North Front Range
Metropolitan
Planning
Windsor Community Recreation Center
250 N. $11^{\text {th }}$ Street-Pine Room
Windsor, Colorado

## NFRMPO TECHNICAL ADVISORY COMMITTEE (TAC)—AGENDA

May 15, 2019
1:00-3:30 p.m.

1. Call Meeting to Order, Welcome, and Introductions
2. Public Comment (2 minutes each)
3. Approval of April 17, 2019 Meeting Minutes (Page 2)

## CONSENT AGENDA

1) FY2020-2021 Unified Planning Work Program (UPWP) Tasks (Page 6) Karasko

## ACTION ITEMS

2) 2045 Regionally Significant Corridors (RSC) (Page 7)

Dusil
3) May 2019 TIP Amendment (Page 11)

Bornhoft
4) 2045 Regional Transportation Plan (RTP) Plan Projects (Page 15)

Bornhoft

## PRESENTATIONS

## No items this month.

DISCUSSION ITEMS
5) 2019 Congestion Management Process (CMP) Opportunities (Page 20) Dusil
6) 2045 Regional Transportation Plan (RTP) Draft Technology Section (Page 45)

Karasko
7) 2045 Regional Transportation Plan (RTP) Fiscally Constrained Plan (Page 52)

Bornhoft/Karasko
8) Freight Northern Colorado (FNC) Plan (Page 56)

Dusil

## OUTSIDE PARTNER REPORTS

9) NoCo Bike \& Ped Collaborative (Page 58)

Written Report
10) Regional Air Quality Council
11) Regional Transit Agencies
12) Senior Transportation

REPORTS
13) Roundtable

All
4. Final Public Comment (2 minutes each)
5. Next Month's Agenda Topic Suggestions
6. Next TAC Meeting: June 19, 2019

# MEETING MINUTES of the TECHNICAL ADVISORY COMMITTEE (TAC) North Front Range Transportation and Air Quality Planning Council <br> Windsor Recreation Center - Pine Room <br> 250 North $11^{\text {th }}$ Street <br> Windsor, CO <br> April 17, 2019 <br> 1:04-2:30 p.m. 

TAC MEMBERS PRESENT:
Dave Klockeman, Chair - Loveland
Mitch Nelson, Vice Chair - Severance
Dawn Anderson - Weld County
Allison Baxter - Greeley
Amanda Brimmer - RAQC
Aaron Bustow - FHWA
Eric Fuhrman - Timnath
Tim Kemp - Fort Collins
Rusty McDaniel - Larimer County
Karen Schneiders - CDOT
Dennis Wagner - Windsor

## NFRMPO STAFF:

Medora Bornhoft
Ryan Dusil
Alex Gordon
Becky Karasko
Suzette Mallette
Sarah Martin

TAC MEMBERS ABSENT:
Stephanie Brothers - Berthoud
Jeff Schreier - Eaton
Rick Coffin - CDPHE-APCD
Ranae Tunison - FTA
Randy Ready - Evans
Kim Meyer - Johnstown
Pepper McClenahan - Milliken
LaSalle

## IN ATTENDANCE:

Darren Davis - GET
Candice Folkers - COLT
Katie Guthrie - Loveland
Tamara Keefe - FHU
Michael King - CDOT
Eric Tracy - Larimer County
Carrie Tremblatt - CDOT

## CALL TO ORDER

Chair Klockeman called the meeting to order at 1:04 p.m.

## PUBLIC COMMENT

There was no public comment.

## APPROVAL OF THE MARCH 20, 2019 TAC MINUTES

Anderson moved to approve the March 20, 2019 TAC minutes. The motion was seconded by McDaniel and approved unanimously.

## CONSENT AGENDA

Greeley STBG Project Adjustment Request - Anderson moved to approve the Consent Agenda. The motion was seconded by Nelson and approved unanimously.

## ACTION ITEMS

FY2020-2023 Transportation Improvement Program (TIP) - Bornhoft stated the "delay" definition was updated as a chart and a Delay Procedure Swap Policy was created. The Swap Policy would allow projects to switch funds with another project one time and adjust milestone years.

Schneiders asked what happens if a project changes air quality conformity year by swapping with another project. Bornhoft said the one time limit stops it from making a large impact, and Karasko explained there are additional requirements to swap project funds. Projects must be the same funding source and similar project type, reducing the impact on air quality conformity.
Bustow asked for more clarification about project sponsors and the process for swapping projects. Bornhoft stated the policy is written such that "project sponsor" can mean either the same entity or two entities who agree to swap funds. Karasko stated projects must have already been in the TIP and funded through the NFRMPO's Call for Projects. Bustow requested the process for a project funding swap be defined in the TIP. Bornhoft will clarify projects using the Swap Policy must be chosen through the Call for Projects and be funded using CMAQ, STBG, and TA funds awarded by the NFRMPO.
Bornhoft stated projects have been added to the FY2020-2023 TIP and requested TAC review the project tables. Kemp moved to recommend Planning Council approve the FY2020-2023 TIP with the noted changes. The motion was seconded by McDaniel and approved unanimously.

## DISCUSSION

FY2020-2021 Unified Planning Work Program (UPWP) Tasks - Karasko stated NFRMPO staff has drafted the FY2020-2021 UPWP Tasks. Recommendations from the NFRMPO's Federal Certification Review were incorporated into the document. Two new tasks have been added, an Environmental Justice Plan and the 2020 Statewide Household Survey. The Finance Committee reviewed the proposed FY2020 UPWP budget. Comments are due by April 30, 2019. Karasko distributed an updated local match requirement handout with updated population estimates from the Department of Local Affairs (DOLA).
2019 Congestion Management Process (CMP) - Martin explained the organization of the 2019 CMP and the updates from the 2015 CMP. Objectives and performance measures in the 2019 CMP are based on the 2045 Regional Transportation Plan (RTP) Goals, Objectives, Performance Measures, and Targets (GOPMT). These include Travel Time Index (TTI), vehicle miles traveled (VMT), and Travel Time Reliability (TTR); and the number of crashes, weekday transit ridership per capita, percent of commute trips made via a non-Single Occupant Vehicle (SOV) mode, and the percent National Highway System (NHS) covered by fiber. NFRMPO staff will develop projections for TTI in 2030 upon completion of the 2045 Regional Travel Demand Model (RTDM). CMP strategies are organized into six tiers, ranging from Travel Demand Management (TDM), operational improvements, and Traffic Incident Management (TIM) to roadway capacity projects. A section was added to the CMP to describe these strategies, give examples, and discuss the pros and cons of each.

Schneiders asked for clarification on the number of jobs along the I-25 corridor in 2030 because it is a decrease from 2015 and suggested adding Adaptive Signal Control Technology (ASCT) to Harmony Road and other interchanges along I-25. Martin stated she would check the 2030 job number and add the ASCT strategy to other interchanges. Schneiders stated ramp metering is not anticipated at all l-25 interchanges. Mallette noted including projects like ramp metering in the CMP and RTP can make it easier to apply for grant funding for those projects in the future. Schneiders suggested discussing the local and regional broadband efforts, and NFRMPO staff agreed to ask local communities for more information on broadband.

Martin requested comments be submitted by May 1, 2019.
2045 Regional Transportation Plan (RTP) Land Use Scenarios - Martin discussed the new 2010 Land Use Allocation Model (LUAM), which uses the UrbanSim product: UrbanCanvas Cloud Model platform. NFRMPO staff added density constraints, newly constructed or committed developments, and household and job control totals based on input from local, regional, and state sources. Outputs were reviewed at the Growth Management Area (GMA) and Traffic Analysis Zone (TAZ) levels. Additional post-processing was completed based on input from local government staff.
The LUAM will be reviewed at the April 18, 2019 Model Steering Team (MST) meeting. A Base Case Scenario and Dense Urban Cores Scenario will be run with the 2045 RTDM scenarios to link land use and transportation scenarios. To create the Dense Urban Cores Scenario, NFRMPO analyzed TAZs with job or household density greater than the
regional average for the 2015 model year. The density in these areas were then scaled up by a factor of two. The MST will review the Base Case Scenario, the methodology for the Dense Urban Cores Scenario, and discuss skims, which would allow the LUAM and RTDM to create iterative data.

2045 Regional Transportation Plan (RTP) Draft Vision Plans Section - Karasko stated the Vision Plans have an updated format and include the Regionally Significant Corridors (RSCs), Regional Transit Corridors (RTCs), Regional Non-Motorized Corridors (RNMCs), and the Freight and Aviation Vision Plans. The Freight and Aviation Vision Plans are more in-depth and contain more detail than those in the 2040 RTP. Comments on this section are due by Friday, May 3, 2019.
2045 Regional Transportation Plan (RTP) Projects - Bornhoft reviewed the various through-lane/capacity projects submitted by TAC members for inclusion in the 2045 RTP. Bornhoft noted only through-lane projects were included, not intersection improvements. Projects were shown based on facility type and planned out-year as well as by number of lanes. The projects will be discussed at the MST meeting on April 18, 2019. The next step will be to analyze the projects based on fiscal constraint. Comments on the projects are due by Friday, April 26, 2019.
2045 Regionally Significant Corridors (RSC) Changes - Dusil reviewed the criteria and proposed 2045 RSCs. RSCs are the regional roadway network and were updated based on feedback from Planning Council and to align the RSCs with federal-aid funding eligibility. The criteria were updated to include segments of roadway that do not yet exist or are not currently federal-aid eligible but have planned improvements by 2045.

