

## AGENDA

### TRANSPORTATION ADVISORY COMMITTEE

Monday, February 22, 2016

1:30 p.m.

1290 Broadway

Independence Pass Board Room - Ground floor, West side

1. Call to Order
2. Public Comment
3. January 25, 2015 TAC Meeting Summary  
(Attachment A)

#### **ACTION ITEMS**

4. Discussion on 2015 Cycle 2 amendments to the 2040 Fiscally Constrained Regional Transportation Plan, along with the 2015 Cycle 2 Amendments to the Denver Southern Subarea 8-hour Ozone Conformity Determination and the 2015 Cycle 2 Amendments to the CO and PM10 Conformity Determination, concurrently.  
(Attachment B) Jacob Riger
5. Discussion on amendments to the 2016-2021 Transportation Improvement Program (TIP).  
(Attachment C) Todd Cottrell

#### **INFORMATIONAL ITEMS**

6. Discussion of Environmental Justice (EJ) definitions to be used in MPO planning processes.  
(Attachment D) Robert Spotts
7. Discussion of 2016-2021 TIP Review White Paper.  
(Attachment E) Douglas Rex

#### **ADMINISTRATIVE ITEMS**

8. Member Comment/Other Matters
  - DRCOG Federal Certification Review and public meeting – March 28
  - [TAC Membership List](#) (January 2015)
9. Next Meeting – March 28, 2016
10. Adjournment

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) 480-6744.



## ATTACHMENT A

### MEETING SUMMARY TRANSPORTATION ADVISORY COMMITTEE Monday, January 25, 2016

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#### MEMBERS (OR VOTING ALTERNATES) PRESENT:

Jeanne Shreve	Adams County
Kimberly Dall	Adams County – City of Brighton
Travis Greiman	Arapahoe County-City of Centennial
Dave Chambers	Arapahoe County –City of Aurora
Tom Reed	Aviation
Heather Balsler	Boulder County-City of Lafayette
George Gerstle	Boulder County
Debra Baskett	Broomfield, City and County
Steve Klausing	Business/Economic Development
Debra Perkins-Smith	Colorado Dept. of Transportation, DTD
Danny Herrmann (Alternate)	Colorado Dept. of Transportation, Reg. 1
David Gaspers	Denver, City and County
Janice Finch	Denver, City and County
Doug Rex	Denver Regional Council of Governments
Art Griffith	Douglas County
John Cotten	Douglas County-City of Lone Tree
Mike Salisbury (Alternate)	Environmental
Greg Fischer	Freight
Bob Manwaring (Chair)	Jefferson County-City of Arvada
Steve Durian	Jefferson County
Lenna Kottke	Non-RTD Transit
Kate Cooke (Alternate)	Regional Air Quality Council
Sylvia Labrucherie	Senior
Aylene McCallum	TDM/Nonmotor
Dick Leffler	Weld County, City of Frederick

#### OTHERS PRESENT:

Kent Moorman (Alternate)	Adams County – City of Thornton
Mac Callison (Alternate)	Arapahoe County, City of Aurora
Ryan Billings (Alternate)	Denver, City and County
Flo Raitano (Alternate)	Denver Regional Council of Governments
Tom Reiff (Alternate)	Douglas County, Town of Castle Rock
Dave Baskett (Alternate)	Jefferson County-City of Lakewood
Hank Braaksma (Alternate)	Non-RTD Transit
Brian Allem (Alternate)	Senior
Ted Heyd (Alternate)	TDM/Nonmotor
Aaron Bustow (Ex Officio Alternate)	FHWA

Public: Liz Adams, CRL Associates; Eugene Howard, Douglas County; Larry Squires, FTA; Chris Quinn, RTD; Amanda Seibel

DRCOG staff: Steve Cook, Todd Cottrell, Melina Dempsey, Matthew Helfant, Jacob Riger, Mark Northrop, Will Soper, Casey Collins

### Call to Order

Chair Bob Manwaring called the meeting to order at 1:33 p.m.

New TAC members and alternates were announced:

- Member-Environmental Interests: Rick Pilgrim, HDR Engineering Inc. (not present)
- Member-Aviation Interests: Tom Reed, Denver International Airport (DIA)
- Member-Senior Interests: Sylvia Labrucherie, Denver Regional Mobility & Access Council (DRMAC)
- Alternate-Senior Interests: Brian Allem, DRMAC
- Alternate-CDOT (Region 4): Keith Sheaffer (not present)
- Alternate-Denver: Ryan Billings

### Public Comments

There were no public comments.

### Summary of December 21, 2015 Meeting

The meeting summary was accepted.

## **INFORMATIONAL ITEMS**

### Discussion on addressing HOV, managed lanes, and toll highway policies in the transportation planning process.

- MVIC-requested HOV background research. Steve Cook presented an overview of staff's research, including rough estimates on current usage of HOV facilities such as the US-36 and North I-25 Express lanes; benefits and impacts; revenue implications; and examples of HOV policy approaches.

CDOT's new HOV policy. Debra Perkins-Smith, CDOT's Director for Transportation Development, reviewed CDOT's managed lane and HOV policy approved by the Transportation Commission (TC) in October 2015. She noted the TC resolution recognized the benefits of HOV (person throughput, emission reductions, etc.) and that, as of Jan. 2, 2017, facilities that allow free 2+ HOVs will require 3+ occupants.

CDOT's new policy notes all proposed managed lane projects will assume HOV3+ is free. Exceptions to this rule will only be allowed if there is a documented concern with safety, reaching corridor objectives such as trip reliability, minimum speeds, etc. and financial feasibility.

- Updates to DRCOG information requirements. Jacob Riger presented the proposed requirements for additional information that a sponsor (either HPTE or a private toll company) of a project with a tolling component would need to submit to DRCOG to be included in the fiscally constrained RTP.

### Comments:

- George Gerstle:
  - suggested the staff analysis compare average speeds in express and general purpose lanes.
  - questioned the social equity aspects of restrictive HOV policies, i.e., will a variety of income-levels be able to use tolled lanes?
  - questioned how public authorities would fit in (not HPTE or private toll company).
  - questioned how BRT relates to HOV3+ policy; if HOV3+ is deemed inappropriate on corridor, does it preclude buses?
  - said there is a need to be able to have more transparent financial evaluations, noting private contractors are reluctant to publicly reveal underlying assumptions.

- considering the confidentiality issues, how do you have a public review of a private, competitive transaction?
  - Debra Baskett commented the complexity of the financial information received can make analysis difficult.
- Debra Baskett suggested thinking about multi-occupancy vehicles in general. How does this affect an Uber model, or smart car ramifications.
- Art Griffith suggested:
  - staff provide a pro/con analysis.
  - not limiting projects only to HPTE or private toll companies; have other toll/managed sponsor/s as possibilities.

Discussion of the transit component of the new 2040 Metro Vision Regional Transportation Plan (2040 MVRTP).

