

Elise Jones, Chair  
Bob Roth, Vice Chair  
Herb Atchison, Secretary  
Bob Fifer, Treasurer  
Jackie Millet, Immediate Past Chair  
Jennifer Schaufele, Executive Director

**AGENDA**  
**BOARD OF DIRECTORS**  
**WEDNESDAY, AUGUST 17, 2016**  
**6:30 p.m. – 8:20 p.m.**  
**1290 Broadway**  
**First Floor Independence Pass Conference Room**

1. 6:30 Call to Order
2. Pledge of Allegiance
3. Roll Call and Introduction of New Members and Alternates
4. \*Move to Approve Agenda

**PUBLIC HEARING**

5. 6:35 Public hearing on redetermination of air quality conformity for the 2015 Cycle 2 2040 Fiscally Constrained Regional Transportation Plan (2040 RTP) and associated air quality conformity documents  
(Attachment A)
6. 6:45 Report of the Chair
  - Report on Regional Transportation Committee Meeting
7. 6:55 Report of the Executive Director
  - Executive Director's report
8. 7:00 Public Comment

Up to 45 minutes is allocated at this time for public comment and each speaker will be limited to 3 minutes. If there are additional requests from the public to address the Board, time will be allocated at the end of the meeting to complete public comment. The chair requests that there be no public comment on issues for which a prior public hearing has been held before this Board. Consent and action items will begin immediately after the last speaker

**\*motion requested**

**TIMES LISTED WITH EACH AGENDA ITEM ARE APPROXIMATE**  
**IT IS REQUESTED THAT ALL CELL PHONES BE SILENCED**  
**DURING THE BOARD OF DIRECTORS MEETING. THANK YOU**

Persons in need of auxiliary aids or services, such as interpretation services or assisted listening devices, are asked to contact DRCOG at least 48 hours in advance of the meeting by calling (303) 480-6701.



### **CONSENT AGENDA**

9. 7:20 \*Move to Approve Consent Agenda
- Minutes of July 20, 2016  
(Attachment B)

### **ACTION AGENDA**

10. 7:25 \*Discussion of Mobility Choice Blueprint  
(Attachment C) Douglas W. Rex, Director, Transportation Planning & Operations
11. 7:40 \*Discussion of recommendations to allocate fiscal year 2016 and 2017 federal funds for contingency and Multimodal Signal Operations Support identified in the *Traffic Signal System Improvement Program (TSSIP)* and the *Regional Intelligent Transportation System (ITS) Deployment Program*  
(Attachment D) Greg MacKinnon, Regional Transportation Operations Program Manager, Transportation Planning & Operations

### **INFORMATIONAL BRIEFINGS**

12. 7:50 Boomer Bond Update  
(Attachment E) Brad Calvert, Director, Regional Planning & Development
13. 8:05 Committee Reports  
The Chair requests these reports be brief, reflect decisions made and information germane to the business of DRCOG
- A. Report on State Transportation Advisory Committee – Elise Jones
  - B. Report from Metro Mayors Caucus – Herb Atchison
  - C. Report from Metro Area County Commissioners– Don Rosier
  - D. Report from Advisory Committee on Aging – Phil Cernanec
  - E. Report from Regional Air Quality Council – Shakti
  - F. Report on E-470 Authority – Ron Rakowsky
  - G. Report on FasTracks – Bill Van Meter

### **INFORMATIONAL ITEMS**

14. Draft summary of July 20, 2016 Finance and Budget Committee Meeting  
(Attachment F)
15. 2016-2021 Transportation Improvement Program Administrative Modifications  
(Attachment G) Douglas W. Rex, Director, Transportation Planning & Operations
16. Relevant clippings and other communications of interest  
(Attachment H)  
Included in this section of the agenda packet are news clippings which specifically mention DRCOG. Also included are selected communications that have been received about DRCOG staff members.

\*motion requested

**ADMINISTRATIVE ITEMS**

17. **Next Meeting – September 21, 2016**
18. Other Matters by Members
19. 8:20 Adjournment

### **SPECIAL DATES TO NOTE**

Metro Vision Idea Exchange: One in Four August 30, 2016

Small Communities Hot Topic Forum September 15, 2016

For additional information please contact Connie Garcia at 303-480-6701 or  
[cgarcia@drcoq.org](mailto:cgarcia@drcoq.org)

### **CALENDAR OF FUTURE MEETINGS**

#### **August 2016**

16	Regional Transportation Committee	8:30 a.m.
17	Finance and Budget Committee	CANCELLED
17	Board of Directors	6:30 p.m.
19	Advisory Committee on Aging	Noon – 3 p.m.
22	Transportation Advisory Committee	1:30 p.m.

#### **September 2016**

7	Board Work Session	4:00 p.m.
7	Performance and Engagement Committee	6:00 p.m.
16	Advisory Committee on Aging	Noon – 3 p.m.
20	Regional Transportation Committee	8:30 a.m.
21	Finance and Budget Committee	5:30 p.m.
21	Board of Directors	6:30 p.m.
26	Transportation Advisory Committee	1:30 p.m.

#### **October 2016**

5	Board Work Session	4:00 p.m.
5	Performance and Engagement Committee	6:00 p.m.
18	Regional Transportation Committee	8:30 a.m.
19	Finance and Budget Committee	5:30 p.m.
19	Board of Directors	6:30 p.m.
21	Advisory Committee on Aging	Noon – 3 p.m.
24	Transportation Advisory Committee	1:30 p.m.

## Acronym List

\* Denotes DRCOG Program, Committee or Report

AAA	Area Agency on Aging	NARC	National Association of Regional Councils
AASHTO	American Association of State Highway and Transportation Officials	NEPA	National Environmental Policy Act
ADA	Americans with Disability Act of 1990	NHPP	National Highway Performance Program
AMPO	Association of Metropolitan Planning Organizations	NFRMPO	North Front Range Metropolitan Planning Organization
APA	American Planning Association	NHS	National Highway System
APCD	Air Pollution Control Division	NOx	Nitrogen oxides
AQCC	Air Quality Control Commission	NWCCOG	Northwest Colorado Council of Governments
ARRA	American Recovery and Reinvestment Act	O&M	Operations and Maintenance
BMPs	Best Management Practices	O <sub>3</sub>	Ozone
CAAA	Clean Air Act Amendments	P3	Public Private Partnership
CAC	Citizens Advisory Committee	PM <sub>2.5</sub>	Particulates or fine dust less than 2.5 microns in size
CARO	Colorado Association of Regional Organizations	PM <sub>10</sub>	Particulates or fine dust less than 10 microns in size
CBD	Central Business District	PnR	park-n-Ride
CCI	Colorado Counties, Inc.	PPACG	Pikes Peak Area Council of Governments
CDPHE	Colorado Department of Public Health and Environment	RAQC	Regional Air Quality Council
CDOT	Colorado Department of Transportation	RAMP	Responsible Acceleration of Maintenance & Partnerships
CFR	Code of Federal Regulations	RFP	Request for Proposal
CM/AQ	Congestion Mitigation/Air Quality	RFQ	Request for Qualifications
CML	Colorado Municipal League	ROD	Record of Decision
CMS	Congestion Management System	ROW	Right-of-way
CO	Carbon monoxide	RPP	Regional Priorities Program
CWA	Clean Water Act	RTC	Regional Transportation Committee*
CWP	Clean Water Plan*	RTD	Regional Transportation District
DBE	Disadvantaged Business Enterprise	RTP	Regional Transportation Plan*
DEIS	Draft Environmental Impact Statement	SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
DMCC	Denver Metro Chamber of Commerce	SB	Senate Bill
DoLA	Colorado Department of Local Affairs and Development	SCI	Sustainable Communities Initiative
USDOT	U.S. Department of Transportation	SIP	State Implementation Plan for Air Quality
DRCOG	Denver Regional Council of Governments	SOV	Single-occupant Vehicle
DRMAC	Denver Regional Mobility and Access Council	STAC	State Transportation Advisory Committee
DUS	Denver Union Station	STIP	State Transportation Improvement Program
E&D	Elderly and Disabled	STP	Surface Transportation Project (STP-Metro, STP-Enhancement)
EA	Environmental Assessment	TAC	Transportation Advisory Committee*
EIS	Environmental Impact Statement	TAP	Transportation Alternatives Program
EPA	Environmental Protection Agency	TAZ	Traffic Analysis Zone
FAA	Federal Aviation Administration	TCM	Transportation Control Measures
FCC	Federal Communications Commission	TDM	Transportation Demand Management
FEIS	Final Environmental Impact Statement	TIFIA	Transportation Infrastructure Finance and Innovation Act
FEMA	Federal Emergency Management Agency	TIP	Transportation Improvement Program*
FWHA	Federal Highway Administration	TLRC	Transportation Legislative Review Committee
FIRE	Firefighter Intraregional Recruitment & Employment*	TMA	Transportation Management Area
FONSI	Finding of No Significant Impact	TMO/TMA	Transportation Management Organization/Transportation Management Agency
FRA	Federal Railroad Administration	TOD	Transit Oriented Development
FTA	Federal Transit Administration	TPR	Transportation Planning Region
FY	Fiscal Year	TSM	Transportation System Management
GIS	Geographic Information System	TSSIP	Traffic Signal System Improvement Program
HB	House Bill	UGB/A	Urban Growth Boundary/Area
HC	Hydrocarbons	UPWP	Unified Planning Work Program
HOT Lanes	High-occupancy Toll Lanes	V/C	Volume-to-capacity ratio
HOV	High-occupancy Vehicle	VMT	Vehicle Miles of Travel
HUTF	Highway Users Trust Fund	VOC	Volatile Organic Compounds
IGA	Intergovernmental Agreement	WHSRA	Western High Speed Rail Authority
ICMA	International City Management Association	WQCC	Water Quality Control Commission
IPA	Integrated Plan Assessment*	WQCD	Water Quality Control Division (CDPHE)
ISTEA	Intermodal Surface Transportation Efficiency Act		
ITE	Institute of Traffic Engineers		
ITS	Intelligent Transportation System		
JARC	Job Access/Reverse Commute		
LRT	Light Rail Transit		
MAP-21	Moving Ahead for Progress in the 21st Century		
MOA	Memorandum of Agreement		
MOU	Memorandum of Understanding		
MPO	Metropolitan Planning Organization*		
MVIC	Metro Vision Issues Committee*		
MVITF	Metro Vision Implementation Task Force		
MVPAC	Metro Vision Planning Advisory Committee		
NAAQS	National Ambient Air Quality Standards		



To: Chair and Members of the Board of Directors

From: Jennifer Schaufele, Executive Director  
303-480-6701 or [jschaufele@drcog.org](mailto:jschaufele@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
August 17, 2016	Public Hearing	5

#### SUBJECT

Public hearing on redetermination of air quality conformity for the *2015 Cycle 2 2040 Fiscally Constrained Regional Transportation Plan* (2040 RTP) and associated air quality conformity documents.

#### PROPOSED ACTION/RECOMMENDATIONS

No action at this time; this is a public hearing. The Board is anticipated to act on the conformity redetermination at its September 2016 meeting.

#### ACTION BY OTHERS

N/A

#### SUMMARY

The DRCOG Board approved the air quality conformity documents for the 2015 Cycle 2 2040 Regional Transportation Plan (2040 RTP) and Amended 2016-2021 Transportation Improvement Program (TIP) on March 16, 2016. DRCOG staff subsequently discovered a coding error in the DRCOG travel model, which calculates the inputs for the mobile source emissions model. The air quality Interagency Consultation Group decided to conduct a redetermination of regional conformity, including a new air quality conformity analysis. Staff corrected the error, re-ran the travel model, and provided the results to the Colorado Air Pollution Control Division to calculate mobile source emissions. Their analysis also used an updated version of the EPA MOVES emissions model.

The new emissions results have changed insignificantly compared with the previous conformity analysis, resulting in minor modifications to Table 4 in the *CO and PM10 Conformity Redetermination* and Table 3 and Appendix C in the *8-hour Ozone Conformity Redetermination*. The emission results for this redetermination of regional conformity remain significantly under each of the individual pollutant budgets. All budget tests were passed. Therefore, a redetermination of conformity for the 2015 Cycle 2 2040 RTP and Amended 2016-2021 TIP is demonstrated. More details can be found in the companion conformity documents ([CO and PM10 Conformity Redetermination](#) and [8-hour Ozone Conformity Redetermination](#)).

The Board is anticipated to act on the conformity redetermination at its September 2016 meeting.

#### PREVIOUS DISCUSSIONS/ACTIONS

[March 16, 2016](#) – Board approved 2015 Cycle 2 2040 RTP

#### PROPOSED MOTION

N/A

## ATTACHMENTS

Links:

- [DRCOG CO and PM 10 Conformity Redetermination](#) and [Denver Southern Subarea 8-hour Ozone Conformity Redetermination](#)

## ADDITIONAL INFORMATION

For additional information, please contact Jennifer Schaufele, Executive Director, at 303-480-6701 or [jschaufele@drcog.org](mailto:jschaufele@drcog.org) or Steve Cook, Transportation Modeling and Operations Manager, at 303-480-6749 or [scook@drcog.org](mailto:scook@drcog.org).



