



Mobility Outcome

Proposed Strategies and Metrics for Council Feedback

February 14, 2018



Definitions & What's Left To Do

SD23 includes the following components. Two items remain to complete the Mobility Outcome chapter.

- ✓ **1 Vision** – an aspirational community vision for Austin (Imagine Austin [vision](#))
- ✓ **6 Strategic Outcomes** – results we seek the Austin community to experience.



- ✓ **6 Anchors** - values that intersect all of our Outcomes:
 - *Equity*
 - *Affordability*
 - *Innovation*
 - *Resilience and Sustainability*
 - *Proactive Prevention*
 - *Community Trust and Relationships*

Each Outcome includes a series of:

- ✓ **Challenge Statements** – evidenced-based diagnoses of critical issues facing the Austin community.
 - Full challenge briefs on austintexas.gov/StrategicPlan
- ✓ **Indicators** – Council’s high-level “categories” for improvement in each Outcome.
- ❑ **Metrics** – each indicator has a series measurable metrics to track and report progress for that Indicator.
- ❑ **Strategies** – actions the City will take to address identified challenges and “move the needle” on that Outcome.



MOBILITY OUTCOME (adopted)

NOTE: Council adopted content on this page on March 8, 2018.

STRATEGIC OUTCOME:

Getting us where we want to go, when we want to get there, safely and cost-effectively.

CHALLENGES WE FACE:

1. How might we lower the risk of travel-related injury and protect and promote public health?
2. How might we supply a multimodal transportation network (for driving, walking, biking and taking transit) that can meet the demands of a growing region while providing equitable access to transportation choices, opportunities, and services?
3. How might we prepare for and lead in leveraging rapidly evolving technology in transportation?
4. How might we ensure a financially and environmentally sustainable transportation network?
5. How might we effectively collaborate with agencies, organizations and the Austin community around mobility decision-making?

COUNCIL INDICATOR CATEGORIES:

- A. System efficiency and congestion
- B. Transportation cost
- C. Accessibility to and equity of multi-modal transportation choices
- D. Safety
- E. Condition of transportation-related infrastructure

LEAD STAFF:

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DRAFT FOR FEEDBACK

The remainder of the Mobility Outcome Chapter includes strategies and metrics. The following is a working draft for your review and feedback.

- Section 1: Proposed Strategies and Metrics, pgs 4-10
- Appendix:
 - A: Strategies Roll-up, p. 11
 - B: Proposed Metrics (Detailed), p. 12-19

Content is organized around Council's 5 Indicators:

- A. System efficiency and congestion
- B. Transportation cost
- C. Accessibility to and equity of multi-modal transportation choices
- D. Safety
- E. Condition of transportation-related infrastructure



Section 1: PROPOSED STRATEGIES AND METRICS



Council Indicator A: System efficiency and congestion

Note: Transportation network includes multiple systems for roadways, public transportation, aviation, sidewalks, bikes, and urban trails.

METRICS:

- A1: Percent split of modes based on commute to work (mode share*)
- A2: Travel time reliability (vehicle and transit)
- A3: Percent of peak hour single-occupancy vehicle trips avoided by City of Austin employees
- A4: Number and percentage of development applications** with a transportation analysis with 30 percent or more trip reduction
- A5: Percent reduction in estimated vehicular and transit travel time in corridors evaluated
- A6: Number and percentage of City-owned zero emission vehicles
- A7: Number of airplane passenger seats in Austin market compared to San Antonio market
- A8: Number of ABIA destinations

**Mode share measures the percentage of workers 16 and older who commute either by bicycle, private vehicle (car, truck, van, taxi, motorcycle), public transportation (bus, rail), or by foot.*

***Development applications include the zoning and rezoning applications, permits, and associated review that are required for new construction on vacant land and redevelopment of land with existing structures.*

