

TMP City of Boulder Transportation Master Plan Update

What is the Transportation Master Plan?



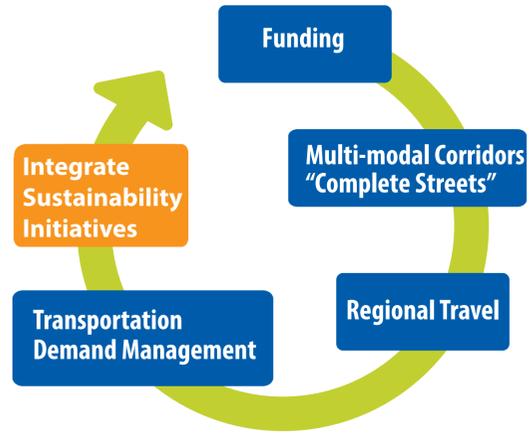
TMP Vision

"Create and maintain a safe and efficient transportation system meeting the sustainability goals of the community to accommodate increased person trips by providing travel choices and reducing the share of single occupant auto trips."

City master plans implement overall community goals from the Boulder Valley Comprehensive Plan. Boulder is a "mature" community with limited ability to expand its roadways and a strong commitment to environmental and community quality. The community has recognized since the first TMP was adopted in 1989 that continued growth in vehicle traffic threatened those values, thus the TMP has had consistent policy direction to limit the growth of vehicle traffic and accommodate increased person travel in the other modes.

Focus Areas for the 2014 TMP Update

Areas identified as needing attention and additional work



What were major changes in the 2014 TMP?

Climate Commitment

The Climate Commitment establishes an updated community Green House Gas (GHG) protocol and a new baseline and inventory. Transportation activities are the second largest source of community GHG emissions. Complete streets, enhancing the integration of land use and transportation planning, increasing neighborhood accessibility so that more daily activity trips can occur locally, and cleaning the vehicle fleet will be critical to achieving Climate Commitment goals.



Integrated the Sustainability Framework

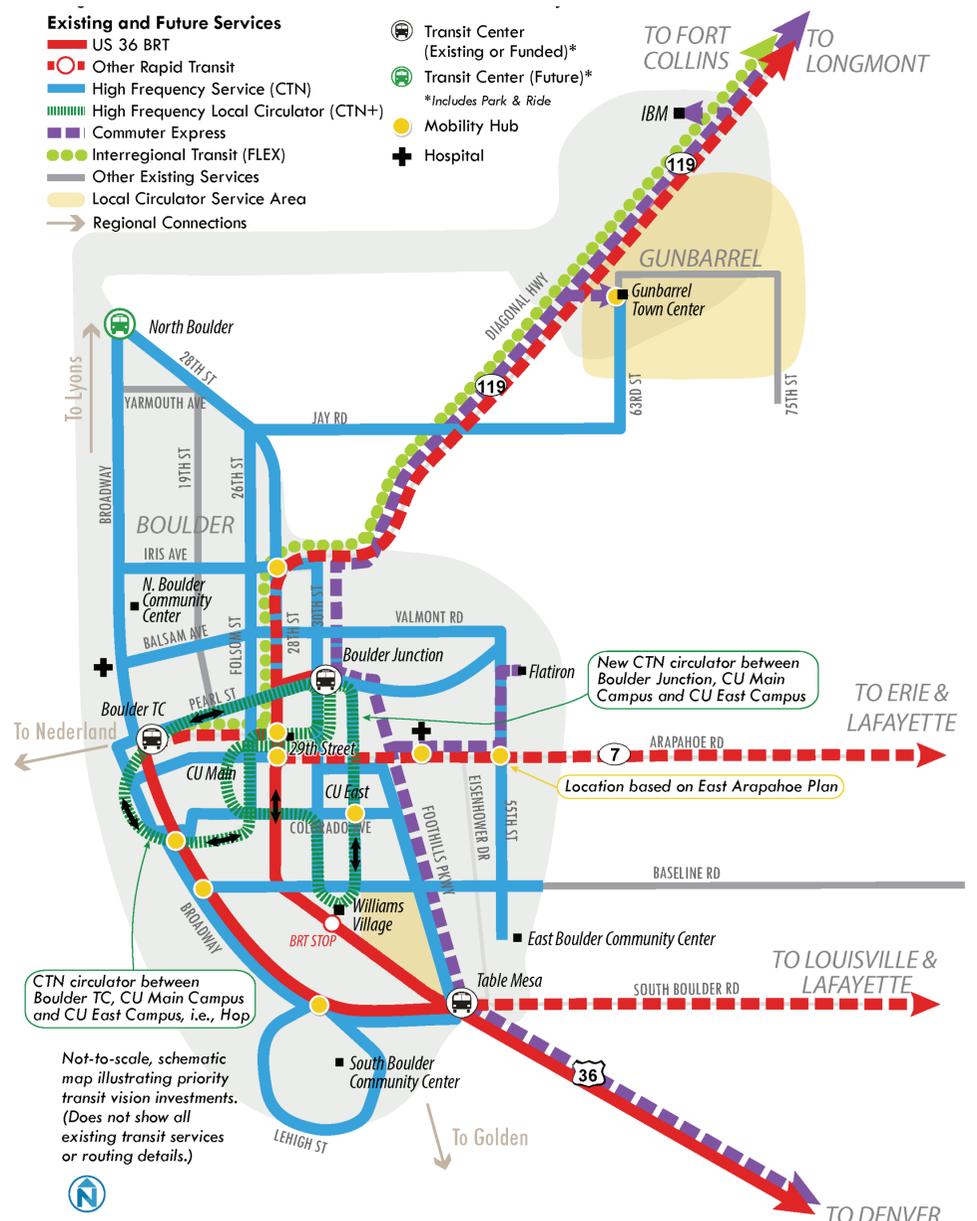
The City's Sustainability Framework provides a lens through which the TMP Update and other work efforts are developed. Economic vitality, environmental quality and social health continue to be core sustainability principles.



Measurable Objectives

- 01 Reduce vehicle miles of travel (VMT) in the Boulder Valley by 20 percent by 2035
- 02 Reduce single occupant vehicle travel to 20 percent of all trips for residents and to 60 percent of work trips for non-residents
- 03 Achieve a 16 percent reduction in GhG emissions and continued reduction in mobile source emission of other air pollutants
- 04 No more than 20 percent of roadways congested at Level of Service (LOS) F
- 05 Expand fiscally-viable transportation options for all Boulder residents and employees, including older adults and people with disabilities
- 06 Increase transportation alternatives commensurate with the rate of employee growth
- 07 "Toward Vision Zero" fatal and serious injury crashes: continuous improvement in safety for all modes of travel
- 08 Increase the share of residents living in complete neighborhoods to 80 percent
- 09 Reduce daily resident VMT to 7.3 miles per capita and non-resident one-way commute VMT to 11.4 miles per capita

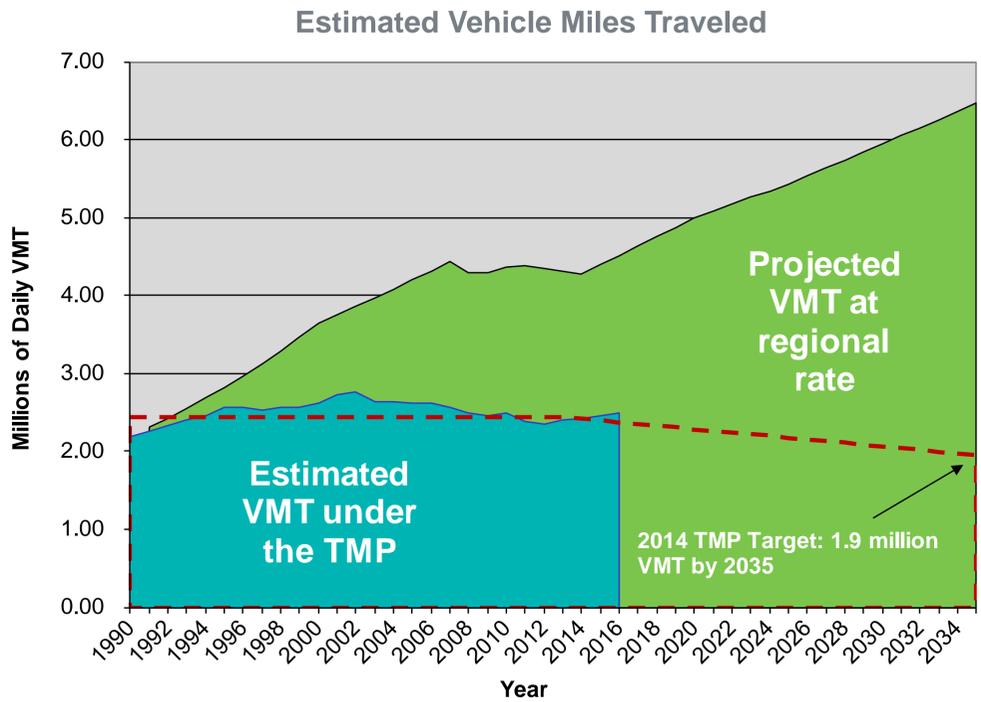
Renewed Vision for Transit



Why a Transportation Master Plan Update?

Boulder travels differently, but we are not on course to meet TMP Objectives including a target to reduce Single Occupant Vehicle (SOV) travel to 20% of all trips.

- The City is focused on long term sustainability and climate commitment goals. These are more challenging and will require additional efforts in transportation.
- Access to community, services and employment are a fundamental need and are influenced by available transportation options and land use patterns.
- Funding is being reduced at state and federal levels. How will the community will need to fund its transportation vision?
- The current funding model is eroding our system and diminishing progress; We are losing buying power for all modes of transportation.



Source: City of Boulder VMT estimates and DRCOG 2014 Annual Report on Roadway Traffic Congestion in the Denver Region.