# ATTACH B

MINUTES  
BOARD OF DIRECTORS  
WEDNESDAY, JULY 20, 2016

Members/Alternates Present

Elise Jones, Chair	Boulder County
David Beacom	City & County of Broomfield
Kevin Flynn (Alternate)	City & County of Denver
Crissy Fanganello	City & County of Denver
Roger Partridge	Douglas County
Bob Fifer	City of Arvada
Larry Vittum	Town of Bennett
Aaron Brockett	City of Boulder
Anne Justen	Town of Bow Mar
Lynn Baca	City of Brighton
Laura Christman	City of Cherry Hills Village
Richard Champion	Town of Columbine Valley
Rick Teter	City of Commerce City
Steve Conklin	City of Edgewater
Joe Jefferson	City of Englewood
Geoff Deakin	Town of Erie
Daniel Dick	City of Federal Heights
Lynnette Kelsey	Town of Georgetown
Scott Norquist	City of Glendale
Saoirse Charis-Graves	City of Golden
Ron Rakowsky	City of Greenwood Village
Shakti	City of Lakewood
Phil Cernanec	City of Littleton
Wynne Shaw (Alternate)	City of Lone Tree
Joan Peck	City of Longmont
Ashley Stolzmann	City of Louisville
Connie Sullivan	Town of Lyons
Colleen Whitlow	Town of Mead
Kyle Mullica	City of Northglenn
John Diak	Town of Parker
Sally Daigle	City of Sheridan
Rita Dozal	Town of Superior
Herb Atchison	City of Westminster
Joyce Jay	City of Wheat Ridge
Debra Perkins-Smith	Colorado Department of Transportation
Bill Van Meter	Regional Transportation District

Others Present: Jennifer Schaufele, Executive Director, Connie Garcia, Executive Assistant/Board Coordinator, DRCOG; Jeanne Shreve, Adams County; Mac Callison, Aurora; Julie Kirkpatrick, Castle Rock; Joe Fowler, Douglas County; Kent Moorman, Thornton; Danny Herrmann, CDOT; Jennifer Cassell, Tomlinson & Associates; Mizraim Cordero, Kelly Brough, Jennifer Jones, Don Hunt, Mobility Choice Blueprint; Becca

Khusthen, Mobility Choice; Rachel Carillo, UN Association Boulder County; and DRCOG staff.

Chair Elise Jones called the meeting to order at 6:31 p.m. Roll was called and a quorum was present.

New alternates were recognized: Jan Pawlowski, Adams County, and Sandy Pennington, Superior.

#### Move to Approve Agenda

Director Rakowsky **moved** to approve the agenda. The motion was **seconded** and **passed** unanimously.

#### Public comment

Randle Loeb, citizen, provided comment regarding Denver's proposal to create a permanent affordable housing fund. He noted there should be a regional affordable housing plan that includes supported housing (shelters) with a permanent dedicated funding stream.

#### Report of the Chair

- Chair Jones set a public hearing for August 17, 2016 to receive comments on the redetermination of air quality conformity for the 2015 Cycle 2 amendments to the 2040 Fiscally Constrained Regional Transportation Plan.

#### Report of the Executive Director

- Executive Director Schaufele directed attention to a flyer with information on an electric vehicle workshop.
- Ms. Schaufele noted the Executive Director report attachment would be provided to the Performance and Engagement Committee in the future, and the Board will receive a more condensed version.

#### Strategic Informational Briefing – Mobility Choice Blueprint

Kelly Brough, Denver Metro Chamber of Commerce, and retired CDOT Executive Director Don Hunt provided information on the Mobility Choice Blueprint initiative effort currently underway. The initiative's stated purpose is to maximize existing investments in the metro Denver transportation system by leveraging technology to meet future workforce mobility needs, resulting in enhanced economic opportunity and quality of life. DRCOG is asked to contribute \$500,000 to this effort. Staff reported funds are available, due to receiving funds from the FAST program as well as savings returned to DRCOG from project efficiencies. Directors discussed whether or not DRCOG should participate in the effort. The Board will be asked to formally approve participation at a future meeting. Members suggested that perhaps the academic community could be included in the discussions for fresh perspectives.

Move to approve consent agenda

Director Rakowsky **moved** to approve the consent agenda. The motion was **seconded** and **passed** unanimously. Items on the consent agenda include:

- Minutes of May 18, 2016

Discussion of ballot initiatives

Chair Jones noted that ballot initiative 117 has been pulled by the sponsor due to lack of funding.

Members discussed Amendment 69, and whether or not DRCOG should take a position on the initiative. Some members felt that DRCOG should not take a position on Amendment 69, as it isn't in DRCOG's purview. Executive Director Schaufele noted that this item was brought to the body for discussion and possible action at the request of Board Directors.

Director Atchison **moved** to adopt a position of oppose on Amendment 69. The motion was **seconded**. There was discussion. The number of members abstaining did not allow for enough members in attendance to reach a majority affirmative vote.

Chair Jones noted this item could be brought back to the members for discussion after more member jurisdictions have had an opportunity to discuss the amendment and take a position.

Discussion of amendments to the 2016-2021 Transportation Improvement Program

Todd Cottrell provided an overview of the proposed amendments. There are amendments related to expending FasTracks second commitment in principle funding in the Northwest corridor, and amendments in CDOT Region 4 and related to aligning projects to year of construction.

Bob Fifer questioned why federal funds are being used on quiet zones. Mr. Cottrell noted quiet zones are eligible for federal funding and the corridor partners agreed to the projects. Chair Jones noted that the Northwest Corridor has not yet gotten its promise of rail, so they are using their allocation on projects that will benefit future rail and also provides an immediate benefit to communities in the corridor. The FasTracks second commitment in principle funds for this corridor are being spent in accordance with the environmental impact assessment requirements, and with agreement of the corridor participants.

Director Rakowsky **moved** to approve the amendments to the 2016-2021 Transportation Improvement Program. The motion was **seconded**. There was discussion.

A question was asked about future funds for maintenance of the quiet zones. It was noted the project sponsor will be responsible for future maintenance.

After discussion, the motion **passed** unanimously.

Discussion of amendments to the FY 2016-2017 Unified Planning Work Program

Doug Rex provided a brief overview of the proposed amendments.

Director Shakti **moved** to approve amendments to the FY 2016-2017 Unified Planning Work Program. The motion was **seconded** and **passed** unanimously.

Discussion of policies and information requirements related to HOV/Toll/Managed Lanes

Jacob Riger, DRCOG staff, provided information on the HOV/Toll/Managed Lanes. A suggestion was made that a more user-friendly approach to the policy should be developed, as there is confusion related to how the policy is applied in different corridors. Deb Perkins-Smith noted there have been many discussions at CDOT on the consistency issue.

Director Rakowsky **moved** to approve the updated additional information requirements for Fiscally Constrained Regional Transportation Plan project submittals with a tolling component. The motion was **seconded** and **passed** unanimously.

Discussion of recommendation on Metro Vision 2040 Performance Measures and Strategic Initiatives

Brad Calvert provided an overview of the process to date for updating the Metro Vision Plan.

Director Atchison **moved** to approve the Metro Vision 2040 Plan Draft performance measures, strategic initiatives (menu of voluntary options available to organizations), and “preamble” as outlined in the agenda attachment. The motion was **seconded**. There was discussion.

Director Partridge noted that he continues to have concerns with policy words in the document, and concern with Metro Vision guiding TIP Criteria.

After discussion, the motion **passed** unanimously.

Small Communities Hot Topics Briefing

Flo Raitano provided an overview of the upcoming Small Communities: Hot Topics forum. The forum is scheduled for September 15 here at the DRCOG offices. Online registration will be open in a couple of weeks.

Bike to Work Day Recap

Steve Erickson provided a recap of Bike to Work day events and participation. An estimated 34,000 people participated.

Committee Reports

**State Transportation Advisory Committee** – The State released its economic forecast on SB 228 funds; projecting a \$110 million transfer in 2017/2018. Work is beginning on freight funding and on the integrated freight and rail plan. Chair Jones was added to the Alternative Fuels Committee.

**Metro Mayors Caucus** – The Caucus has formulated its Transportation Committee. The Metro Mayors Caucus will have its next meeting in September.

**Metro Area County Commissioners** – The MACC did not meet.

**Advisory Committee on Aging** – There was no meeting in July.

**Regional Air Quality Council** – The RAQC met in June to approve the State Implementation Plan and forward it to the Air Quality Control Commission. Work will begin immediately to come into compliance with the new air quality standard.

**E-470 Authority** – The E-470 meeting was cancelled. The State's new temporary license plates will have a positive financial impact on collection of tolls.

**Report on FasTracks** – The RTD FasTracks Monitoring Committee met and received a report on the four unfunded FasTracks corridors to determine if any of them would be eligible for federal New Starts funding. It was determined that none of the four corridors are eligible for funding through the program.

Next meeting – **September 21, 2016**

Other matters by members

It was noted the August 3, 2016 Work Session is cancelled. The Performance and Engagement Committee will meet on August 3.

Adjournment

The meeting adjourned at 8:50 p.m.

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Elise Jones, Chair  
Board of Directors  
Denver Regional Council of Governments

ATTEST:

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Jennifer Schaufele, Executive Director

**ATTACH C**

To: Chair and Members of the Board of Directors

From: Jennifer Schaufele, Executive Director  
303 480-6701 or [jschaufele@drco.org](mailto:jschaufele@drco.org)

Meeting Date	Agenda Category	Agenda Item #
August 17, 2016	Action	10

#### SUBJECT

The proposed creation of a Mobility Choice Blueprint for the region and a request for DRCOG's participation.

#### PROPOSED ACTION/RECOMMENDATIONS

Approval to participate and contribute funding towards the Mobility Choice Blueprint.

#### ACTION BY OTHERS

August 16, 2016 - RTC will act on a recommendation.

[July 25, 2016](#) - TAC recommended approval.

#### SUMMARY

At the July 2016 Board meeting, retired CDOT Director Don Hunt and Kelly Brough (President and CEO of the Greater Metro Chamber of Commerce) provided a briefing on a new initiative called Mobility Choice. Its stated purpose is to:

*Maximize existing investments in the metro Denver transportation system by leveraging technology to meet future workforce mobility needs, resulting in enhanced economic opportunity and quality of life.*

The Board was informed that DRCOG staff has been participating in discussions with the Denver Metro Chamber, CDOT and RTD about forming a partnership to create an environment embracing advanced transportation technologies to improve future mobility.

To advance this goal, it is proposed the partners fund a study, called the Mobility Choice Blueprint, to further understand the future of transportation technology and what is needed to prepare the region for its inevitable expansion. Attachment 1 details the purpose and outcomes of the Mobility Choice Blueprint initiative. Once complete, the Blueprint – which includes a large public involvement process – would be used to recommend investment priorities for the Regional Transportation Plan (RTP) and future Transportation Improvement Programs (TIPs). Recommended projects or programs would come from either “existing funding” or “new funding models”, which could result in reallocation of funds in the fiscally constrained RTP.

The Blueprint development would be overseen by a Mobility Choice Board of Directors and the Chamber will finance the operations of the Board, hiring an executive director. The Board will be made up of private and public sector leaders and DRCOG will be a member (See attachment 1 for a list of Board member names and organizations).

The estimated cost of the Blueprint is \$1.5 million and will be equally shared among the three public agencies (DRCOG, CDOT and RTD). As noted above, the Denver Metro Chamber is providing the funds to operate the Mobility Choice Board. Consequently,



DRCOG's share would be \$500,000 and, if the DRCOG Board decides to participate, staff recommends using Surface Transportation Program-Metro funds available, as a result of additional funds from the FAST Act and returns from completed projects.

The success of this endeavor is contingent on all three public agencies contributing funding. To date, CDOT has secured its share and RTD plans to present to its Board in September.

At the July meeting, the DRCOG Board informally expressed its willingness to participate in this endeavor leading to this formal action.

#### PREVIOUS DISCUSSIONS/ACTIONS

[July 20, 2016](#) - Board discussion about DRCOG's participation.

[December 15, 2015](#) - Don Hunt briefing on the Mobility Choice Initiative.

#### PROPOSED MOTION

Move to approve participation in the Mobility Choice Blueprint Initiative and administratively modify the *2016-2021 Transportation Improvement Program* (TIP) to include \$500,000 of Surface Transportation Program-Metro funds as DRCOG's funding contribution.

#### ATTACHMENT

1. Mobility Choice Blueprint Initiative

#### ADDITIONAL INFORMATION

If you need additional information, please contact Jennifer Schaufele, Executive Director at 303 480-6701 or [jschaufele@drcog.org](mailto:jschaufele@drcog.org); or Douglas Rex at 303 480-6747 or [drex@drcog.org](mailto:drex@drcog.org).



# MOBILITY CHOICE BLUEPRINT INITIATIVE FOR THE METRO DENVER AREA

**How we move is changing.** In the post-war history of mobility in our region, personal cars have been central to nearly every trip. Getting a driver's license was a major rite of passage for most Americans, and owning a car was part of living the American dream. Accordingly, transportation planning processes were built around that expectation, with a focus on maximizing and increasing the amount of cars our roads can hold.

But technology is changing these values. Today, Americans spend on average 17 percent of their household budgets on transportation, largely toward owning and maintaining a car. Driving is an unproductive commitment of personal time. Meanwhile, connected cars are already being produced, driverless cars are coming faster than anticipated and the sharing economy is growing. With that, transportation planning must change.

We are proposing a mobility planning effort that takes into account the types of changes we are experiencing due to advancing technology and shifting values. By uniting the public and private sectors we can better plan for the mobility needs of our future workforce. If we don't act now, our growth and congestion could work against us when it comes to attracting tomorrow's employers.

The Denver Metro Chamber of Commerce, the Colorado Department of Transportation, the Regional Transportation District and the Denver Regional Council of Governments are ready to embrace a new approach to planning for connected mobility in the metro Denver area.

## Our Purpose

***Maximize existing investments in the metro Denver transportation system by leveraging technology to meet future workforce mobility needs, resulting in enhanced economic opportunity and quality of life.***

## The Mobility Choice Organization

Mobility Choice is a partnership among the Denver Metro Chamber of Commerce, Colorado Department of Transportation, Regional Transportation District, and Denver Regional Council of Governments. Mobility Choice is the non-profit overseeing the preparation of the 2030 Blueprint, supporting a process and generating a document that will articulate how metro Denver can join together public and private interests, incorporate technological change and opportunity, and provide alignment for strategic transportation investment.

The Mobility Choice Board of Directors is composed of private and public leaders:

- |  |  |   |
|--|--|---|
| <ul style="list-style-type: none"> <li>• <b>Bruce Alexander</b>, President &amp; CEO, Vectra Bank Colorado</li> <li>• <b>Kelly Brough</b>, President and CEO, Denver Metro Chamber of Commerce</li> <li>• <b>Colorado Department of Transportation</b></li> <li>• <b>Denver Regional Council of Governments</b></li> </ul> | <ul style="list-style-type: none"> <li>• <b>Regional Transportation District</b></li> <li>• <b>Jack Hilbert</b>, former Douglas County Commissioner</li> <li>• <b>Aiden Mitchell</b>, Vice President, IoT Global Solutions, Arrow Electronics</li> <li>• <b>Becca O'Brien Kuusinen</b>, Associate</li> </ul> | <ul style="list-style-type: none"> <li>Principal, Denver, McKinsey &amp; Company</li> <li>• <b>IHS Inc.</b></li> <li>• <b>Kaiser Permanente</b></li> <li>• <b>Will Toor</b>, former Boulder County Commissioner</li> <li>• <b>Jarrett Wendt</b>, VP Strategic Initiatives and Business Development, Panasonic Enterprise Solutions Company</li> </ul> |
|--|--|---|

Don Hunt, retired CDOT Executive Director, is the convening Executive Director of Mobility Choice.