1	<p>Coordinate with Capital Metro, Central Texas Regional Mobility Authority, Texas Department of Transportation, Capital Area Metropolitan Planning Organization, school districts, and other agencies to maximize the person-carrying capacity of roadways.</p> <ul style="list-style-type: none">→ Example (illustrative): MoPac managed lanes, dedicated transit pathways→ Austin Strategic Mobility Plan Chapter, Subchapter: Supplying Our Transportation Infrastructure, Roadway System, Public Transportation System→ Strategic Direction 2023 Connections: A1, A2, A5, CS#2, CS#5
2	<p>Improve Austin's roadway grid pattern and fill multimodal gaps based on highest need and greatest impact.</p> <ul style="list-style-type: none">→ Example (illustrative): New multimodal roadways, address gaps based on Sidewalk, Bicycle and Urban Trails plans



	<ul style="list-style-type: none">→ Austin Strategic Mobility Plan Chapter, Subchapter: Supplying Our Transportation Infrastructure, Roadway System, Sidewalk System, Bicycle System, Urban Trail System→ Strategic Direction 2023 Connections: A1, A2, A4, A5, C1, CS#2, Indicator E
3	<p>Encourage use of sustainable modes of transportation and discourage driving alone and single-purpose trips citywide to maximize the use of our transportation network. Lead by example as an employer in incentivizing, offering, promoting, and implementing mobility options for all City employees.</p> <ul style="list-style-type: none">→ Example (illustrative): Commute Connections program, City employee shuttle→ Austin Strategic Mobility Plan Chapter, Subchapter: Managing Our Demand, Transportation Demand Management* Programming→ Strategic Direction 2023 Connections: A1, A3, CS#2 <p><i>*Transportation Demand Management is a program of information, encouragement and incentives provided by local or regional organizations to help people know about and use all of their transportation options to optimize all modes in the network.</i></p>
4	<p>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. Increase options for travelers and employees to get to and from the airport, including by frequent and high-capacity transit.</p> <ul style="list-style-type: none">→ Example (illustrative): Terminal expansion, High-capacity transit line to the airport→ Austin Strategic Mobility Plan Chapter, Subchapter: Supplying Our Transportation Infrastructure, Aviation→ Strategic Direction 2023 Connections: A1, A3, A7, A8, C2, CS#2
5	<p>Reduce harmful emissions generated by the region's transportation sector and the City's fleet through the earliest possible conversion to zero emission electric vehicles and effective mitigation technologies.</p> <ul style="list-style-type: none">→ Example (illustrative): Measure and promote the use of electric vehicles→ Austin Strategic Mobility Plan Chapter, Subchapter: Protecting Our Health and Environment, Air and Climate→ Strategic Direction 2023 Connections: A3, A6, D4, HE.D.1, HE.D.2, HE.E.1, HE.E.3 CS#4



Council Indicator B: Cost of Transportation

Note: “Cost” is defined to include financial impact to the City and individuals.

METRICS:

B1: Percentage of household cost attributed to transportation

B2: Percent satisfaction with cost of transportation to get around Austin

B3: Percent of households owning a car (or % of zero car households)

B4: Cost per mile of City-owned fleet

***For Reference - EOA.C.2: Percentage of households that are considered cost-burdened based on calculation of housing and transportation costs relative to income (utilities, child care, property tax and health care costs to be added as data becomes available) [Adopted in the strategic plan under Economic Opportunity & Affordability]*

6	<p>Identify and implement sustainable funding models to supply, operate, and maintain transportation assets and programs that meet the community’s mobility needs.</p> <ul style="list-style-type: none">→ Example (illustrative): Transportation User Fee (O&M), public-private partnership opportunities, tolls→ Austin Strategic Mobility Plan Chapter, Subchapter: Implementing Our Plan, Financial Sustainability→ Strategic Direction 2023 Connections: B4, CS#4
7	<p>Align transportation investments with the City’s established goals for all transportation modes and based on community priorities expressed in the <i>Austin Strategic Mobility Plan</i>.</p> <ul style="list-style-type: none">→ Example (illustrative): Bond development→ Austin Strategic Mobility Plan Chapter, Subchapter: Implementing Our Plan, Financial Sustainability→ Strategic Direction 2023 Connections: A1, CS#2, CS#4
8	<p>Work early and collaboratively with our community to assess impacts, maximize opportunities, and address potential repercussions to housing and commercial affordability caused by transportation projects.</p> <ul style="list-style-type: none">→ Example (illustrative): Land banking along mobility corridors, other affordable housing preservation tools→ Austin Strategic Mobility Plan Chapter, Subchapter: Supporting Our Community, Affordability→ Strategic Direction 2023 Connections: B1, B3, C1, EOA.C.2, CS#4



Council Indicator C:

Accessibility to and equity of multi-modal transportation choices

Note: City Council further prioritized this as a “top 10” Council Indicator during the FY18-19 budget process.