Dusil stated functional classification change requests were submitted to CDOT for Centerra Parkway from Crossroads Boulevard to US34, WCR 13 from SH14 to US34, and Two Rivers Parkway from $83^{\text {rd }}$ Avenue to SH60/WCR396 but have not yet been approved. NFRMPO staff is recommending moving forward with the proposed RSCs with the assumption the requests will be approved. Dusil stated he will inform TAC when CDOT acts on the functional classification change requests. $8^{\text {th }}$ Street in Greeley between US85 Business and the Greeley/Weld County Airport was added as an RSC and four RSCs were shortened. Karasko stated there will be an annual RTP amendment schedule where TAC can update the RSCs if CDOT denies any of the functional classification change requests. NFR Staff will bring the 2045 RSCs to Planning Council as an informational item.

Klockeman asked for clarification about naming, because RSC 28 travels along more roads than just Timberline Road. Karasko noted names were chosen based on common nomenclature and to be kept short.

## OUTSIDE PARTNERS REPORTS (verbal)

NoCo Bike \& Ped Collaborative - Dusil reported the Larimer County Facilitation Team attended the April 10, 2019 NoCo meeting and led a discussion about NoCo's organizational structure. The three choices were to become a more formal committee of the NFRMPO, incorporate as a non-profit, or to keep the status quo. The TAC Chair and Vice-Chair, NFRMPO staff, and the core NoCo group participated in the discussion. The Facilitation Team will summarize the information to help inform future discussions. Dusil reported a group consisting of Dusil; Aaron Buckley, CSU Parking and Transportation Services; Leslie Beckstrom, Weld County Department of Health and Environment; Will Karspeck, Mayor of Berthoud; Matt Ruder, Civil Engineer for the City of Loveland; and Katie Guthrie, Principal Planner for the City of Loveland, will attend the Walkability Action Institute in Decatur, GA from April 22 to April 25.

Regional Transit Agencies - Kemp reported MAX will celebrate five years on May 11. Davis noted the Poudre Express is moving forward and UNC and CSU have approved funding.

Senior Transit Items - Gordon stated three companies submitted proposals for the §5304 Senior Transportation Implementation Plan. Work has begun on the NADTC grant with Via Mobility Services running a call center on behalf of transportation providers in southern Larimer County.

Regional Air Quality Council - Brimmer noted Colorado has withdrawn its application for a one-year extension. As a result, the EPA will reclassify the Denver Metro-North Front Range 8 -Hour Ozone Nonattainment Area from Moderate to Serious several months sooner. This action does not impact the existing State Implementation Plan (SIP) planning effort. Being bumped up to Serious requires additional planning, including under Title V of the Clean

Air Act. New Motor Vehicle Emissions Budgets will be developed. A legislative review will happen in early 2021 or 2022. Mallette asked if this will impact the conformity schedule, and Brimmer stated that is what is expected to happen. Brimmer noted April 29 through May 3 is Air Quality Awareness Week. Two Mow Down Pollution events will take place in May in Commerce City and Westminster. More information is available at mowdownpollution.org.

## ROUNDTABLE

Karasko noted the Model Steering Team meeting will be held on April 18 at the NFRMPO office in Fort Collins.
Schneiders noted IGAs can be initiated for the local agency projects approved by Planning Council for FY2022-2023. CDOT is continuing to look for a new Region 4 Regional Transportation Director. Schneiders reported Long Nguyen has retired, and Larry Haas is the acting Traffic Engineer.

Mallette noted the Transportation Commission held a workshop on April 17 to discuss the $\$ 250 \mathrm{M}$ request for the I25 North Segments 7 and 8 (between SH402 and SH14) project. Mallette also noted the new CDOT Executive Director is developing a new planning process but is unclear how that will impact MPOs in the state. Mallette will update TAC as she finds out more information. Mallette noted the Region 4 ITS meeting was held Monday, April 15. This is the last public meeting and a plan should be forthcoming soon.

Martin noted she will be leaving the NFRMPO on April 26, 2019 and beginning a job at the Brendle Group.
Anderson noted one of the Development Review Planners will become the new Weld County Transportation Planner.

Klockeman noted SH402 at I-25 will close for 120 days beginning May 7. A public meeting will be held April 17 at The Ranch Events Complex.

## MEETING WRAP-UP

Final Public Comment - There was no final public comment.
Next Month's Agenda Topic Suggestions - Next month's agenda topics include the CMP, UPWP, RSCs, May TIP Amendment, RTP projects, Freight Northern Colorado, and the travel model scenarios, safety/resiliency, and the Fiscally-Constrained Plan chapters of the RTP.

Meeting adjourned at 2:30 p.m.

## Meeting minutes submitted by:

Alex Gordon, NFRMPO Staff
The next meeting will be held at 1:00 p.m. on Wednesday, May 15, 2019 at the Windsor Recreation Center, Pine Room.

## MEMORANDUM

## To: NFRMPO Transportation Advisory Committee (TAC)

From: Becky Karasko
Date: May 15, 2019

## Re: FY2020-2021 Unified Planning Work Program (UPWP) Tasks **CONSENT**

## Background

The NFRMPO staff has drafted the Tasks and Products for the FY2020-2021 Unified Planning Work Program (UPWP). The Finance Committee reviewed the FY2020 Budget at their April 17, 2019 meeting and it is anticipated they will recommend Planning Council approval at the June 6, 2019 meeting. The FY2020-2021 UPWP and FY2020 Budget will go to Planning Council for their approval at their June 6, 2019 meeting to allow CDOT and FHWA approval prior to October 1, 2019.

The draft FY2020-2021 UPWP Tasks were provided to TAC ahead of the April 17, 2019 TAC meeting, with comments requested by Tuesday, April 30, 2019.

The updated draft FY2020 local match requirements by community will be provided at the meeting. The full FY2020-2021 UPWP can be accessed here: https://nfrmpo.org/wp-content/uploads/fy2020-2021-upwp.pdf.

## Action

NFRMPO staff requests TAC recommend Planning Council adopt the FY2020-2021 UPWP Tasks at their June 6, 2019 meeting.

## MEMORANDUM

## To: NFRMPO Technical Advisory Committee

## From: Medora Bornhoft and Ryan Dusil

Date: May 15, 2019
Re: 2045 Regionally Significant Corridor (RSC) Changes - Action

## Background

The proposed Regionally Significant Corridor (RSC) criteria for the 2045 Regional Transportation Plan (RTP) were discussed by TAC three times in 2018 and at the April 17, 2019 TAC meeting. The NFRMPO identifies RSCs to focus limited transportation funding dollars and planning efforts on the corridors most significant to the region. This Action Item provides a recommended 2045 RSC network based on updated criteria. The RSC network is required for the 2019 Congestion Management Process (CMP) and the 2045 RTP.

The following are the proposed 2045 RSC criteria:

1. Include all Interstates, US Highways, and State Highways.
2. Include all other roadways that meet the following criteria:
a. The roadway is eligible to receive federal aid.
b. The roadway goes through more than one governmental jurisdiction or connects to an activity center by 2045.
c. Segments of roadway that do not yet exist or are not currently federal-aid eligible have improvements planned by 2045.
d. The roadway serves regional traffic as determined by local knowledge.

Roadways eligible for federal aid include the National Highway System, the Interstate System, and all other public roads not classified by the State DOT as local roads or rural minor collectors, as defined in $\underline{23 \text { Part 470. In January }}$ 2019, the NFRMPO and several communities jointly submitted functional classification change requests to CDOT to make portions of WCR 13 and Two Rivers Parkway federal-aid eligible, and in April 2019, a reclassification request was submitted for Centerra Parkway (LCR 5). The requests are still pending approval; however, all requested segments are included in the proposed 2045 RSC network based on the assumption these requests will be approved.

Table 1 describes the rationale for segments from the 2040 RSC network proposed for removal. At the May 2, 2019 NFRMPO Planning Council meeting, concerns were raised about the proposed removal of a segment of RSC \#19: WCR13, south of SH402 (described in Table 1). The main concerns were increasing traffic and recent investment by Weld County into improvements along this section of the corridor. At this time, this segment of the corridor does not meet the proposed 2045 RSC criteria.

Since the April 17, 2019 TAC meeting, the City of Greeley requested an extension to the Proposed RSC Network for RSC \#25: 83rd Avenue / Two Rivers Parkway. The change is shown in red text in Tables $\mathbf{1}$ and $\mathbf{2}$ and is reflected in

Figure 1.