## Blueprint Products/Outcomes

The Mobility Choice Blueprint, a strategic direction for transportation in the Denver region, will produce specific products and outcomes:

- 1) **Engagement** of the general public and key stakeholders in metro Denver's mobility future in a way that provides education and awareness of technological change in transportation, and meaningful input to the Blueprint process and recommendations
- 2) A 15-year **scenario** for most probable technological impact on mobility and transportation
- 3) Year 2030 recommendations for:
  - a) Changes to regional transportation **policies**
  - b) Elimination of or additions to transportation **projects** (e.g. highway capacity, express toll lanes, rail transit, station connections, bus rapid transit)
  - c) Reductions in or additions to transportation/mobility **programs** (e.g. local bus service, on demand mobility, TDM, bicycle, pedestrian, signal systems, managed highway systems, customer trip decision information, integrated electronic payment, private mobility provider integration, freight movement)
- 4) **Funding** requirements and sources to implement recommended projects and programs by 2030
  - a) Use of existing funding
  - b) New funding models
- 5) **Continuing processes** to:
  - a) Effectively engage the **private sector** and employers in transportation solutions
  - b) Maintain **strategic alignment** of CDOT, RTD and DRCOG transportation project and program investments
  - c) Evaluate the pace of technological change and **make mid-course corrections** to regional plans for effective transportation and mobility investments

**ATTACH D**

To: Chair and Members of the Board of Directors

From: Jennifer Schaufele, Executive Director  
303 480-6701 or [jschaufele@drcog.org](mailto:jschaufele@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
August 17, 2016	Action	11

#### SUBJECT

This item describes the recommendations to allocate fiscal year 2016 and 2017 federal funds for contingency and Multimodal Signal Operations Support identified in the *Traffic Signal System Improvement Program* (TSSIP) and the *Regional Intelligent Transportation System (ITS) Deployment Program*.

#### PROPOSED ACTION/RECOMMENDATIONS

DRCOG staff recommends approval of the proposed miscellaneous equipment projects.

#### ACTION BY OTHERS

August 16, 2016 Regional Transportation Committee will act on a recommendation.

[July 25, 2016](#) Transportation Advisory Committee recommended approval of project selection recommendations.

[June 22, 2016](#) The Regional Transportation Operations Working Group, comprised of project sponsors and other stakeholders, affirmed DRCOG staff recommendations.

[March 28, 2016](#) Transportation Advisory Committee approved project selection process.

#### SUMMARY

The [Traffic Signal System Improvement Program](#) (TSSIP) [adopted September 2013] and the [Regional Intelligent Transportation System \(ITS\) Deployment Program](#) [adopted June 2014] both identify contingency funds to ensure the programs' capital improvements are fully funded. After any contingencies are satisfied, the remaining funding is available to purchase needed "miscellaneous" equipment. In addition, the TSSIP program identifies funding for Multimodal Signal Operations Support.

On April 26, 2016, the DRCOG Transportation Operations Program solicited requests for miscellaneous equipment applications in three categories:

	FY16	FY17	Total
TSSIP	\$435,000	\$328,000	\$763,000
Multimodal Signal Operations Support		\$356,000	\$356,000
ITS	\$127,300	\$513,700	\$641,000
			<b>\$1,760,000</b>

Seven operating agencies submitted 9 projects for consideration by the deadline, totaling about \$1,400,000. The requests for TSSIP miscellaneous funds amounted to about \$836,000 and the requests for ITS Pool miscellaneous funds amounted to about \$562,000. There were no requests for multimodal signal operations support funding.

## Evaluation Process

DRCOG staff reviewed all applications for completeness and eligibility.

### TSSIP Miscellaneous Eligibility Requirements

- TSSIP funds are eligible for 100% federal share.
- Projects must be on the DRCOG Regional Roadway System.
- Projects must be consistent with the current update of the *DRCOG Traffic Signal System Improvement Program* (TSSIP).
- TSSIP funds are designated for signal improvements that promote and support coordinated signal timing operations. Corridors that were retimed before **2013** and have an average signal spacing no greater than ½ mile are eligible for funding.

### ITS Pool Miscellaneous Eligibility Requirements

- The ITS Pool funds require a minimum 20% non-federal match.
- Projects must be on the DRCOG Regional Roadway System.
- Projects must be consistent with the current update of the *DRCOG Regional Intelligent Transportation Systems Deployment Program*.
- ITS Pool funds are designated for technology projects that promote and support improved regional transportation operations.

DRCOG staff then reviewed the applications based on the type of funds the applicant was requesting and the previously-adopted project prioritization tables. The *TSSIP Miscellaneous Priority Table* and the *ITS Pool Miscellaneous Priority Table* are attached (*Attachments 1 and 2 respectively*). Projects were ranked by priority within each funding category and funds were allocated until exhausted or all the eligible projects were funded. In the event that projects within a priority level exceeded total available funding, the evaluation considered additional criteria provided on the priority table to further prioritize projects within the priority level.

## Recommendations

DRCOG staff's funding recommendations are shown below:

Jurisdiction	Project	Federal Allocation	Non-Federal Match
Arvada	Extend communications on 64 <sup>th</sup> Ave	\$15,380	\$0
Brighton	Upgrade traffic signal controllers citywide	\$40,584	\$0
CDOT	Travel time monitoring system equipment	\$104,000	\$26,000
CDOT	Travel time monitoring system equipment	\$345,600	\$86,400
Centennial	Extend communications on Arapahoe Rd	\$2,200	\$0
Commerce City	Upgrade cabinets and controllers on Quebec St	\$33,000	\$0
Commerce City	Upgrade cabinets and controllers on SH 2	\$99,000	\$0
Superior/Louisville	Upgraded signal control system on McCaslin Blvd	\$142,300	\$0
Remainder Unallocated		\$977,936	

A detailed explanation for staff's recommendations is shown in Attachment 3. As stated in the previously-adopted selection process, the remaining \$977,936 will be rolled into the total funding to be programmed in the Regional Transportation Operations Improvement Program that will begin development later this year.

#### PREVIOUS DISCUSSIONS/ACTIONS

[April 20, 2016](#) DRCOG Board approved project selection process.

#### PROPOSED MOTION

Move to approve the proposed miscellaneous equipment projects for fiscal year 2016 and 2017 federal funds identified in the *Traffic Signal System Improvement Program* (TSSIP) and the *Regional Intelligent Transportation System (ITS) Deployment Program*.

#### ATTACHMENTS

1. TSSIP MEPP Prioritization Table
2. ITS MEPP Prioritization Table
3. Staff recommendations detail

#### ADDITIONAL INFORMATION

If you need additional information, please contact Jennifer Schaufele, Executive Director at 303 480-6701 or [jschaufele@drcog.org](mailto:jschaufele@drcog.org); or Greg MacKinnon, Regional Transportation Operations Program Manager, at 303-480-5633 or [gmackinnon@drcog.org](mailto:gmackinnon@drcog.org).

## 2016 TSSIP Miscellaneous Prioritization Table

Priority Level	Priority Justifications
1	<p>Purchases to assure proper operation of existing traffic signal systems, in descending priorities:</p> <ul style="list-style-type: none"> <li>a. Replacement of equipment that is obsolete/incompatible or has a demonstrated history of poor reliability.</li> <li>b. Replace/upgrade communications equipment/system where existing communication has a demonstrated history of poor reliability.</li> </ul> <p><b>The application must illustrate how the equipment is obsolete/incompatible and/or document history of poor reliability.</b></p>
2	<p>Purchases to extend the reach of traffic signal system control to locations not currently under system control (operating agency must already have an operational system to which the proposed locations would be added), in descending priorities:</p> <ul style="list-style-type: none"> <li>a. Installation of controller (and related) equipment.</li> <li>b. Installation of communications equipment.</li> </ul>
3	<p>Purchases to install uninterruptable power supply (UPS) at signalized intersections where existing power has a demonstrated history of poor reliability.</p> <p><b>The application must document history of poor reliability.</b></p>
4	<p>Purchases that facilitate coordinated traffic signal operations across multiple agencies, in descending priority:</p> <ul style="list-style-type: none"> <li>a. Improvements in or expansion of the shared (inter-agency) communications network.</li> <li>b. Improvements in inter-agency data sharing.</li> <li>c. Improvements in performance measures reporting.</li> <li>d. Improvements in shared monitoring between jurisdictions.</li> <li>e. Improvements in coordination and integration of multi-modal traveler information.</li> </ul> <p><b>The operating agency must demonstrate significant commitment from all stakeholders.</b></p>
5	<p>Purchases that upgrade beyond base level signal control for agencies migrating from a base-function control system with an already-owned higher-function control system, in descending priorities:</p> <ul style="list-style-type: none"> <li>a. Upgrading agency-owned communication, which is incompatible with the higher-function system.</li> <li>b. Migrating from leased to agency-owned communication, if required by the higher-function system.</li> <li>c. Deploying system detector equipment to support adaptive traffic control improvements.</li> <li>d. Implementing higher system functions at traffic signal controller locations to support operation improvements for pedestrians, bicycles, and transit at signalized intersections or crossings.</li> </ul>
6	<p>Purchases that enhance systems operational capabilities, in descending priorities:</p> <ul style="list-style-type: none"> <li>a. Upgrading to newer/higher version of existing system software or upgrading beyond base level signal control. <b>The jurisdiction must define in the application the functions/features determined to be necessary that are not available in the current signal system.</b></li> <li>b. Advancement of traffic signal system management to support bicycle and pedestrian operations.</li> <li>c. Deploying TSP equipment on transit vehicles.</li> </ul>



## 2016 TSSIP Miscellaneous Prioritization Table

**Notes:** Traffic control signalization projects are counted among select safety projects that are eligible for an increased federal share.

Eligible projects are those that are:

- Focus on traffic control signalization
- Improve inter-agency signal timing coordination
- Located on Principal Arterials and higher
- Corridors that have not implemented new signal timing with DRCOG traffic operations program assistance since 2012

**Poor Reliability** = Equipment has a documented history of failures or malfunctions that impact corridor coordination. **Documentation that illustrates both failure/malfunction and the consequent impact on coordinated signal operations and travel time reliability. The threshold is an impact on four or more peak periods in one month.**

In the event that projects within a priority level exceed total available funding, the evaluation will consider the following criteria:

1. Foremost, the congestion and air quality benefits of installing equipment must be documented by either a signal timing project or similarly credible benefits analysis. Projects that anticipate positive congestion and air quality benefits are considered more critical.
2. Other factors that will be considered:
  - a. projects with a signal spacing of ½ mile or less are considered more critical; and,
  - b. projects on corridors that have not been retimed in less than 4 years are more critical.
  - c. projects on corridors with a higher congestion grade in the *DRCOG Congestion Management Process* (CMP) are considered more critical;
  - d. projects on corridors and at intersections with poor safety performance scores in the *Report on Transportation Safety in the Denver Region* are more critical; and,
  - e. projects on corridors within a ½ mile of a planned transit park-n-Ride are considered more critical.
3. Projects will be examined to determine feasibility of splitting into more than one project.
4. Relevant applicants will be contacted, if necessary, to further ascertain their priorities and perspectives.

Last Update: 10/09/15

## ATTACHMENT 2

# 2016 ITS Pool Miscellaneous Prioritization Table

Priority Level	Priority Justifications
1	<p>Purchases that facilitate coordinated operations across multiple agencies, in descending priority:</p> <ul style="list-style-type: none"> <li>a. Improvement in regional traffic incident management</li> <li>b. Improvements in or expansion of the shared (inter-agency) communications network.</li> <li>c. Improvements in inter-agency data sharing.</li> <li>d. Improvements in performance measures reporting.</li> <li>e. Improvements in shared monitoring between jurisdictions.</li> <li>f. Improvements in coordination and integration of multi-modal traveler information.</li> </ul> <p><b>The operating agency must demonstrate significant commitment from all stakeholders.</b></p>
2	<p>Purchases that extend traffic monitoring infrastructure, in descending priority:</p> <ul style="list-style-type: none"> <li>a. Arterials</li> <li>b. Freeways</li> </ul> <p>The operating agency will follow CDOT's <i>Regional Integrated Traveler Information Display Guidelines</i> and will commit to efforts (following/establishing regional standards and implementing CTMS software modifications, as necessary) to share data produced by the project with CDOT's CTMS.</p> <p><b>The operating agency must coordinate to share monitoring data (and access) with at least CDOT and potentially other neighbors. The operating agency must demonstrate significant commitment from all stakeholders.</b></p>
3	<p>Purchases that improve work zone/special event management, in descending priority:</p> <ul style="list-style-type: none"> <li>a. Improvements in Regional Traveler Information coordination.</li> <li>b. Field implementation projects (i.e. work zone management)</li> </ul>
4	<p>Purchases that enhance systems operational capabilities, in descending priorities:</p> <ul style="list-style-type: none"> <li>a. Deploying CCTV field equipment at traffic signal controller locations.</li> <li>b. Deploying Road-Weather Stations.</li> </ul>

## 2016 ITS Pool Miscellaneous Prioritization Table

**Notes:**

In the event that projects within a priority level exceed total available funding, the evaluation will consider the following criteria:

1. Foremost, the congestion and air quality benefits of installing equipment must be documented by either a signal timing project or similar before-after analysis. Projects that anticipate positive congestion and air quality benefits are considered more critical.
2. Projects that assist the DRCOG region in achieving the *Denver Regional Concept of Transportation Operations* (RCTO) goals and objectives are considered more critical, in descending order of priority:
  - a. Improvements focused on incident management coordination (active management).
  - b. Improvements focused on performance monitoring.
  - c. Improvements focused on shared monitoring (active monitoring).
3. Other factors that will be considered:
  - a. projects on corridors with a higher congestion grade in the *DRCOG Congestion Management Process* (CMP) are considered more critical;
  - b. projects on corridors and at intersections with poor safety performance scores in the *Report on Transportation Safety in the Denver Region* are more critical; and,
  - c. projects on corridors within a ½ mile of a planned transit park-n-Ride are considered more critical.
4. Projects will be examined to determine feasibility of splitting into more than one project.
5. Relevant applicants will be contacted, if necessary, to further ascertain their priorities and perspectives.