Matthew Helfant presented the draft transit component of the 2040 MVRTP. The document identifies strategies to address the region's transit needs, and focuses on individuals with disabilities, older adults, and others with mobility challenges. The document also serves as the federally-required coordinated transit plan for the DRCOG region and inventories existing services, and forecasts service and funding gaps. The transit component will be incorporated into the new *2040 Regional Transportation Plan* after Metro Vision adoption in summer 2016. The committee was asked to provide comments or clarifications to staff.

Comments:

- Sylvia Labrucherie suggested:
  - including veterans as a sub-category population.
  - looking more specifically at healthcare transportation.
- Steve Klausing said there are "access to transit" and equity problems. Need to address these issues more aggressively for economic development.
- George Gerstle:
  - noted transit affordability was a key finding in the Local Coordinating Councils (LCC) Needs Assessment.
  - said to look at what future funding looks like to fund the need.
  - asked what role will the future "sharing" economy (e.g., Uber, Lyft) play in the future of transit? Is it an opportunity or competition for transit providers?

Update on the Regional Bicycle Network Vision and relation to new 2040 MVRTP and upcoming DRCOG Active Transportation Plan.

Melina Dempsey discussed the status of the work to update the Regional Bicycle Network Vision map. Last updated in 2009, the map was being revised to define key corridors connecting transit and activity centers across the region.

Ms. Dempsey said there is still uncertainty about the map's purpose. As a result, staff is concerned about being able to complete the network vision in time for inclusion in the 2040 MVRTP in late spring or summer.

Staff asked the committee:

1. *Is it necessary or beneficial to have a regional bicycle network vision map?*
  - Kent Moorman commented the Board made these facilities top priority in the last TIP cycle, so how will DRCOG incorporate into Metro Vision plan?
    - Melina Dempsey noted an active transportation section will be within the MVRTP to be adopted this summer. The vision map does not have to be included in the MVRTP, but can be included at a later time once the *Active Transportation Plan* has been adopted.



- Mr. Moorman suggested having a fiscally constrained version of the map as well as the vision.
- 2. *What should be the map's purpose(s)?*
  - Doug Rex said the map's purpose could be defined through *Active Transportation Plan* discussions.
  - George Gerstle said using the map as a basis for funding or just being illustrative makes a difference in purpose. Needs further discussion.
- 3. *Should the map be a consideration for awarding points to bicycle projects applying for TIP funds, supplementing other typical criteria dealing with safety, number of users, gaps/missing links, and connections to transit?*
  - Steve Klausing said it wasn't equitable to use the draft vision map presented in November to TAC for TIP points. He felt it was not ready at this time and needs more questions answered.
  - George Gerstle also noted the map should reflect wide corridors, not just highway facilities themselves.
- 4. *Should the map be prepared as soon as possible for inclusion in the new 2040 MVRTP in summer 2016; or be developed later for inclusion in the upcoming DRCOG Active Transportation Plan in 2017?*
  - After discussion, Ms. Dempsey said staff leans towards developing the map as part of the *Active Transportation Plan*.

Ms. Dempsey said a Bicycle and Pedestrian stakeholder meeting will be held on February 10 at 2 p.m. to discuss follow up items from this TAC meeting, and to obtain initial thoughts regarding the development of the *Active Transportation Plan* and other bicycle and pedestrian-related activities to be conducted in fiscal years 2016-2017.

### **ADMINISTRATIVE ITEMS**

#### **Member Comment/Other Matters**

- Jacob Riger noted the request for amendments for 2016 Cycle 1 was emailed January 22. The deadline is February 19. Sponsors are asked to contact him prior to submitting requests.
- Kate Cooke, RAQC, noted a call for projects for RAQC's [Local Agency Local Agency Air Quality Projects Grant Pool](#) open March 1. The call is to provide funding to local governments for the development and implementation of programs that result in benefits to air quality. Programs should focus on ground level ozone pollution, although projects addressing other pollutants are also eligible. Local agencies and associated projects must be located within the identified ozone non-attainment area. Contact her for more info: Kate Cooke, Transportation Program Manager, Regional Air Quality Council, [kcooke@raqc.org](mailto:kcooke@raqc.org), 303-629-5450 x270

The meeting adjourned at 3:35 p.m. The next meeting is scheduled for February 22, 2016.

## ATTACHMENT B

To: Chair and Members of the Transportation Advisory Committee

From: Jacob Riger, Transportation Planning Coordinator  
303-480-6751 or [jriger@drco.org](mailto:jriger@drco.org).

Meeting Date	Agenda Category	Agenda Item #
February 22, 2016	Action	4

### SUBJECT

This action concerns adoption of amendments to the [2040 Fiscally Constrained Regional Transportation Plan \(2040 FC-RTP\)](#).

### PROPOSED ACTION/RECOMMENDATIONS

Staff recommends approval of the 2015 Cycle 2 amendments to the 2040 FC-RTP; the amended RTP meets federal fiscal constraint and air quality conformity requirements.

### ACTION BY OTHERS

N/A

### SUMMARY

The 2040 FC-RTP must identify individual regionally significant (major) roadway capacity and rapid transit projects anticipated to be implemented over the next 25 years. Revenues must be reasonably expected to fund construction of these major projects, as well as to maintain and operate the transportation system. Future revenues are also preserved for transit service, bicycle, pedestrian, and other types of projects.

DRCOG amends the 2040 FC-RTP up to twice a year if requested by project sponsors. The following proposed amendments were received in the current RTP amendment cycle (2015 Cycle 2):

C-470 new managed toll express lanes	Advance the construction timeframe of eastbound segment from Wadsworth Blvd. to Platte Canyon Rd.
I-70 East reconstruction & new managed lanes	Reduce project scope to 1 managed lane in each direction. Reflect "Phase I" segment from I-25 to Chambers Rd.
Pena Blvd./Tower Rd.	Construct missing on-ramp to westbound Pena Blvd.
Tower Rd.	Adjust timeframes of widening segments (Pena Blvd. to 104 <sup>th</sup> Ave.)
E-470	Advance widening (Parker Rd. to Quincy Ave.)
McIntyre St.	Add new widening projects (44 <sup>th</sup> Ave. to 60 <sup>th</sup> Ave.)
Quincy Ave.	Advance widening (C-470 to Simms St.)
Wadsworth Blvd.	Advance widening (35 <sup>th</sup> Ave. to 48 <sup>th</sup> Ave.)

The Draft Summary Report of the 2015 Cycle 2 Amendments to the 2040 RTP (Attachment 1) further describes the proposed amendments.

Also per federal transportation planning requirements, DRCOG must show the 2040 RTP, as amended, will not cause a violation of federal air quality conformity standards. Accordingly, the RTP's roadway and transit networks with the proposed amendments were modeled for air quality conformity. The results were used by the state Air Pollution Control Division to

calculate pollutant emissions. All pollutant emission tests were passed, as shown in the companion air quality conformity documents.

A public hearing on the proposed amendments to the 2040 FC-RTP was held before the DRCOG Board on January 20, 2016. Oral testimony and accompanying written materials were provided by one speaker opposed to the I-70 East reconstruction and widening project. Attachment 2 is a summary of the public hearing testimony received.