The attached map (Figure 1) identifies the proposed 2045 RSC network based on the aforementioned criteria. Segments in blue represent the current and/or future RSC alignment, while red segments are proposed for removal because they do not meet at least one of the criteria. Table $\mathbf{2}$ identifies the proposed numbering and naming convention for the 2045 RSC network.

| Table 1: Proposed 2040 RSC Segment Removals |  |  |
| :--- | :--- | :--- |
| Corridor | Segment Proposed for <br> Removal | Rationale |
| RSC 9: SH 56 | Meadowlark Alignment <br> parallel to US 287 | No longer SH 56 |
| RSC 9: SH 56 | Proposed WCR 9.5 to WCR 17 | Not a State Highway. Majority is not federal-aid <br> eligible and no improvements planned |
| RSC 18: WCR 13 | SH 402 to WCR 38 | Not federal-aid eligible and no improvements <br> planned |
| RSC 24: 83rd Avenue | WCR 80 to WCR 64.5 SH392 | Not federal-aid eligible and improvements planned <br> for minority of corridor |
| RSC 28: Timberline | SH 60 to WCR 38 | Not federal-aid eligible and no improvements <br> planned |

## Action

Staff requests TAC review and recommend Planning Council approval, at their June 6, 2019 meeting, of the proposed criteria for RSCs in the 2045 RTP and the proposed 2045 RSCs.

Figure 1: Proposed 2045 RSC Network


Table 2: Proposed 2045 RSC Numbering and Naming Convention

| RSC | Name | Centerline Miles |  | Description |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Current | Buildout |  |
| 1 | 1-25 | 27.1 | 27.1 | Northern MPO boundary to southern MPO boundary |
| 2 | US 34 | 34.4 | 34.4 | Western MPO boundary to eastern MPO boundary |
| 3 | US 34 Business Route | 15.5 | 15.5 | US34 MP 102 on the west to US34 MP 115.5 on the east |
| 4 | US 85 | 16.3 | 16.3 | WCR70 on the north to WCR48 on the south |
| 5 | US 85 Business Route | 4.4 | 4.4 | US 4 on the south to US85 on the north |
| 6 | US 287 | 32.5 | 32.5 | Northern MPO boundary to southern MPO boundary, includes Berthoud Bypass |
| 7 | SH 1 | 2.8 | 2.8 | Northern MPO boundary to US287 on the south |
| 8 | SH 14 | 14.2 | 14.2 | US287 on the west to eastern MPO boundary |
| 9 | SH 56 | 7 | 7 | US287 on the west to the RSC 14 extension on the east |
| 10 | SH 60 | 19.8 | 19.8 | US287 on the west to the southern MPO boundary |
| 11 | SH 257 | 18.6 | 18.6 | SH14 on the north to SH60 on the south, includes offset in Windsor |
| 12 | SH 392 | 21.3 | 21.3 | US287 on the west to US85 on the east |
| 13 | SH 402 / Freedom Parkway | 21.2 | 21.2 | LCR17 on the west to US85 on the east |
| 14 | Larimer County Road (LCR) 3 | 4 | 12.1 | Crossroads Boulevard on the north to southern MPO boundary |
| 15 | LCR 5 | 12 | 12 | SH14 on the north to US34 on the south |
| 16 | LCR 7 / LCR 9 / Timberline Road | 18 | 21.7 | Vine Drive on the north to SH60 on the south |
| 17 | LCR 17 / Shields Street / Taft Avenue | 22.2 | 22.2 | US287 on the north to SH56 on the south |
| 18 | LCR 19 / Taft Hill Road / Wilson Avenue | 15.7 | 15.7 | US287 on the north to US34 on the south |
| 19 | Weld County Road (WCR) 13 | 14.1 | 14.1 | SH14 on the north to US34 on the south |
| 20 | WCR 17 | 12.1 | 12.1 | Crossroads Boulevard Extension on the north to southern MPO boundary |
| 21 | WCR 35 / 35th Avenue | 8.3 | 9.4 | O Street on the north to US85 on the south |
| 22 | WCR 74 / Harmony Road | 22.6 | 22.6 | LCR17 on the west to the eastern MPO boundary |
| 23 | 8th Street | 3.6 | 3.6 | US85 on the west to the eastern MPO boundary |
| 24 | 59th Avenue / 65th Avenue | 9.1 | 9.1 | SH392 on the north to 54th Street on the south |
| 25 | 83rd Avenue / Two Rivers Parkway | 9.8 | 9.8 | SH392 WCR64.5 on the north to SH60 on the south |
| 26 | Crossroads Boulevard / O Street | 12 | 18.8 | I-25 on the west to US85 on the east |
| 27 | Mulberry Street | 2.7 | 2.7 | LCR19 on the west to Riverside Avenue (SH14) on the east |
| 28 | Prospect Road | 5 | 5 | US 287 on the west to LCR 5 on the east |

## MEMORANDUM

## To: NFRMPO Transportation Advisory Committee (TAC)

## From: Medora Bornhoft

Date: May 15, 2019

## Re: 2045 Regional Transportation Plan (RTP) Projects - Action

## Background

The 2045 Regional Transportation Plan (RTP) will identify fiscally constrained roadway capacity projects along the 2045 Regionally Significant Corridors (RSCs) as well as fiscally constrained transit projects planned through 2045.

Roadway projects for the years 2020-2040 were carried forward from the 2040 RTP and reviewed by local agency staff. Additional projects were added from local agency staff, local agency transportation plans, the Larimer County Regional Needs Assessment, and the 10 Year Development Program. Table 1 includes information on each project organized by jurisdiction, with multi-jurisdiction projects listed last. The fiscal constraint analysis will be applied to these projects to determine if projects are fiscally constrained in the timeframe identified.

## Action

Staff requests TAC approve the 2045 RTP roadway capacity projects.

| $\begin{aligned} & \text { PROJECT_ } \\ & \text { ID } \end{aligned}$ | Year | Community | Project Name | Street | Extent_NW | Extent_SE | Base | Forecast | Source |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 24670 | 2035 | CDOT | I-25 GP Widening Segment 5 NFR | \|-25 | SH 56 | WCR-38 | 3 Lanes | 4 Lanes | NFR |
| 1467c | 2035 | CDOT | I-25 Managed Lane Segment 5 NFR | 1-25 | SH56 | WCR 38 | 0 M Lanes | 2 M Lanes | CDOT |
| 1475 | 2030 | CDOT | I-25 Managed Lane Segment 6 | I-25 | SH402 | SH56 | 0 M Lanes | 2 M Lanes | CDOT |
| 467a | 2035 | CDOT | I-25 GP Widening Segment 5 NFR | 1-25 | SH56 | WCR 38 | 4 GP Lanes | 6 GP Lanes | CDOT |
| 467b | 2035 | CDOT | I-25 GP Widening Segment 5 NFR | 1-25 | SH56 | WCR 38 | 4 GP Lanes | 6 GP Lanes | CDOT |
| 468a | 2035 | CDOT | I-25 GP Widening Segment 7\&8 | I-25 | SH14 | SH402 | 4 GP Lanes | 6 GP Lanes | CDOT |
| 468b | 2035 | CDOT | I-25 GP Widening Segment 7\&8 | 1-25 | SH14 | SH402 | 4 GP Lanes | 6 GP Lanes | CDOT |
| 475 | 2045 | CDOT | I-25 GP Widening Segment 6 | I-25 | SH402 | SH56 | 4 GP Lanes | 6 GP Lanes | CDOT |
| 101 | 2025 | Evans | 35th Ave Widening | 35th Ave | 37th St / WCR 54 | 49th St | 2 Lanes | 4 Lanes | Evans |
| 102 | 2031 | Evans | 35th Ave New Road | 35th Avenue | 49th Street | WCR 35 / WCR 394 | 0 Lanes | 4 Lanes | Evans |
| 355 | 2026 | Evans | 65th Avenue Widening | 65th Ave | WCR-54/37th St | 42nd St | 2 Lanes | 4 Lanes | Evans |
| 449a | 2028 | Evans | WCR 54 Widening | WCR 54/ 37th St | 77th Ave / Two Rivers Parkway | 35th Ave. / WCR-35 | 2 Lanes | 4 Lanes | Evans |
| 1507 | 2045 | Fort Collins | Prospect Widening | Prospect | Sharp Point | Summit View | 2 Lanes | 4 Lanes | Larimer Funding Task Force |
| 205 | 2035 | Fort Collins | Harmony Road Widening 2 | Harmony | College | Boardwalk | 4 Lanes | 6 Lanes | Fort Collins 2040 Model |
| 335 | 2021 | Fort Collins | Timberline Rd Widening 1 | Timberline | Kechter | Trilby | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 336 | 2021 | Fort Collins | Timberline Rd Widening 2 | Timberline | Battlecreek | Kechter | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 348 | 2025 | Fort Collins | Prospect Rd Widening 1 | Prospect | Summit View | 1-25 | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 422 | 2035 | Fort Collins | International Blvd New Road 2 | International | Timberline | Greenfields | 0 Lanes | 2 Lanes | Fort Collins 2040 Model |
| 423 | 2035 | Fort Collins | College Ave Widening 1 | College | Carpenter | Trilby | 4 Lanes | 6 Lanes | Fort Collins 2040 Model |
| 424 | 2035 | Fort Collins | College Ave Widening 3 | College | Trilby | Fossil Creek | 4 Lanes | 6 Lanes | Fort Collins 2040 Model |
| 425 | 2035 | Fort Collins | College Ave Widening 5 | College | Fossil Creek | Harmony | 4 Lanes | 6 Lanes | Fort Collins 2040 Model |
| 426 | 2035 | Fort Collins | Carpenter Road Widening 1 | Carpenter | County Road 9 | 1-25 | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 427a | 2035 | Fort Collins | Timberline Rd Widening 5 | Timberline | Realigned Vine | Vine | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 427d | 2035 | Fort Collins | Timberline Rd Widening 5 | Timberline | Realigned Vine | Vine | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 428 | 2035 | Fort Collins | Timberline Rd Widening 6 | Timberline | Custer | Horsetooth | 4 Lanes | 6 Lanes | Fort Collins 2040 Model |
| 429 | 2035 | Fort Collins | Timberline Rd Widening 7 | Timberline | Horsetooth | Harmony | 4 Lanes | 6 Lanes | Fort Collins 2040 Model |
| 430 | 2035 | Fort Collins | Timberline Rd Widening 8 | Timberline | Prospect | Drake | 4 Lanes | 6 Lanes | Fort Collins 2040 Model |
| 431 | 2035 | Fort Collins | Timberline Rd Widening 9 | Timberline | Vine | Mulberry | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 432 | 2035 | Fort Collins | Carpenter Road Widening 2 | Carpenter | Lemay | Timberline | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 433 | 2035 | Fort Collins | Carpenter Road Widening 3 | Carpenter | Timberline | County Road 9 | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 436 | 2035 | Fort Collins | Shields St Widening 1 | Shields | Carpenter | Trilby | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 437 | 2035 | Fort Collins | Shields St Widening 2 | Shields | Trilby | Fossil Creek | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 438 | 2035 | Fort Collins | Carpenter Road Widening 4 | Carpenter | College | Lemay | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 439 | 2035 | Fort Collins | Mulberry St Widening 1 | Mulberry | Timberline | Summit View | 4 Lanes | 6 Lanes | Fort Collins 2040 Model |
| 440 | 2035 | Fort Collins | Mulberry St Widening 2 | Mulberry | Riverside | Timberline | 4 Lanes | 6 Lanes | Fort Collins 2040 Model |
| 441 | 2035 | Fort Collins | Mulberry St Widening 3 | Mulberry | Summit View | 1-25 | 4 Lanes | 6 Lanes | Fort Collins 2040 Model |
| 442 | 2023 | Fort Collins | Taft Hill Widening 1 | Taft Hill | Harmony | Horsetooth | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 443 | 2035 | Fort Collins | Taft Hill Widening 3 | Taft Hill | GMA | Harmony | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 444a | 2035 | Fort Collins | Timberline Rd Widening 10 | Timberline | Prospect | Mulberry | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 444b | 2035 | Fort Collins | Timberline Rd Widening 10 | Timberline | Prospect | Mulberry | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 446 | 2035 | Fort Collins | Shields St Widening 3 | Shields | Fossil Creek | Harmony | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 465 | 2035 | Fort Collins | US 287 Widening | US 287 | SH 1 | Shields | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 471 | 2035 | Fort Collins | Taft Hill Widening 2 | Taft Hill | Mulberry | Vine | 2 Lanes | 4 Lanes | Fort Collins 2040 Model |
| 1701 |  | Greeley | 59th Ave Widening 3 | 59th Ave. | F St. | CR 64 | 2 Lanes | 4 Lanes | Greeley |