\* Equipment that is used mainly for traffic signal coordination purposes can be considered for 100% federal funds.

Last Update: 09/23/15

## ATTACHMENT 3

### Staff Recommendations Detail

#### City of Arvada (one request)

1. Arvada requests TSSIP funds to extend system control to 72nd Avenue/Quaker Street by extending fiber communications to these signals (Priority 2b). Arvada also requests TSSIP funds to upgrade existing communications from wireless to fiber for four other locations (64<sup>th</sup> Avenue/Kendrick, 64th Avenue/McIntyre Street Drive, 64<sup>th</sup> Avenue/Pike Street, 64<sup>th</sup> Avenue/Quaker Street) demonstrating (Priority 1b). Arvada's justification for this request is record of poor communications reliability through an existing SCADA system, which was not primarily constructed for the traffic signal system. This request provides the equipment to move these signals to a more reliable dedicated traffic signal communications system.

Except for 72<sup>nd</sup> Avenue/Quaker Street, all the request locations are on the Regional Roadway System with an average signal spacing of less than ½ mile.

This request has a low risk assessment with systems engineering complete in the TSSIP.

#### DRCOG staff recommendation:

1. Allocate funding for Request 1 with the exclusion of 72<sup>nd</sup> Avenue/Quaker Street. Note that as there will be some disturbance as part of equipment implementation, Arvada will have to coordinate with CDOT to acquire environmental clearance for the work.

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#### City of Brighton (one request)

1. Brighton requests TSSIP funds to procure 15 upgraded controllers on Bridge Street (3 signals), Bromley Lane (9 signals), and 27<sup>th</sup> Avenue (3 signals). Brighton's justification for this request is bring these intersections up to Brighton's new controller standard for the on-going signal interconnect project along these corridors (Priority 6a).

All the request locations are on the Regional Roadway System with an average signal spacing of less than ½ mile.

This request has a low risk assessment with systems engineering complete in the TSSIP.

#### DRCOG staff recommendation:

1. Allocate full funding for Request 1.

## ATTACHMENT 3

### Staff Recommendations Detail

---

#### **City of Centennial** (three requests)

1. Centennial requests TSSIP funds to upgrade intersection detection at 7 intersections along Smoky Hill Road. Centennial's justification for this request is the need to upgrade and standardize intersection detection to video detection. There is no TSSIP priority for intersection detection.

All the request locations are on the Regional Roadway System with an average signal spacing of less than ½ mile.

This request was assessed as low risk.

2. Centennial requests TSSIP funds to upgrade intersection detection at 10 intersections along Arapahoe Road. Centennial's justification for this request is the need to upgrade and standardize intersection detection to video detection. There is no TSSIP priority for intersection detection.

All the request locations are on the Regional Roadway System with an average signal spacing of less than ½ mile.

This request was assessed as low risk.

3. Centennial requests TSSIP funds to extend system control to the intersection of Franklin Street/Arapahoe Road with wireless communications (Priority 2b).

All the request locations are on the Regional Roadway System with an average signal spacing of less than ½ mile.

This request has a low risk assessment with systems engineering complete in the TSSIP.

#### DRCOG staff recommendations:

1. Allocate no funds for Request 1 as the request is not a priority in the TSSIP.
  2. Allocate no funds for Request 2 as the request is not a priority in the TSSIP.
  3. Allocate full funding for Request 3.
- 

#### **Colorado Department of Transportation** (two requests)

1. CDOT requests ITS funds to procure a travel time monitoring system along Wadsworth Boulevard. The system will be procured in combination with CDOT's second project request (Greenwood Village's bid). Specific coordination has been agreed upon at the boundaries with Lakewood. CDOT's justification for this request is the need to improve the CDOT's awareness of traffic conditions on the corridor (Priority 2b), which will be identified as a Route of Significance.

## ATTACHMENT 3

### Staff Recommendations Detail

All the request locations are on the Regional Roadway System.

CDOT committed a 20% non-federal match for this request.

This request has a low risk assessment with systems engineering complete in the *Concept of Operations for the Multi-Agency Arterial Travel Time Monitoring Project*.

2. CDOT requests ITS funds to expand Greenwood Village's travel time monitoring system along Arapahoe Road. CDOT will own and maintain the equipment on Arapahoe Road while Greenwood Village hosts the server managing the system. CDOT's justification for this request is the need to improve the CDOT's awareness of traffic conditions on the corridor (Priority 2b), which is being identified as a Route of Significance.

All the request locations are on the Regional Roadway System.

CDOT committed to a 20% non-federal match for this request.

This request has a low risk assessment with systems engineering complete in the *Concept of Operations for the Multi-Agency Arterial Travel Time Monitoring Project*.

DRCOG staff recommendations:

1. Allocate full funding for Request 1.
  2. Allocate full funding for Request 2.
- 

#### **City of Commerce City** (two requests)

1. Commerce City requests TSSIP funds for upgraded cabinets and controllers for 6 signals along Highway 2 from 72<sup>nd</sup> Avenue to 104<sup>th</sup> Avenue. Commerce City's justification is the need to upgrade the controllers and cabinets to be compatible with Commerce City's system (Priority 6a). Intersection detection equipment was included in the request. Intersection detection is not a priority in the TSSIP.

All the request locations are on the Regional Roadway System with an average signal spacing of about 1 mile. Despite the signal spacing, this corridor was the subject of a signal timing project in 2009.

This request has a low risk assessment with systems engineering complete in the TSSIP.

2. Commerce City requests TSSIP funds for upgraded cabinets and controllers for 2 signals along Quebec Street from 58<sup>th</sup> Avenue to 60<sup>th</sup> Avenue. Commerce City's justification is the need to upgrade the controllers and cabinets to be compatible

## ATTACHMENT 3

### Staff Recommendations Detail

with Commerce City's system (Priority 6a). Intersection detection equipment was included in the request. Intersection detection is not a priority in the TSSIP.

All the request locations are on the Regional Roadway System with an average signal spacing of less than ½ mile.

This request has a low risk assessment with systems engineering complete in the TSSIP.

DRCOG staff recommendations:

1. Allocate partial funding to Request 1; fund the request without the intersection detection equipment.
  2. Allocate partial funding to Request 2; fund the request without the intersection detection equipment.
- 

#### **Town of Superior/Town of Louisville** (one joint request)

1. Superior and Louisville jointly request TSSIP funds to procure an upgraded traffic signal system on McCaslin Boulevard from High Plains Drive to Via Appia Way. This request consists of workstation upgrades, signal system software upgrades, and miscellaneous communications equipment. The sponsors' justification for this request is the need to bring all traffic signals on either side of the Diverging Diamond Interchange (DDI) at US 36 under the control of one system in order to improve monitoring and management of the new conditions (Priority 4a).

All the request locations are on the Regional Roadway System with an average signal spacing of less than ½ mile.

This request has a low risk assessment with systems engineering complete in the TSSIP and Denver's open procurement (with functional requirements definition).

This request also included requests for CCTV and related equipment as well as roadway detection equipment. These items are defined as part of a vision of a larger, integrated Advanced Transportation Management System—an ITS-related request. These items are not eligible for TSSIP funding.

DRCOG staff recommendation:

1. Allocate partial funding for Request 1; fund the request except for the CCTV and related equipment and the roadway detection station equipment. Note that as there will be some disturbance as part of equipment implementation, Superior and Louisville will have to coordinate with CDOT to acquire environmental clearance for the work.

**ATTACHE**



To: Chair and Members of the Board of Directors

From: Jennifer Schaufele, Executive Director  
303-480-6701 or [jschaufele@drcog.org](mailto:jschaufele@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
August 17, 2016	Informational Briefing	12

#### SUBJECT

This item provides information on DRCOG's Boomer Bond initiative.

#### PROPOSED ACTION/RECOMMENDATIONS

No action requested, this item is for information only.

#### ACTION BY OTHERS

N/A

#### SUMMARY

DRCOG recently received recognition from the National Association of Area Agencies on Aging (n4a) with an *Aging Innovations Award*, the highest honor presented by n4a to member agencies. The awards showcase programs that develop and implement cutting-edge programs to support older adults, people with disabilities and their family caregivers.

The Boomer Bond is central to efforts to move beyond the traditional AAA service model that will likely fall short of meeting growing needs. The multi-disciplinary initiative considers how the design of our communities, services and infrastructure must evolve to support independent, successful aging.

Brad Calvert, Regional Planning and Development Director, will discuss the Boomer Bond initiative; including initiative design, early success stories and upcoming activities and opportunities.

#### PREVIOUS DISCUSSIONS/ACTIONS

N/A

#### PROPOSED MOTION



N/A

#### ATTACHMENTS

Boomer Bond presentation

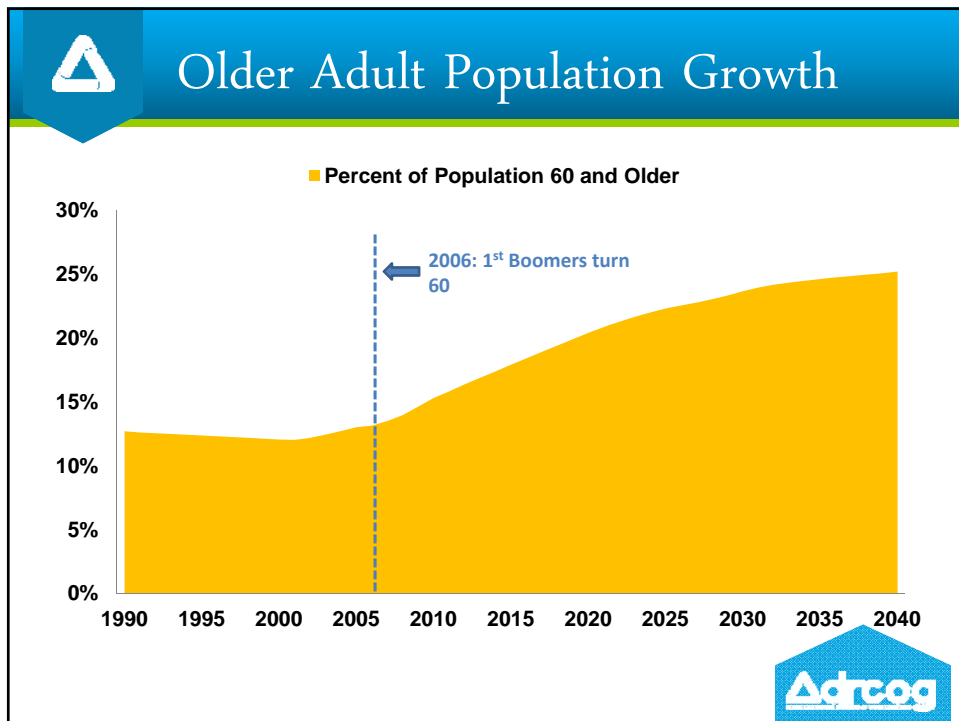
#### ADDITIONAL INFORMATION

If you need additional information, please contact Jennifer Schaufele, Executive Director, at 303-480-6701 or [jschaufele@drcog.org](mailto:jschaufele@drcog.org); or Brad Calvert, Director, Regional Planning and Development at 303-480-6839 or [bcalvert@drcog.org](mailto:bcalvert@drcog.org).

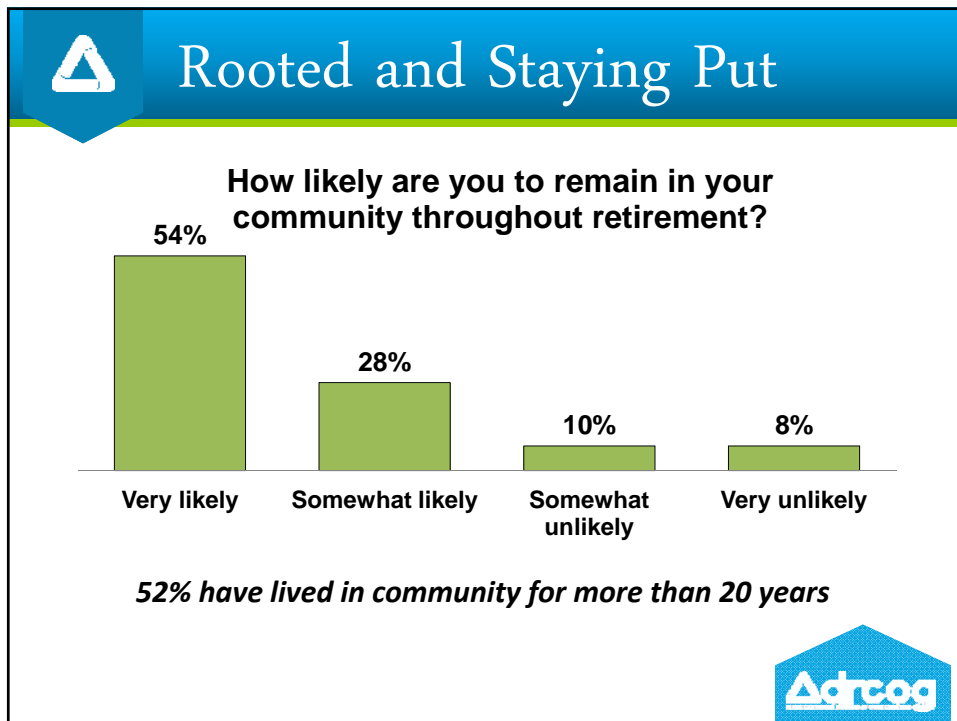
# DRCOG's Boomer Bond

**Brad Calvert, Director**  
**Regional Planning and Development**  
**August 17, 2016**



75+ Population (2014 – 2024)			
County	2014	2024	% Change
Adams	18,518	30,992	67.4%
Arapahoe	28,915	48,727	68.5%
Boulder	14,646	24,909	70.1%
Broomfield	2,846	4,639	63.0%
Clear Creek	440	882	100.5%
Denver	31,707	44,903	41.6%
Douglas	9,138	20,837	128.0%
Gilpin	181	464	156.4%
Jefferson	33,751	54,115	60.3%
DRCOG Region	140,142	230,468	64.5%

Source: Colorado State Demographer





## Boomer Bond – Key Elements

1. **Community assessment tool to facilitate local dialogue and identify age-friendly/livable community priorities**
2. **A readily-accessible inventory of policies, strategies and tools for local governments to consider**



## Resource Directory

[www.drcog.org/resource-directory](http://www.drcog.org/resource-directory)


## Customize your Search

Are you looking for resources to help your community plan for seniors?