#### PREVIOUS DISCUSSIONS/ACTIONS

[September 28, 2015](#) – TAC

#### PROPOSED MOTION

Move to recommend to the Regional Transportation Committee the 2015 Cycle 2 Amendments to the *2040 Fiscally Constrained Regional Transportation Plan*, along with the *2015 Cycle 2 Amendments to the Denver Southern Subarea 8-hour Ozone Conformity Determination* and the *2015 Cycle 2 Amendments to the CO and PM10 Conformity Determination*, concurrently.

#### ATTACHMENTS

1. **Draft Summary Report** of the 2015 Cycle 2 Amendments to *2040 Fiscally Constrained Regional Transportation Plan*
2. **Summary of Written and Oral Testimony Received** for the 2015 Cycle 2 Amendments to the *2040 Fiscally Constrained Regional Transportation Plan*

Links:

[DRCOG CO and PM10 Conformity Determination](#)

[Denver Southern Subarea 8-hour Ozone Conformity Determination](#)

#### ADDITIONAL INFORMATION

If you need additional information, please contact Jacob Riger, Transportation Planning Coordinator, at 303-480-6751 or [jriger@drco.org](mailto:jriger@drco.org).

# ATTACHMENT 1

## Denver Regional Council of Governments (DRCOG) Summary Document of the 2015 Cycle 2 Amendments to the 2040 Fiscally Constrained Regional Transportation Plan

*Draft: February 16, 2016*

### A. Summary

CDOT and local governments have proposed several roadway project amendments to the 2040 Fiscally Constrained Regional Transportation Plan ([2040 RTP](#)) in this plan amendment cycle. The proposed amendments include modifications to existing projects in the 2040 RTP and new locally-funded projects requested by local governments. A description of each amendment is shown in Table 1. The locations of each amendment are shown in Figure A. The amendments will be incorporated into updated versions of Figure 10, Appendix 3 and Appendix 4 of the 2040 RTP.

### B. Analysis of Amendments

Table 1 describes the specific change associated with each proposed amendment. The proposed amendments fall into two broad categories, each described below.

#### 1. Roadway Capacity Amendments (Regional Roadway System)

CDOT and local governments are proposing roadway capacity modifications to certain existing projects in the 2040 RTP, and to add new locally funded capacity projects. These requested project modifications and additions address the current status of project development activities, such as Environmental Assessment document findings. They also address consistency with local government Capital Improvement Programs. The applicable proposed amendments and their project sponsors are:

- I-70 East reconstruction (CDOT): change managed lanes scope/limits to one new managed lane in each direction from I-25 to Chambers Road
- McIntyre Street (Jefferson County): new widening projects from 44<sup>th</sup> Avenue to 60<sup>th</sup> Avenue
- Pena Boulevard/Tower Road (Commerce City): new interchange ramp movement to westbound Pena Boulevard

#### 1. Project Completion Staging Period Amendments

Each plan amendment cycle, DRCOG coordinates with CDOT, RTD, and local governments regarding the estimated completion stage for projects in the 2040 RTP. In this amendment cycle, CDOT and local governments requested a completion date be delayed or advanced for several projects from one air quality conformity staging period to another. As with roadway capacity amendments, these requests are to reflect current project

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development status or to be consistent with local government Capital Improvement Programs. The applicable proposed amendments and their project sponsors are:

- C-470 managed toll express lanes (CDOT): advance eastbound segment (1 new lane from Wadsworth Boulevard to Platte Canyon Road) to 2015-2024 stage from 2025-2034 stage
- E-470 from Parker Road to Quincy Avenue (E-470 Authority): advance widening to 2015-2024 stage from 2025-2034 stage
- Quincy Avenue from C-470 to Simms Street (Jefferson County): advance widening to 2015-2024 stage from 2025-2034 stage
- Tower Road from Pena Boulevard to 104<sup>th</sup> Avenue (Commerce City): complete initial widening in 2015-2024 stage and remaining widening in 2025-2034 stage
- Wadsworth Boulevard from 35<sup>th</sup> Avenue to 48<sup>th</sup> Avenue (Wheat Ridge): advance widening to 2015-2024 stage from 2025-2034 stage

## 2. Transportation Model Refinements

Working with local governments, DRCOG refined its transportation model network to reflect new local roadways, completed projects, and other changes. While not formal 2040 RTP amendments, these updates, along with model calibration and performance refinements, are made each RTP amendment cycle. This keeps the transportation model up to date for use in processing RTP amendments and other transportation planning applications.

## 3. Financial (Fiscal Constraint) Implications

All proposed RTP amendments are analyzed to ensure they meet federal fiscal constraint requirements, meaning that revenues are identified to pay for the proposed projects as amended. Project sponsors submitted documentation and analyses demonstrating agency funding commitment and reasonable expectation of revenues. For example, as noted previously, many amendments are being requested specifically to reflect local Capital Improvement Program funding commitments for those projects.

## 4. Air Quality Conformity Modeling

The 2040 RTP networks incorporating the proposed amendments (as well as dozens of other RTP planned transportation projects) were modeled to ensure all applicable air quality conformity pollutant emission tests would be passed. Modeling was conducted to estimate transit ridership, vehicle miles of travel (VMT), and roadway operating speeds for 2015, 2025, 2035, and 2040. Model outputs were used by the Colorado Air Pollution Control Division to calculate the mobile source emissions for four pollutants: carbon monoxide,

## ATTACHMENT 1

nitrogen oxides, volatile organic compounds, and particulate matter. **The results passed each of the individual pollutant budget tests.** More details can be found in the companion 2015 Cycle 2 conformity documents ([CO and PM10 Conformity Determination](#) and [8-hour Ozone Conformity Determination](#)).

### **C. Conclusion**

All future transportation networks and proposed project amendments to the 2040 RTP meet federal fiscal constraint and air quality conformity requirements.