| PROJECT_ <br> ID | Year | Community | Project Name | Street | Extent_NW | Extent_SE | Base | Forecast | Source |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 203 | 2025 | Greeley | 59th Ave Widening 1 | 59th Ave. | 4th St. | C St. | 2 Lanes | 4 Lanes | Greeley |
| 447 | 2035 | Greeley | 83rd Ave Widening | 83rd Ave. | CR 54 | CR 64 | 2 Lanes | 4 Lanes | Greeley |
| 449b | 2035 | Greeley | WCR-54 Widening | WCR-54 / 37th St | WCR 17 | 77th Ave / Two Rivers Parkway | 2 Lanes | 4 Lanes | 2035 Transportation Plan |
| 453 | 2035 | Greeley | O St New Road | O St. /Crossroads | 83rd Avenue | WCR-23 | 0 Lanes | 4 Lanes | Greeley |
| 457 | 2035 | Greeley | 59th Ave Widening 2 | 59th Ave. | 20th St | US 34 Bypass | 2 (3) Lanes | 4 Lanes | Greeley |
| 458 | 2023 | Greeley | 83rd Ave Widening | 83rd Ave | US 34 Business (10th St.) | US 34 Bypass | 2 Lanes | 4 Lanes | Greeley |
| 499a | 2035 | Greeley | O Street New Alignment | O Street | WCR-35 / 35th Ave | WCR-66 / AA St | 0 Lanes | 4 Lanes | Greeley |
| 1202 | 2035 | Johnstown | LCR-3 Widening | LCR-3 | US-34 | LCR-18 | 2 Lanes | 4 Lanes | Johnstown Plan |
| 1200 | 2035 | Johnstown | WCR-17 | WCR-17 Widening | WCR-56 | WCR-54 | 2 Lanes | 4 Lanes | Johnstown Plan |
| 1201 | 2020 | Johnstown | LCR-3 Paving | LCR-3 | US-34 | LCR-18 | Unpaved | Paved | Johnstown Plan |
| 1203 | 2035 | Johnstown | WCR-13 Widening | WCR-13 | WCR-60 | WCR-54 | 2 Lanes | 4 Lanes | Johnstown Plan |
| 318 | 2030 | Johnstown | Downtown Loop Road North New Road | Truck Route North | SH-60 | WCR-17 | 0 Lanes | 2 Lanes | Johnstown |
| 404 | 2030 | Johnstown | SH-60 Widening | SH-60 | 1-25 | WCR-15 | 2 Lanes | 4 Lanes | Johnstown |
| 405 | 2030 | Johnstown | Downtown Loop Road North | Downtown Loop Road | WCR-17 | SH-60 | 0 Lanes | 2 Lanes | Johnstown |
| 406 | 2030 | Johnstown | LCR-18 Widening | LCR-18 | I-25 | WCR-13 | 2 Lanes | 4 Lanes | Johnstown |
| 328 | 2025 | Larimer | LCR 17 Widening | LCR-17 | CR 16/28th St SW | CR 14/SH 60 | 2 Lanes | 4 Lanes | Larimer |
| 329 | 2035 | Larimer | LCR 17 Widening | LCR 17 | LCR 32 | LCR 30 | 2 Lanes | 4 Lanes | Larimer |
| 330 | 3035 | Larimer | LCR 19 Widening | LCR 19 | LCR 32 | LCR 30 | 2 Lanes | 4 Lanes | Larimer |
| 1013 | 2030 | Loveland | Boyd Lake Extension | Boyd Lake Extension | Hwy 402 | E County Rd 16 | 0 Lanes | 2 Lanes | Loveland |
| 303 | 2020 | Loveland | Boyd Lake Widening | Boyd lake Ave. | US 34 | Canal | 2 Lanes | 4 Lanes | Loveland |
| 304 | 2020 | Loveland | Boyd Lake Widening 2 | Boyd Lake Ave. | Plum Creek Dr. | 37th St. | 2 Lanes | 4 Lanes | Loveland |
| 309 | 2020 | Loveland | US 34 Widening 3 | US 34 | Denver Ave. | Boyd Lake Ave. | 4 Lanes | 6 Lanes | Loveland |
| 312 | 2025 | Loveland | Crossroads Blvd Widening | Crossroads Blvd. | Centerra | LCR 3 | 2 Lanes | 4 Lanes | Loveland |
| 313 | 2020 | Loveland | Boyd Lake Widening 3 | Boyd Lake Ave. | LCR 20C | US 34 | 2 Lanes | 4 Lanes | Loveland |
| 314 | 2020 | Loveland | US 34 Widening 4 | US 34 | I-25 | Centerra Pkwy. | 4 Lanes | 6 Lanes | Loveland |
| 325 | 2025 | Loveland | US 34 Widening 1 | US 34 | Centerra Pkwy. | Centerra TBD (\#324)/Larimer Pkwy. (LCR 3E) | 4 Lanes | 6 Lanes | Loveland |
| 402 | 2025 | Loveland | US 34 Widening 5 | US 34 | Boyd Lake Ave. | Rocky Mountain Ave. | 4 Lanes | 6 Lanes | Loveland |
| 403 | 2020 | Loveland | US 34 Widening 6 | US 34 | Rocky Mountain Ave. | I-25 | 4 Lanes | 6 Lanes | Loveland |
| 413 | 2030 | Loveland | SH 402 Widening 3 | SH 402 | Loveland CR9 / Name TBD ( Alt \#420) -to I-25 | 1-25 | 2 Lanes | 4 Lanes | Loveland |
| 415 | 2035 | Loveland | SH 402 Widening 2 | SH 402 | US 287 | St. Louis | 2 Lanes | 4 Lanes | Loveland |
| 418 | 2035 | Loveland | Taft Ave Widening 2 | Taft Ave. | 28th St. SW | 23rd St. SW | 4 Lanes | 4 Lanes | Loveland |
| 421 | 2035 | Loveland | N Fairgrounds Ave Widening | N. Fairground Ave/LCR 5 | Rodeo Rd. | 71st St. (CR 30) | 2 Lanes | 4 Lanes | Loveland |
| 464 | 2035 | Loveland | US 287 Widening 1 | US 287 | 29th St. | 71st St. | 4 Lanes | 6 Lanes | Loveland |
| 961a | 2035 | Loveland | US 287 Widening 2 | US 287 | 1st St / 2nd St | SH 402 | 4 Lanes | 6 Lanes | Loveland |
| 961b | 2035 | Loveland | US 287 Widening 2 | US 287 | 1st St / 2nd St | SH 402 | 4 Lanes | 6 Lanes | Loveland |
| 600 | 2025 | Severance | WCR-74 Widening | WCR-74 | SH-257 | WCR-21 | 2 Lanes | 4 Lanes | MST |
| 3570 | 2030 | Timnath | Harmony Widening Phase 2 | Harmony / LCR-38 | RR tracks | Threel Bell (CR3) | 4 Lanes | 6 Lanes | Timnath Plan |
| 1500 | 2030 | Timnath | Main St Widening | Main St | Harmony Rd | South GMA | 2 Lanes | 4 Lanes | 2015 Timnath Plan |
| 1503 | 2030 | Timnath | LCR 1 Widening | LCR 1 | Harmony Rd | South GMA | 2 Lanes | 4 Lanes | 2015 Timnath Plan |
| 1504 | 2030 | Timnath | Harmony Widening 2 | Harmony | 1-25 | RR tracks | 2 or 4 Lanes | 6 Lanes | 2015 Timnath Plan |