- Any -

General

Housing

Mobility and Access

Support Services

Community Living

## Resource Type

Select Some Options

## Title

Search

The Boomer Bond Resource Directory can guide you in creating age-friendly communities with guidelines and best practices from Colorado and beyond. If you work for a local government, are an elected official, or a citizen trying to learn more about what might make your community a better place to thrive for people of all ages, this resource directory can assist you. We welcome [feedback](#) on the resources curated here.



## Why an Assessment Tool?

- “Conversation starter” at the local level (including partners)
- Provide structure to what can be an overwhelming conversation
- Help focus efforts to engage the general public

Boomer Bond Assessment Tool



EXISTING Public Sidewalk Elements	A LOT of improvement needed	MODERATE improvement needed	A LITTLE improvement needed	Fully accommodated
Continuous sidewalk system providing access to essential services for older adults	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum sidewalk width of five feet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ADA ramps at intersections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visual and physical cues at ramps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level landings where driveways intersect public sidewalks to retain a level path for pedestrians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimal tripping hazards from uneven surface or protruding objects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Signage to direct pedestrians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Buffer between sidewalk and street (e.g. planting strips, on-street parking, bike lanes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





## Boomer Bond Assessment Tool

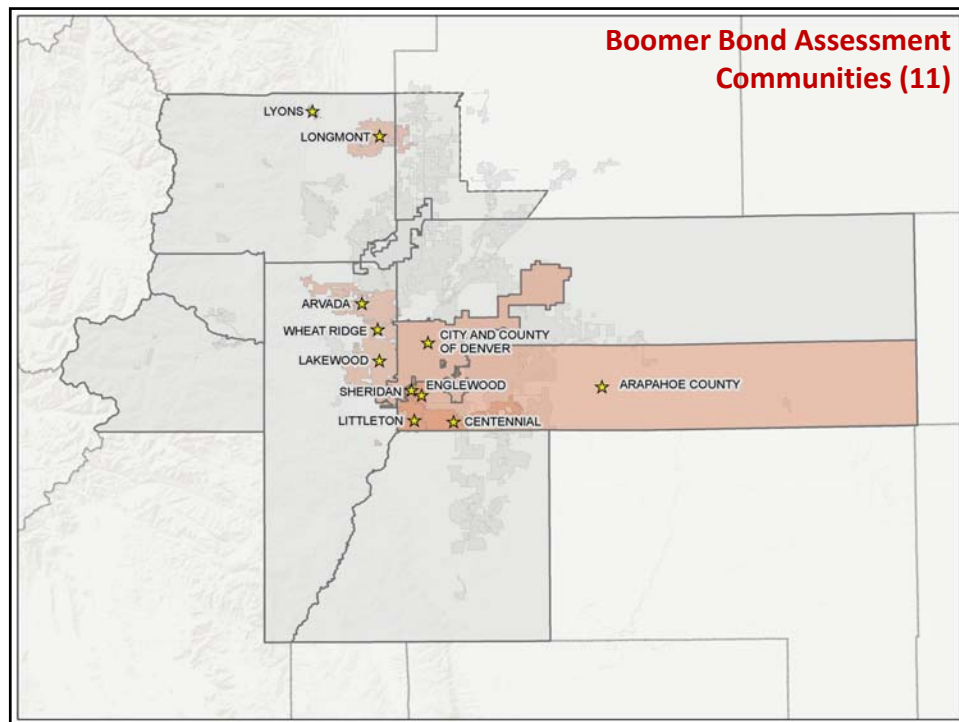
- **Initially developed by group of ~60 stakeholders**
  - Elected officials
  - Architects
  - Planners
  - Human service professionals
  - Citizens
- **Intentionally created an instrument geared toward local government staff/operations**
- **“Beta-tested” by 3 communities**



## Boomer Bond Topic Areas

Topic Area	Brief Description
Mobility and Access	Design of public sidewalks, streets, and intersections; available transportation options; access to mixed use districts; and driver safety
Housing	Availability of a variety of affordable housing options; visitability and universal design; programs to support development of housing options
Community Living	Accessible gathering spaces and parks; engagement and volunteer activities; programs to assist in remaining/reentering workforces; safety and security; emergency preparedness
Support Services	Programs to maintain independence; preventive health care; home maintenance and chore services





## Community Commitment Overview

- **Typical organizational commitment to complete assessment: 4 – 8 months**
- **Lead staff person(s) can/has come from any department – key qualities:**
  - Capacity to commit time and energy
  - Cat herding / effective pest
  - Willing to learn about items outside their usual purview







## DRCOG Roles in Assessment

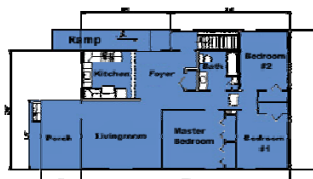
- Assessment is “locally owned”
- DRCOG roles:
  - Process design
  - Community connector
  - Resource for local staff leading initiative

EXISTING Public Sidewalk Elements	A LOT of improvement needed	MODERATE improvement needed	A LITTLE improvement needed	Fully accommodated
Continuous sidewalk system providing access to essential services for older adults	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum sidewalk width of five feet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ADA ramps at intersections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visual and physical cues at ramps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level landings where driveways intersect public sidewalks to retain a level path for pedestrians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimal tripping hazards from uneven surface or protruding objects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Signage to direct pedestrians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Buffer between sidewalk and street (e.g. planting strips, on-street parking, bike lanes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

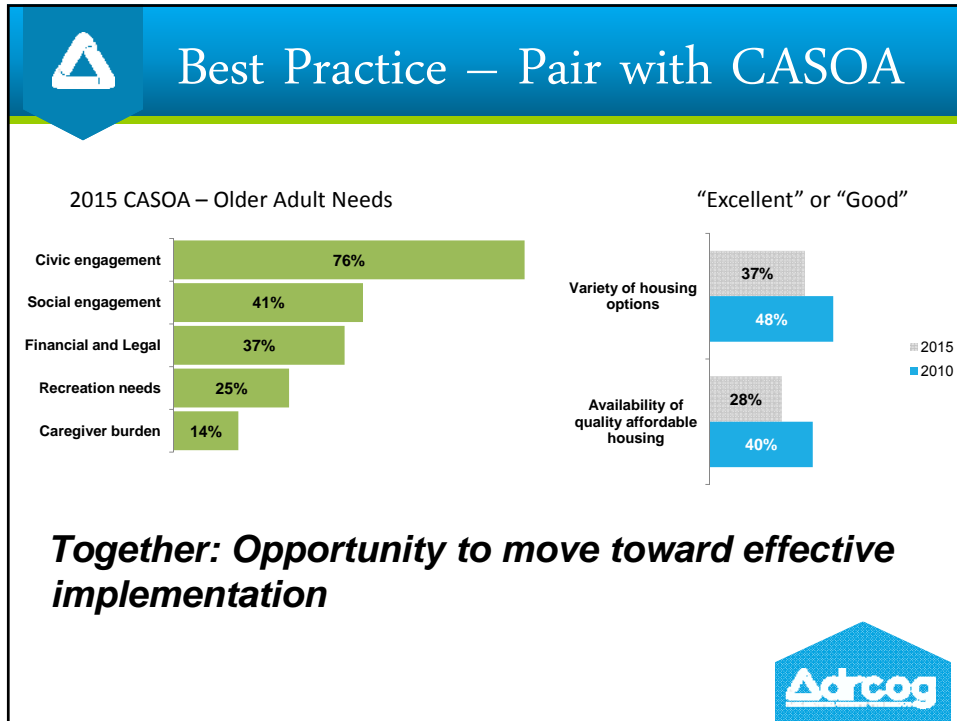


## A Few Key Messages

- Not just about services programs provided by city or county
- Important to balance the identification of needs with current successes
- The assessment is not the deliverable
- DRCOG will not review/evaluate results









## Early Success Stories

- **New Accessory Dwelling Unit (ADU) ordinance in community with severe housing shortage**
- **Additional senior housing added to housing authority portfolios**
- **Redesign of community website – clearer path for older adults looking for services**
- **Activation and increased effectiveness of local Senior Commission**



## Early Success Stories (cont.)

- **New/revised codes: visitability and universal design**
- **Enhanced relationship between law enforcement and older adult community**
- **Increased funding for code enforcement – assistance in targeted areas**
- **New community resource center for older adults and caregivers**





## Recent Recognition

- Numerous requests for Boomer Bond information/presentations
- Co-hosted symposium with AARP on the role of COGs/MPOs in advancing age-friendly efforts
- **2016 Aging Innovations Award – n4a**



## Current Activities and Next Steps

- **Support for Denver's Age Matters Needs Assessment**
  - Joint fundraising effort
  - Strategic, tactical and technical assistance
- **DOLA grant to assist small communities**
  - Identify/recruit small communities interested in assessment
  - In partnership, design and facilitate local initiative
  - Assist with policy and implementation strategies
- **"Status of Age-Friendly Report"**



**DENVER**  
THE MILE HIGH CITY





## Lessons learned so far...

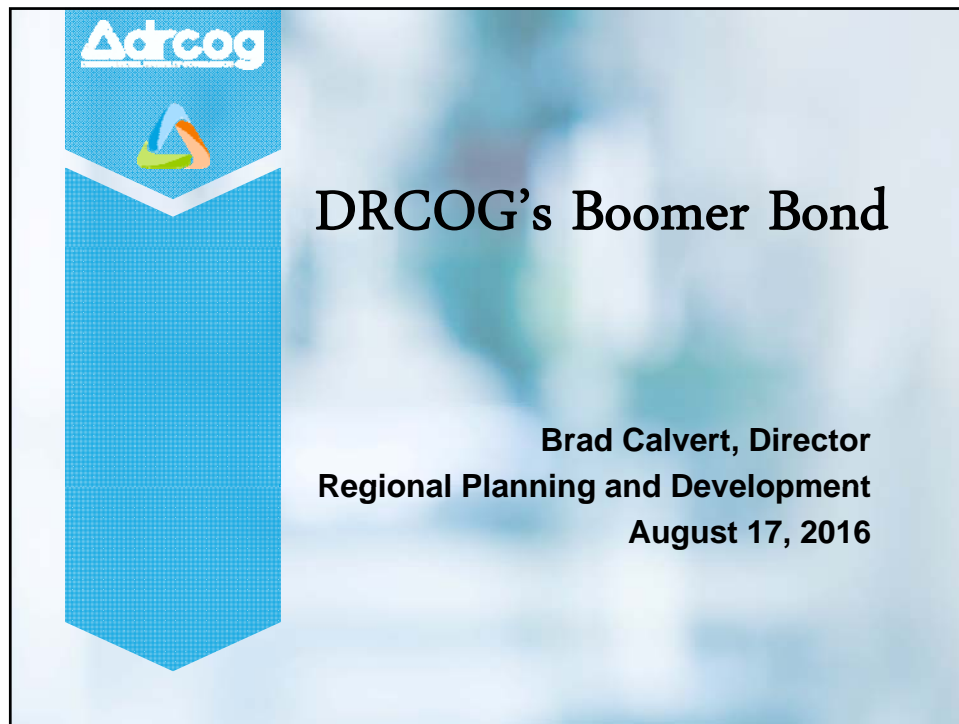
- **Aging conversation more personal than most planning topics**
  - May alienate some and be a great motivator for others
- **Comprehensive assessment can be overwhelming**
  - Few (if any) instances of single staff capacity
  - Small steps, incremental change and the aging “lens” are key successes
- **Every community/circumstance is different**
- **Regional resources can advance local initiatives – but not without challenges**



## Interested in Learning More...

**Brad Calvert**  
**bcalvert@drcog.org**  
**303.480.6839**







MINUTES  
FINANCE AND BUDGET COMMITTEE  
Wednesday, July 20, 2016

Present:

Bob Fifer, Chair  
Elise Jones  
Crissy Fanganello  
Roger Partridge  
Joan Peck  
Ashley Stolzmann  
Connie Sullivan  
John Diak  
Rita Dozal

Arvada  
Boulder County  
City & County of Denver  
Douglas County  
Longmont  
Louisville  
Lyons  
Parker  
Superior

Others Present: Jennifer Schaufele, Executive Director; Connie Garcia, Executive Assistant/Board Coordinator, and DRCOG staff.

Chair Bob Fifer called the meeting to order at 6:00 p.m. with a quorum present.

Move to Adopt the Consent Agenda

John Diak **moved** to adopt the consent agenda. The motion was **seconded** and **passed** unanimously.

Items on the consent agenda included:

- Minutes of the May 18, 2016 Meeting
- Resolution No. 3, 2016 authorizing the Executive Director to amend a contract with Right Click Solutions, Inc. (DBA RideAmigos Corporation) for the Way to Go program.

Report on Area Agency on Aging Audit

Sharon Day, Area Agency on Aging, provided an overview of an audit of Area Agency on Aging program service providers. One outstanding issue from the audit was noted, related to a volunteer-based ride provider in Douglas County conducting soft background checks on clients. The State Unit on Aging interprets this as a violation of the intent of the Older Americans Act. Staff contends since the service provider relies predominantly on elderly volunteer drivers to provide the service, some concession should be made for their safety. Staff will continue to work to resolve this issue.

Executed Contracts Report – No contracts reported for May/June 2016.

Report of the Chair

No report was provided.