TMP Objectives Report Card - 2018 Transportation Report on Progress

Objectives	Baseline	Progress	Trend
Reduce VMT in the Boulder Valley by 20% by 2035	1994 level of 2.44 million daily VMT for the Boulder Valley; target now 1.9 million daily VMT	VMT was last estimated at 2.49 million in 2016	1994 2016
Reduce SOV travel to 20% of all trips for residents and to 60% of work trips for nonresidents	1990: 44 percent SOV mode share for residents	Resident SOV mode share was 36% in 2015	1990 2015
	1991: 81 percent non resident SOV commute mode share	Non resident SOV mode share was 78% in 2017	1991 2017
Achieve a 16 percent reduction in GHG emissions and continued reduction in mobile source emissions of other air pollutants	423,892 million metric tons of transportation related GHG in 2012	448,994 million metric tons of transportation related GHG in 2016	2013 2015
No more than 20% of roadways congested at level of service F	20 percent of signalized intersections at LOS E or F in 1998	11 percent of signalized intersections at LOS E or F in 2017	1998 2017
Expand fiscally viable transportation options for all Boulder residents and employees including older adults and people with disabilities	2002: \$160,000 city support to VIA	2017: \$311,000 city support to VIA	VIA 2017
	2002: 3,822 est. residents eligible for Neighborhood EcoPass	2017: 11,298 est. residents eligible for Neighborhood EcoPass	EcoPass 2017
Increase transportation alternatives commensurate with the rate of employee growth	2002		
	1. Boulder Employees..... 18% Increase	
	2. Transit Service Hours..... 10% Decrease	2002 2016
	3. Bike System Miles..... 30% Increase	
Vision Zero for fatal and serious injury crashes: continuous	53 serious injury and fatal crashes in 2009	66 serious injury and fatal crashes in 2016	2009 2016
Increase the share of residents living in complete, walkable neighborhoods to 80 percent	26 percent of residents lived in a walkable neighborhood in 2014	29 percent of residents lived in a walkable neighborhood in 2017	2014 2017
Reduce daily resident VMT to 7.3 miles per capita and nonresident one-way commute VMT to 11.4 miles per capita	11.2 miles per day for Boulder Residents in 2012	12.8 miles per day for Boulder Residents in 2015	
	14.3 miles for a nonresident one-way commute in 2014	Estimated 15 miles for a nonresident one-way commute in 2017	2012 2015



Community Engagement - Get Involved!

Over the decades, our transportation system has seen a lot of changes. By participating in the Transportation Master Plan Update, your voice will help shape the future of transportation in Boulder.

What's your vision for the future of transportation in Boulder?

BE HEARD

Boulder

Stay Connected!

Visit www.beheardboulder.org to interact with staff as we move forward and provide us valuable community feedback throughout the 18 month process.

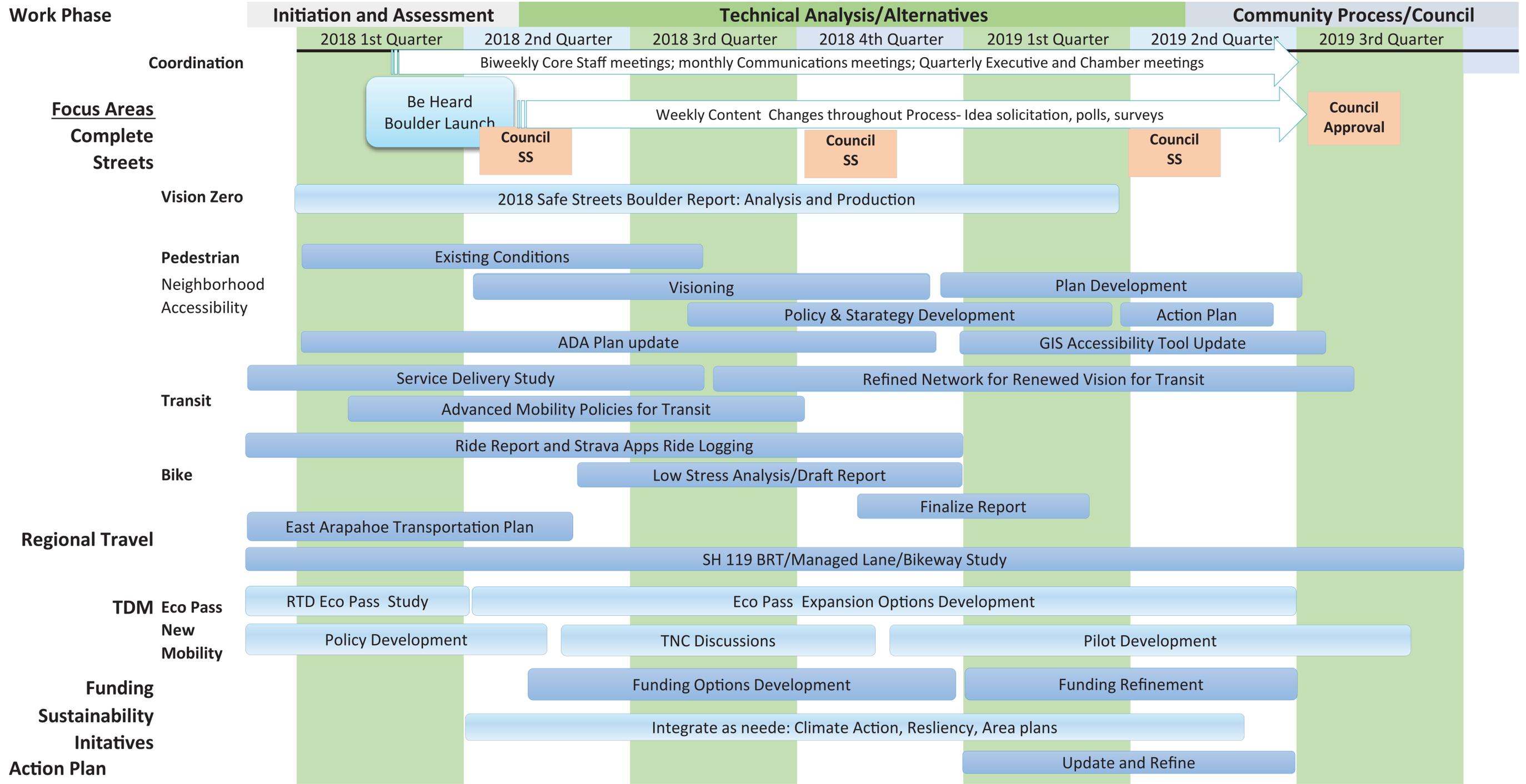
Visit the Transportation Master Plan website at bouldertmp.net for background on the project as well as updates on the plan and important meetings.

Remember to sign up for our e-newsletter





TMP Update Timeline





Speaker Biographies

Jeffrey Tumlin



Jeffrey Tumlin is principal and director of strategy at Nelson\Nygaard Consulting Associates, a sustainable transportation planning firm based in the San Francisco Bay Area. For more than twenty years, Jeff has led award-winning plans in cities from Seattle and Vancouver to Moscow and Abu Dhabi. During 2016-17, Jeff was the interim director of Oakland's first Department of Transportation, helping the city create the new department and develop its first budget, including allocating a \$350 million infrastructure bond that voters approved by 82% in November 2016. A dynamic and frequent guest speaker, Jeff is the author of *Sustainable Transportation: Tools for Creating Healthy, Vibrant and Resilient Communities* (Wiley, 2012).

Francie Stefan



Francie Stefan is the Mobility Manager for the City of Santa Monica. She is responsible for the City's integrated mobility strategy on street design, shared mobility, operations and transportation demand management. She leads the citywide Strategic Goal to Create a New Model of Mobility, and previously led major mobility policy changes through the City's Circulation Element, Bike Action Plan, Pedestrian Action Plan and Vision Zero target, as well as a transit-oriented Downtown Community Plan and Bergamot Area Plan. Previously she worked at the City of West Hollywood where she initiated their Green Building Program and General Plan update. She has a Master's degree in Urban Planning from UCLA, and a B.S. in Geography from the University of Minnesota, Twin Cities.



Speaker Biographies

Kevin J. Krizek



Kevin J. Krizek, Professor of Environmental Design and Environmental Studies at the University of Colorado Boulder, analyzes city design and transport solutions in cities world-wide, focusing on accessibility and bicycling. He serves as Director of the Program in Environmental Design at CU Boulder and was a 2013-14 fellow of the Leopold Leadership Program. Krizek has been awarded research/teaching appointments at the University of Bologna, Radboud University Nijmegen and EAFIT University (Medellin); these posts have included a 2014 a U.S.-Italy Fulbright Scholarship, being appointed as the visiting professor of “Cycling in Changing Urban Regions” (2014-2017) in the Nijmegen School of Management and serving as a Fulbright Specialist

for research in spatial economics via the RISE group in Colombia in 2017. He chaired the scientific colloquium for Velo-city 2017 and served for a decade on the bicycle transportation committee of the Transportation Research Board of the National Academies.

Krizek was previously Director of the PhD Program in Design and Planning in the College of Architecture and Planning ('07-'12), founding co-editor of the Journal of Transport and Land Use, and chair of the inaugural World Symposium on Transport and Land Use Research (2011). From 2006-2012, he chaired the Transportation Research Board Committee on Telecommunications and Travel (a division of the National Research Council). He was an Associate Professor with tenure at the Humphrey Institute of Public Affairs at the University of Minnesota prior to moving to Colorado.