| $\begin{aligned} & \text { PROJECT__ } \\ & \text { ID } \end{aligned}$ | Year | Community | Project Name | Street | Extent_NW | Extent_SE | Base | Forecast | Source |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1603 | 2035 | Timnath | Revert Old Main St to Collector | Old Alignment Main St | N of LCR 40 | N of LCR 38 | FT 4 | FT 5 | 2015 Timnath Plan |
| 1604 | 2035 | Timnath | Disconnect Old Main from Harmony | Old Alignment Main St | N of LCR 38 | LCR 38 | 2 Lanes | 0 Lanes | 2015 Timnath Plan |
| 1900 | 2025 | Windsor | Harmony Road Widening | Harmony / WCR-74 | WCR-13 / County Line Rd | WCR-15 | 2 Lanes | 4 Lanes | Windsor |
| 1901 | 2025 | Windsor | SH 392 Widening 1 | SH 392 | Westgate Dr | LCR 3 | 2 Lanes | 4 Lanes | Windsor |
| 1902 | 2025 | Windsor | SH 392 Widening 2 | SH 392 | WCR-19 | WCR-21 | 2 Lanes | 4 Lanes | Windsor |
| 1904 | 2030 | Windsor | Crossroads Widening | Crossroads | LCR 3 | WCR 13 | 2 Lanes | 4 Lanes | Windsor |
| 1906 | 2025 | Windsor | LCR 5 Widening | LCR 5 | SH 392 | Windsor N GMA | 2 Lanes | 4 Lanes | Windsor |
| 1907 | 2030 | Windsor | LCR 5 Widening | LCR 5/Fairgrounds | LCR 30 | SH 392 | 2 Lanes | 4 Lanes | Windsor |
| 1908 | 2035 | Windsor | WCR-13 Widening | WCR-13 | SH-392 | Kaplan Dr | 2 Lanes | 4 Lanes | Windsor |
| 1909 | 2025 | Windsor | WCR-13 Widening | WCR-13 | Kaplan Dr | Crossroads | 2 Lanes | 4 Lanes | Windsor |
| 1910 | 2040 | Windsor | SH-257 Widening | SH-257 | WCR-78 | WCR-74 | 2 Lanes | 4 Lanes | Windsor |
| 1911 | 2035 | Windsor | SH-257 Widening | SH-257 | WCR-74 | SH-392 | 2 Lanes | 4 Lanes | Windsor |
| 1912 | 2030 | Windsor | WCR-17 Widening | WCR-17 | WCR-66 / Eastman Park | WCR-64 / New Liberty | 2 Lanes | 4 Lanes | Windsor |
| 1913 | 2035 | Windsor | WCR-17 Widening | WCR-17 | WCR-64 / New Liberty | WCR-62 / Crossroads | 2 Lanes | 4 Lanes | Windsor |
| 1914 | 2040 | Windsor | WCR-17 Widening | WCR-17 | WCR-62 / Crossroads | US-34 | 2 Lanes | 4 Lanes | Windsor |
| 1915 | 2030 | Windsor | SH-257 Widening | SH-257 | Garden Dr | Crossroads | 2 Lanes | 4 Lanes | Windsor |
| 389 | 2030 | Windsor | SH-392 Widening | SH-392 | LCR-3 | 17th St | 2 Lanes | 4 Lanes | Windsor |
| 1800 | 2045 | Berthoud/Larimer | LCR 17 Widening | LCR 17 | LCR 14 | US 287 | 2 Lanes | 4 Lanes | 2014 Berthoud Plan |
| 1506 | 2045 | Loveland/ Larimer | LCR-17 Widening | LCR-17/Taft | LCR-30 | LCR-28/57th Street | 2 Lanes | 4 Lanes | Larimer Funding Task Force |
| 1005 | 2030 | Loveland/Johnstow n/Greeley/Evans/W eld | US 34 Widening | US-34 | LCR 3 (MP 97.8) | MP 113.65 | 4 Lanes | 6 Lanes | CDOT 10-Year Development |
| 3571 | 2045 | Timnath/ Larimer | Harmony 6-Lane | Harmony / LCR-38 | LCR-3 | LCR-1 | 4 Lanes | 6 Lanes | Larimer Funding Task Force |
| 1505 | 2045 | Timnath/Larimer | LCR-5 Widening | LCR-5 | SH-14 | Realigned Main Street | 2 Lanes | 4 Lanes | Larimer Funding Task Force |
| 349 | 2030 | Timnath/FoCo | Propect Widening | Prospect | West Timnath GMA | Main St | 2 Lanes | 4 Lanes | 2015 Timnath Plan |
| 206 | 2024 | Johnstown/CDOT | WCR-9.5 New Road | WCR-9.5 | LCR-14 / WCR-50 | SH 60 / 1st St | 0 Lanes | 2 Lanes | CDOT |
| 317 | 2024 | CDOT/Johnstown | WCR-9.5 New Road | WCR-9.5 | SH 402/LCR 18 / WCR 54 | LCR 14/ WCR 50 | 0 Lanes | 2 Lanes | CDOT |
| 1020 | 2035 | Evans / Weld <br> County | 35th Ave New Road | 35th Avenue | WCR-394 | US-85 | 0 Lanes | 4 Lanes | Evans |

## AGENDA ITEM SUMMARY (AIS)

North Front Range Transportation \& Air Quality Technical Advisory Committee (TAC)

| Meeting Date Agenda Item | Submitted By |  |
| :--- | :---: | :---: |
| May 15, 2019 | May 2019 TIP Amendment | Medora Bornhoft |
| Objective/Request Action |  |  |
| To recommend Planning Council approval of the May 2019 TIP Amendment to the | $\square$Report <br> FY2019-FY2022 TIP. | Work Session <br> Discussion |
| Key Points | Action |  |

NFRMPO staff received seven Amendment requests for the May 2019 TIP Amendment cycle.

CDOT R4 is requesting to revise five projects:

- Revising the North I-25: Design Build project by adding \$6M SB267 state funds in FY20 \& FY21, adding \$4.5M FASTER Safety state funds in FY19, adding \$993K SB1 state funds in FY19, adding \$3,640K CMAQ federal funds across several years, and removing $\$ 3,640 \mathrm{~K}$ local funds in FY19. The replacement of local funds with CMAQ funds is due to the Buy America waiver program suspension.

| Funding <br> Source | Currently <br> Programmed | Requested <br> Additions | Requested <br> Reductions | Request <br> Total |
| :--- | :---: | :---: | :---: | :---: |
| Federal | $\$ 10,000$ | $\$ 3,640$ | $\$ 0$ | $\mathbf{\$ 1 3 , 6 4 0}$ |
| Federal/State | $\$ 5,347$ | $\$ 0$ | $\$ 0$ | $\mathbf{\$ 5 , 3 4 7}$ |
| State | $\$ 6,000$ | $\$ 11,493$ | $\$ 0$ | $\mathbf{\$ 1 7 , 4 9 3}$ |
| Local | $\$ 87,125$ | $\$ 0$ | $-\$ 3,640$ | $\mathbf{\$ 8 3 , 4 8 5}$ |
| Total | $\mathbf{\$ 1 0 8 , 4 7 2}$ | $\mathbf{\$ 1 5 , 1 3 3}$ | $-\mathbf{\$ 3 , 6 4 0}$ | $\mathbf{\$ 1 1 9 , 9 6 5}$ |

- Revising the North 1-25: WCR38 to SH402 project by restoring \$88.8M Federal/State NHPP funds in FY19 and reducing SB267 state funds by $\$ 900 \mathrm{~K}$ to fund the I-25 Parallel Route Study.