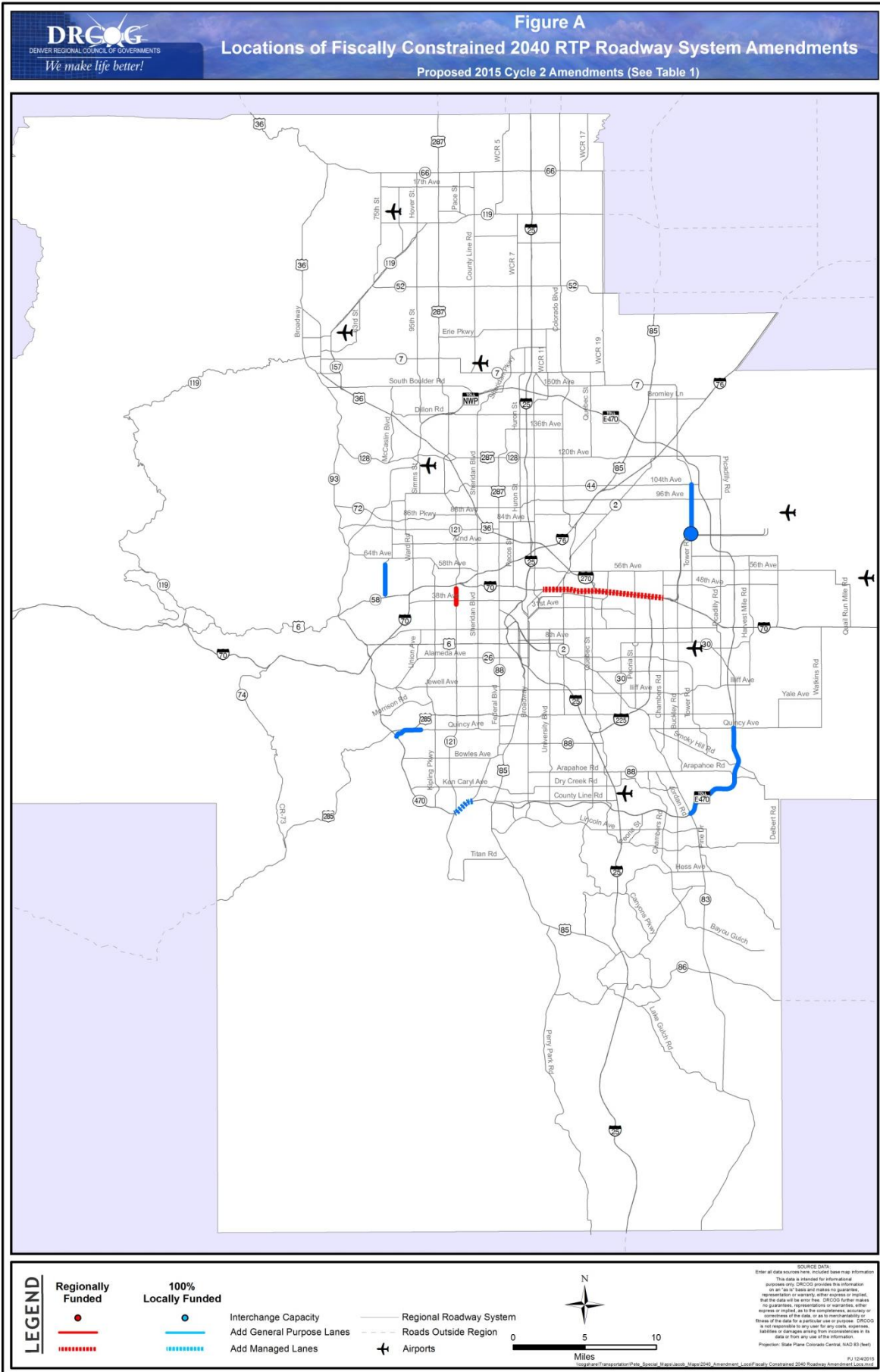
# ATTACHMENT 1

## Table 1

### Proposed 2015 Cycle 2 Amendments to the 2040 Fiscally Constrained RTP (2040 RTP)

Sponsor	Project Location	Current RTP Project Description	Type of Change to the FC-2035-RTP	Model Network Staging Period
CDOT	<u>C-470 (New Managed Toll Express Lanes):</u> • EB: Wadsworth Blvd. to I-25	Advance eastbound segment (1 new lane from Wadsworth Blvd. to Platte Canyon Rd.) to 2015-2024 stage		2015 – 2024
CDOT	<u>I-70 (New Managed Lanes):</u> • I-25 to Chambers Rd. (1 new lane in each direction)	Change scope from 2 managed lanes in each direction (Brighton Blvd. to I-270) to 1 managed lane in each direction (I-25 to Chambers Rd.)		2015 – 2024
Commerce City	Pena Blvd./Tower Rd.	Not in 2040 RTP	Construct missing on-ramp to WB Pena Blvd.	2015 – 2024
Commerce City	Tower Rd.: Pena Blvd. to 104 <sup>th</sup> Ave.	Widen 2 to 6 lanes (2015-2024 stage)	Change widening to 2 to 4 lanes (2015-2024 stage); add widening to 4 to 6 lanes (2025-2034 stage)	2015 – 2024 2025 – 2034
E-470 Authority	E-470: Parker Rd. to Quincy Ave.	Widen 4 to 6 lanes (2025-2034 stage)	Advance to 2015-2024 stage	2015 – 2024
Jefferson County	<u>McIntyre St.:</u> • 44 <sup>th</sup> Ave. to 52nd Ave. • 52nd Ave. to 60th Ave.	Not in 2040 RTP	Add project: widen 2 to 4 lanes	2015 – 2024
Jefferson County	Quincy Ave.: C-470 to Simms St.	Widen 2 to 4 lanes (2025-2034 stage)	Advance to 2015-2024 stage	2015 – 2024
Wheat Ridge	Wadsworth Blvd.: 35 <sup>th</sup> Ave. to 48 <sup>th</sup> Ave.	Widen 4 to 6 lanes (2025-2034 stage)	Advance to 2015-2024 stage	2015 – 2024

# ATTACHMENT 1





## ATTACHMENT 2

### **2015 Cycle 2 Amendments to the 2040 Fiscally Constrained Regional Transportation Plan Summary of Written and Oral Testimony Received (During the Public Comment Period from December 22, 2015 to January 20, 2016 Hearing)**

This document summarizes the written (letters, emails, online submittals) and oral testimony received by the Denver Regional Council of Governments (DRCOG) regarding the proposed amendments. No testimony was received prior to the public hearing. One person provided the following oral and written testimony at the hearing:

#### Oral Testimony

Becky English of the Sierra Club presented documents and testified that the I-70 East Final Environmental Impact Statement (FEIS – January 2016) does not adequately address public health and pollution impacts, alternatives, or mitigation measures for the neighborhoods surrounding the project. She asked that DRCOG investigate the relationship between the emissions from the I-70 project and health impacts in the surrounding neighborhoods (Globeville, Elyria, and Swansea). She asked DRCOG to protect the residents of these neighborhoods by removing truck emissions from the I-70 segments where the FEIS modeling shows exposure to particulate matter emitted from the highway will be greatest.

Materials provided by Ms. English in conjunction with her public hearing testimony:

- [Sierra Club Comments on Amendment to DRCOG Regional Transportation Plan for the Proposed Addition of the Revised I-70 Project](#) (January 20, 2016)
- [Sierra Club Comments on the Addition of the Proposed I-70 Expansion Project to the Denver Regional Transportation Plan and Transportation Improvement Program](#)
- [Amendments to Federal Transportation Planning Law Require Regional Transportation Plans to 'Minimize Fuel Consumption' and 'Air Pollution'](#)
- Article: [Trends of Non-Accidental, Cardiovascular, Stroke and Lung Cancer Mortality in Arkansas are Associated with Ambient PM-2.5 Reductions](#) (International Journal of Environmental Research and Public Health)
- Article: [Associations of Mortality with Long-Term Exposures to Fine and Ultrafine Particles, Species and Sources: Results from the California Teachers Study Cohort](#) (Environmental Health Perspectives)
- Article: [Near-Roadway Air Pollution and Coronary Heart Disease: Burden of Disease and Potential Impact of a Greenhouse Gas Reduction Strategy in Southern California](#) (Environmental Health Perspectives)

#### DRCOG staff response

Staff has documented the concerns expressed regarding the I-70 East project (as defined in the FEIS). A component of the FEIS project was originally approved for inclusion in the 2040 FC-RTP adopted in February 2015. CDOT's proposed amendment adjusts the project's fiscally constrained eastern end point to Chambers Road. The 2040 FC-RTP, as amended, remains fiscally constrained per federal requirements, and will not violate federal air quality conformity standards as demonstrated in the two companion air quality conformity documents.