Jeremy Klop



Jeremy Klop, AICP, is the Director of Strategy at Fehr & Peers. After spending more than 10 years working directly with communities to improve transportation outcomes along the Front Range, he moved west to Los Angeles in 2012, where he leads one of the firm's largest offices. He has worked on multiple rounds of transportation master plans in Denver, Fort Collins, and Boulder and has seen both implementation successes and some failures along the way. In LA, he led the citywide Mobility Plan 2035 and is now working to implement the Transportation Technology Strategy outlined in their Urban Mobility in a Digital Age. On a regional level, he is working with more than a dozen LA County transit providers to understand declining ridership patterns and develop a growth oriented action plan. His work often requires innovative approaches to address the rapidly changing transportation technology environment through development of interactive data analysis tools, data sharing policies, new performance metrics and new partnerships to deliver transportation services and desired community change. Jeremy also serves as an instructor for the National APA Emerging Professionals Institute, frequently lectures and trains practitioners through UC Berkeley Tech Transfer in Complete Streets, and co-authored the Pedestrian & Bicycle chapter of the ITE Transportation Planning Handbook. Jeremy received his BS in Biology from Calvin College and his Masters in City & Regional Planning from UNC-Chapel Hill

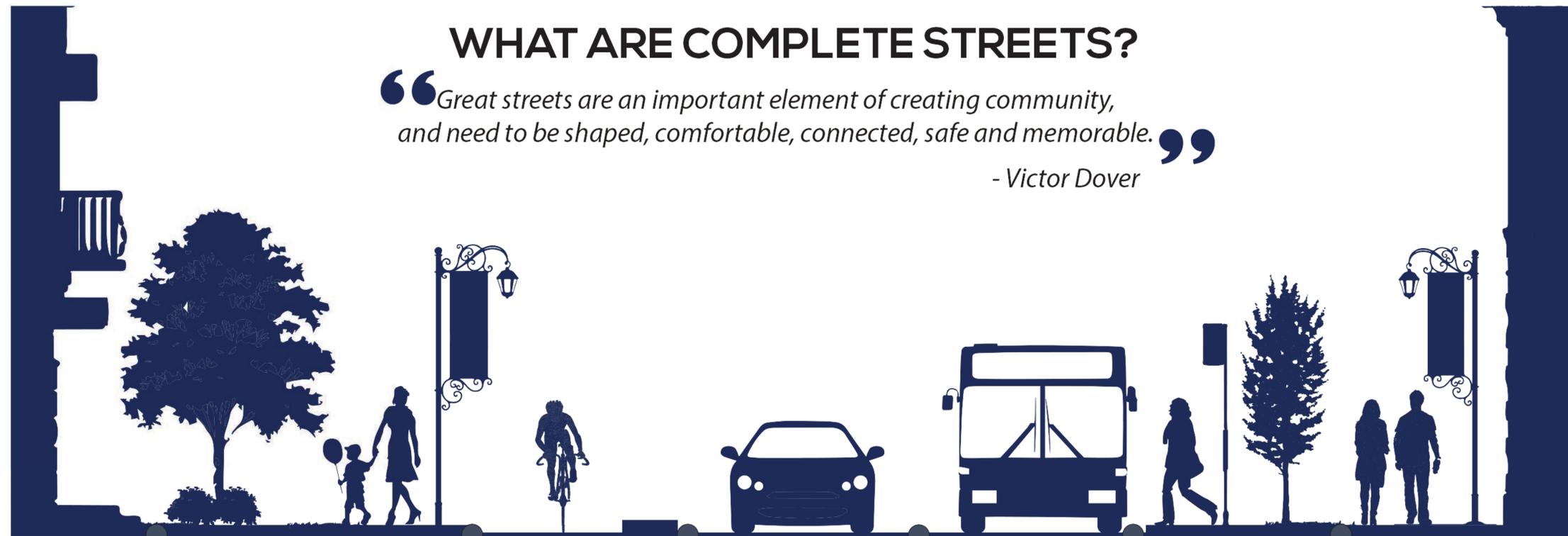


Complete Streets - What Does the Current TMP Say?

The 2014 TMP calls for focusing on roadway enhancement and street corridor projects that prioritize, design, and construct Complete Streets. Complete Streets accommodate all modes of transportation by planning, designing, and building facilities for pedestrians, bicyclists, transit riders and vehicle drivers.

WHAT ARE COMPLETE STREETS?

“Great streets are an important element of creating community, and need to be shaped, comfortable, connected, safe and memorable.”
- Victor Dover



Gathering Spaces

Parks, plazas and courtyards create destinations along the street. These become opportunities for organized events, space to celebrate nature and culture.

Bicycle Accommodations

Bicycle facilities offer separation from vehicular traffic for cyclist. These can include multi-use paths, on-street buffered and protected bike lanes. A complete street will accommodate a wide range of ages and abilities.

Efficiency

Roadway design and operations should allow people to predict traffic flow and understand how to safely and efficiently move by bus or motor vehicle.

Crossing Visibility

Clearly marked crossings create a safe and comfortable environment for people crossing the street by foot, bike and wheelchair.

Transit

A complete street considers every passenger's trip from start to finish. Transit stops should provide shelter, seating, wayfinding and transit information.

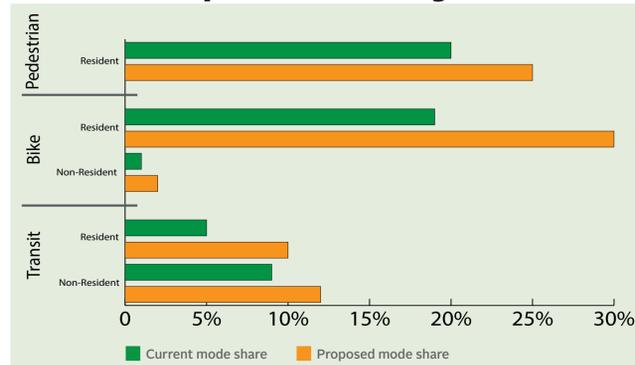
Walking

A complete street should provide a high quality environment where people feel safe walking and have natural features and great destinations that make people walk.

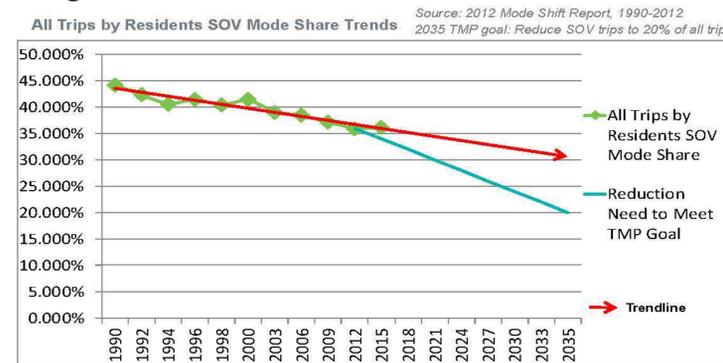


Complete Streets - What's Our Progress?

Boulder's Proposed Mode Targets



Progress Toward SOV Mode Share Goal



What This Means: Today, each resident drives alone an average of about 12 trips per week. If each resident shifted slightly more than six of those trips per week to other modes, this objective would be reached.

What have we done to achieve our goals? The concept of Complete Streets means planning, designing, building, operating and maintaining a transportation system for all users, including pedestrians, bicyclists, transit riders and vehicle drivers. It means putting people first, making safety a top priority. The concept also recognizes that streets are an important element of creating community and need to be comfortable, connected, safe and memorable.

While traditional traffic engineering was highly focused on moving the greatest number of vehicles as fast and efficiently as possible, Boulder recognizes that mobility is about providing safe and comfortable opportunities for people who travel by all modes.

Corridor Studies

City Corridor studies comprehensively consider improvements for all modes of travel in a given corridor



- *East Arapahoe Transportation Plan* - A long-range vision for proposed multimodal transportation improvements along Arapahoe between Folsom and 75th Street.
- *30th and Colorado* - Examining current and future travel needs along 30th Street from Baseline Road to Pearl Parkway, and on Colorado Avenue from Foothills Parkway through the University of Colorado (CU) main campus at Broadway and Euclid.
- *Canyon Boulevard* - Focusing on improving travel and the travel experience along and across Canyon from 9th to 17th streets.

Transit

- *Flatiron Flyer* - New, faster BRT service along US 36 to downtown Denver
- *Flex* - Service connecting Fort Collins, Loveland, Berthoud, and Longmont to Boulder
- *Real-time Info* - Local transit routes now feature real-time information on smartphone Apps such as *Transit*
- *New HOP Routes* - Four independent routes will begin in late 2018 to better connect destinations served by the HOP for the past 21 years



Active Transportation

Active Transportation is any human-powered mode of transportation, such as walking and bicycling.



The City of Boulder is conducting a planning study that evaluates the level of traffic stress within the city's existing walk and bike network. This study will identify barriers and opportunities for system enhancements. This approach will be used to identify existing low-stress routes and provide recommendations for improved facilities for a more complete low-stress multimodal network.

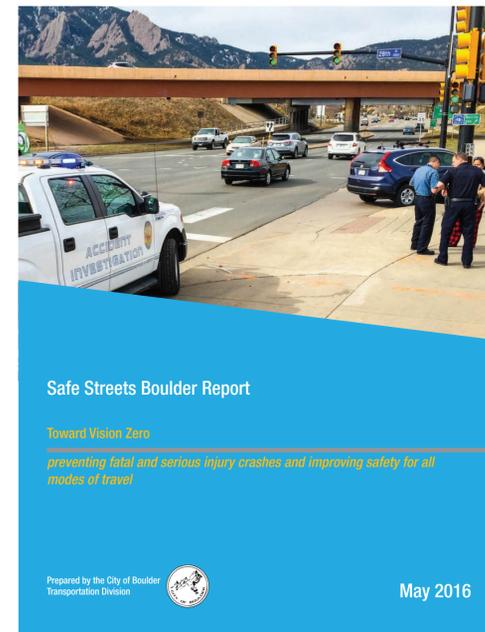


Complete Streets - Where Are We Going? -

Vision Zero & Safe Streets Report



The 2014 Transportation Master Plan established a new safety objective: **Vision Zero – to eliminate serious injuries and fatalities resulting from traffic collisions.** At its core, this goal is inspired by the belief that traffic collisions are preventable, and even one fatality is too many.



The Safe Streets Boulder Report provides an overview of the city's efforts to continuously improve safety for people using all modes of travel. The report is an important tool to track collision trends by type and location, and identify mitigation strategies to reduce the number of collisions and eliminate collisions resulting in serious injury or fatality. The city is updating the Safe Streets Report in 2018 to include findings and recommendations to enhance Vision Zero policies and actions as part of the TMP update.

2016 Key Findings

BICYCLISTS & PEDESTRIANS

are overrepresented in collisions that result in serious injuries or fatalities, **ONLY 8%** of all traffic collisions in the City of Boulder involve bicyclists or pedestrians.

They account for approximately **60%** of serious injuries and fatalities

IMPAIRED PERSONS are overrepresented, especially those involving bicyclists and pedestrians resulting in serious injuries or fatalities

Approximately **3%** of total collisions involve an impaired person

12% of serious injuries and **38%** of fatalities involve an impaired person



Evaluation



Engineering



The 4 E's

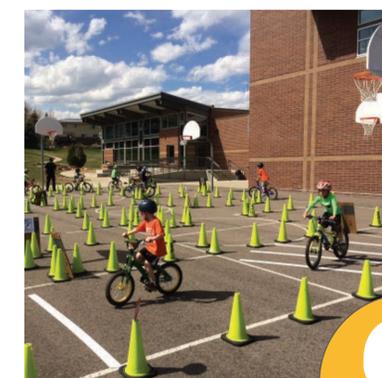
Work continues in all of the E's: Engineering, Education, Enforcement, and Evaluation to achieve these goals per the action items identified in the 2016 Safe StreetS Boulder Report



Enforcement



Education





Complete Streets - Where Are We Going? - Walk and Bike



Active Transportation Network Plan 

What Is Active Transportation? Active transportation is any human-powered mode of transportation, such as walking and bicycling.