| Funding <br> Source | Currently <br> Programmed | Requested <br> Additions | Requested <br> Reductions | Request <br> Total |
| :--- | :---: | :---: | :---: | :---: |
| Federal/State | $\$ 22,000$ | $\$ 88,800$ | $\$ 0$ | $\mathbf{\$ 1 1 0 , 8 0 0}$ |
| State | $\$ 115,200$ | $\$ 0$ | $-\$ 900$ | $\mathbf{\$ 1 1 4 , 3 0 0}$ |
| Total | $\$ \mathbf{1 3 7 , 2 0 0}$ | $\$ 88,800$ | $-\$ 900$ | $\mathbf{\$ 2 2 5 , 1 0 0}$ |

- Revising the Weld County CNG Vehicles \& Expansion project by replacing \$2,373K federal CMAQ funds with $\$ 2,373 \mathrm{~K}$ local funds.

| Funding <br> Source | Previously/ <br> Currently <br> Programmed | Requested <br> Additions | Requested <br> Reductions | Request <br> Total |
| :--- | :---: | :---: | :---: | :---: |
| Federal | $\$ 5,303$ | $\$ 0$ | $-\$ 2,373$ | $\$ 2,930$ |
| State | $\$ 1,102$ | $\$ 2,373$ | $\$ 0$ | $\$ 3,475$ |
| Total | $\$ 6,405$ | $\$ 3,000$ | $-\$ 3,000$ | $\$ 6,405$ |

## Key Points, Continued

- Revising the Loveland CNG Vehicle Replacement project by replacing \$256K federal CMAQ funds with \$256K local funds.

| Funding <br> Source | Previously/ <br> Currently <br> Programmed | Requested <br> Additions | Requested <br> Reductions | Request <br> Total |
| :--- | :--- | :--- | :--- | :--- |
| Federal | $\$ 256$ | $\$ 0$ | $-\$ 256$ | $\mathbf{\$ 0}$ |
| State | $\$ 54$ | $\$ 256$ | $\$ 0$ | $\$ 310$ |
| Total | $\$ 310$ | $\$ 256$ | $-\$ 256$ | $\$ 310$ |

- Revising the Loveland Diesel Fleet Replacement project by replacing $\$ 384 \mathrm{~K}$ federal CMAQ funds with \$384K local funds.

| Funding <br> Source | Currently <br> Programmed | Requested <br> Additions | Requested <br> Reductions | Request <br> Total |
| :--- | :--- | :--- | :--- | :--- |
| Federal | $\$ 384$ | $\$ 0$ | $-\$ 384$ | $\$ 0$ |
| State | $\$ 80$ | $\$ 384$ | $\$ 0$ | $\$ 464$ |
| Total | $\$ 464$ | $\$ 384$ | $-\$ 384$ | $\$ 464$ |

CDOT R4 is requesting to add one project:

- Adding the US85 UPRR Settlement Agreement project with $\$ 5,495 \mathrm{~K}$ state funds in FY19.

| Funding <br> Source | Currently <br> Programmed | Requested <br> Additions | Request <br> Total |
| :--- | :--- | :--- | :--- |
| Local | $\$ 0$ | $\$ 5,495$ | $\$ 5,495$ |
| Total | $\$ 0$ | $\$ 5,495$ | $\$ 5,495$ |

The NFRMPO is requesting to add one project:

- Adding the ADA Gas MV Replacement project with $\$ 39 \mathrm{~K}$ federal $\S 5310$ funds and $\$ 10 \mathrm{~K}$ local funds in FY19.

| Funding <br> Source | Currently <br> Programmed | Requested <br> Additions | Request <br> Total |
| :--- | :--- | :--- | :--- |
| Federal | $\$ 0$ | $\$ 39$ | $\$ 39$ |
| Local | $\$ 0$ | $\$ 10$ | $\$ 10$ |
| Total | $\$ 0$ | $\$ 49$ | $\$ 49$ |

## Committee Discussion

This is the first and only time TAC is scheduled to see the May 2019 TIP Amendment.

## Supporting Information

The 30-day Public Comment period for the May 2019 TIP Amendment begins on May 8, 2019 and concludes on June 6, 2019.

An environmental justice analysis is not required. The two new projects to the TIP do not impact a specific location.

## Funding Types and Uses

Congestion Mitigation \& Air Quality (CMAQ) funding covers activities and projects that reduce transportationrelated emissions in nonattainment and maintenance areas for ozone, carbon monoxide, and small particulate matter. Federal regulations for this program give priority in distributing CMAQ funds to diesel engine retrofits, and other cost-effective emission reduction and congestion mitigation activities which provide air quality benefits.

## Supporting Information, Continued

FASTER Safety funds support the construction, reconstruction, or maintenance of projects to enhance the safety of a state highway, county road, or city street.

FTA §5310-Enhanced Mobility of Seniors and Individuals with Disabilities Program funds projects to remove barriers to transportation service and expand mobility options. Eligible projects include both traditional capital investment and nontraditional investment beyond the Americans with Disabilities Act (ADA) complementary paratransit services.

National Highway Performance Program (NHPP) provides funds for the condition and performance of the National Highway System (NHS) and for the construction of new facilities on the NHS.

SB1, enacted during the 2018 legislative session, provides additional funding to the state highway fund, increases the Highway Users Tax Fund (HUTF) allocation to counties and municipalities, and creates a new multimodal fund for transit projects, operating expenses, or studies.

SB267, enacted during the 2017 legislative session, authorizes \$1.8B over four years to transportation projects. Funding must be used on Tier 1 projects on the CDOT 10-Year Development Program, 25 percent must be spent on projects in rural counties, and 10 percent of funding is dedicated to transit projects.

## Advantages

TAC recommending approval by the NFRMPO Planning Council will ensure available funds are assigned to projects in a timely manner and the FY2019-2022 TIP remains fiscally constrained.

## Disadvantages

None noted.

## Analysis/Recommendation

Staff supports the May 2019 TIP Amendment to the FY2019-2022 TIP.