METRICS:

C1: Percent of population (housing units) and employment (commercial square footage) within a half-mile of a high-frequency transit stop and/or within a half-mile of the All Ages and Abilities Bicycle Network*

C2: Percent satisfaction with transportation options (aside from personal vehicle) to get around Austin (e.g. ride share, bus/train, bike, walk)

C3: Number of projects and emerging mobility pilot projects initiated and completed in Innovation Zones**

C4: Percentage of existing sidewalks that are functional (e.g. accessible and useable)

C5: Percent of transportation planning processes that are representative of community demographics

9	<p>Provide equitable access to multimodal transportation choices to link people to opportunities, such as education, health care, healthy food, open space, and jobs, especially in historically underserved and underrepresented communities.</p> <ul style="list-style-type: none">→ Example (illustrative): 2016 Corridor Mobility Program, Capital Metro pilot with RideAustin (Innovation Zone** project)→ Austin Strategic Mobility Plan Chapter, Subchapter: Supplying Our Transportation Network, various→ Strategic Direction 2023 Connections: C1, C2, C3, C4, C5, E6, HE.C.5, CS#2, CS#5
10	<p>Test emerging mobility technologies and ideas with stakeholders to better understand their community impacts and benefits.</p> <ul style="list-style-type: none">→ Example (illustrative): Dockless scooter regulations, mobile apps (mobility navigator, behavior change)→ Austin Strategic Mobility Plan Chapter, Subchapter: Managing Our Demand, Smart Mobility→ Strategic Direction 2023 Connections: C2, C3, CS#3, CS#5

**All Ages and Abilities Bicycle Network elements include protected bicycle lanes (a physical barrier between motor vehicle traffic and separation from pedestrian traffic), urban trails (hard-surface trails designed for walking, bicycling and other forms of transportation for both transportation and recreational use), and quiet streets (local neighborhood streets with traffic calming and wayfinding improvements).*

***Innovation Zones are areas where new mobility options would be provided to connect people to destinations and to public transportation. These are areas where traditional public transportation services are not provided because the land use and road network make it very difficult to provide cost-effective service.*



Council Indicator D: Safety

METRICS:

- D1: Number of people and number per capita who are killed or sustain serious injuries in traffic crashes
D2: Number and percentage of crashes resulting in fatalities or serious injuries caused by the top contributing behaviors (speeding, distracted driving, impaired driving, failure to yield)
D3: Percentage of fatalities and serious injuries reduced as a result of street design/infrastructure projects on the High Injury Network*
D4: Number and percentage of City-owned vehicles using telematics** for safety and risk reports (e.g. “driver scorecard”) and number of crashes involving City vehicles

11	<p>Promote a communitywide culture of safe driving through education and enforcement focused on behaviors most contributing to injuries and fatalities (e.g. speeding, impaired driving, distracted driving, failure to yield, etc.) as defined by our community’s Vision Zero*** initiative.</p> <ul style="list-style-type: none">→ Example (illustrative): Vision Zero in Action initiative (targeting enforcement of travel behaviors contributing most to injuries and death), “Arrive Alive” campaigns→ Austin Strategic Mobility Plan Chapter, Subchapter: Prioritizing Our Safety, Contributing Factors→ Strategic Direction 2023 Connections: D1, D2, D3, D4, CS#1
12	<p>Ensure our transportation network optimizes community safety, including street safety, emergency response, flood risk, disaster resiliency, and public health.</p> <ul style="list-style-type: none">→ Example (illustrative): Street design and fire response access, Non-Hazardous Materials routing→ Austin Strategic Mobility Plan Chapter, Subchapter: Prioritizing Our Safety, System Design→ Strategic Direction 2023 Connections: D1, D3, E7, E8, CS#1, CS#5