The Plan. The City of Boulder is evaluating the level of traffic stress within the city's existing walk and bike network. This study will identify barriers and opportunities for system enhancements. This approach will be used to identify existing low-stress routes and provide recommendations for improved facilities for a more complete low-stress multimodal network.

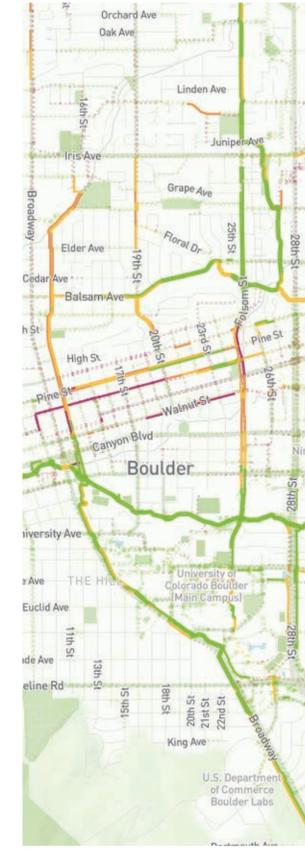
Data Collection Methods

Bike Network Analysis



As part of the **People for Bikes' City Snapshot** program, the City of Boulder uses a fine-tuned network connectivity tool called **Open Street Maps** that considers current roadway conditions (for example, speed limits, traffic volume, presence and type of bicycle facilities and likely origins and destinations). This static mapping exercise reveals the level of traffic stress for Boulder's cycling network. The resulting level of traffic stress map will be tested using several qualitative inputs to ensure accuracy and to determine if any patterns emerge. The final result will be a complete low-stress multimodal network

Ride Report and Strava



Ride Report is a mobile app that collects ridership data. Users report their experience directly by rating their ride and providing data on the comfort of their trip. This data is used to create a Boulder Comfort Map based on people's experiences. **Strava Metro** is yet another software tool used to record travel times, walking and cycling routes, elevation gain and calories burned for both recreational and commuter trips. This data also helps staff better understand preferred routes, origins and destinations and wait times for bicyclists at intersections.

Community Engagement



Community engagement throughout this process is critical to the success of the study and planned improvements. During April and May of 2018, staff will meet with neighborhoods to understand where people walk and bike today and what barriers need to be overcome in order to extend their trips.

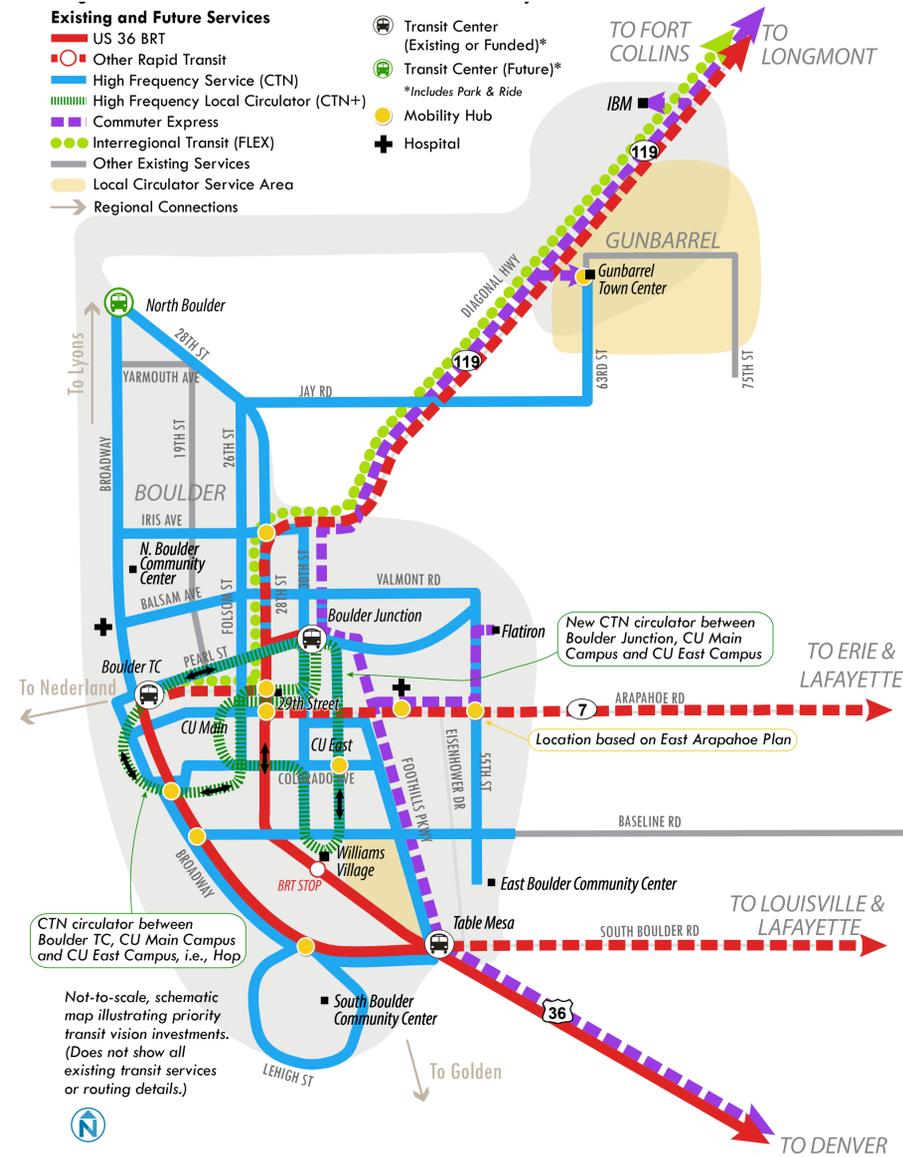


Complete Streets - Where Are we Going? Transit

Renewed Vision for Transit

The Renewed Vision for Transit supports high priority BRT corridors and expansion of the Community Transit Network (CTN)

Schematic of Priority Transit Corridors



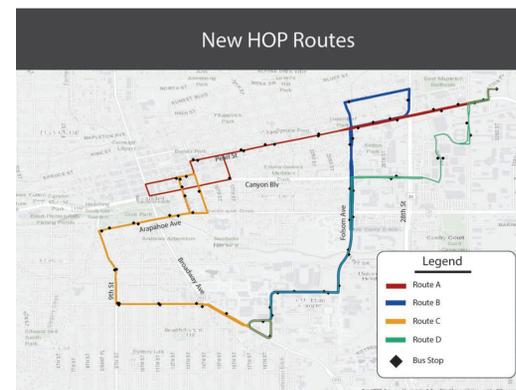
Note: This map does not directly illustrate all services or routing details currently in place. A map of the existing transit system can be found on the City of Boulder [website](#).

What are new solutions? The City of Boulder's Transportation Master Plan update will include recommendations to continue moving toward the goals of expanding and enhancing transit service to, from, and within the City of Boulder.

Incorporating Boulder's Transit Service Delivery Study, updating the 2014 Renewed Vision for Transit, and planning for advanced mobility in Boulder will facilitate the provision of quality transit service in Boulder for years to come.

Network Planning Updates

The 2014 Transportation Master Plan identified corridors for new and enhanced transit service. The TMP update will revise and add to these recommendations in light of changes to Boulder's transit network that have occurred over these past four years.



Transit Service Delivery Study

RTD's limited resources and competing regional priorities throughout the metro area means that the city needs to find additional and/or new transit deliver model(s) if it is to fulfill the Renewed Vision for Transit and TMP goals. Boulder's Transit Service Delivery Study will provide policy makers, stakeholders and residents with a more in-depth understanding of our current model's benefits and challenges, as well as evaluate additional and/or new options for providing high quality transit service in Boulder.



Advanced Mobility

The City of Boulder's TMP update will make recommendations to accommodate emerging technology and integrate advanced transportation models into the city's larger transportation network. These advanced mobility additions could include microtransit recommendations, and greater collaboration with transportation network companies (TNCs) moving forward.





Complete Streets - ADA Self Evaluation & Transition Plan



What is ADA Self-Evaluation & Transition Plan?

The self-evaluation is the first step to insuring the city's transportation system, such as sidewalks, curb ramps, pedestrian signals and crossings, and transit stops, complies with the Americans with Disability Act (ADA). The self evaluation will look at existing policies, engage with the public, and inventory our transportation infrastructure to identify barriers and opportunities.

The Transition Plan will prioritize, plan, and draft a schedule for the improvement of the barriers identified in the self-evaluation.