## Attachments

- May 2019 Policy Amendment Form

| Submitted to: TAC and Planning Council for Approval |  |  | FY 2019 - FY 2022 TRANSPORTATION IMPROVEMENT PROGRAM (TIP) <br> North Front Range Transportation \& Air Quality Planning Council <br> Policy Amendment \#2019-A5 <br> Prepared by: Medora Bornhoft |  |  |  | DATE: 5/8/2019 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Dollars Listed in Thousands |
| $\begin{array}{\|c\|} \hline \text { Funding Program } / 1 \\ \text { STIP ID } \\ \hline \end{array}$ | NFR TIP Number | Project Title/Location |  |  |  |  | Project Sponsor | Improvement Type | Source of Funds | Funding Type/ Program | Previous Funding | Rolled Funding | FY 19 | FY 20 | FY 21 | FY 22 | $\begin{array}{\|c\|} \hline \text { FY 19-22 } \\ \text { TIP TOTAL } \\ \hline \end{array}$ |
| Strategic - - - - - - - - - - - - |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PREVIOUS ENTRY SSP4428.012 | 2017-032 | North 1-25: Design Build | CDOT Region 4 | Highway Added Capacity | Federal | TIGER | 5,000 | - | 5,000 | 5,000 | - | - | 10,000 |
|  |  | MP 253.7-270 |  | Modify \& Reconstruct | Federal | ITI | 600 | - | - | - | - | - |  |
|  |  |  |  |  | Federal/State | ITS/RoadX | 2,000 | - | - | - | - | - | - |
|  |  |  |  |  | Federal/State | RAMP/NHPP | 26,888 | - | - | - | - | - |  |
|  |  |  |  |  | Federal/State | Permanent Water Quality | 2,000 | - | 2,000 | 3,347 | - | - | 5,347 |
|  |  |  |  |  | Federal/State | Surface Treatment/NHPP | - | - | - | - | - | - |  |
|  |  |  |  |  | Federal/State | Strategic Projects - Transit | 5,000 | - | - | - | - | - | - |
|  |  |  |  |  | State | FASTER Safety | 4,000 | - | $\bigcirc$ | $\cdots$ | $\bigcirc$ | - | 0 |
|  |  |  |  |  | State | SB267 | - | - | 2,000 | 2,000 | 2,000 | - | 6,000 |
|  |  |  |  |  | State | 7PX/228 | 140,000 | - | - |  |  |  |  |
|  |  |  |  |  | State | SB1/HUTF | - | - | - | - | - | - | -- |
|  |  |  |  |  | Local | Private | - | - | - | 18,000 | 32,000 | - | 50,000 |
|  |  |  |  |  | Local | Local | 18,875 | - | 16,500 | 20,625 |  | - | 37,125 |
|  |  |  |  |  | Total |  | 204,363 | - | 25,500 | 48,972 | 34,000 | - | 108,472 |
| Project Description: One new express lane in each direction, replacement/rehabilitation of key bridges, ITS, transit \& safety components, replacement of portions of existing facility, and interchange improvements |  |  |  |  |  |  |  |  |  |  |  |  |  |
| REVISED ENTRY SSP4428.012 | 2017-032 | North I-25: Design Build | CDOT Region 4 | Highway Added Capacity | Federal | TIGER | 5,000 | - | 5,000 | 5,000 | - | - | 10,000 |
|  |  | MP 253.7-270 |  | Modify \& Reconstruct | Federal | ITI | 600 | - | - | - | - | - |  |
|  |  |  |  |  | Federal | Congestion Mitigation \& Air Quality | - | 1,285 | 1,971 | - | 384 | - | 3,640 |
|  |  |  |  |  | Federa//State | ITS/RoadX | 2,000 | - | - | - | - | - |  |
|  |  |  |  |  | Federal/State | RAMP/NHPP | 26,888 | - | - | - | - | - | - |
|  |  |  |  |  | Federal/State | Permanent Water Quality | 2,000 | - | 2,000 | 3,347 | - | - | 5,347 |
|  |  |  |  |  | Federal/State | Surface Treatment/NHPP | - | - | - | - | - | - |  |
|  |  |  |  |  | Federal/State | Strategic Projects - Transit | 5,000 | - | 450 |  | - |  |  |
|  |  |  |  |  | State | FASTER Safety | 4,000 | - | 4,500 | - | - | - | 4,500 |
|  |  |  |  |  | State | SB267 |  | - | 2,000 | 5,000 | 5,000 | - | 12,000 |
|  |  |  |  |  | State | 7PX/228 | 140,000 | - | 9 | - | - | - |  |
|  |  |  |  |  | State | SB1/HUTF |  |  | 993 | $\bigcirc$ | $\bigcirc$ |  | 993 |
|  |  |  |  |  | Local | Private | - | - | - | 18,000 | 32,000 | - | 50,000 |
|  |  |  |  |  | Local | Local | 18,875 | - | 12,860 | 20,625 | - |  | 33,485 |
|  |  |  |  |  | Total |  | 204,363 | 1,285 | 29,324 | 51,972 | 37,384 | - | 119,965 |
| Project Description: One new express lane in each direction, replacement/rehabilitation of key bridges, ITS, transit \& safety components, replacement of portions of existing facility, and interchange improvements | One new express lane in each direction, replacement/rehabilitation of key bridges, ITS, transit \& safety components, replacement of portions of existing facility, and interchange improvements |  |  |  |  |  |  |  |  |  |  |  |  |
| Reason |  <br>  suspension and reducing local funds by $\$ 3,640 \mathrm{~K}$ in FY 19 . |  |  |  |  |  |  |  |  |  |  |  |  |
| PREVIOUS ENTRY SSP4428.014 | 2019-014 |  |  | Modify \& Reconstruct |  |  |  |  |  |  |  |  |  |
|  |  | North 1-25: WCR38 to SH402 | CDOT Region 4 |  | Federal | BUILD | - | - | 20,000 | - | - | - | 20,000 |
|  |  | MP 247-255.23 |  |  | Federal | STP-Metro | - | 2,000 |  | - | - | - | 2,000 |
|  |  |  |  |  | State | SB1 | - | - | 39,000 | - | - | - | 39,000 |
|  |  |  |  |  | State | SB267 | - | - | 76,200 | - | - | - | 76,200 |
|  |  |  |  |  | Total |  | - | 2,000 | 135,200 | - | - | - | 137,200 |
| Project Description: One new express lane in each direction from SH56 to SH402. Replacement/rehabilitation of key bridges, ITS,    <br> REVISED ENTRY $2019-014$ North l-25: WCR38 to SH402 CDOT Region 4 Modify \& Reconstruct <br> SSP4428.014 MP $\mathbf{2 4 7 - 2 5 5 . 2 3}$    |  |  |  |  | sit \& safety com | ents, replacement of portions of existing | lity, and intercha | ange improve | ments. |  |  |  |  |
|  |  |  |  |  | Federal | BUILD | - | - | 20,000 | - | - | - | 20,000 |
|  |  |  |  |  | Federal | STP-Metro | - | 2,000 | - | - | - | - | 2,000 |
|  |  |  |  |  | Federal/State | NHPP | - | - | 88,800 | - | - | - | 88,800 |
|  |  |  |  |  | State | SB1 | - | - | 39,000 | - | - | - | 39,000 |
|  |  |  |  |  | State | SB267 | - | - | 75,300 | - | - | - | 75,300 |
|  |  |  |  |  | Total |  |  | 2,000 | 223,100 | - | - | - | 225,100 |
| Project Description: One new express lane in each direction from SH56 to SH402. Replacement/rehabilitation of key bridges, ITS, transit \& safety components, replacement of portions of existing facility, and interchange improvements. <br> Reason: Restoring $\$ 88.8 \mathrm{M}$ Federal/State NHPP funding in FY19. Reducing state SB267 funding from $\$ 76.2 \mathrm{M}$ to $\$ 75.3 \mathrm{M}$ in order to move $\$ 900 \mathrm{~K}$ to I -25 Parallel route study. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Congestion Mitigation \& Air Quality (CMAQ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PREVIOUS ENTRY SST7007.008 | 2016-006 | Weld County CNG Vehicles \& Expansion | Weld County | Vehicle Purchase | Federal | Congestion Mitigation Air Quality | 4,087 | - | 1,216 | - | - | - | 1,216 |
|  |  |  |  |  | Local | Local | 850 | - | 253 | - | - | - | 253 |
|  |  |  |  |  | Total |  | 4,937 | - | 1,469 | - | - | - | 1,469 |
| Project Description: Converting light, medium, and heavy duty vehicles to compressed natural gas and expanding existing fuel site to accommodate additional natural gas vehicles. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| REVISED ENTRY SST7007.008 | 2016-006 | Weld County CNG Vehicles \& Expansion | Weld County | Vehicle Purchase | Federal | Congestion Mitigation Air Quality | 2,930 | - | - | - | - | - |  |
|  |  |  |  |  | Local | Local | 2,007 | - | 1,469 | - | - | - | 1,469 |
|  |  |  |  |  | Total |  | 4,937 |  | 1,469 | - | - |  | 1,469 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

FY 2019 - FY 2022 TRANSPORTATION IMPROVEMENT PROGRAM (TIP)
North Front Range Transportation \& Air Quality Planning Council
Policy Amendment \#2019-A5

| Submitted to: TAC and Planning Council for Approval |  |  | Prepared by: Medora Bornhoft |  |  |  | DATE: 5/8/2019 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Funding Program / STIP ID | NFR TIP Number | Project Title/Location | Project Sponsor | Improvement Type | Source of Funds | Funding Type/ Program | Previous Funding | Rolled Funding | FY 19 | FY 20 | FY 21 | FY 22 | $\begin{gathered} \hline \text { FY 19-22 } \\ \text { TIP TOTAL } \end{gathered}$ |
| PREVIOUS ENTRY SST7007.012 | 2017-002 | Loveland CNG Vehicle Replacement | Loveland | Rolling Stock Replacement | Federal Local | Congestion Mitigation Air Quality Local | 128 27 |  | 128 27 | - | - | - | $\begin{array}{r}128 \\ 27 \\ \hline\end{array}$ |
|  |  |  |  |  | Total |  | 155 | - | 155 | - | - | - | 155 |
| Project Description: Purchase of compressed natural gas vehicles. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| REVISED ENTRY SST7007.012 | 2017-002 | Loveland CNG Vehicle Replacement | Loveland | Rolling Stock Replacement | Federal Local | Congestion Mitigation Air QualityLocal | 155 | - | ${ }^{-} 155$ | - | - | - | 155 |
|  |  |  |  |  | Total Local |  | 155 | - | 155 | - | - | - | 155 |
| Project Description: Purchase of compressed natural gas vehicles. |  |  |  |  |  |  |  |  |  |  |  |  |  |


| PREVIOUS ENTRY | 2020-007 | Loveland Diesel Fleet Replacement | Loveland | Rolling Stock | Federal | Congestion Mitigation Air Quality |  | - | - |  | 384 | - | 384 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SST7007.012 |  |  |  | Replacement | Local | Local | - | - | - | - | 80 | - | 80 |
|  |  |  |  |  | Total |  | - | - | - | - | 464 |  | 464 |
| Project Description: Replacement and/or new light duty and heavy duty vehicles with CNG and/or clean diesel vehicles. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{gathered} \text { REVISED ENTRY } \\ \text { SST7007.012 } \end{gathered}$ | 2020-007 | Loveland Diesel Fleet Replacement | Loveland | Rolling Stock Replacement | Federal | Congestion Mitigation Air Quality |  | - | - | - | - | - | - |
|  |  |  |  |  | Local | Local | - | - | - | - | 464 | - | 464 |
|  |  |  |  |  | Total |  | - | - | - | - | 464 | - | 464 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Discretionary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NEW ENTRY | 2019-023 | US85 UPRR Settlement Agreement | CDOT Region 4 | ROW | State | TCC | - |  | 5,495 |  |  |  | 5,495 |
| SR46600.72 |  |  |  |  | Total |  | 20,366 | - | 5,495 | - | - | - | 5,495 |
| Project Description: US85 UPRR ROW Settlement Agreement in the North Front Range for purchase of ROW. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Reason:\| Add new project with \$5,495K State Funding in FY19. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FTA 5310 - Enhanced Mobility of Seniors and Individuals with Disabilities Program |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NEW ENTRY | 2019-024 | ADA Gas MV Replacement | NFRMPO | Vehicle Replacement | Federal | FTA 5310 | - | - | 39 | - | - |  | 39 |
|  |  |  |  |  | Local | Local | - | - | 10 | - | - | - | 10 |
|  |  |  |  |  | Total | 48,180 | - | - | 48 | - | - | - | 48 |
| Project Description:\| Purchase of replacement ADA van for Greeley Center for Independence |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