## ATTACHMENT C

To: Chair and Members of the Transportation Advisory Committee

From: Todd Cottrell, Senior Transportation Planner  
303 480-6737 or [tcottrell@drcog.org](mailto:tcottrell@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
February 22, 2015	Action	5

### SUBJECT

DRCOG's transportation planning process allows for Board-approved amendments to the current Transportation Improvement Program (TIP), taking place on an as-needed basis. Typically, these amendments involve the deletion or addition of projects or adjustments to existing projects and do not impact funding for other projects in the TIP.

### PROPOSED ACTION/RECOMMENDATIONS

DRCOG staff recommends approval of the proposed amendments because they comply with the Board adopted [TIP Amendment Policy](#).

### ACTION BY OTHERS

N/A

### SUMMARY

Projects to be amended are shown below and listed in the attachment. Highlighted items in the attachment depict proposed changes. The proposed policy amendments to the [2016-2021 Transportation Improvement Program](#) have been found to conform with the State Implementation Plan for Air Quality.

- **2012-043: I-25/Arapahoe Rd Interchange Reconstruction – move project into the current TIP and add funds.**  
CDOT has requested this project be moved from the 2012-2017 TIP to the 2016-2021 TIP in order to accurately reflect funds for the project in FY 2016 and FY 2017. Prior funding was also adjusted to reflect funds spent to date. This is a requirement to bring the project to advertisement for construction.
- **2012-087: Arapahoe Rd and Yosemite St Intersection Operational Improvements – move project into current TIP.**  
This is a companion project to the project noted above (2012-043). Due to its proximity, CDOT plans to bring both projects to advertisement for construction at the same time and has requested it be moved from the 2012-2017 TIP to the 2016-2021 TIP.
- **New Project: RoadX Pool – create pool to fund projects in the CDOT RoadX program.**  
The purpose of the CDOT RoadX program is to support technologically innovative transportation projects for the next generation of Colorado's roads.

PREVIOUS DISCUSSIONS/ACTIONS

N/A

PROPOSED MOTION

Move to recommend to the Regional Transportation Committee the attached amendments to the *2016-2021 Transportation Improvement Program (TIP)*.

ATTACHMENT

Proposed TIP Amendments

ADDITIONAL INFORMATION

If you need additional information, please contact Todd Cottrell, Senior Transportation Planner, Transportation Planning and Operations at (303) 480-6737 or [tcottrell@drcog.org](mailto:tcottrell@drcog.org).

**2012-043:** Move project from the 2012-2017 TIP to the 2016-2021 TIP, add funding type and funding. The Prior Funding column in the Revised Funding Table accurately reflects funds spent on the project from 2012 to 2015.

### Existing (In 2012-2017 TIP)

Title: **I-25/Arapahoe Rd Interchange Reconstruction**

Project Type: **Roadway Capacity**

TIP-ID: **2012-043**

STIP-ID: **SDR6745.041**

Open to Public:

Sponsor: **Arapahoe County**

#### Project Scope

Reconstruction of I-25 and Arapahoe Rd Interchange and ancillary improvements outlined in the FONSI, including operational characteristics and improved accessibility of the Arapahoe Rd LRT Station.

STP-Metro funds are being used for the design of the EA/FONSI recommended alternative.

State funding was added per the RAMP program.



Affected Municipality(ies)	Affected County(ies)	Project Phases	
Centennial	Arapahoe	Year	Phase
		2013	Initiate Design

Amounts in \$1,000s	Prior Funding	FY12	FY13	FY14	FY15	FY16-17	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0	\$0		
Federal (STP-M)		\$0	\$4,200	\$0	\$0	\$0		
State		\$0	\$0	\$0	\$0	\$0		
State (R P P)		\$0	\$0	\$0	\$2,400	\$48,000		
Local		\$0	\$1,800	\$0	\$600	\$12,000		
<b>Total</b>	\$0	\$0	\$6,000	\$0	\$3,000	\$60,000	\$0	\$69,000

### Revised Funding Table (for the 2016-2021 TIP)

Amounts in \$1,000s	Prior Funding	FY16	FY17	FY18	FY19	FY20-21	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0	\$0		
Federal (STP-M)		\$0	\$0	\$0	\$0	\$0		
State		\$0	\$0	\$0	\$0	\$0		
State (R P P)		\$0	\$0	\$0	\$0	\$0		
<b>State (RMP)</b>		<b>\$20,000</b>	<b>\$25,200</b>	\$0	\$0	\$0		
Local		<b>\$5,700</b>	<b>\$8,000</b>	\$0	\$0	\$0		
<b>Total</b>	\$17,300	<b>\$25,700</b>	<b>\$33,200</b>	\$0	\$0	\$0	\$0	<b>\$76,200</b>



**Request:** Create new pool to fund CDOT RoadX program.

## New Project

Title: **RoadX Pool**

Project Type:

TIP-ID: **Request**

STIP-ID:

Open to Public:

Sponsor: **CDOT**

### Project Scope

Pool will contain projects designed to improve operations, maintenance and safety of the highway system by utilizing the latest technology.

Projects include:

- I-25 Managed Motorway, which will enhance ramp meters to improve traffic flow on I-25
- I-70 Connected Vehicles, which will utilize Dedicated Short-Range Communications and cell phone technology to improve data collection, allowing better informed and more timely delivery of ITS and other roadway management alternatives.



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-25 Managed Motorway Pilot	Ridgegate to Broadway	\$7,600	I-70 Connected Vehicles Pilot	Summit County to C-470	\$11,200			
Amounts in \$1,000s	Prior Funding	FY16	FY17	FY18	FY19	FY20-21	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0	\$0		
State (TCC)		\$5,300	\$5,300	\$5,300	\$2,900	\$0		
Local		\$0	\$0	\$0	\$0	\$0		
<b>Total</b>		\$0	\$5,300	\$5,300	\$5,300	\$2,900	\$0	\$18,800

## ATTACHMENT D

To: Chair and Members of the Transportation Advisory Committee

From: Robert Spotts, Senior Transportation Planner  
303-480-5626 or [rspotts@drcog.org](mailto:rspotts@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
February 22, 2016	Information	6

### SUBJECT

Environmental Justice (EJ) definitions to be used in MPO planning processes

### PROPOSED ACTION/RECOMMENDATIONS

N/A

### ACTION BY OTHERS

N/A

### SUMMARY

It is a federal requirement to evaluate the benefits and consider the impacts of DRCOG's transportation plans and programs on minority and low-income populations. DRCOG most recently did so for the *2040 Fiscally Constrained Regional Transportation Plan* and included criteria in the *2016-2021 Transportation Improvement Program* requiring the sponsors to identify the benefits a project may have on the EJ community. As part of the new *Unified Planning Work Program (UPWP)*, DRCOG will prepare a new document—*Status and Impacts of DRCOG Transportation Planning and Programming with Environmental Justice*. This document will analyze many topics related to environmental justice.