Report of the Executive Director

No report was provided.

Other Matters by Members

No other matters were discussed.

Next Meeting

The next meeting is scheduled for August 17, 2016

The meeting adjourned at 6:17 p.m.

DRAFT



# ATTACH G

To: Chair and Members of the Board of Directors

From: Jennifer Schaufele, Executive Director  
303 480-6701 or jschaufele@drcog.org

Meeting Date	Agenda Category	Agenda Item #
August 17, 2016	Informational	15

**SUBJECT**

August administrative modifications to the *2016-2021 Transportation Improvement Program*.

**PROPOSED ACTION/RECOMMENDATIONS**

No action requested. This item is for information.

**ACTION BY OTHERS**

N/A

**SUMMARY**

Per the DRCOG Board adopted [Policy on Transportation Improvement Program \(TIP\) Preparation](#), administrative modifications to the 2016-2021 TIP are reviewed and processed by staff. Administrative modifications represent revisions to TIP projects that do not require formal action by the DRCOG Board.

Once processed, the projects are posted on the [DRCOG 2016-2021 TIP web page](#) and emailed to the TIP Notification List, which includes members of the Regional Transportation Committee, the Transportation Advisory Committee, TIP project sponsors, staff of various federal and state agencies, and other interested parties.

The August 2016 administrative modifications are listed and described in the attachment. Highlighted items in the attachment depict project revisions.

**PREVIOUS DISCUSSIONS/ACTIONS**

N/A

**PROPOSED MOTION**

N/A

**ATTACHMENT**

August 2016: 2016-2021 TIP Administrative Modifications

**ADDITIONAL INFORMATION**

If you need additional information, please contact Jennifer Schaufele, Executive Director at 303 480-6701 or [jschaufele@drcog.org](mailto:jschaufele@drcog.org); or Douglas W. Rex, Director, Transportation Planning & Operations at 303 480-6747 or [drex@drcog.org](mailto:drex@drcog.org).

To: TIP Notification List

From: Douglas W. Rex, Transportation Planning & Operations Director

Subject: August Administrative Modifications to the 2016-2021 Transportation Improvement Program

Date: August 17, 2016

#### SUMMARY

- Per the [Policy on Transportation Improvement Program \(TIP\) Preparation](#), administrative modifications are reviewed and processed by staff. They are emailed to the TIP Notification List, and posted on the [DRCOG 2016-2021 TIP web page](#).
- The TIP Notification List includes the members of the Denver Regional Council of Governments (DRCOG) Regional Transportation Committee and Transportation Advisory Committee, TIP project sponsors, staffs of various federal and state agencies and other interested parties. The notification via e-mail is sent when administrative modifications have been made to the 2016-2021 TIP. If you wish to be removed from the TIP Notification List, please contact Mark Northrop at (303) 480-6771 or via e-mail at [mnorthrop@drcog.org](mailto:mnorthrop@drcog.org).
- Administrative modifications represent minor changes to TIP projects not defined as “regionally significant changes” for air quality conformity findings or per CDOT definition. For more information on the TIP modification policy, visit the [DRCOG 2016-2021 TIP web page](#).
- Projects included through this set of administrative modifications are listed below. The attached describes each modification.

#### PROJECTS

- **2007-075: Region 1 Traffic Signals Pool**  
Add project to pool.
- **2008-076: Region 1 FASTER Pool**  
Add project to pool.
- **2012-076: Enhanced Mobility for Elderly and Disabled (FTA 5310)**  
Add funds and projects to pool.
- **2016-002: Air Quality Improvements Pool**  
Add projects to pool.
- **2016-038: High Line Canal Trail Underpass at Hampden and Colorado**  
Change project sponsor.
- **2007-094: Region 4 Hazard Elimination Pool**  
Add funds and project to pool.

**2007-075:** Add project to pool using unallocated pool balance.

## Existing

Title: **Region 1 Traffic Signals Pool**Project Type: **Safety**TIP-ID: **2007-075**STIP-ID: **SR16684**

Open to Public:

Sponsor: **CDOT Region 1****Project Scope**

CDOT Region 1 Traffic Signal Pool.

**Affected County(ies)**Adams  
Arapahoe  
Broomfield  
Denver  
Douglas  
Jefferson

All pool project funding depicts federal and/or state funding only.

Facility Name	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)
SH-224 (E 74th Ave)	at Dahlia St	\$350	I-70	& Chambers St NR	\$450	SH-121 (Wadsworth Blvd)	& Stanford Dr	\$450
SH-287 (W 120th Ave)	at Greenway Dr/Lamar St	\$350	I-70	& SH-391/Kipling St NR	\$450	SH-121 (Wadsworth Blvd)	& 29th Ave	\$600
SH-287	at W 10th Ave	\$350	I-25	& County Line Rd WR	\$450	SH-287	& Midway Blvd	\$450
SH-121 (Wadsworth Blvd)	& 3 Acre Ln	\$600	SH-85	& SH-22/124th Ave	\$450	SH-177 (University Blvd)	& Easter Pl	\$600
SH-287 (Main St)	& 6th Ave	\$600	Cabinet Replacements (FY17)		\$1,500	SH-128	& Eldorado Blvd	\$300
SH-177 (University Blvd)	& Orchard Rd	\$600	Controller Replacements (FY17)		\$500	Cabinet Replacements (FY18)		\$1,500
SH-75 (Platte Canyon Rd)	& Coal Mine Rd	\$600	SH-177 (University Blvd)	& Easter Ave	\$600	Controller Replacements (FY18)		\$500
Amounts in \$1,000s	Prior Funding	FY16	FY17	FY18	FY19	FY20-21	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0	\$0		
State (Safety)		\$1,050	\$6,650	\$5,000	\$0	\$0		
Local		\$0	\$0	\$0	\$0	\$0		
Total	\$2,341	\$1,050	\$6,650	\$5,000	\$0	\$0	\$0	\$15,041

## Revised Pool Projects

Facility Name	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)
SH-224 (E 74th Ave)	at Dahlia St	\$350	I-70	& SH-391/Kipling St NR	\$450	SH-287	& Midway Blvd	\$450
SH-287 (W 120th Ave)	at Greenway Dr/Lamar St	\$350	I-25	& County Line Rd WR	\$450	SH-177 (University Blvd)	& Easter Pl	\$600
SH-287	at W 10th Ave	\$350	SH-85	& SH-22/124th Ave	\$450	SH-128	& Eldorado Blvd	\$300
SH-121 (Wadsworth Blvd)	& 3 Acre Ln	\$600	Cabinet Replacements (FY17)		\$1,500	Cabinet Replacements (FY18)		\$1,500
SH-287 (Main St)	& 6th Ave	\$600	Controller Replacements (FY17)		\$500	Controller Replacements (FY18)		\$500
SH-177 (University Blvd)	& Orchard Rd	\$600	SH-177 (University Blvd)	& Easter Ave	\$600	Regionwide Signals Improvements		\$450
SH-75 (Platte Canyon Rd)	& Coal Mine Rd	\$600	SH-121 (Wadsworth Blvd)	& Stanford Dr	\$450			
I-70	& Chambers St NR	\$450	SH-121 (Wadsworth Blvd)	& 29th Ave	\$600			

**2008-076:** Add project to pool using unallocated pool balance.**Existing**Title: **Region 1 FASTER Pool**Project Type: **Safety**TIP-ID: **2008-076**STIP-ID: **SR17002**

Open to Public:

Sponsor: **CDOT Region 1****Project Scope**

Pool contains safety-related improvements and upgrades based on the new FASTER-Safety funding program (Colorado Senate Bill 108) in CDOT Region 1.

**Affected County(ies)**Adams  
Arapahoe  
Broomfield  
Denver  
Douglas  
Jefferson

All pool project funding depicts federal and/or state funding only.

Facility Name	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)
I-76 and C-470 Cable Barrier		\$1,224	SH-95 Intersection Improvements	64th Ave	\$851	High Line Canal Trail Underpass	Parker/Mississippi	\$3,201
I-70 PPSL		\$3,000	SH-121/72nd Ave	Right turn accel lanes	\$981	Cable Median Barrier	104th to 168th Ave	\$2,000
C-470 Path Separations		\$1,572	SH-121 Intersection Improvements	Waterton Rd	\$2,050	US-85 and Kuner Rd Barrier Replacement	Bromley to Bridge	\$700
I-70 at 32nd Ave and C-470	Chain Station Lighting	\$594	SH-177 Sidewalks	Mineral Ave to Orchard Rd	\$521	Founders Pkwy Intersection Reconstruct	Crowfoot Valley Rd	\$1,602
SH-391	Jefferson County Schools Access	\$570	I-70/US-6	Chain station lighting improvements	\$1,000	Wadsworth TOD left turn protection	Girton, Eastman and Yale	\$200
SH-2 Traffic Signal Upgrades		\$440	I-76 Curve Reconstruction and Lane Balancing	US-85	\$6,150	Region 1 TSM Study Outcomes		\$5,000
SH-75 and Mineral Ave	Curb ramp and B/P crossing improvements	\$200	I-76 Roundabouts at ramp terminals	Bromley Ln	\$2,164	FASTER Safety Design		\$4,000
Amounts in \$1,000s	Prior Funding	FY16	FY17	FY18	FY19	FY20-21	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0	\$0		
State (Faster-S)		\$20,724	\$2,424	\$17,869	\$19,869	\$0		
Local		\$0	\$0	\$0	\$0	\$0		
Total		\$86,453	\$20,724	\$2,424	\$17,869	\$19,869	\$0	\$147,339

**Revised Pool Projects**

Facility Name	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)
I-76 and C-470 Cable Barrier		\$1,224	SH-121/72nd Ave	Right turn accel lanes	\$981	US-85 and Kuner Rd Barrier Replacement	Bromley to Bridge	\$700
I-70 PPSL		\$3,000	SH-121 Intersection Improvements	Waterton Rd	\$2,050	Founders Pkwy Intersection Reconstruct	Crowfoot Valley Rd	\$1,602
C-470 Path Separations		\$1,572	SH-177 Sidewalks	Mineral Ave to Orchard Rd	\$521	Wadsworth TOD left turn protection	Girton, Eastman and Yale	\$200
I-70 at 32nd Ave and C-470	Chain Station Lighting	\$594	I-70/US-6	Chain station lighting improvements	\$1,000	Region 1 TSM Study Outcomes		\$5,000
SH-391	Jefferson County Schools Access	\$570	I-76 Curve Reconstruction and Lane Balancing	US-85	\$6,150	FASTER Safety Design		\$4,000
SH-2 Traffic Signal Upgrades		\$440	I-76 Roundabouts at ramp terminals	Bromley Ln	\$2,164	I-70 at Garrison Lane Balancing		\$3,200
SH-75 and Mineral Ave	Curb ramp and B/P crossing improvements	\$200	High Line Canal Trail Underpass	Parker/Mississippi	\$3,201			
SH-95 Intersection Improvements	64th Ave	\$851	Cable Median Barrier	104th to 168th Ave	\$2,000			

**2012-107:** Add funds and projects to the pool.**Existing**Title: **Enhanced Mobility for Elderly and Disabled (FTA 5310)**Project Type: **Transit Operational Improvements**TIP-ID: **2012-107**

STIP-ID:

Open to Public:

Sponsor: **CDOT****Project Scope**

Funds will be used for Mobility Management and activities such as purchase of vans and operating assistance for door-to-door service for the elderly and disabled.

Affected County(ies)

Regional



All pool project funding depicts federal and/or state funding only.

Facility Name	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)
Via	Call Center Operating (FY16)	\$270	SRC	Brokerage/Mobility Management (FY16)	\$230	Via	Rebuild 3 Body-on-Chassis Paratransit Buses (FY16)	\$27
Via	Mobility Management (Travel Training, MM) (FY16)	\$300	SRC	3 A-Lift busses (FY16)	\$238	SRC	A-Lift Fleet Replacements (FY16)	\$128
SRC	Operational Support (FY16)	\$250	SRC	A-Lift sedan (FY16)	\$43	SRC	SCR Fleet Vehicle Replacements (FY16)	\$120
Douglas County	Mobility Management (FY16)	\$109	SRC	Bus replacements for urban area (FY16)	\$152	Easter Seals Colorado	BOC Replacement	\$50
Douglas County	Capital Operating (FY16)	\$176	SRC	Sedans for urban area (FY16)	\$55	Via	Rebuild One Paratransit Van (FY16)	\$9
Via	Mobility Management (Travel Training) (FY16)	\$200	SRC	Bus purchases for urban area (FY16)	\$152			
Colorado Nonprofit Development Center	DRMAC (FY16)	\$200	Via	Replace 3 Body-on-Chassis Paratransit Buses (FY16)	\$136			
Amounts in \$1,000s	Prior Funding	FY16	FY17	FY18	FY19	FY20-21	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0	\$0		
Federal (5310)		\$2,692	\$0	\$0	\$0	\$0		
State		\$0	\$0	\$0	\$0	\$0		
State (Faster-T)		\$104	\$0	\$0	\$0	\$0		
Local		\$673	\$0	\$0	\$0	\$0		
Total	\$6,329	\$3,469	\$0	\$0	\$0	\$0	\$0	\$9,798