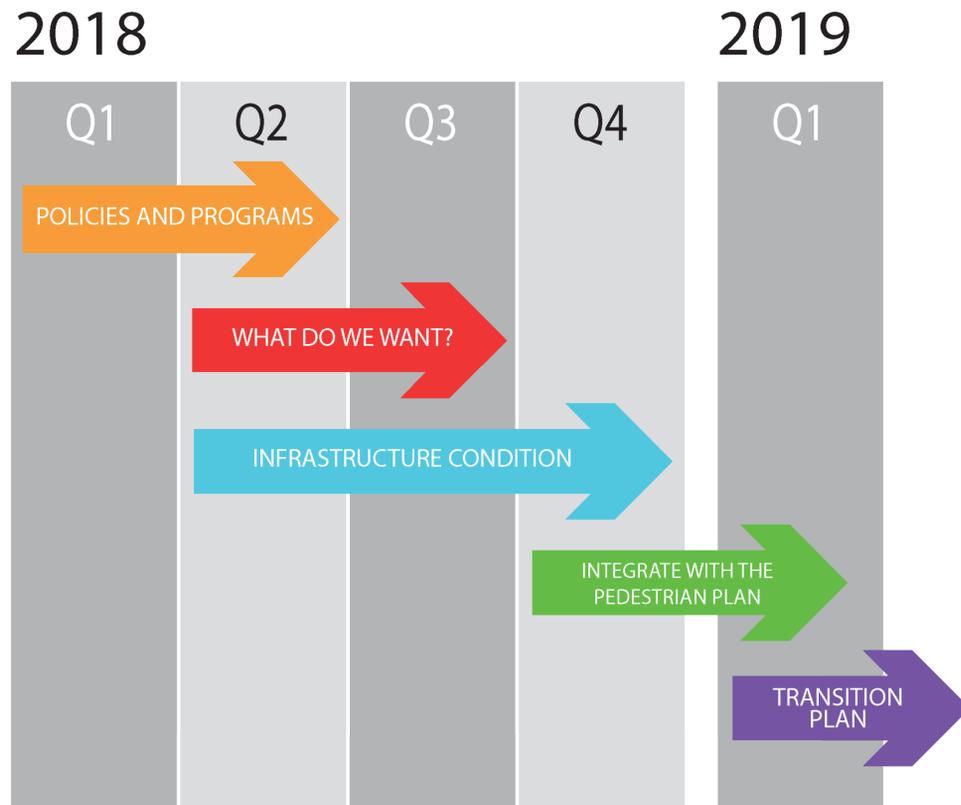
Your input and participation is needed to ensure a more accessible city!

Sign up for the Transportation E-newsletter to stay up-to-date and receive information on engagement opportunities:
www.BoulderTransportation.net

Why?

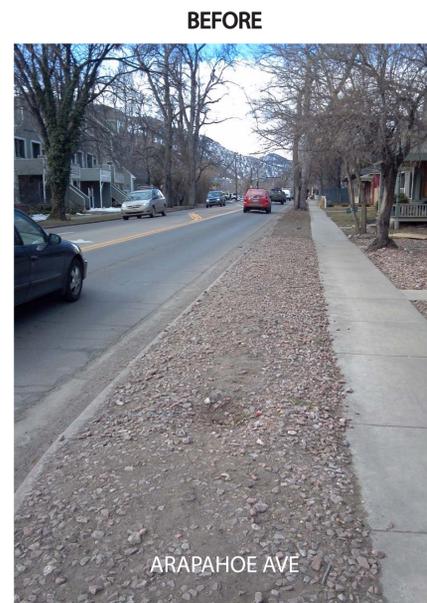
The 2014 Transportation Master Plan Action Plan calls for an update to the Transportation Division's ADA Transition Plan and for the convening of a Community Accessibility Coalition. The 2014 TMP Pedestrian Policies sets the standard for pedestrian mobility and accessibility so that a wheelchair user can move safely and conveniently through the transportation system.

More importantly, removing barriers in our transportation system fosters inclusion, embraces diversity and respects human rights by offering a variety of safe, accessible and sustainable mobility options. As a result, the physical and mental well-being of all of our residents is supported.



Through 2018 the ADA Self-Evaluation project will work to understand:

- 1 What city policies and practices support an accessible transportation system?
- 2 What do we, as a community, want for a more accessible transportation system?
- 3 What transportation infrastructure is in place, what condition is it in, and how accessible is it?





Complete Streets - Where Are We Going? - Pedestrian Plan



What is the Pedestrian Plan?

The Pedestrian Plan documents the community's vision for all things pedestrian, including sidewalks, multi-use paths, underpasses, and pedestrian crossings. The plan also lays out how to achieve this vision through specific policies and actions.

The Pedestrian Plan is one of three modal plans—Pedestrian, Bicyclist, and Transit—that are part of the Transportation Master Plan.

Ways to get involved

- Open Houses
- Community Working Group
- Neighborhood Walks and Meetings
- BeHeardBoulder.org

To stay up to date, sign up for the Transportation E-newsletter on BoulderTransportation.net

Why are we updating the plan?



Boulder has changed a lot since the last Pedestrian Policy Plan (1996) more than twenty years ago! Today we have more people, places, and ways to get around than ever before.

This plan update will provide an opportunity to understand existing conditions and assess ways to make Boulder an even more walk-friendly community.

Timeline

The Pedestrian Plan will be updated at the same time as the Transportation Master Plan in 2018-19 and is split in up six phases:

2018				2019			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
(1) Project Start-Up		<i>Get the community involved</i>					
(2) Existing Conditions		<i>What is walking like today?</i>					
(3) Visioning		<i>What do we want walking to be like in the future?</i>					
		(4) Policy & Strategy Development		<i>How will we achieve our vision for the future?</i>			
				(5) Plan Development		<i>Documenting our course</i>	
						(6) Integration with TMP and Adoption	
						<i>Rolling up into Transportation Master Plan</i>	

Snapshot of walking in Boulder

Boulder has over...
515 Miles of Sidewalks
85 Miles of Multi-use Paths

Top 3 Reasons People Walk

Social/Recreation 24%
School 8.8%
Food 7.5%

CU Students Walk More than Residents

Each Trip Is Almost **1 Mile**

Each Trip **17 Minutes** Takes About

18% of Trips by Residents are made by Foot

10% of Residents Walk to Work

Residents Walk About **3 mph**

Source: City of Boulder Resident Travel Survey Data (2015)



Regional Travel - What Does the Current TMP Say?



Population growth in surrounding communities, as well as new employment, education, and entertainment opportunities in Boulder, are increasing regional travel to and through Boulder. We must provide a range of regional travel options to address congestion and mobility needs, and meet our Sustainability Framework and Climate Commitment goals.

Projected Trends

At the time of the 2014 update, transportation modeling by Boulder County had recently showed that the greatest increase in future congestion was projected to occur on a limited number of regional facilities connecting Boulder with neighboring communities. Boulder County projected regional travel to experience the largest increase of travelers over the next 20 years.



Modal Shifts

The 2014 TMP recognized that, due to the distances of regional trips, future travel would need to be balanced among automobiles, transit, and strategies such as carpools, vanpools and first and final mile connections for transit riders. While travel by Boulder residents within the city was and is broadly multimodal, regional travel is still highly dependent on single occupant vehicles (SOVs). The 2014 TMP acknowledged that if future regional travel depends on SOVs, regional transportation facilities will experience increasing congestion.



Regional Partnerships

The 2014 TMP recognized that the City of Boulder can play an important role in facilitating regional action to provide and fund convenient travel choices.

The City of Boulder's commitment to being a facilitator of regional connectivity has expanded and enhanced mobility for bicycle commuters, transit riders, and motorists alike.





Regional Travel - What's Our Progress?

What have we done to achieve our goals? The City of Boulder works closely with our regional partners, including the US 36 Mayors and Commissioners Coalition, Boulder County, Denver Regional Council of Governments, State Highway 7 Coalition, CDOT, Transfort, and RTD, to seek and implement solutions that increase the person-carrying capacity and multimodal "first and last mile connections" for all the major corridors connecting Boulder with surrounding communities.

US 36 Managed Lanes, Bus Rapid Transit, and Bikeway

In January 2016, the Flatiron Flyer BRT service debuted following several years of construction on US 36. The reconstruction included new lanes for high-occupancy vehicles and transit, a new commuter bikeway from Boulder to Westminster, and additional safety and efficiency improvements for all vehicles. With stations serviced every 15 minutes and regional bus route transporting 14,500 riders every day, it is no surprise that ridership is up by nearly 50 percent. Since the opening of the US 36 Express Lane, CDOT has seen lane speeds increase on certain days by as much as 29 percent faster than ever before. Since the bikeway has opened, 175,707 cyclists and pedestrians have traveled along this route.



FLEX Bus Service

FLEX is a regional bus route serving stops between Fort Collins, Loveland, Berthoud, Longmont, and Boulder.



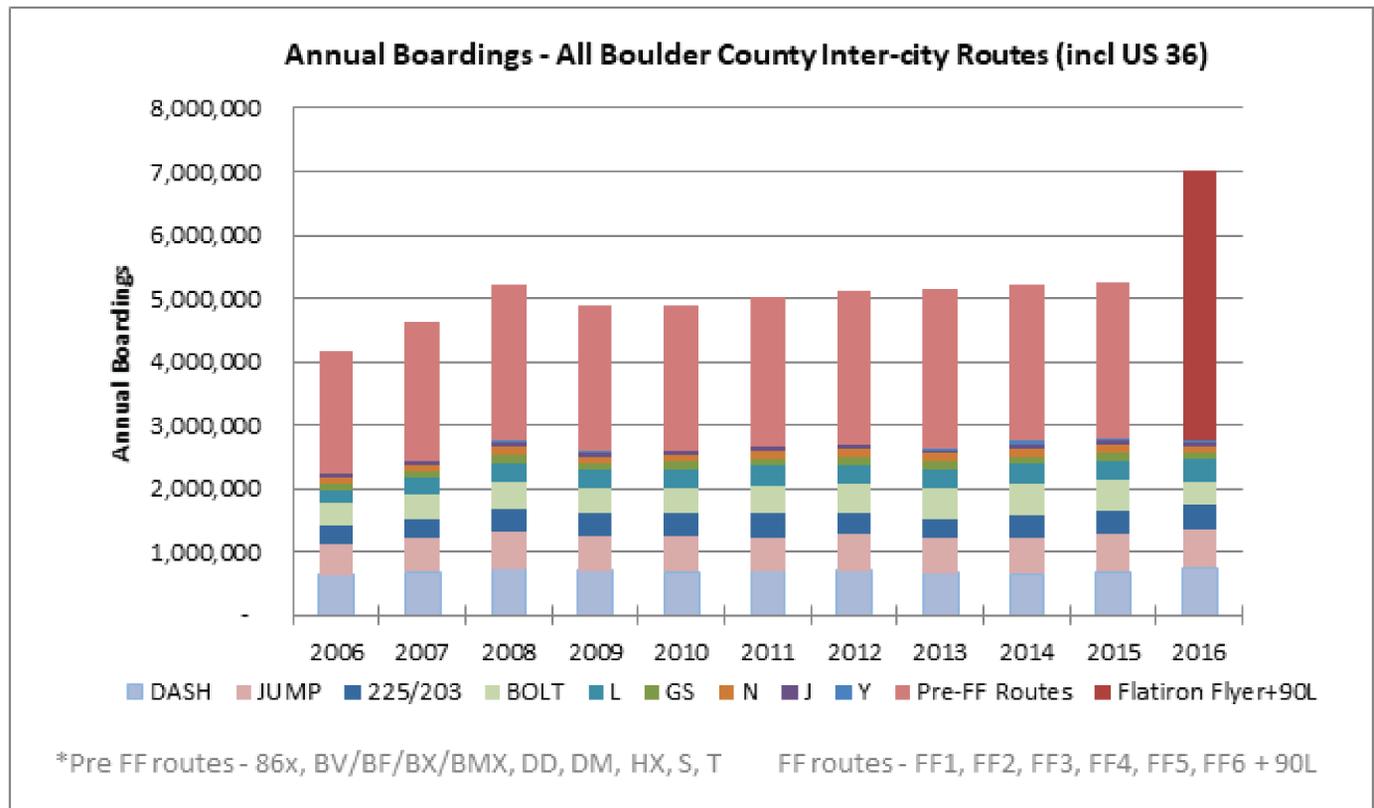
FLEX offers a variety of options to maximize the convenience and accessibility to communities in Northern Colorado. During peak morning and evening times, FLEX provides service connecting Fort Collins, Loveland, Berthoud, Longmont, and Boulder. Transfers to the RTD bus system are available in Longmont and Boulder. Additionally, FLEX provides mid-day service between Fort Collins and Loveland.