*High Injury Network is made up of streets with a history of injuries and fatal crashes across all transportation modes

**Telematics is a method of monitoring a vehicle using GPS and onboard diagnostics to record movements on a computerized map

***Vision Zero is our community’s goal to reduce fatalities and serious injuries from traffic crashes to zero by 2025



Council Indicator E: Condition of Transportation-related Infrastructure

METRICS:

- E1: Percent satisfaction with the condition of major city streets (e.g. Anderson Ln, Congress Ave., Lamar Blvd., Slaughter Ln., Martin Luther King Jr. Blvd., Riverside Dr.)
- E2: Percent satisfaction with the overall maintenance of City sidewalks
- E3: Percent of the street inventory maintained by preventive maintenance applications
- E4: Percent and linear miles of protected bikeways swept annually
- E5: Number and percentage of high-frequency transit routes with good or better street condition
- E6: Number and percent of customer service requests for vegetation maintenance in the public right-of-way completed within 2 weeks
- E7: Number and percentage of major* bridges in fair or better condition
- E8: Percent and number of lane miles of the street network in satisfactory or better condition

13	<p>Maintain usability and maximize the useful life and resiliency of our multimodal transportation infrastructure through good design and adhering to a proactive maintenance schedule.</p> <ul style="list-style-type: none">→ Example (illustrative): Street preventative maintenance, street sweeping of protected bicycle lanes→ Austin Strategic Mobility Plan Chapter, Subchapter: Supplying Our Transportation Infrastructure, Condition of Infrastructure→ Strategic Direction 2023 Connections: E1, E2, E3, E4, E5, E6, E7, E8, GTW.B.1, GTW.B.7, CS#4
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**Major bridges are 20 feet or longer and are inspected by the Texas Department of Transportation*



Appendix A: Strategies Roll-up

1	Coordinate with Capital Metro, Central Texas Regional Mobility Authority, Texas Department of Transportation, Capital Area Metropolitan Planning Organization, school districts, and other agencies to maximize the person-carrying capacity of roadways.
2	Improve Austin's roadway grid pattern and fill multimodal gaps based on highest need and greatest impact.
3	Reduce unnecessary trips on Austin roads by increasing alternative choices. Lead by example as an employer in incentivizing, offering, promoting, and implementing mobility options for all City employees.
4	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. Increase options for travelers and employees to get to and from the airport, including by frequent and high-capacity transit.
5	Reduce harmful emissions generated by the region's transportation sector and the City's fleet through the earliest possible conversion to zero emission electric vehicles and effective mitigation technologies.
6	Identify and implement sustainable funding models to supply, operate, and maintain transportation assets and programs that meet the community's mobility needs.
7	Align transportation investments with the City's established goals for all transportation modes and based on community priorities expressed in the <i>Austin Strategic Mobility Plan</i> .
8	Work early and collaboratively with our community to assess impacts, maximize opportunities, and address potential repercussions to housing and commercial affordability caused by transportation projects.
9	Provide equitable access to multimodal transportation choices to link people to opportunities, such as education, health care, healthy food, open space, and jobs, especially in historically underserved and underrepresented communities.
10	Test emerging mobility technologies and ideas with stakeholders to better understand their community impacts and benefits.
11	Promote a communitywide culture of safe driving through education and enforcement focused on behaviors most contributing to injuries and fatalities (e.g. speeding, impaired driving, distracted driving, failure to yield, etc.) as defined by our community's Vision Zero initiative.
12	Ensure our transportation network optimizes community safety, including street safety, emergency response, flood risk, disaster resiliency, and public health.
13	Maintain usability and maximize the useful life and resiliency of our multimodal transportation infrastructure through good design and adhering to a proactive maintenance schedule.



