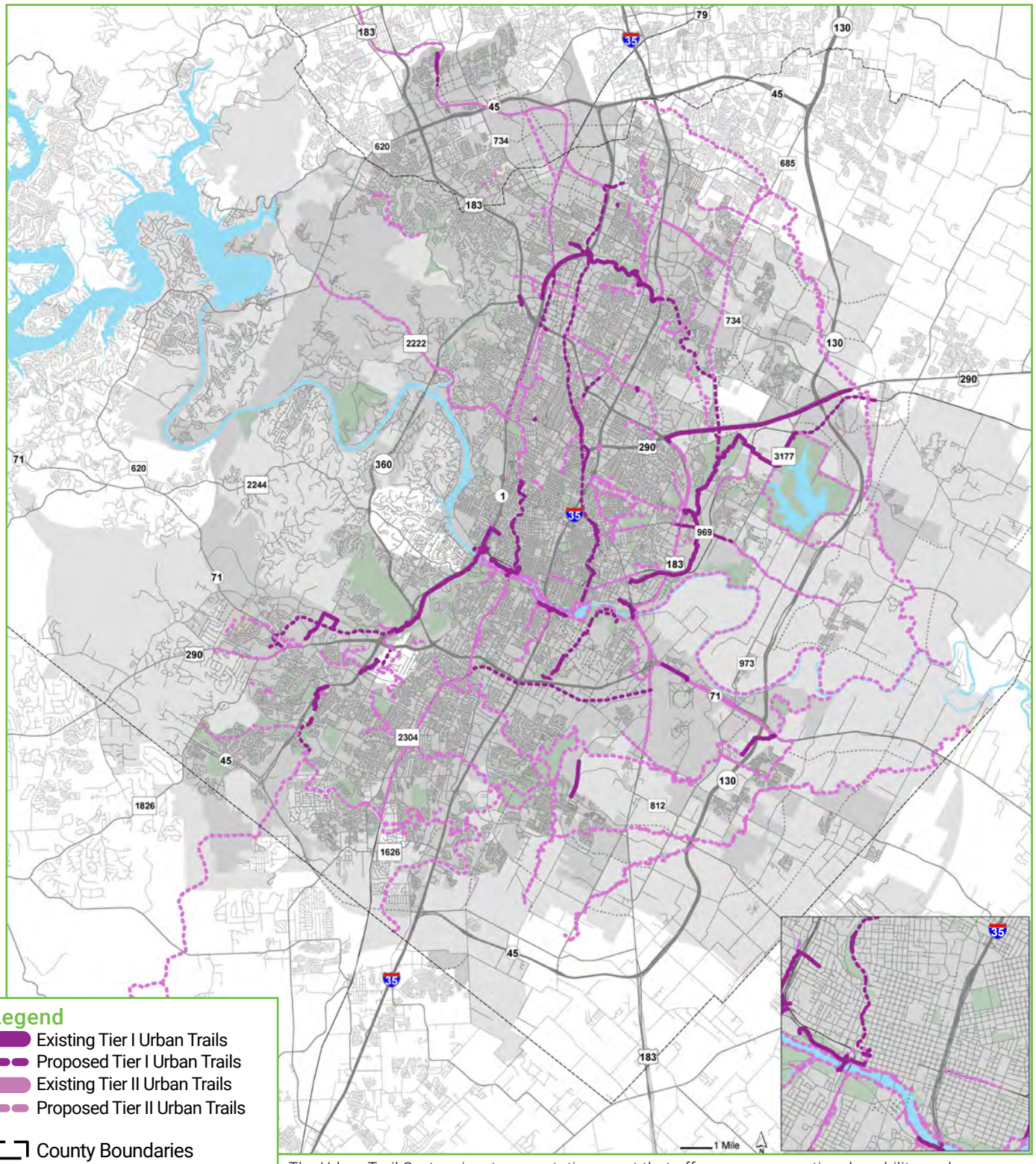
ID-46 Bicycle System Map



A high-quality bicycle system creates a safe and comfortable experience for cyclists of all ages and abilities and supports different types of trips. All ages and abilities bicycle facilities include a range of facilities that are appropriate to the type of street, ranging from Protected Bicycle Lanes, Buffered Bicycle Lanes, Quiet Streets, and Bicycle Lanes.

Urban Trail System Map

ID-46



The Urban Trail System is a transportation asset that offers many recreational, mobility, and environmental uses and benefits for our community. The Urban Trail Plan identified 47 miles of Tier I Urban Trails for transportation and recreation purposes, and they connect significant and dense populations of people. Tier II trails are Urban Trails that have been identified during previous planning processes. Most Tier II trail alignments are still conceptual in nature, although some have been constructed through cost-share or development opportunities.