Boulder Junction

In 2015, Boulder Junction at Depot Square opened to the public. Boulder Junction is a new neighborhood located near the intersection of 30th and Pearl, and is organized around a new transit center and pedestrian space called "Depot Square." The transit center is a new hub for regional and local bus service, and is the new home of Boulder's historic Boulder Depot train station (now in use as a restaurant).



In addition to new transportation service, Boulder Junction also features new housing opportunities organized around new and newly rebuilt streets - including Junction Place "event street," and Pearl Parkway "multi-way Boulevard."



Report Card for Single Occupant Vehicle Mode Share in Boulder

Objective	Baseline	Progress	Trend
Reduce SOV travel to 20% of all trips for residents and to 60% of work trips for nonresidents	1990: 44 percent SOV mode share for residents	Resident SOV mode share was 36% in 2015	2015 (thumbs up)
	1991: 81 percent non resident SOV commute mode share	Non resident SOV mode share was 78% in 2017	2017 (thumbs down)

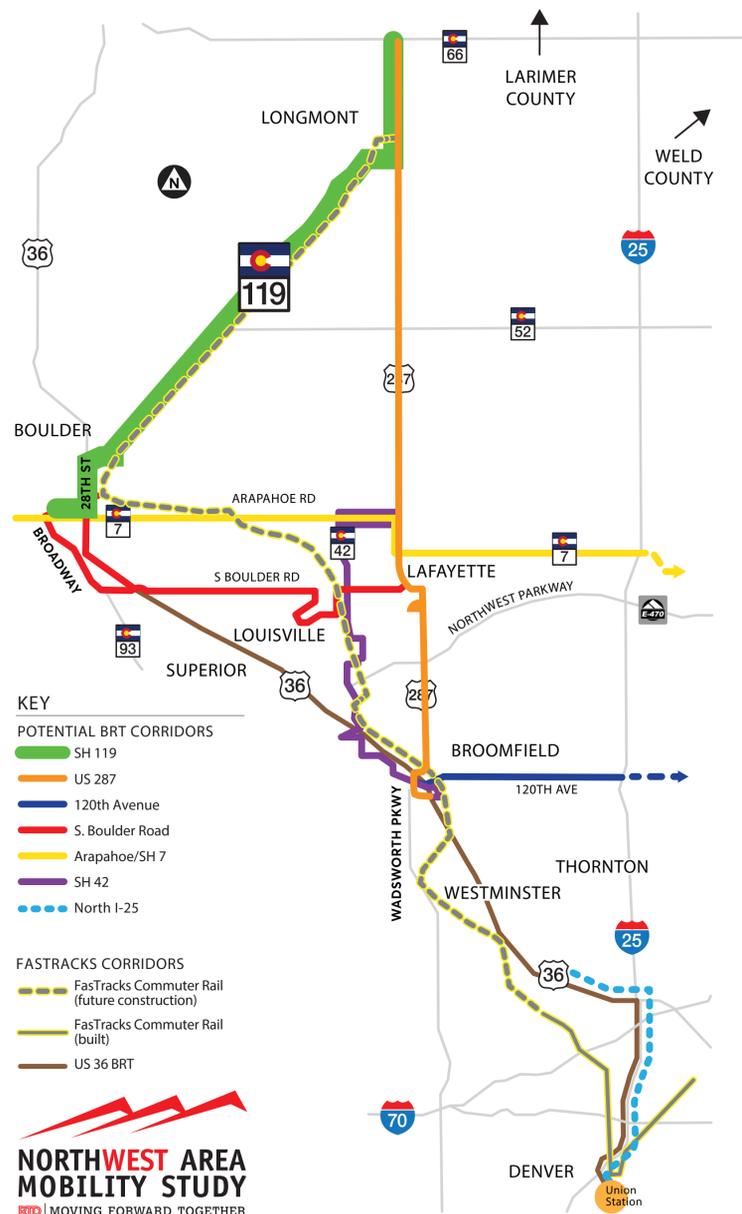
What This Means: Today, each commuter drives alone an average of about 4 days each week. If each commuter shifted one of those commute days per week to other modes, the city's objective would be reached.



Regional Travel - Where Are We Going?

Northwest Area Mobility Study

The Northwest Area Mobility Study identified several Bus Rapid Transit (BRT) corridors in Boulder and the surrounding northwest region.



What are new solutions? The Bus Rapid Transit corridors identified in the Northwest Area Mobility Study continue to be the focus of Boulder's regional planning efforts, including securing funding to complete these key projects. Currently, State Highway 7 from Boulder to Brighton, and State Highway 119 from Downtown Boulder to Downtown Longmont are the current top regional priorities. Future corridors include US 287, State Highway 42, and South Boulder Road. The city is working with regional partners to advance multimodal transportation along all planned BRT corridors including ideas such as express/managed lanes and commuter bikeways.

State Highway 119

The US 36 Mayors & Commissioners, along with RTD and CDOT, are advancing multimodal transportation to optimize regional connectivity and mobility between Downtown Boulder and Downtown Longmont. Planned regional Bus Rapid Transit (BRT), express/managed lanes, and a commuter bikeway will result in improved multimodal access and faster and more reliable travel times to address growing congestion, improve safety, and support economic vitality throughout the northwest region. The reliability of these connections will only become more important, as more people travel to Boulder from Larimer and Weld Counties, today approximately 30% of all commuters on SH 119.



State Highway 7

The SH 7 Coalition is a forum to coordinate and advocate for a regional multimodal corridor that includes high quality/high frequency BRT and a regional bikeway accompanied by local bus, bike and pedestrian connections, first and final mile connections, and future innovative transportation modes. The Coalition is comprised of representatives from the cities of Boulder, Brighton, Lafayette, and Thornton; the Town of Erie; Adams County and Boulder County; and the City and County of Broomfield. As an active participant in the Coalition, the City of Boulder will work collaboratively with member jurisdictions and agencies to secure funding for these corridor improvements, which include the East Arapahoe vision, through the DRCOG Transportation Improvement Program (TIP), the RTD Strategic Business Plan (SBP), the CDOT Development Program, and, when appropriate, by pursuing state and federal grants.



Downtown Boulder Station Study

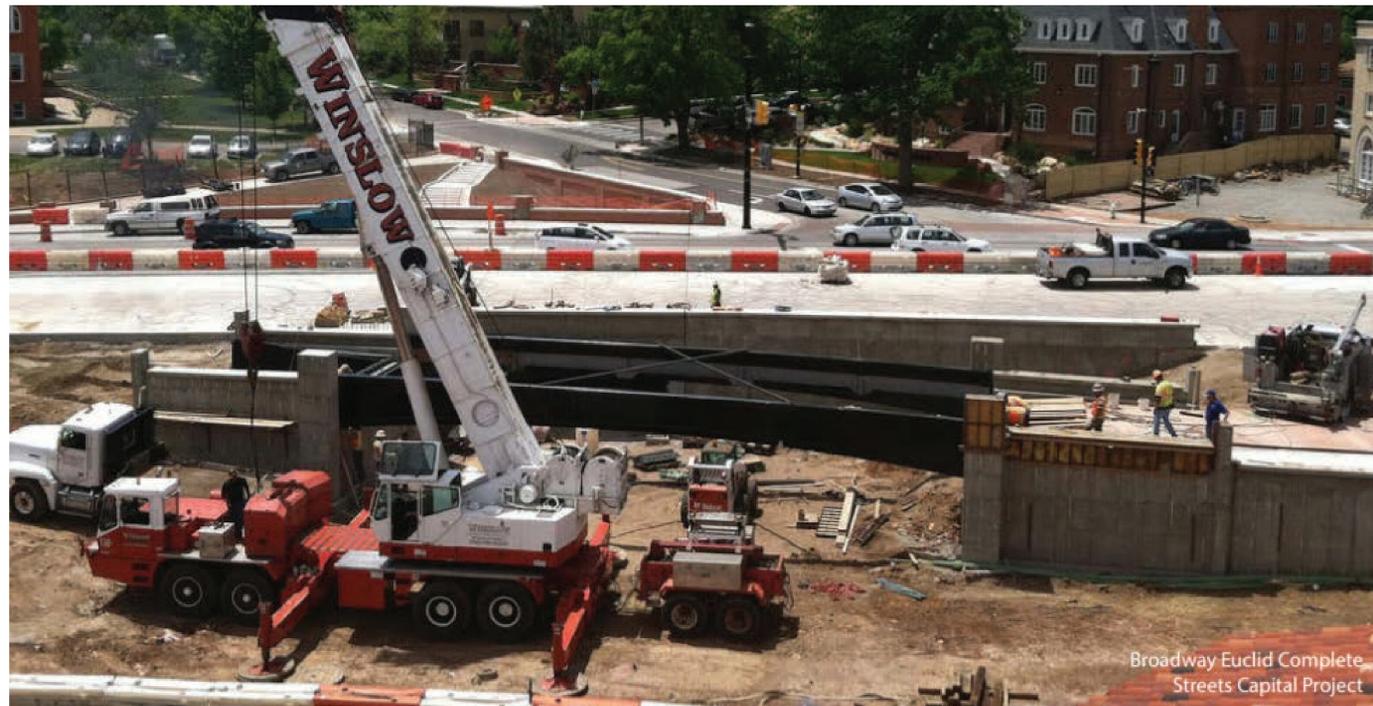
The purpose of the Downtown Boulder Station Study is to determine how the relocation and redevelopment of Boulder's premier transit station could best serve the needs of current and future transit riders. This study will develop recommendations for the location and design through technical analysis and community outreach.