Appendix B: DRAFT METRICS (detailed)



How We Measure Progress

A key indicator can serve as a clear, compelling “North Star” to gauge and report whether the community is becoming better off in a particular arena. At the same time, it is helpful to articulate how the City of Austin is directly contributing through its programs, services, policies, and other interventions. It is valuable to track both, and here are the unique characteristics of what we are calling ["Community Indicators"](#) and ["City Contribution Metrics."](#)

- **Community Indicators** help the City and community to understand whether we are making progress at achieving the stated outcome. As much as possible, these are people-centric and describe whether Austinites’ quality of life is improving. In most cases, these indicators will measure things beyond the direct control of the city government.
- **City Contributions** measure the contribution that the City government – through its programs and policies – is making toward achieving the stated outcome. These metrics will likely involve data that is collected by the City government and demonstrate the quantity and/or quality of the City’s efforts to positively “move the dial” on one or more of the Community Indicators.



Indicator Category A: System efficiency and congestion						
ID	Type	Metric	Data Source	Currently segmented by	Frequency	Status
A1	Community Indicator	Percent split of modes based on commute to work (mode share*)	American Community Survey	Age, race/ethnicity, gender	Annually (5-year rolling avg)	Existing Metric
A2	City Contribution	Travel time reliability (vehicle and transit)	In-house travel time runs for vehicle, Capital Metro for transit	Peak hour vs weekend vs non-peak	Annually	New Metric with Existing Data Source
A3	City Contribution	Percent of peak hour single-occupancy vehicle trips avoided by City of Austin employees	Austin Transportation	Department	Annually	New Metric with Existing Data Source
A4	City Contribution	Number and percentage of development applications** with a transportation analysis with 30 percent or more trip reduction	Austin Transportation	Geography, development type	Annually	New Metric with Existing Data Source
A5	City Contribution	Percent reduction in estimated vehicular and transit travel time in corridors evaluated	Austin Transportation, Corridor Program Office	Corridor, corridor segments	Annually	New Metric with Existing Data Source
A6	City Contribution	Number and percentage of City-owned zero emission vehicles	Fleet Services Department	City Department, asset class, make, model	Monthly / Annually	New Metric with Existing Data Source
A7	City Contribution	Number of airplane passenger seats in Austin market compared to San Antonio market	Aviation's AUS Schedules Report	region	Monthly	Existing Data Source



		<i>(The industry standard for “seats” is outbound seats available for purchase.)</i>				
A8	City Contribution	Number of ABIA destination <i>(Could be segmented by nonstop to indicate ease of connectivity to destinations.)</i>	Aviation’s AUS Schedules Report	region	Monthly	Existing Data Source

**Mode share measures the percentage of workers 16 and older who commute either by bicycle, private vehicle (car, truck, van, taxi, motorcycle), public transportation (bus, rail), or by foot.*

***Development applications include the zoning and rezoning applications, permits, and associated review that are required for new construction on vacant land and redevelopment of land with existing structures.*



Indicator Category B: Cost of Transportation [financial cost to City + individuals]						
ID	Type	Metric	Data Source	Currently segmented by	Frequency	Status
B1	Community Indicator	Percentage of household cost attributed to transportation	U.S. Census	Race, age, geography, and more	Annually (5-year rolling estimate)	New Metric with Existing Data Source
B2	Community Indicator	Percent satisfaction with cost of transportation to get around Austin	City of Austin Community Survey	race, age geography, and more	Annually	New Metric with Existing Data Source
B3	Community Indicator	Percent of households owning a car (or percent zero car households)	American Community Survey		Annually (5-year rolling estimate)	New Metric with Existing Data Source
B4	City Contribution	Cost per mile of City-owned fleet	Fleet Services Department	Department, asset class, make, model	Monthly / Annually	Existing Metric



Indicator Category C: Accessibility to and equity of multi-modal transportation choices						
ID	Type	Metric	Data Source	Currently segmented by	Frequency	Status
C1	Community Indicator	Percent of population (housing units) and employment (commercial square footage) within a half-mile of a high-frequency transit stop and/or within a half-mile of the All Ages and Abilities Bicycle Network*	City Demographer		Annually	New Data Source Required
C2	Community Indicator	Percent satisfaction with transportation options (aside from personal vehicle) to get around Austin (e.g. ride share, bus/train, bike, walk)	City of Austin Community Survey	race, age geography, and more	Annually	New Metric with Existing Data Source
C3	Community Indicator	Number of projects and emerging pilot projects initiated and completed in Innovation Zones**	Austin Transportation + Capital Metro	Geography		New Data Source Required
C4	City Contribution	Percentage of existing sidewalks that are functional (e.g. accessible and useable)	Public Works Department	Geography	Annually	Existing Metric
C5	City Contribution	Percent of transportation planning processes that are representative of community demographics	ATD, Aviation, Public Works, CPO	Dept, geography	Annually	New Data Source Required