The topic of discussion at the February TAC meeting will be how to define geographic “EJ areas” in order to begin conducting analyses for the new document. Such EJ areas are used as the basis for some of the measures presented in the document. There is no prescribed procedure for MPOs to use in defining EJ concentration areas except to focus on minority and low-income areas.

DRCOG uses transportation analysis zones (TAZs) as the geographic basis for defining EJ areas. The use of TAZs enables measures to be calculated based on outputs from the regional travel model (e.g., transit travel time and accessibility). Historically, EJ areas were defined as TAZs above the regional level for either minority or poverty status. For the entire DRCOG region, the percent of minority population is 33%, and the percent of households in federally-defined poverty status is 11%. A key question is how stringent of a threshold should be used for defining EJ TAZs. As the threshold is raised (such as twice the regional level), fewer TAZs are identified as EJ areas, but reflect locations with higher concentrations.

Another factor is the minimum population in a TAZ to even be eligible for definition as an EJ TAZ. The current definition uses a minimum of 20 people in a TAZ to be eligible.

The attached maps portray the geographic results of using a range of threshold options to define EJ TAZs. The options vary based on how TAZs compare to the regional level for minority and poverty status. TAZs colored on the map are above the regional threshold value for at least one of the two variables.

Finally, it should be noted this regional scale EJ analysis is not as detailed as analyses conducted for project-level environmental assessments (EAs) or impact statements (EISs). Those documents go into much greater detail, such as down to the individual person or household level within a project's study area.

<b>PREVIOUS DISCUSSIONS/ACTIONS</b>
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N/A

<b>PROPOSED MOTION</b>
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N/A

<b>ATTACHMENTS</b>
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1. TAZs Defined as EJ Based on Current Definition (i.e., Above Regional Level)
2. TAZs Defined as EJ Based on 1.25 x Regional Level
3. TAZs Defined as EJ Based on 1.50 x Regional Level
4. TAZs Defined as EJ Based on 2.0 x Regional Level

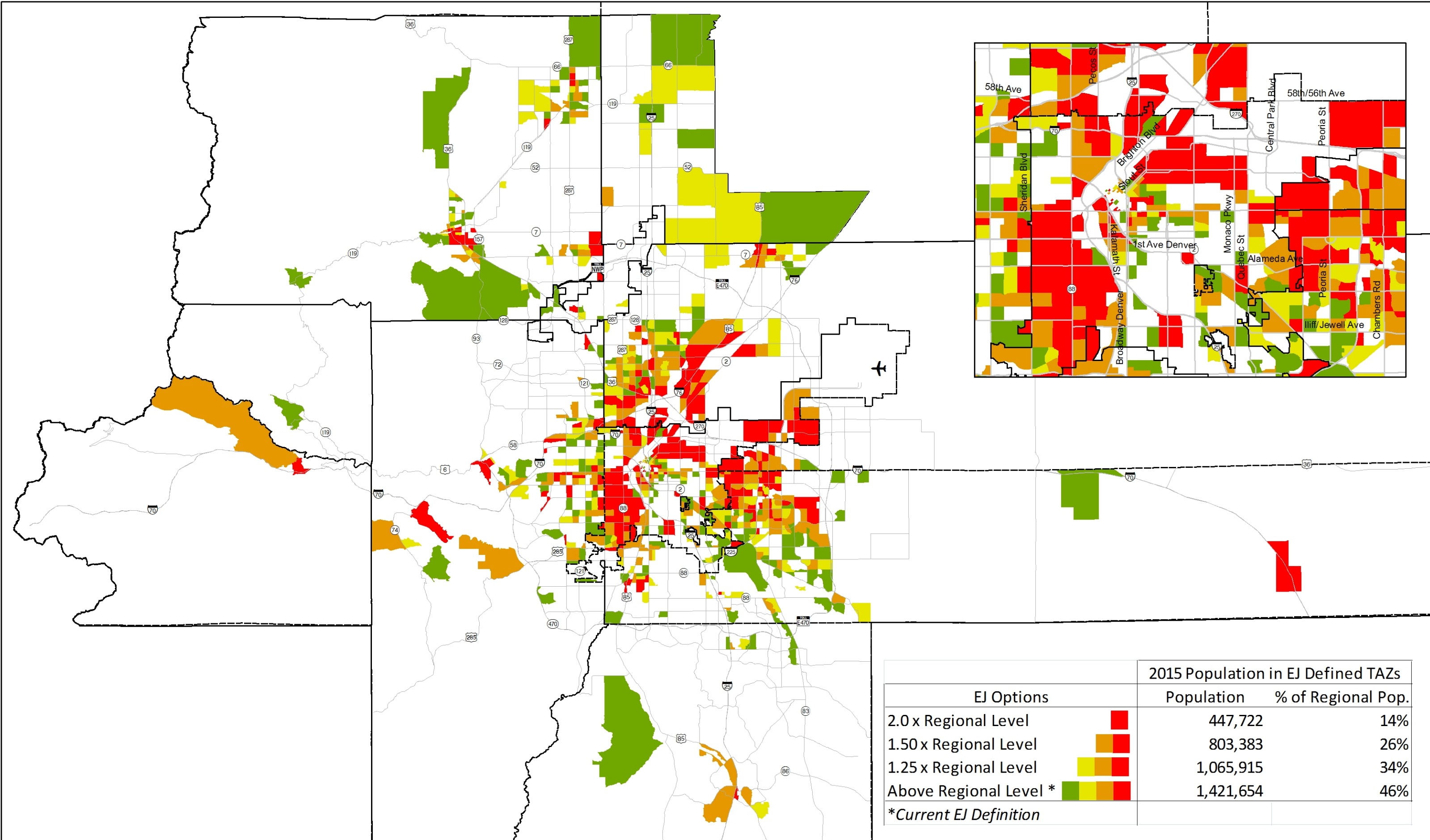
<b>ADDITIONAL INFORMATION</b>
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If you need additional information, please contact Robert Spotts, Senior Transportation Planner, at 303-480-5626 or [rspotts@drcog.org](mailto:rspotts@drcog.org)