The next phase of the Boulder's Civic Area improvements will focus on creating an area plan for the "East Bookend" of the site. This process will take place over the next 18 months and will be informed by community input, previous planning efforts and detailed analysis of the site's opportunities and constraints. An improved Downtown Boulder Station is one of several possibilities for this location.





Funding - What Does the Current TMP Say?



The city's transportation budget is formulated within the policy context of the Transportation Master Plan and is based on implementing a balanced, sustainable, multi-modal transportation system. Historically, the voter-approved sales tax has played a key role in funding transportation. This sales tax has worked hand-in-hand with the land use policies and open space investments to create a compact, walkable, bike-able, transit-friendly community.

Through the priority-based budgeting process, investments are first focused on maintaining the existing infrastructure with the remaining resources allocated to enhancements to our multimodal corridor segments.

Priority Based Budgeting Process

Under the city's priority based budget process, maintenance, operations, and safety activities receive the majority of transportation funding.



Over the last decade, funding available for enhancements to the system has steadily declined as almost 80 percent of the transportation budget must be dedicated to operations and maintenance.

Diversification of Funding

Revenue for the city's transportation programs comes from a variety of sources, with the largest share coming from the dedicated transportation sales tax of three quarters of a cent on a dollar.



Approved in 1967, this tax provides about 61 percent of funding for transportation. Given the volatile nature of sales tax, City Council has sked staff to explore transitioning to more consistent revenue streams, such as user-fees and other sources of local revenue.

2017 Transportation Budget: \$40.6 M

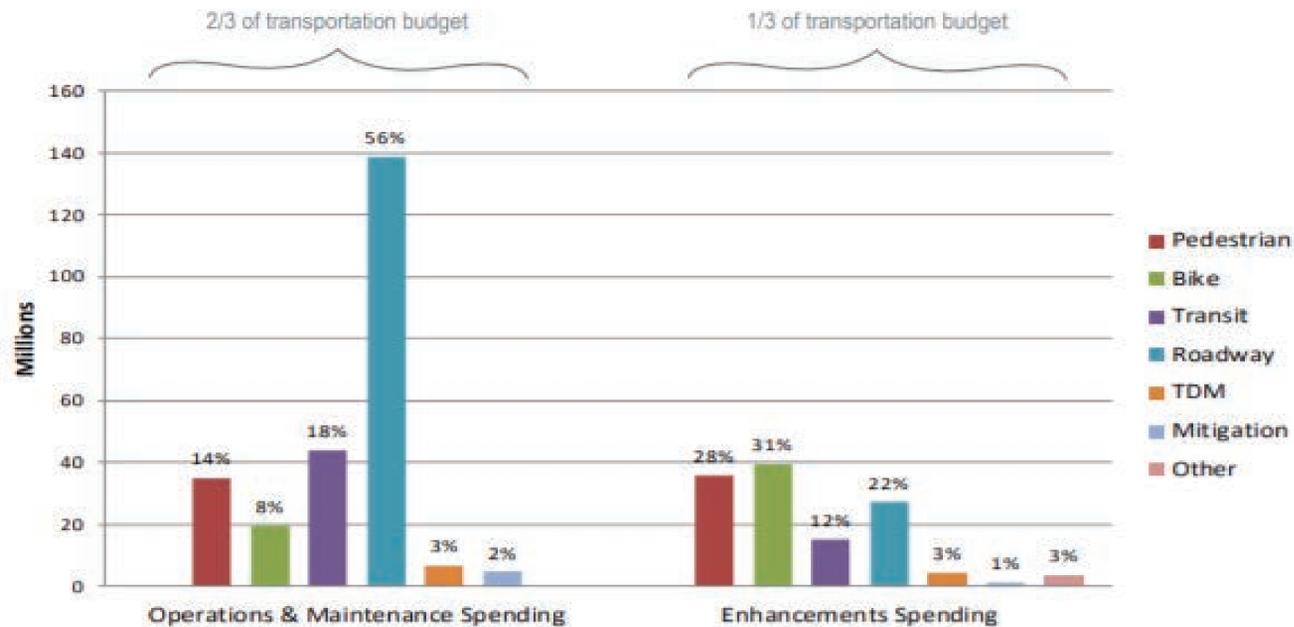


* Other sources include but are not limited to: state and federal grants, auto registration fees, highway maintenance contracts.



Funding - What's Our Progress?

City Transportation Spending by Mode, 2001 through 2016
(includes federal funds)



From 1980 to the 2015 budget, the portion of funding available for enhancements has decreased from more than half of the budget to 22 percent. The trend of diminishing capital investment will likely continue. This is due to the increased cost of maintenance and operations.

City staff will continue to pursue federal and state grants for transportation. City Council has directed staff to explore for more sustainable local sources of funding in order to meet the city's transportation and Climate Commitment goals.

Increased Sales Tax

In 2013, two sales tax measures for transportation were placed on the November ballot.



Both measures were approved by Boulder voters, redirecting two different expiring open space sales taxes to transportation for the next 16 years. The additional funding provides for both maintenance needs and additional Transit and Transportation Demand Management enhancements.

New Impact Fee and Excise Tax

As part of the 2017 update of impact fees and excise taxes, the city increased the transportation development excise tax (DET) and implemented a new Transportation Impact Fee (TIF).



Impact fees and excise taxes are paid by new commercial and residential developments and contribute to the funding of the Capital Improvement Program (CIP), and ensures new development pays their share of capital improvement expenses.

Leveraging Federal Funds

The city has historically been very successful in leveraging federal funding, averaging more than \$2 million in federal funds per year since 2000.



Leveraged federal funds have been used to expand the city's multi-modal infrastructure, including the underpass at Baseline and Broadway which is the 80th underpass of our multi-use path system and helps connect the university to commercial destinations.



Funding - Where Are We Going?



With limited resources, there is a continual need to diversify funding sources. The city will continue to partner with the local community and regional stakeholders to identify new and additional sources of funding needed to accomplish the Transportation Master Plan's service, capital, operations and programmatic action items, while also adhering to the city's Climate Commitment goals.

Examples of new funding mechanism include general improvement districts, user fees and funding related to environmental sustainability.

District Approach

In downtown Boulder and at Boulder Junction, the city has established general improvement districts to provide sustainable, predictable and scalable funding for parking facilities, parking management and Transportation Demand Management programs and services.



The city will continue to use this funding model in other parts of the city undergoing redevelopment and revitalization.

User Fees

The city will evaluate the wide variety of user fees or taxes that can be used to diversify funding and provide more predictable and scalable revenue.



Potential user fees/taxes include transportation maintenance fees, a head tax on employees, parking space fees and transit access fees.

User fees can be scaled over time to increase revenue when the cost of maintaining or operating a service increases.

Connecting Local Funding with Climate Commitment

Continuing progress and success in achieving Transportation Master Plan and Climate Commitment goals will require continued improvements in a complete transportation system, expansion of managed parking and new approaches to solving transportation challenges while enhancing equitable access for people of all ages and stages of life.



Boulder has committed to reducing greenhouse gas emissions by 80 percent by 2050.



Transportation Demand Management

- What Does the Current TMP Say?



Transportation Demand Management (TDM) offers people travel options while improving the efficiency of the existing system in a cost-effective way. TDM is a major component in the effort to achieve Boulder's Transportation and Climate Commitment goals towards sustainability and reducing greenhouse gas emissions. Over the past few years, the business community has become more proactive in providing travel choices for employees through programs like RTD's EcoPass, employer shuttles, bikeshare, and bike amenities such as safe places to store bikes and shower facilities.

Increase Access to EcoPass by expanding the existing Business and Neighborhood EcoPass Programs.



Integrate TDM and Parking Management Strategies In Existing Land Uses and New Developments

Identify policy changes to integrate TDM and Parking Management within existing districts and community-wide.



Technology Innovation and Data Management

Develop, test and implement smart phone applications, such as the Boulder Valley Employee Survey (BVES) App, to collect travel data, measure the effectiveness of programs, and track TMP performance metrics.

Expand Employer Outreach TDM Program

Work with existing developments and employers to guide the implementation of vehicle trip reduction and multimodal access programs.



Expand District Approach to Providing TDM Services

The access district approach has proven to be the best way of expanding EcoPass access. Use lessons learned from Boulder Junction, including applying the financing district approach to fund required TDM programs to meet trip generation allowances and support mixed-use, transit-oriented districts.

Coordinate TDM Programs with Local and Regional Partners

Partner with local and regional partners on the design, implementation, and evaluation of TDM for major corridors such as the Diagonal Highway (SH-119) and US 36.



Transportation Demand Management

- What's Our Progress?

EcoPass Estimates	2015	2016	2017
College Pass Program	32,945	34,235	34,735
CU Faculty and Staff	7,914	8,286	8,684
CAGID Downtown Program	6,613	6,702	6,864
UHGID University Hill	0	383	343
Boulder Junction Business	68	96	689
Boulder Junction NECO	303	423	417
Business Program BECO	16,137	17,191	19,275
Neighborhood Program	11,619	11,709	11,298
Total	75,599	79,025	82,305

The RTD EcoPass program remains one of the most effective TDM programs for changing travel behavior since it was first introduced by the city of Boulder in 1992. Currently, about 82,000 residents, employees, and university students have access to an EcoPass. The number of employees, residents, and students with access to the EcoPass has increased by more than 6,000 since 2015, with an 18 percent rate increase for businesses and a 13 percent rate increase for the neighborhood programs.

Boulder Junction

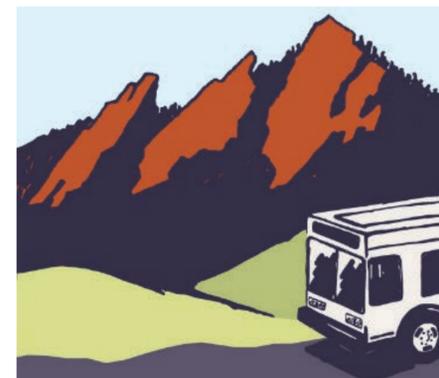
The Access District collects property taxes to fund TDM programs and meet the area's vehicle trip generation allowance goal; to generate just 45 percent of expected vehicle trips despite changes in land use.



