DRCOG Active Transportation Plan

Presented by:

Emily Lindsey
Jessica Fields

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Schedule

Winter / Spring 2017-2018
- Project Kickoff
- Information gathering & data analysis

June 2018
- Local Government Outreach
- Public Outreach

July 2018
- Draft Network Development

Late summer/early fall
- Additional Stakeholder Outreach
- Plan Development and Network Refinement

Late 2018/Early 2019
- Stakeholder and Public Comment Periods
- Plan Review/Approval Process

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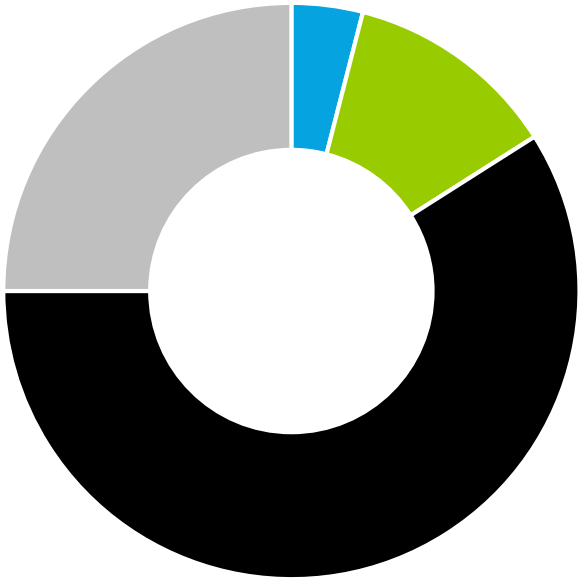
Who are we planning for?



4% of people are highly confident

12% of people are somewhat confident

59% of people are interested but concerned

DRCOG Survey of Residents About Active Transportation (2018)

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Who are we planning for?

4% of people are highly confident

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DRCOG Survey of Residents About Active Transportation (2018)

Safe, **comfortable** and **connected** active transportation network.

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Planning Process

- Active Transportation Stakeholder Committee
- Survey of Member Governments
- Statistically Valid Survey
- Bike to Work Day
- Local Stakeholder Workshops

- State of the Practice
- Local Bicycle/Pedestrian-related Plan Inventory
- Data Assessment
- Existing Conditions and County Profiles
- Bicycle and Pedestrian Crash Report

- Regional Active Transportation Network (Corridors, Ped Focus Areas, Short Trip Opportunity Zones)
- Emerging Trends
- Approaches for Local Implementation
- Regional and Local Strategies

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Engagement highlights

- 7 **ATSC** meetings including 64 participants from 35 agencies
- 55 participants from 31 agencies at 5 local **stakeholder workshops**
- 10 stations on **Bike to Work Day** with 233 responses to engagement activity
- 412 responses to an online **survey**
- Conducted a **statistically-valid survey** to learn more about attitudes and barriers to bicycling

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Data analysis and research

- Project team review of **local plans throughout the region**
- **State of the Practice report** examined themes around regional bicycle/pedestrian planning
- Data assessment looked at existing **bicycle facility inventory data** and schema
- **County profiles** examined sociodemographic trends related to bicycling and walking
- Bicycle and pedestrian crash report looked at CDOT/DRCOG Crash Database and **crashes involving bicyclists and pedestrians**

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Pedestrian Focus Areas

Description	What does it mean for the ATP?
Areas with a high concentration of existing or potential pedestrian activity.	Efforts to **improve pedestrian safety and convenience in these areas** will help the region achieve Metro Vision goals related to livable communities, safety, health and transit integration.

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Short-trip Opportunity Zones

Description	What does it mean for the ATP?
Areas with a high concentration of short trips (2 miles or less).	The average bicycle trip distance in the Denver region is 1.8 miles. Areas with a large number of trips 2 miles or less hold potential for **converting car trips to bicycle trips**, which will help fulfill a key Metro Vision goal (reduce SOV mode share).

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Regional Active Transportation Corridors

Description	What does it mean for the ATP?
High-comfort corridors that connect significant regional destinations and may serve longer distance bike trips, as well as local walking and biking trips.	These routes are intended to allow **safe and comfortable access to regional destinations for everyone**, supporting Metro Vision's goals related to creating a connected multimodal region and vibrant regional economy.

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Regional Active Transportation Network Example

Bicycle parking and other amenities help create synergy between transit and active transportation networks.

Low-volume, low-speed streets can provide safe and comfortable space for bicycling and walking at relatively low cost. Such streets will be especially important in leveraging available funding for the greatest effect.