List of Attached Plans

Previously developed and adopted modal plans were integrated in the development of the Austin Strategic Mobility Plan. The following mobility related plans are attached to and included in the ASMP.

City Council Adopted Plans

- **Bicycle Plan** *(formerly the Bicycle Master Plan)*
- **Sidewalk Plan/ADA Transition Plan** *(formerly the Sidewalk Master Plan/ADA Transition Plan)*
- **Urban Trails Plan** *(formerly the Urban Trails Master Plan)*
- **Vision Zero Action Plan**

Department Plans

- **Pedestrian Safety Action Plan**
- **Smart Mobility Roadmap**

Chapter 380 Strategies

The City's current Chapter 380 Performance-Based Contracts Policy (or the "incentives policy," as it is more commonly known) incentivizes businesses to locate, grow, and hire within Austin. The new vision for the policy includes a focus on reflecting today's economic conditions and addressing current community challenges. The policy includes support for small businesses, incentives for employers seeking to hire socio-economically disadvantaged individuals, and recruiting external businesses that provide community benefits beyond jobs, including transportation.

The strategies in the table here provide employers with information on key strategies to include in a commuter program to encourage fewer drive alone trips in order to participate in the Chapter 380 Performance-Based Contracts Policy program.

Chapter 380 TDM Strategies

Strategy	Description
Transportation Information for New Employees	Develop new employee transportation information, which includes but is not limited to transportation options tailored to the specific office location in all employee handbooks and presented as part of new employee orientation, one-on-one commute route planning assistance for new employees, and information provided on company website, in the break rooms, and in internal newsletters.
Transportation Information—Continued Education	Provide continued education on transportation information with employees. This includes, but is not limited to, installing real-time transportation screens in building lobbies, providing information online and in company newsletters, providing one-on-one commute route planning assistance, participating in events like Bike to Work Day, hosting public transit outings, and gamifying sustainable commuting.
Membership in Local Transportation Management Association	Join a local transportation management association. Employers who actively participate in their local transportation management association have opportunities to develop strong commute programs, as well as connect to neighboring businesses to share knowledge and collaborate on strategies.
Transportation Coordinators on Staff	Dedicate a staff member on site to coordinate programming, encourage employees to utilize transportation options, and be a transportation resource.
Parking Cash-Out Programs	Create a parking cash-out program, which provides employees the option of receiving cash to give up their parking space.

Chapter 380 TDM Strategies (continued)

Strategies	Description
Priced Parking	Price employee parking. Discuss with employers that free parking is one of the biggest motivators to drive to work and also hides the true cost of driving and parking. Requiring employees to pay for parking, coupled with education and incentives to try other modes may make a big positive impact in how employees commute.
Employer-Based Transit Benefits Program	Create a transit benefit programs (either pre-tax or partial to full subsidies) that will encourage employees to use public transportation.
Active Transportation Support	Support employees who walk and bike to work by providing subsidies on walking shoes or bicycling equipment. Provide education programs on how to bicycle and utilize shared mobility options.
Employer-Based Ride-share Programs	Implement ridesharing programs for employees who do not live close to work or near transit options, but can carpool or vanpool. Employers can follow the example of the City of Austin by providing incentives, assistance, and preferential parking for rideshare.
Employer-Based Telework Program	Create a telework program that allows employees to work from home, at a different office, or at a co-working space.
Flexible and compressed work schedules program	Allow for flexible and compressed work schedules (e.g. working four 10-hour days and having one day off) to encourage travel outside of the peak congested periods and/or to reduce car trips.
Working While Commuting	Allow employees to start their work day when they start their commute, e.g. if employees can use Wi-Fi on a bus, train, or vanpool to begin working during their commute.
Incentives/ Gamification	Provide monetary or non-monetary (e.g. prizes, vacation time) incentives or organize a competition for sustainable commuting.
Emergency Ride Home Programs	Provide employees with information on the regional Emergency Ride Home programs, and also consider developing an internal emergency ride home program.
On-Site Amenities	Provide on-site amenities that allow employees to juggle priorities, as well as run mid-day errands, without needing to bring a vehicle to work. These amenities and services may include on-site daycare, food options, dry cleaning, gym, showers and lockers, bike mechanic, etc.
Employer-Based Shuttle	Offer an employee shuttle if office is not located in a transit-rich environment. The shuttle could be for the entire employee commute, or as a last-mile connection to a popular transit line or mobility hub.