# Attachment 1 TAZs Defined as Environmental Justice Based on Current Definition (Above Regional Level)

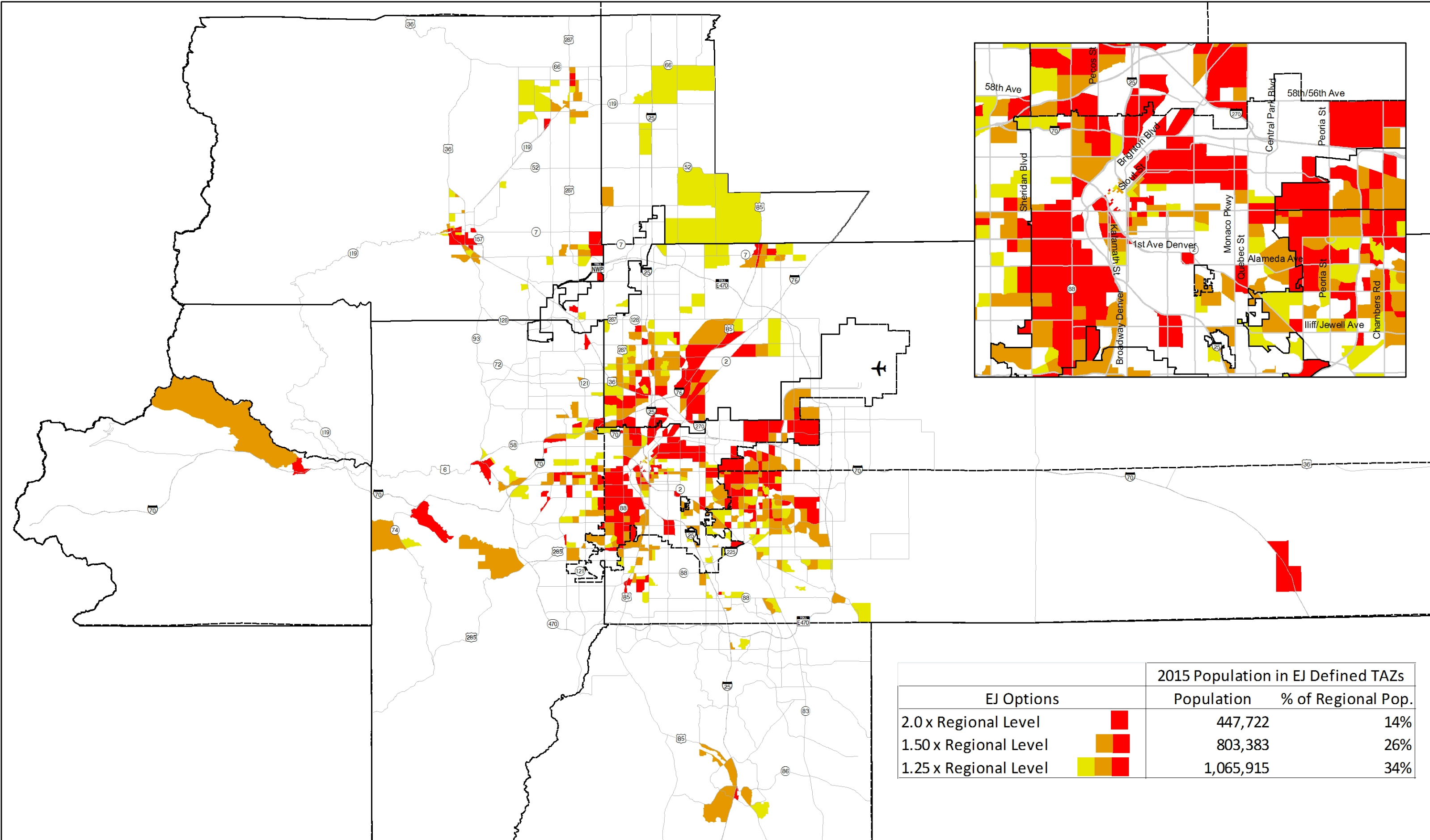
33% Minority Population, 11% Low Income Households



EJ Options	2015 Population in EJ Defined TAZs	
	Population	% of Regional Pop.
2.0 x Regional Level 	447,722	14%
1.50 x Regional Level 	803,383	26%
1.25 x Regional Level 	1,065,915	34%
Above Regional Level * 	1,421,654	46%
<i>*Current EJ Definition</i>		

## Attachment 2 TAZs Defined as Environmental Justice Based on 1.25 x Regional Level

41.3% Minority Population, 13.8% Low Income Households



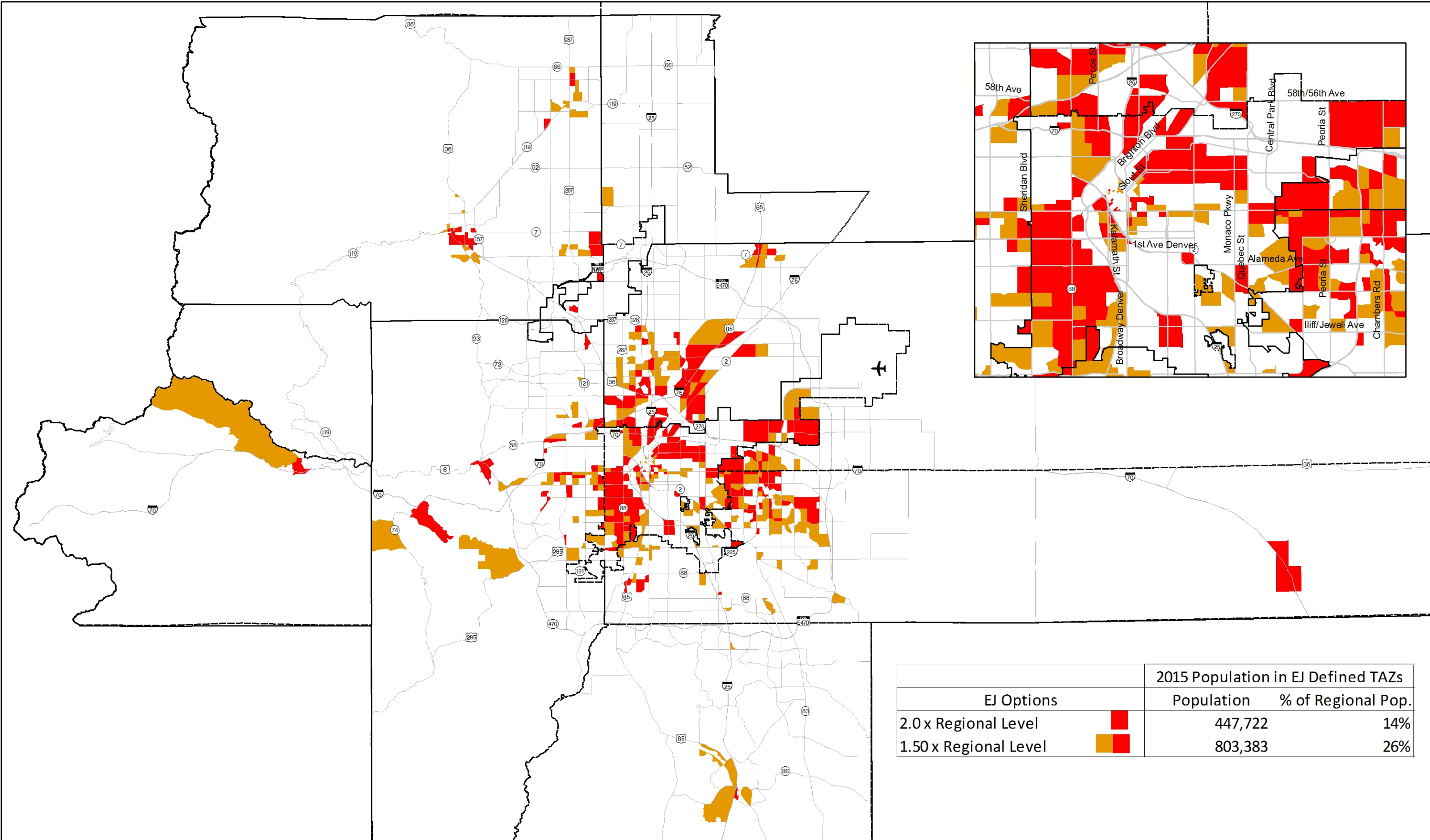
EJ Options	2015 Population in EJ Defined TAZs	
	Population	% of Regional Pop.
2.0 x Regional Level	447,722	14%
1.50 x Regional Level	803,383	26%
1.25 x Regional Level	1,065,915	34%