Marked crosswalks alert drivers to expect bicyclists and pedestrians crossing the road.

Wayfinding is essential for creating seamless transitions between networks across jurisdictions and where routes transition from on-street to off-street facilities. They help bicyclists and pedestrians find destinations and are particularly helpful to people unfamiliar with the area or route.

Public art provides visual interest along regional routes and showcases community character.

Easy connections between on-street and off-street facilities create a seamless experience for bicyclists and pedestrians.

Grade separation provides a safe and comfortable way to cross major arterials.

High-quality, accessible connections to neighborhoods adjacent to regional routes ensure the active transportation network is available to everyone.

Connections to adjacent parks help residents meet physical activity goals.

To Golden

To Denver

W 32nd Ave

W 29th Ave

W 26th Ave

W 20th Ave

W Colfax Ave

W 14th Ave

W 1st Ave

Pierce St

Kipling St

Garrison St

Wadsworth Blvd

Sherdan Blvd

Knox Ct

Legend:

- **Pedestrian Focus Area** — areas with a high concentration of existing or potential pedestrian activity
- **Short-trip Opportunity Zone** — areas with a high concentration of short trips (2 miles or less), where there is a high potential for converting car trips to bicycling
- **Regional Active Transportation Corridor**
- **Existing Bike Facilities**
- **Light Rail Station**

Emerging Trends, Policies/Programs/Practices, Infrastructure

Emerging Trends

The transportation system has evolved rapidly over the past decade and continues to undergo significant change. This section addresses emerging trends, such as electric-assist bikes, dockless bike-sharing programs and other micromobility devices and automated vehicles. There is a great deal of uncertainty as to how these trends will affect active transportation. In general, these technologies can fill the niche of first- and last-mile challenges and decouple mobility from private vehicle ownership. However, most emerging mobility devices or technologies rely on electric propulsion and thus could reduce the amount of walking and bicycling. Moreover, these devices have the potential to increase conflicts on sidewalks or shared-use paths and contribute to overcrowding of walking and bicycling infrastructure.

Policies, Programs and Practices

The development of a connected and safe active transportation system hinges on policies, programs and practices that support inclusion of active transportation considerations into routine decision-making. This section addresses many of the most common approaches , highlighting examples from the Denver region.

Infrastructure

In this section, common bicycle and pedestrian infrastructure treatments are presented. Bicycle facilities, intersections, sidewalks, crossings, signals and supporting elements are included. Additionally, guidance for selecting an appropriate bikeway, based on roadway conditions and context, is provided.

Table 5. Chapter Contents

ELECTRIC/ELECTRIC-ASSIST BICYCLES

Description

E-bikes are bicycles equipped with electric motors and can increase the accessibility, comfort and range of bicycling. E-bikes will influence the future design of bicycle facilities along with the rules and regulations of where they can be ridden.

Table 6. E-Bike Classes

E-bike class	Pedal Assist	Throttle	Max Speed*
I	Yes	No	20
II	No	Yes	20
III	Yes	Yes	28

* Electric motor ceases to provide assistance when the bicycle reaches the listed maximum speed

Local context

- In August 2017, the Colorado state legislature expanded Colorado Revised Statutes Section 42-1-102 to permit e-bikes to be ridden wherever conventional bicycles can be ridden. However, local ordinances can be more restrictive.
- Jeffco Open Space has initiated a pilot program to allow e-bikes on trails.
- The City of Boulder permits e-bikes on most of its shared-use paths.

Implementation considerations

- The State of Colorado defines e-bikes as bikes with electric motors that provide power or pedal-assistance up to 20 mph.
- Most governments are managing conflicts between e-bikes and other active transportation users by revisiting regulations on where they can operate. However, the prevalence of e-bikes may warrant the allocation of dedicated space in the future.

Available resources

- Colorado General Assembly, *Electric Bicycles*
- Federal Highway Administration, *Framework for Considering Motorized Use on Nonmotorized Trails and Pedestrian Walkways under 23 U.S.C. Section 217*
- PeopleForBikes, *Electric Bicycles*

E-bike definition

The State of Colorado defines e-bikes as bikes with electric motors that provide power or pedal-assistance up to 20 mph.

Source: Jeffco Open Space

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Implementation

Regional Opportunities to Support Bicycling and Walking

Regional opportunities are grouped into three categories: collaboration; education and assistance; and investments. These regional opportunities are intended to foster collaboration and prioritize information-sharing to ensure local communities have the tools they need to improve active transportation. DRCOG is the most likely agency to lead implementation of many of these opportunities, but others such as TMAs, RTD or CDOT could also play a role.