*All Ages and Abilities Bicycle Network elements include protected bicycle lanes (a physical barrier between motor vehicle traffic and separation from pedestrian traffic), urban trails (hard-surface trails designed for walking, bicycling and other forms of transportation for both transportation and recreational use), and quiet streets (local neighborhood streets with traffic calming and wayfinding improvements).

**Innovation Zones are areas where new mobility options would be provided to connect people to destinations and to public transportation. These are areas where traditional public transportation services are not provided because the land use and road network make it very difficult to provide cost-effective service.



Indicator Category D: Safety						
ID	Type	Metric	Data Source	Currently segmented by	Frequency	Status
D1	Community Indicator	Number of people and number per capita who are killed or sustain serious injuries in traffic crashes	Texas Department of Transportation (CRIS) and Austin Police Department	Mode, roadway classification, contributing factors	Quarterly	Existing Metric
D2	City Contribution	Number and percentage of crashes resulting in fatalities or serious injuries caused by the top contributing behaviors (speeding, distracted driving, impaired driving, failure to yield)	Texas Department of Transportation (CRIS) and Austin Police Department	Mode, roadway classification, contributing factors	Quarterly	Existing Metric
D3	City Contribution	Percentage of fatalities and serious injuries reduced as a result of street design/infrastructure projects on the High Injury Network*	Texas Department of Transportation (CRIS) and Austin Police Department	Mode, geography, race/ethnicity, age	Quarterly	New Metric with Existing Data Source
D4	City Contribution	Number and percentage of City-owned vehicles using telematics** for safety and risk reports (e.g. “driver scorecard”) and number of crashes involving City vehicles	Fleet Services Department	Department, asset class, make, model	Monthly / Annually	New Metric

*High Injury Network is made up of streets with a history of injuries and fatal crashes across all transportation modes.

**Telematics is a method of monitoring a vehicle by using GPS and onboard diagnostics to record movements on a computerized map.



Indicator Category E: Condition of transportation-related infrastructure						
ID	Type	Metric	Data Source	Segmented by	Frequency	Status
E1	Community Indicator	Percent satisfaction with the condition of major City streets (e.g. Anderson Ln, Congress Ave., Lamar Blvd., Slaughter Ln., Martin Luther King Jr. Blvd., Riverside Dr.)	City of Austin Community Survey	Race, age geography, and more	Annually	Existing Metric
E2	Community Indicator	Percent satisfaction with the overall maintenance of City sidewalks	City of Austin Community Survey	Race, age geography, and more	Annually	Existing Metric
E3	City Contribution	Percent of the street inventory maintained by preventive maintenance	Public Works Department	Geography, asset age	Annually	Existing Metric
E4	City Contribution	Percent and linear miles of protected bikeways swept annually	Austin Resource Recovery	Geography	Annually	New Metric with Existing Data Source
E5	City Contribution	Number and percentage of high-frequency transit routes with good or better street condition	Public Works Department	Route	Annually	New Metric with Existing Data Source
E6	City Contribution	Number and percent of customer service requests for vegetation maintenance in the public right-of-way completed within 2 weeks	Multiple departments and 3-1-1	Geography	Annually	New Metric with Existing Data Source
E7	City Contribution	Number and percentage of major* bridges in fair or better condition	Public Works Department	Geography, asset age	Every 2 years	Existing Metric
E8	City Contribution	Percent and number of lane miles of the street network in satisfactory or better condition	Public Works Department	Geography, asset age	Every 2 years	Existing Metric

*Major bridges are 20 feet or longer and are inspected by the Texas Department of Transportation.