In 2017, the first evaluation found that the district was producing 58 percent of the expected trip rate. While not on target yet, the area is performing better than the rest of the city outside of downtown.

Chautauqua Access Management Plan (CAMP)

In 2017 city staff worked with employers at Chautauqua to develop a TDM plan. TDM strategies for employees included limited parking passes, a \$3 a day parking cash-out, and meal credits at the dining hall for not driving. Prior to the pilot, 78 percent of employees drove alone to work. Results of the post-pilot study showed an 18 percent reduction in employee SOV trips over the 13 weekends of the pilot, with a slight increase in carpooling and 10 percent of employees regularly using the free shuttle.



Boulder Valley Employee Survey (BVES) App

The BVES tracks trends in travel behavior for both residents and non-residents working in Boulder. In 2017, the city used a smartphone app for the first time for the BVES. The smartphone app collects richer data, increases respondent convenience and saves the city money on costs related to data entry, cleaning, and analysis. The results of the survey are used to track progress towards the TMP and climate goals, and to improve TDM strategies and other transportation related programs.





Transportation Demand Management

- Where Are We Going?



The city will continue to pursue objectives such as expanding the EcoPass program, improving outreach to employers, and integrating parking management and community sustainability. In the 2018/2019 Transportation Master Plan update, innovations of Advanced Mobility such as autonomous vehicles, shared vehicles, electric vehicles, and connected vehicles will be explored. The city will also pursue policies and pilot projects that will test the effectiveness of mobility on demand services in meeting our community and Climate Commitment goals.

Community Pass Program

With the completion of RTD's Pass Program Working Group, it is likely that EcoPass Programs will be using smart card data to price business and neighborhood contracts and pricing zones will be updated to reflect actual ridership.



The city will continue to pursue a community pass with its regional partners, such as Boulder County, with the goal being an Eco Pass in the hands of every resident and employee working in Boulder.

Employer Outreach

Transportation, along with housing, is critical to Boulder's economic vitality, as approximately half of Boulder's employees commute into Boulder from other cities.



To improve the effectiveness of employer outreach, the city is working with the Boulder Chamber and Boulder Transportation Connections to implement a formal partnership that will improve outreach to employees and promote TDM services and programs for the business community through DRCOG's WaytoGO program.

Access Management and Parking (AMPS)

As part of the Access Management and Parking Strategies program, city staff will continue to work on integrating TDM and Parking management.



The city will be updating parking codes for new developments and exploring the idea of a TDM Ordinance that will require impactful new developments to meet trip generation targets through a combination of robust TDM plans and parking management that will be monitored for effectiveness.



Integrate With Sustainability Initiatives

- What Does The Current TMP Say?



This focus area was added in 2014 to emphasize city-wide integration under the city's Sustainability Framework to build resiliency and long term community health. The TMP exists under the umbrella of the Boulder Valley Comprehensive Plan and supports and implements its broader community goals.

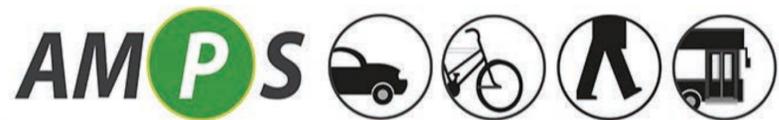
Boulder Valley Comprehensive Plan (BVCP)

OUR LEGACY. OUR FUTURE.

BOULDER VALLEY COMPREHENSIVE PLAN

The BVCP seeks to protect the natural environment of the Boulder Valley while fostering a livable, vibrant and sustainable community. The plan provides a general statement of the community's desires for future development and preservation of the Boulder Valley, and is used to guide long-range planning, the review of development proposals and other activities that shape the built and natural environments in the Boulder Valley. The BVCP is implemented through area plans such as through the Broadway Corridor effort and master plan like the TMP and Open Space Master Plan.

Access and Parking Management Strategy



Boulder is a national leader in providing options for access, parking and transportation. To support the community's social, economic and environmental goals. A balanced approach to enhancing access to existing districts and the rest of the community by increasing travel options — biking, busing, walking and driving — for residents, commuters, visitors and all who enjoy Boulder.

Climate Commitment

CITY OF BOULDER CLIMATE AND ENERGY GOALS



Transportation is a major component in meeting the city's Climate Commitment goal. The TMP developed a comprehensive inventory of transportation emissions and analyzed the potential for greenhouse gas emission reductions.

Resiliency



The Sept. 2013 flood highlighted the importance of the transportation system to the community. The multimodal transportation system is an asset to the community in resilience planning efforts



Integrate With Sustainability Initiatives

- What's Our Progress?

Climate Commitment

CITY OF BOULDER CLIMATE AND ENERGY GOALS



City Council approved the Climate Commitment in 2017, affirming the community's goal of an 80 percent reduction in greenhouse gas (GHG) emissions below 2005 levels by 2050. Currently, ground transportation accounts for 28 percent of GHG emissions in Boulder, and the strategies outlined in the 2014 TMP would reduce transportation GHGs by about 16 percent while accommodating an increasing number of person trips by residents and employees.

Access Management and Parking Strategy



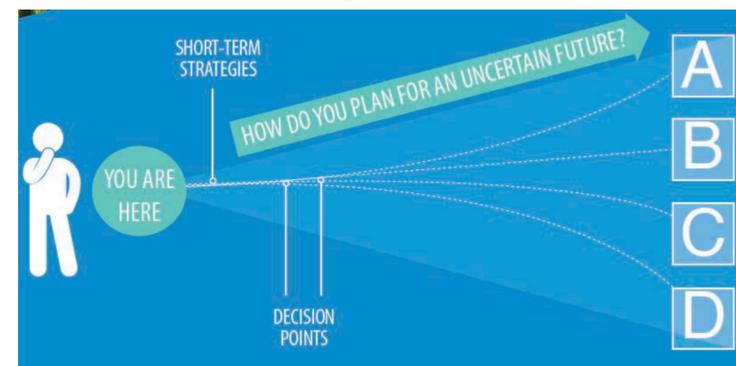
The Chautauqua Access Management and Parking (CAMP) program was designed to manage transportation access to and from the Chautauqua area during the peak summer period in ways that minimize vehicular and parking impacts to surrounding neighbors, visitors and the area's natural and cultural resources. Success in the pilot program led council to approve implementing CAMP for the next five years.

Civic Area Improvements



To support reconstruction of the Civic Area and the resulting reduction in parking supply, a new parking management and TDM incentive program was implemented for city employees, including parking cash-out and satellite parking. These strategies resulted in a 34 percent increase in participation by city employees.

Scenario Development



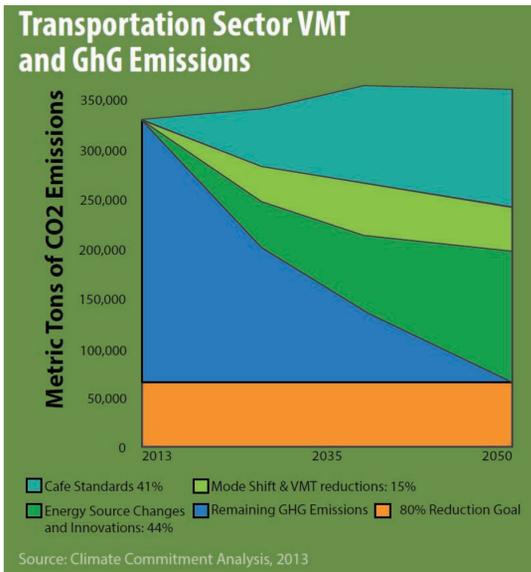
Transportation staff have been involved in the city-wide scenario development efforts. These scenarios will be refined in each master planning process to stress-test alternatives under divergent futures and increase flexibility and adaptability of the plans. The TMP update will be the first master plan to use the City Scenario process.



Integrate With Sustainability Initiatives

- Where Are We Going?

Climate Commitment



Under Clean Mobility, actions are identified to reduce the use of fossil fueled vehicles, to replace needed vehicle travel with clean fuels, and to redesign neighborhoods and parking systems to reduce the need for vehicle travel. Existing actions identified in the TMP would reduce greenhouse gas emissions by 16 %. Additional reductions are needed through innovations and the greater deployment of clean vehicles in both the transit and auto fleet.

Civic Area Improvements & Area Plans



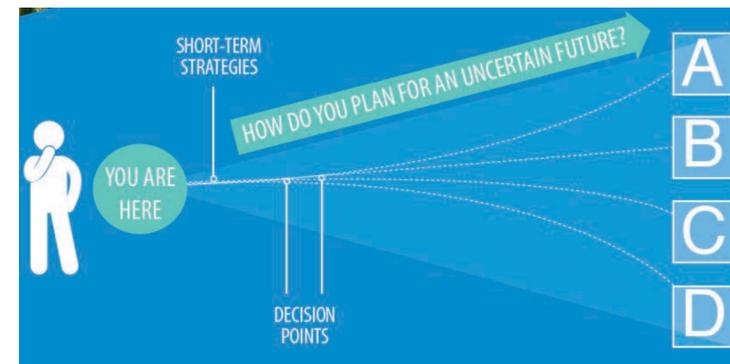
The Central Broadway project includes planning for the Alpine-Balsam site, the Civic Area East bookend, and the expansion of the 14th and Walnut Transit Station. Land use, transportation connections and access will be developed in an integrated manner. AMPS principles for parking management and TDM districts to support access by all modes of travel will be part of each area.

Access Management and Parking Strategy



Continued development of AMPS include parking code and Transportation Demand Management (TDM) ordinance changes. A new effort is the development of curb-side management policies to address increasing demands from ride-hailing services like Uber and Lyft, just in time deliveries and bike share systems.

Scenario Development



The four scenarios tailored to transportation will be used to evaluate proposed goals and actions in TMP alternatives and then used to identify adaptive plan elements. These include “low-regret near term actions,” signposts for adaption when conditions are changing from the assumed trend, and “deferred actions” that make sense only under specific conditions.