## Revised Pool Projects and Funding Table

Facility Name	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)
Via	Call Center Operating (FY16)	\$270	Via	Rebuild 3 Body-on-Chassis Paratransit Buses (FY16)	\$27	Broomfield	Support Software Dispatch (from FY15)	\$24
Via	Mobility Management (Travel Training, MM) (FY16)	\$300	SRC	A-Lift Fleet Replacements (FY16)	\$128	SRC	Purchase Tablets (from FY15)	\$37
SRC	Operational Support (FY16)	\$250	SRC	SCR Fleet Vehicle Replacements (FY16)	\$120	CNDC	Brokerage (from FY15)	\$33
Douglas County	Mobility Management (FY16)	\$109	Easter Seals Colorado	BOC Replacement	\$50	CNDC	Mobility Management (from FY15)	\$128
Douglas County	Capital Operating (FY16)	\$176	Via	Rebuild One Paratransit Van (FY16)	\$9	Douglas County	Mobility Management (from FY15)	\$53
Via	Mobility Management (Travel Training) (FY16)	\$200	SRC	Two Replacement BOCs (from FY15)	\$128	SRC	Mobility Management (from FY15)	\$47
Colorado Nonprofit Development Center	DRMAC (FY16)	\$200	Broomfield	Two BOC Replacements (from FY15)	\$79	SRC	Brokerage (from FY15)	\$100
SRC	Brokerage/Mobility Management (FY16)	\$230	Easter Seals	Replacement Paratransit Bus (from FY15)	\$45	Via	Travel Training (from FY15)	\$167
SRC	3 A-Lift busses (FY16)	\$238	SRC	BOC Replacement (from FY15)	\$33	SRC	Operating (from FY15)	\$130
SRC	A-Lift sedan (FY16)	\$43	SRC	Replacement Vehicle (From FY15)	\$46	Via	Four Replacment BOC (from FY15)	\$181
SRC	Bus replacements for urban area (FY16)	\$152	SRC	Replacement Vehicles (from FY15)	\$128	Via	Two BOC Rehabs (from FY15)	\$18
SRC	Sedans for urban area (FY16)	\$55	SRC	Replace 5 Sedans (from FY15)	\$112	Via	Paratransit Vehicle Replacements (from FY15)	\$199
SRC	Bus purchases for urban area (FY16)	\$152	SRC	1 Sedan (from FY15)	\$36	Via	Operating (from FY15)	\$252
Via	Replace 3 Body-on-Chassis Paratransit Buses (FY16)	\$136	Development Pathways	Purchase Expansion BOC (from FY15)	\$52	Via	Mobility Management (from FY15)	\$201
Amounts in \$1,000s	Prior Funding	FY16	FY17	FY18	FY19	FY20-21	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0	\$0		
Federal (5310)		\$2,692	\$2,228	\$0	\$0	\$0		
State		\$0	\$0	\$0	\$0	\$0		
State (Faster-T)		\$104	\$0	\$0	\$0	\$0		
Local		\$673	\$844	\$0	\$0	\$0		
Total	\$6,329	\$3,469	\$3,072	\$0	\$0	\$0	\$0	\$12,870



**2016-002:** Add local agency air quality projects to pool.

## Existing

Title: **Air Quality Improvements Pool**Project Type: **Air Quality Improvement Projects**TIP-ID: **2016-002**

STIP-ID:

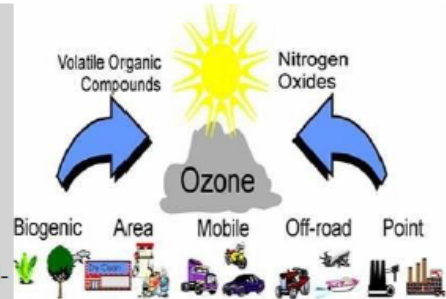
Open to Public: **2016**Sponsor: **R A Q C****Project Scope**

Funding for three specialized air quality improvement activities:

1 - Conduct a Call for Projects for local agency air quality projects, as allocated and administered by RAQC

2 - Advance Fleet Technology. Implements a large vehicle retrofit, repair, and replacement program targeting older, higher polluting vehicles.

3 - Ozone Aware. A public outreach program to increase awareness of ground-level ozone pollution



Affected County(ies)	Project Phases
Regional	Year    Phase
	2016    Initiate Study
	2017    Initiate Study
	2018    Initiate Study
	2019    Initiate Study

Amounts in \$1,000s	Prior Funding	FY16	FY17	FY18	FY19	FY20-21	Future Funding	Total Funding
Federal (CMAQ)		\$1,320	\$1,800	\$1,800	\$1,800	\$0		
State		\$0	\$0	\$0	\$0	\$0		
Local		\$330	\$450	\$450	\$450	\$0		
Total	\$0	\$1,650	\$2,250	\$2,250	\$2,250	\$0	\$0	\$8,400

## Revised Pool Projects

Facility Name	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)
Wheat Ridge	Street Sweeper	\$75	Boulder County	Real-Time Information Marketing Program	\$56	Boulder County	Bus Stop Improvements	\$90
Bicycle Colorado/Lakewood	Mobility Education and Encouragement in Lakewood	\$79	Boulder County	East Boulder County Free-Fare Promotion	\$80			



**2016-038:** Change project sponsor.**Existing**Title: **High Line Canal Trail Underpass at Hampden and Colorado**Project Type: **Bicycle and Pedestrian Projects (New)**TIP-ID: **2016-038**

STIP-ID:

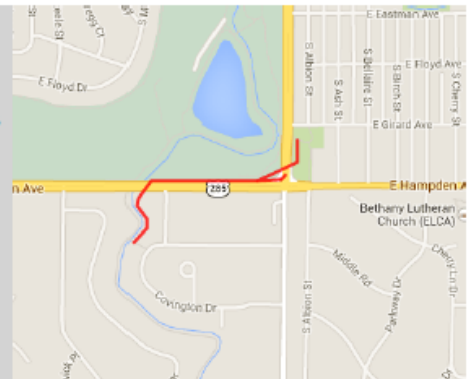
Open to Public: **2019**Sponsor: **Cherry Hills Village****Project Scope**

This project constructs two multi-use underpasses: one under Hampden Ave 1,500' west of Colorado Blvd, and another under Colorado Blvd 200' north of Hampden Ave. The 14' box culverts will accommodate new 10 ft multi-use trails from the existing pedestrian bridge at Monroe St to the underpass, along the north side of Hampden Ave to the other underpass and to the existing multi-use path on the east side of Colorado Blvd.

At least 10 covered bicycle parking spaces, ADA/AASHTO compliant lighting, and way-finding signage with destination and distance information will be included.

CDOT awarded TAP funding of \$1,000,000 in FY17.

Affected Municipality(ies)	Affected County(ies)	Project Phases	
Cherry Hills Village	Arapahoe	Year	Phase
Denver	Denver	2016	Initiate Environmental
		2016	Initiate Design
		2017	Initiate ROW
		2018	Initiate Construction



Amounts in \$1,000s	Prior Funding	FY16	FY17	FY18	FY19	FY20-21	Future Funding	Total Funding
Federal (TAP)		\$1,463	\$1,337	\$1,250	\$0	\$0		
State		\$0	\$0	\$0	\$0	\$0		
Local		\$488	\$362	\$500	\$0	\$0		
Total	\$0	\$1,951	\$1,699	\$1,750	\$0	\$0	\$0	\$5,400

**Revised Pool Projects**Title: **High Line Canal Trail Underpass at Hampden and Colorado**Project Type: **Bicycle and Pedestrian Projects (New)**TIP-ID: **2016-038**

STIP-ID:

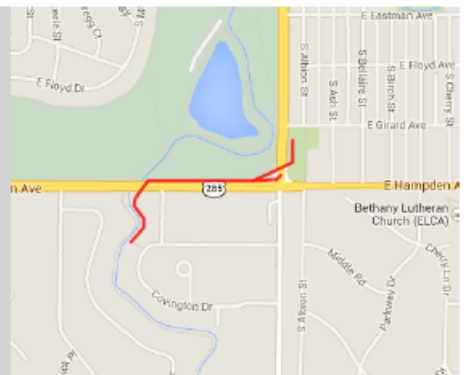
Open to Public: **2019**Sponsor: **Denver****Project Scope**

This project constructs two multi-use underpasses: one under Hampden Ave 1,500' west of Colorado Blvd, and another under Colorado Blvd 200' north of Hampden Ave. The 14' box culverts will accommodate new 10 ft multi-use trails from the existing pedestrian bridge at Monroe St to the underpass, along the north side of Hampden Ave to the other underpass and to the existing multi-use path on the east side of Colorado Blvd.

At least 10 covered bicycle parking spaces, ADA/AASHTO compliant lighting, and way-finding signage with destination and distance information will be included.

CDOT awarded TAP funding of \$1,000,000 in FY17.

Affected Municipality(ies)	Affected County(ies)	Project Phases	
Cherry Hills Village	Arapahoe	Year	Phase
Denver	Denver	2016	Initiate Environmental
		2016	Initiate Design
		2017	Initiate ROW
		2018	Initiate Construction



**2007-094:** Add funds and project to the pool.**Existing**Title: **Region 4 Hazard Elimination Pool**Project Type: **Safety**TIP-ID: **2007-094**STIP-ID: **SR46666**

Open to Public:

Sponsor: **CDOT Region 4****Project Scope**

Pool funds hazard elimination projects in CDOT Region 4 (Boulder and SW Weld Counties).

**Affected County(ies)**

Boulder

Weld



Amounts in \$1,000s	Prior Funding	FY16	FY17	FY18	FY19	FY20-21	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0	\$0		
State (Safety)		\$0	\$0	\$0	\$0	\$0		
Local		\$0	\$0	\$0	\$0	\$0		
Total	\$15,785	\$0	\$0	\$0	\$0	\$0	\$0	\$15,785

**Revised Pool Project and Funding Table**

Facility Name	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)
Valmont Rd	29th St	\$445						
Amounts in \$1,000s	Prior Funding	FY16	FY17	FY18	FY19	FY20-21	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0	\$0		
State (Safety)		\$0	\$445	\$0	\$0	\$0		
Local		\$0	\$45	\$0	\$0	\$0		
Total	\$15,785	\$0	\$490	\$0	\$0	\$0	\$0	\$16,275

**ATTACH H**

# Aurora, Arapahoe County advance pact to redesign Quincy, Gun Club Road intersections

---

*By Rachel Sapin, Staff Writer, Updated: July 6, 2016 1:33 pm*

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167

**AURORA** | Traffic congestion at the intersection of Gun Club Road and Quincy Avenue has been an issue for years for Aurora's southeast residents, and is only slated to worsen, according to city officials. Both Quincy and Gun Club are one lane in each direction and Aurora's plans to expand the intersection into two six-lane roadways is still decades away due to cost.

But thanks to \$12.7 million that includes federal funds awarded to Arapahoe County through the Denver Council of Regional Governments and matching funds from the City of Aurora, the intersection will at least be able to widen to four lanes in coming years.

At a June 27 study session, Aurora City Council members agreed to move forward with an intergovernmental agreement between the City of Aurora and Arapahoe County that would allow for the design of the four-lane expansion, with legs extending 1,200 feet in each direction. Improvements to the intersection would also include a new bike lane or shoulder, according to city documents.

The intersection is the joint responsibility of Aurora and Arapahoe County. According to Arapahoe County, the City of Aurora owns the center 60 feet of Quincy Avenue and Arapahoe County owns the south leg of the intersection as well as the portions of Quincy Avenue outside the center 60 feet.

The design will also be the city's first partial continuous flow intersection, according to city documents.

Unlike a traditional intersection, a continuous flow design removes left-turning vehicles from the main intersection, which allows green lights to be longer for through traffic.

Aurora Deputy Director of Public Works Kevin Wegener said at a June Parks, Public Works and Transportation policy committee meeting that left-turn backups at Quincy Avenue and Gun Club Road were problematic at the intersection.

Wegener said at the meeting that, under the new design, northbound traffic from Gun Club Road onto Quincy Avenue will have a new left-turn signal across the oncoming traffic protected with that signal, and that the design will allow the southbound through traffic to proceed through the intersection unimpeded.

In total, the design work will cost \$990,746 with Aurora and Arapahoe County splitting the cost.

In 2008, city officials attempted to expand the intersection with the help of Arapahoe County, but the city did not have the funds to move forward at the time.

Issues on the roads were highlighted in 2015 when congestion near the Rocky Mountain Airshow at Aurora Reservoir left drivers stuck at the intersection for hours.

The organizers canceled the show outright this year, though they did not specify traffic as the reason, according to the Denver Post.

In 2014, Aurora voters said no to turning Aurora's Arapahoe Park horse-race track into a full-fledged casino, even though casino backers promised tens of millions of dollars in improvements to the intersection and other congested roads near the racing facility at the city's most southeast reaches.

The issue is set to be heard at a regular Aurora City Council meeting July 11.

If approved, Arapahoe County said construction on the intersection for the widening project would begin in 2017 or 2018.

# 36 Commuting Solutions receives grant to fund signs

***By Anthony Hahn***

*Staff Writer*

POSTED: 07/07/2016 04:44:30 PM MDT

36 Commuting Solutions has received a \$187,500 Station Area Master Plan (STAMP) grant from the Denver Regional Council of Governments to develop a plan for adding signs at nine RTD stations along the 18-mile U.S. Highway 36 Bikeway.

While the signs will serve to direct riders to the U.S. Bikeway and cyclists to the RTD stations, they will also provide guidance to places of interest along the route.

In addition, the grant also will be used in the final design and construction drawings and the costs associated with production and installation.

Signs are slated to be installed at RTD transit stations in downtown Boulder, Boulder Junction, U.S. 36 and Table Mesa, U.S. 36 and McCaslin Boulevard, U.S. 36 and Flatiron, U.S. 36 and Broomfield, U.S. 36 and Church Ranch, and U.S. 36 and Sheridan, as well at the Westminster rail station, according to the company press release.

# How to talk to elderly parents about giving up the car

By COLLEEN O'CONNOR | [coconnor@denverpost.com](mailto:coconnor@denverpost.com)

PUBLISHED: July 19, 2016 at 2:23 pm | UPDATED: July 21, 2016 at 1:11 am

Talking with elderly parents about when to stop driving can be a difficult conversation. But the deadly situation an 81-year-old Denver woman now finds herself in could serve as a cautionary tale.

Patricia Livingston faces charges in a southeast Denver crash last week that left [14-year-old Cole Suple dead and a 13-year-old boy injured](#). She also is suspected in an October hit-and-run, police records show.

According to the police report from the October crash, her family members told a detective that she was “beginning to have issues driving” and that they planned to hire a driver for her instead.

Jill Eelkema, aging and disability resources manager for the Area Agency on Aging in Denver, said older drivers fear becoming dependent.

“Part of it is the independence factor,” she said, “and the other piece is being able to have choices and have freedom, because that’s what gives our lives a lot of meaning.”

“It’s best to talk about this early, before there are problems,” she said. “Early conversations will enable you to begin to understand the meaning of driving for your parent. Be positive and reassuring that you support safe driving for a lifetime. By making driving a safe topic, you may find it easier to bring the topic up in the future, should you need to discuss limiting or stopping driving.”