Table 7. Regional Opportunities to Support Bicycling and Walking

	No.	Opportunity	Case Study Example (Page No.)
Collaboration	1	Convene local, regional and statewide bicycle and pedestrian stakeholders to ensure cross-jurisdictional coordination on implementation of active transportation projects in the region and provide opportunities for local governments to learn from or adapt local approaches to bicycle and pedestrian planning.	New England Bike Walk Summit (78)
	2	Coordinate with local partners and TMAs to expand the regional transportation demand management program to include greater emphasis on bicycling and walking.	
	3	Convene local, regional and statewide bicycle and pedestrian stakeholders to coordinate policy efforts on active transportation-related issues such as e-bikes, small mobility devices, data and stop-as-yield legislation.	
	4	Coordinate with local partners to further explore traffic safety in the Denver region and develop a Vision Zero Action Plan.	
	5	Collaborate with transit providers, local communities, CDOT and stakeholders to enhance active transportation connections to and from transit.	
Education and Assistance	6	Collect and share information on local policies, plans and regulations as they pertain to active transportation plans.	
	7	Conduct analyses and provide data on topics such as level of traffic stress and crashes.	DVRPC Level of Traffic Stress Analysis (78)
	8	Continue to collect and disseminate bicycle facility inventory data, including current and proposed facilities.	PSRC Online Data Sharing (79)
	9	Collect bicycle and pedestrian counts and enhance count data sharing.	DVRPC Bicycle and Pedestrian Count Program (79)
	10	Provide tools, information and education to local governments on facility design, emerging trends and related topics.	
Investments	11	Support development of regional wayfinding for active transportation corridors.	
	12	Consider prioritization criteria that encourage investment in high-comfort bicycling and walking facilities that are part of the regional active transportation network.	Capital Area MPO Project Funding Basis (79)
	13	Prioritize walking and biking investments in transportation-disadvantaged areas.	Boston Regional MPO Transportation Equity Program (78)

Local Opportunities to Support Bicycling and Walking

Local opportunities are also grouped into three categories: collaboration; policies, plans and regulations; and investments. These opportunities vary in terms of the amount of investment required, allowing local communities to move forward with opportunities that best align with their current capacity.

Table 8. Local Opportunities to Support Bicycling and Walking

	No.	Opportunity	Case Study Example (Page No.)
Collaboration	1	Coordinate with neighboring jurisdictions to ensure continuity and connectivity of the active transportation networks and share best practices in bicycle and pedestrian planning.	U.S. 36 Bikeway Wayfinding Project (80)
	2	Work with RTD and other transit providers on transit-supportive infrastructure, including first- and last-mile connections.	Denver South Transportation Management Association efforts (80)
	3	Work with DRCOG and local TMAs to inform and promote the use of transportation demand management strategies and services.	WalkDenver Project Shift (80)
Policies, Plans and Regulations	4	Adopt policies, regulations or standards promoting Complete Streets principles and context-sensitive design for users of all ages, incomes and abilities, including mobility-limited residents.	Aurora, Arvada and Westminster Complete Streets Consortium (81)
	5	Adopt local active transportation, bicycle or pedestrian plans that consider land use/zoning compatibility to complement comprehensive and master planning efforts.	Arvada Bicycle Master Plan (81)
	6	Adopt a Vision Zero policy with the goal to eliminate traffic fatalities and serious injuries.	Denver Vision Zero Action Plan (82)
Investments	7	Design and build low-stress bicycle networks and complete sidewalk networks that facilitate on- and off-street facility connectivity.	Denver Protected Bikeways (82), Golden's Linking Lookout Project (82), Lone Tree Pedestrian Bridge (84)
	8	Improve multimodal connectivity throughout the transportation network and prioritize investment in first- and last-mile connections to transit.	Downtown Boulder Transit Center Area Improvements (83), Aurora Metro Center Station Area Bike and Pedestrian Connector Facility (83)
	9	Incorporate wayfinding into active transportation projects.	Lafayette Walk and Wheel (81), City of Lakewood 40 West ArtLine (84)
	10	Promote educational and promotional events to encourage bicycling and walking.	Boulder Walks (80), Brighton Full Moon Ride (84)
	11	Implement safety projects that improve conditions for bicyclists and pedestrians and track their effectiveness by analyzing crash data.	Denver Vision Zero Safety Upgrades (84)
	12	Develop a regular maintenance schedule to ensure existing sidewalks and bicycle facilities are well-maintained.	Boulder Sidewalk Repair Program (83)

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THANK YOU