## Attachment 3

### TAZs Defined as Environmental Justice Based on 1.50 x Regional Level

**49.5% Minority Population, 16.5% Low Income Households**

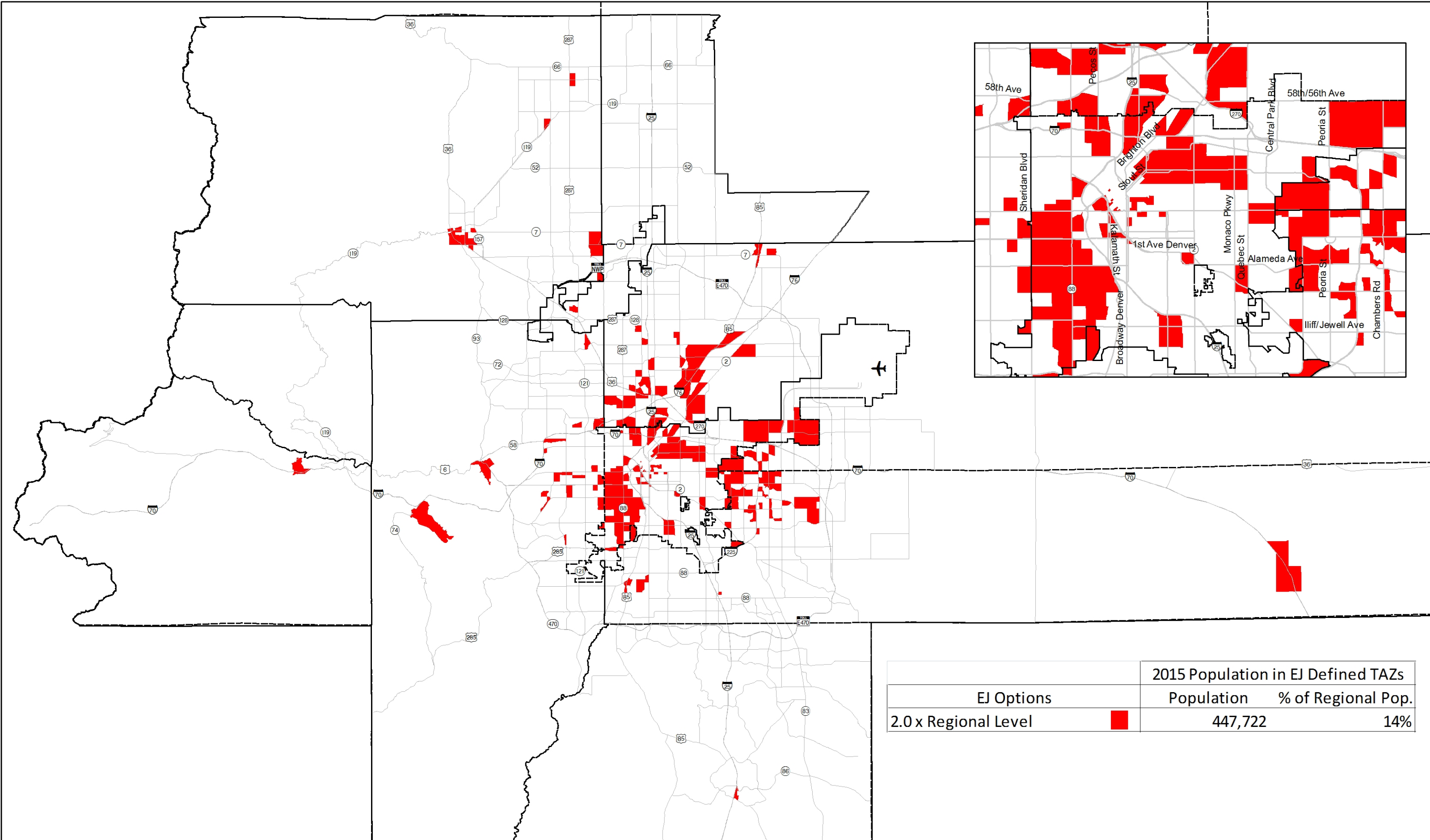


EJ Options	2015 Population in EJ Defined TAZs	
	Population	% of Regional Pop.
2.0 x Regional Level	447,722	14%
1.50 x Regional Level	803,383	26%

# Attachment 4

## TAZs Defined as Environmental Justice Based on 2.0 x Regional Level

66% Minority Population, 22% Low Income Households



EJ Options	2015 Population in EJ Defined TAZs	
	Population	% of Regional Pop.
2.0 x Regional Level	447,722	14%

## ATTACHMENT E

To: Chair and Members of the Transportation Advisory Committee

From: Douglas Rex, Director, Transportation Planning and Operations  
303 480-6747 or [drex@drcog.org](mailto:drex@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
February 22, 2016	Information	7

### SUBJECT

2016-2021 Transportation Improvement Program (TIP) Review White Paper

### PROPOSED ACTION/RECOMMENDATIONS

N/A

### ACTION BY OTHERS

February 17, 2015 – Board will provide further direction.

[August 19, 2015](#) – Board directed staff to create a work group and develop the TIP white paper.

### SUMMARY

At its August 2015 meeting, the DRCOG Board of Directors requested the formation of a work group, comprised of DRCOG staff and Transportation Advisory Committee (TAC) members, to develop a white paper addressing issues associated with the development of the *2016-2021 Transportation Improvement Program (TIP)*. Topics directed for discussion included: TIP process, funding allocations and criteria, and a comparative look at other MPO practices. The purpose of the white paper is to assist a future Board to address identified issues/concerns in the development of the next TIP. The white paper is a product of the TIP Review Work Group's discussions from October 16, 2015 to February 3, 2016.

The *2016-2021 TIP Review White Paper* is attached for TAC's information. The report highlights the following recommendations:

- Develop a project selection process purpose statement for the TIP.
- Further explore the Regional/Subregional dual project selection model.
- Create a project selection process that places more emphasis on project benefits, overall value, and return on investment.
- Explore opportunities to exchange CDOT state funds with DRCOG federal funds.
- Evaluate off-the-top programs and projects.

The Board is scheduled to provide further direction to the TIP Review Work Group related to the white paper at its February 17 meeting.

### PREVIOUS DISCUSSIONS/ACTIONS

N/A

### PROPOSED MOTION

N/A

### ATTACHMENT

Link: [2016-2021 TIP Review White Paper](#)

### ADDITIONAL INFORMATION

If you need additional information, please contact Douglas Rex, Director, Transportation Planning and Operations at 303-480-6747 or [drex@drcog.org](mailto:drex@drcog.org).