Eelkema recommends [“Colorado’s Guide for Aging Drivers and Their Families”](#) from the Colorado Department of Transportation, which says “today’s older adults continue to drive into their later years and for more miles than in the past,” and that research “suggests that older adults can expect to outlive their ability to drive safely by seven to 10 years.”

There's also a helpful resource ["Getting There Guide,"](#) which lists transportation options for the Denver metro area, put out by the Denver Regional Mobility & Access Council, so people can test out options for getting around before they must give up driving completely.

People also can get detailed information about how to have a conversation with a family member about driving by calling the hotline at the Denver Regional Council of Governments, 303-480-6700, to talk with an aging specialist. The specialists can offer help on how to have these conversations and make decisions about when to stop driving.

AARP also has lots of resources, including ["We Need to Talk,"](#) which helps adult children assess their family member's driving skills and provide tools for the difficult conversation. The guide was created by AARP in conjunction with the Hartford Insurance Company.

William Sanderman, Colorado state coordinator for the AARP Driver Safety classes, says many adults ages 55 to 70 sign up to take these four-hour classes on their own, to make sure they're safe drivers. The class certification can help get discounts on car insurance.

These classes, offered in Denver and Colorado Springs, also use the "We Need to Talk" handbook, which advises observing the driver over time, and not having just one conversation. Having several conversations over a period of time is more effective.

It's also important, Sanderman said, to help the person preserve their dignity and self-respect, listening deeply to what they have to say and always showing compassion.

Assessments also can be done by an occupational therapist, who is also a trained driver rehabilitation specialist.

According to state law, there are no special requirements for people over a certain age to re-test their driving skills, although those over the age of 65 can't renew licenses online. They can renew by visiting a Colorado Division of Motor Vehicles office and take a vision test, or renew by mail, which requires certification of a vision test.



If friends, family members or family physicians are concerned about an elderly person's driving safety, they can request a driving re-exam from Driver Services, a division of the DMV, although the author of the letter is not kept confidential.

The driver will then be given 20 days to retake the written, vision and road tests, said Lynn Granger, communications director for the Colorado Department of Revenue, which oversees the DMV.

# RTD's Call-n-Ride returning to Superior after 5-year hiatus

**By Anthony Hahn**

*Staff Writer*

POSTED: 07/27/2016 09:04:53 PM MDT

Five years after RTD cut its Call-n-Ride service in Superior, the town's residents once again will have the ability to call for door-to-door rides starting Monday.

A handful of major nearby destinations like Monarch High School, FlatIron Crossing, Walmart, Louisville's post office and recreation center, Avista Adventist Hospital and Centennial Peaks Hospital, as well as Oracle and Level 3 Communications in Interlocken, will be accessible by the RTD Call-n-Ride service.

To make a reservation, riders will need to call at least two hours ahead or up to two weeks in advance, officials said, adding that once passengers have booked trips over the phone, they are able to schedule subsequent trips online.

A regular one-way fare is \$2.60, and a discounted fare of \$1.30 is provided for seniors, students 6 to 19 years old, individuals with disabilities and Medicare recipients. U.S. active-duty military, kids under 5 and those transferring from another RTD service ride free.

Superior officials applied for a federal grant in late 2014 through the Denver Regional Council of Governments to fund the service, which RTD cut in 2011 for budgetary reasons.

The \$421,710 grant, approved last year, covers 80 percent of the cost, and the town is putting up another 20 percent, or \$105,428. The funding covers the purchase of two vehicles and operational costs for three years.

"Communities without transit options become islands solely dependent on cars," Mayor Clint Folsom said. "The investment in Call-n-Ride gives our residents greater connectivity to surrounding communities and better access to some of the other newly-enhanced RTD services, like the Flatiron Flyer and SkyRide Bus to Denver International Airport."

The service will operate from 5:30 a.m. to 7 p.m. Monday through Friday.

In 2011, when the service was cut, Superior was desperate to keep Call-n-Ride. RTD saved roughly \$186,000 annually when it cut service in Superior.

At the time, Superior contributed \$1.9 million a year in sales tax revenues to the transit district.

"For the amount of sales tax dollars Superior contributes to RTD, we think it's unfair (to end Call-n-Ride)," Town Manager Matt Magley said at the time.

He said town leaders suggested that RTD combine Superior's Call-n-Ride service with Louisville's or Broomfield's, but were told it wouldn't be feasible.

# Highway 36 news in a hurry

Posted Tuesday, August 2, 2016 6:41 pm

## **Workplace challenge helps get drivers off the road**

More than 1,300 trips were taken by 163 cyclists from 32 companies during 36 Community Solutions' Bike 36 Challenge, from June 13 to July 8 along the corridor's U.S. 36 Bikeway. The organization said 1,351 trips were taken during the challenge, helping alleviate traffic along U.S. Highway 36 and promote good health. The challenge, powered by Love to Ride, rewarded U.S. 36 employees for riding a bike during the challenge period. Businesses competed for the highest percentage of participation, and individuals competed for the most miles and most trip categories. New cyclists even had their own competition category.

One of the challenge's top new female cyclists, Carli Dean of Boulder County AIDS Project, said the challenge helped change her commute.

"When I saw the Bike 36 Challenge occurring, I thought I'd hop on my bike to make the trek from Superior to downtown Boulder instead of sitting in traffic," she said. "Cycling helped me get in the mindset to tackle the day's work, enjoy the fresh air and take in the mountain views. Biking to work also gave me the chance to try a bus-then-bike commute, which was equally convenient and cheaper than driving."

A shift in commute behavior was the result 36 Commuting Solutions sought: "The Bike 36 Challenge was part of our US 36 Congestion Mitigation Program, which works to ease traffic by providing commuters with resources and incentives to change the way they commute," said 36 Commuting Solutions Executive Director Audrey DeBarros. "We are thrilled to see the impact the challenge had on commuter behavior choices and hope that the benefits of active commuting will continue to be endorsed and accepted."

## **Highway consultants awarded grant by regional council**

Local transportation consultant 36 Commuting Solutions was recently awarded a \$187,500 Station Area Master Plan — or STAMP grant — by the Denver Regional Council of Governments.

The group received the award to develop a plan for expanding wayfinding signs at nine RTD stations and along the 18-mile U.S. 36 Bikeway. The wayfinding signs will direct

transit riders to the bikeway and cyclists to the RTD stations, while also providing guidance to nearby places of interest.

In addition to developing a plan for wayfinding signage, the grant will help the group complete design and construction drawings and the costs associated with sign production and installation. Signs are designated for RTD's stops in Downtown Boulder and Boulder Junction, and along Highway 36 at exits including Table Mesa, McCaslin, Flatiron, Broomfield and Church Ranch, as well as at Sheridan transit stations and the Westminster rail station.

Wayfinding signs will optimize multi-modal connectivity within the corridor and are one of the top corridor-wide recommendations found in the 2013 First and Final Mile Study — a study that addressed the first-and-final-mile issues many suburban commuters face.

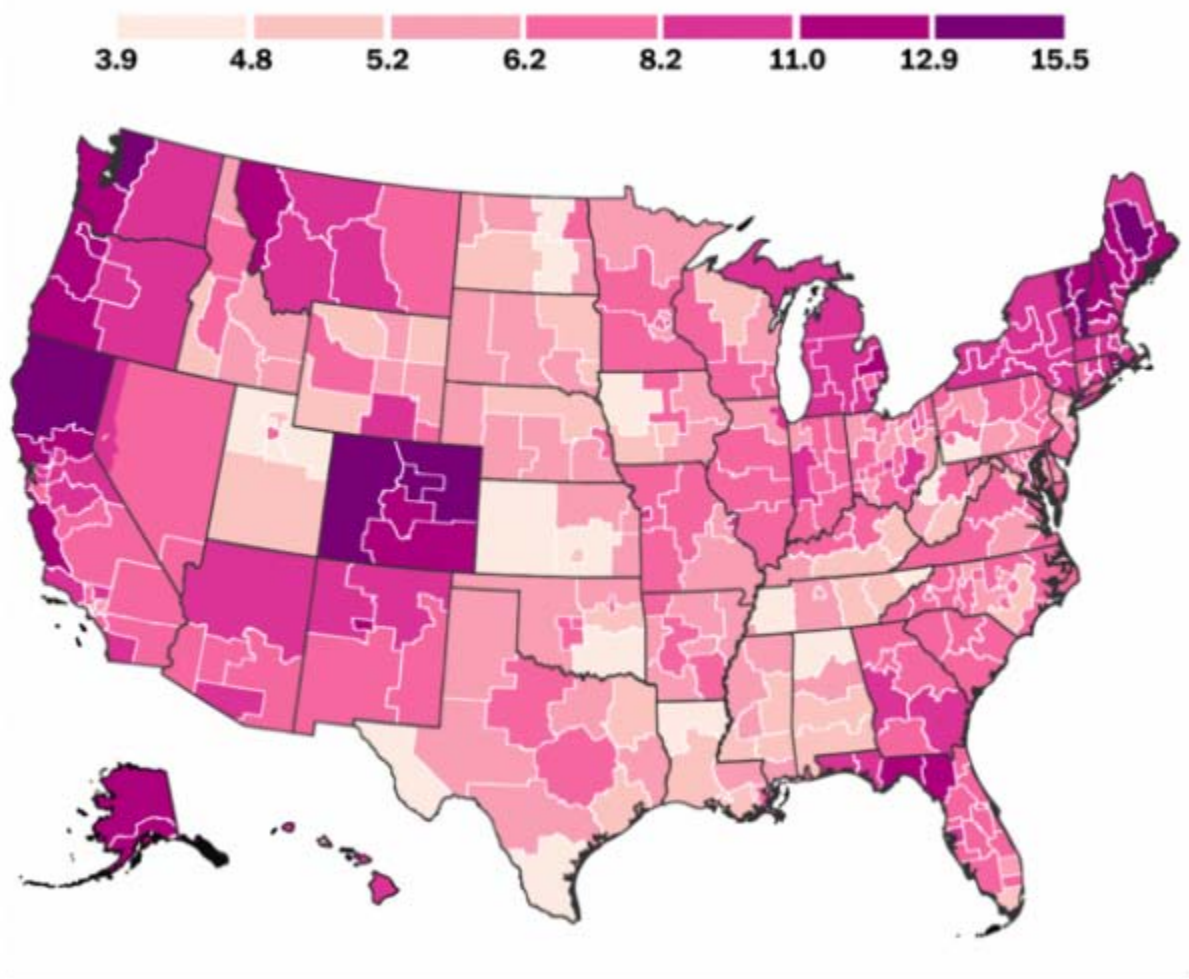
# Where the stoners are (and aren't) in the USA

By [Paul Danish](#) -

August 4, 2016

## Where Americans smoke the most weed

% of Americans aged 12 and older who use marijuana monthly



WAPO.ST/WONKBLOG

Source: Substance Abuse and Mental Health Services Administration

Substance Abuse and Mental Health Service Administration

Ever wonder what parts of the country are home to the highest percentage of stoners, and which parts have the lowest percentage? And ever wonder just how much the typical pot smoker spends on weed?

Two new studies are out that address those burning questions.

The first one was done by the U.S. Government's Substance Abuse and Mental Health Services Administration (SAMHSA). And it comes with a cool map that shows where the stoners are and aren't. (See map.)

According to a story in the Washington Post, it turns out the place with the highest proportion of marijuana users in the country is — wait for it — San Francisco, California, with 15.46 percent of the population over the age of 12 reporting that they have smoked pot in the past month.

And we here in Colorado are close behind. The number of Coloradans over 12 who said they had smoked marijuana in the past month came to 14.01 percent of the population.

A glance at the map shows that Coloradans really are the riders of the purple haze.

The percentage for Boulder County isn't broken out separately, but is included in the Greater Denver Co-Prosperity Sphere (essentially the counties that belong to the Denver Regional Council of Governments, if I read the map correctly). The percentage of the population who reported smoking pot in that area came to 14.80 percent. (It wouldn't be surprising if Boulder County's percentage was higher than the region's, and the City of Boulder's higher still, but SAMHSA's data isn't sliced and diced that fine.)

Interestingly, our region didn't contain the highest percentage of Colorado stoners. That honor goes to the Western Slope with 14.84 percent.

It turns out that every few years the SAMHSA combines data from its National Surveys on Drug Use and Health to derive the estimates of monthly marijuana use. The latest data covers the years 2012, 2013 and 2014, and includes survey responses from approximately 204,000 people. The large sample size makes it possible to produce a map with a level of detail not possible with traditional surveys.

Significantly, most of the data was gathered before legal marijuana sales began in Colorado at the start of 2014, so we'll have to wait until the next report to find out how much impact legalization had on marijuana use.

So where else in the country do we find concentrations of marijuana users approaching San Francisco/Colorado proportions? Northern California's Golden Triangle, Seattle and Washington, D.C. all stand out.

The lowest use rates are in the far south of Texas, where fewer than 4 percent of the population smokes pot monthly.

Nationally, 7.7 percent of Americans age 12 and older, approximately 20.3 million people, use marijuana monthly or more.

The study of how much a typical pot user spends on weed in a year was done by Headset, Inc., a cannabis consultancy, which reviewed about 40,000 legal pot purchases in Washington state from September 2014 to July 2016.

According to a story by Bloomberg News, the study found that the average recreational marijuana consumer is a 37-year-old man who buys traditional marijuana buds. The median amount spent by this consumer is \$647 annually, with an average of 19.5 days between purchases.

Although the average age of a consumer is 37, the study found the bulk of the purchases were made by millennials. Just over 50 percent of recreational marijuana consumers in Washington state were aged 21 to 34. Fewer than 10 percent of the purchases are made by buyers over 60.

The median amount spent per buy by customers in their 20s is \$27 per visit to a dispensary. However, it was geezer stoners who spend the most per trip; buyers in their 80s spend \$64 per visit. The biggest median annual spenders are found in Generation X; users in their 40s spend \$823 a year on pot.

"As you're older, you might have more money to go and make bigger purchases," said Headset co-founder Cy Scott to Bloomberg News. "The millennials might be out and about more; they can drop into [marijuana dispensaries] more often. Older people might just plan more."