# AGENDA ITEM SUMMARY (AIS) 

North Front Range Transportation \& Air Quality Technical Advisory Committee (TAC)

| Meeting Date | Agenda Item |
| :--- | :--- |
| May 15, 2019 | Draft 2019 Congestion Management Process (CMP) Opportunities |
| Objective/Request Action |  | | To discuss changes to the Opportunities and Recommendations in Chapter 5: |
| :--- |
| Implementation of the Draft 2019 CMP and highlight Planning Council concerns regarding |
| the methodology for identifying Congested Corridors. |

Submitted By
Ryan Dusil

To discuss changes to the Opportunities and Recommendations in Chapter 5:
Implementation of the Draft 2019 CMP and highlight Planning Council concerns regarding the methodology for identifying Congested Corridors.

| $\square$ | Report |
| :--- | :--- |
| $\square$ | Work Session |
|  | Discussion |
| $\square$ | Action |

## Key Points

- NFRMPO Staff is recommending TAC Action on the 2019 CMP be postponed until the June 19, 2019 TAC meeting for the following reasons:

1. Several sections are missing data and will be updated following the completion of the 2015 Base Year Regional Travel Demand Model (RTDM), anticipated in mid-May, and the finalization of the 2045 Regionally Significant Corridors (RSCs).
2. NFRMPO Staff would like more TAC member feedback on corridor-specific opportunities identified in the Congested Corridor Analysis section of Chapter 5.
3. To discuss the concerns raised at the May 2, 2019 Planning Council meeting regarding the methodology for identifying Congested Corridors not adequately accounting for roadways that are congested during off-peak/free flow travel times. To address these concerns, NFRMPO staff proposes:
o Any RSC with at least one segment with a Truck Travel Time Reliability (TTTR) greater than or equal to 1.5 in 2018 also be identified as a Congested Corridor. See Figure 1, attached.
o TAC discuss options for incorporating free flow speed to identify Congested Corridors. See Figure 2, attached.
0 Maintaining the peak period definitions for analyzing TTI (7-9 AM and 3-6 PM) since they have the longest travel times, as shown in the attached Hourly TTI by RSC chart. See Figure 3, attached.

- The Congested Corridor Profiles from Chapter 5 of the Draft 2019 CMP are attached.

Committee Discussion

- This is the third time the TAC is discussing the 2019 CMP.
- The draft CMP will return to TAC on June 19, 2019 for Action.


## Supporting Information

- An implementation Chapter was added to the 2019 CMP to conform with federal regulations. Chapter 5 identifies congested corridors, opportunities for managing congestion on these corridors, and parties responsible for implementation, per federal regulations. General recommendations for implementing the 2019 CMP and a brief discussion of funding opportunities are also included in Chapter 5.
- Congested Corridors are currently identified as any RSC with at least one segment with:

> o An average AM or PM peak period Travel Time Index (TTI) greater than or equal to 1.5 in 2018 or 2030, and/or;
> O A Travel Time Reliability (TTR) greater than or equal to 1.5 in 2018 .

## Advantages

- Improvements to the Opportunities identified in the Congested Corridor Analysis will enable the 2019 CMP to be robust and comprehensive, as well as ensure it is consistent with other local, regional, and state planning efforts.
- Addressing Planning Council's concerns will ensure the Congested Corridors reflect a definition of congestion shared by all regional stakeholders.


## Disadvantages

- None.

Analysis/Recommendation
Staff requests TAC members review the Congested Corridor Analysis section of Chapter 5 and provide guidance on addressing Planning Council's concerns.

Attachments

- Congested Corridor Profiles
- Figure 1. Truck Travel Time Reliability (TTTR), 2018 Map - Interstate Only
- Figure 2. INRIX Free Flow Speed, 2018 Map
- Figure 3. Hourly TTI by RSC, 2018


## Congested Corridor Analysis and Recommendations

The following section shows the 15 Congested Corridors identified using the criteria previously mentioned. Each page provides a description of the full Corridor, identifies parties responsible for the corridor, maps the congested segments and a selection of implemented strategies along that segment (maps to be provided), and provides a comprehensive table of implemented and planned strategies for the full Corridor.

Corridor descriptions reflect the RSC Vision Statements included in the 2045 RTP, helping to further integrate the 2019 CMP into the NFRMPO planning process. The Parties Responsible section of each page identifies the jurisdictions touching any portion of the Corridor. Identifying Parties Responsible is federally required and should be used as a starting point to identify potential partnerships and opportunities for collaboration.

Strategies from Chapter 4 were identified as implemented or planned along each corridor with input from the NFRMPO TAC. Only Corridor-specific strategies were considered as part of this analysis. Strategies present or planned anywhere along the Corridor were marked as included in the corresponding Strategies Table. Strategies occurring on parallel or perpendicular corridors did not count as implemented or planned on the Congested Corridor unless the strategy had a direct and measurable impact on the Congested Corridor. For example, RSC \#6 (US287) is marked as having access to Bus Rapid Transit to reflect the presence of the MAX bus service along the Mason Corridor, which serves as an alternate option to SOV-travel along portions of US287 in Fort Collins.

The Corridor Visions, the implemented and planned strategies, and the location and type of congestion were used to develop a list of Opportunities, which serve as a recommended blueprint for managing the congestion identified along each Corridor. Each Opportunities section was developed in partnership the NFRMPO TAC and especially with the parties identified as responsible for the Congested Corridor.

## RSC \#1: North I-25 Corridor

RSC \#1, North Interstate 25, runs through the center of the NFRMPO planning area, providing regional, inter-regional, and national connectivity. The corridor is currently two general-purpose lanes in each direction, passing through Fort Collins, Timnath, Windsor, Loveland, Johnstown, and Berthoud.

## Opportunities:

- Implement ramp metering at all on ramps between Johnstown and Fort Collins
- Adaptive Signal Control Technology (ASCT) for all signals within one mile of N I-25 along Mountain Vista Drive, SH14, Prospect Road, Harmony Road, SH392, Crossroads Boulevard, US34, SH 402, SH60, and SH 56
- Increase Bustang Express Bus frequency
- Partner with COLT, Transfort, and GET on increasing service to Bustang stops and explore other feeder bus service options
- Complete on-road bicycle infrastructure gaps and develop grade-separated bike/ped crossings across N I- 25 where feasible
- Add Park-n-Ride capacity where feasible, including SH56
- Study commuter rail options on parallel corridors as identified in the N I-25 EIS
- Expand truck parking and Advanced Traveler Information System
- Relocate on ramp from the Fort Collins Port of Entry
- Continue to implement recommendations from the I-25 Traffic Incident Management Plan (TIMP).

| Metric | 2018 | 2030 | 2045 |
| :--- | :---: | :---: | :---: |
| Percent of corridor with a TTI >= 1.5 | $0.6 \%$ | - | - |
| Percent of corridor with a TTR >=1.5 | $0.0 \%$ | - | - |
| Percent of corridor with a TTTR>=1.5 |  | - | - |
| Population living within $1 / 4$ mile | 3,439 | 15,276 | 23,684 |
| Jobs located within $1 / 4$ mile | 10,097 | 19,408 | 24,173 |

Source: NFRMPO 2015 Regional Travel Demand Model (RTDM), NFRMPO 2010 Land Use Allocation Model, INRIX, NPMRDS

|  | Imp | Plan |
| :---: | :---: | :---: |
| Tier 1: Reducing Trip Generation and Shortening Trips |  |  |
| Efficient Land Use and Development Practices | X | X |
| Tier 2: Encouraging Shift to Alternative Modes of Transportation |  |  |
| Bike Infrastructure |  | X |
| Bike Share Service |  |  |
| Bus Rapid Transit |  |  |
| Car Sharing |  |  |
| Complete Streets Policies |  |  |
| Mobility Hubs | X | X |
| Parking Pricing or Parking Restrictions |  |  |
| Pedestrian Infrastructure |  | X |
| Transit Incentives |  |  |
| Transit Service Quality Factors |  | X |
| Transit Service Quantity Factors | X |  |
| Tier 3: Increasing Vehicle Occupancy and Shifting Travel Times |  |  |
| Congestion Pricing |  |  |
| High Occupancy Vehicle (HOV) Lanes |  | X |
| Tier 4: Improving Roadway Operations without Expansion |  |  |


| Access Management | X |  |
| :--- | :--- | :--- |
| Advanced Traveler Information System |  |  |
| Automatic Road Enforcement |  |  |
| Dynamic Parking Management | X | X |
| Electronic Toll Collection | X | X |
| Fiber-Optic Communications | X | X |
| Maintenance Decisions and Support System (MDSS) | X | X |
| Ramp Metering |  |  |
| Signage Improvements |  |  |
| Traffic Operations Center | X |  |
| Traffic Signal Timing Adjustments | X |  |
| Transit Signal Priority | X | X |
| Variable Speed Limits | X |  |
| Tier 5: Traffic Incident Management | X | X |
| Courtesy Patrol |  | X |
| Traffic Incident Management Plan |  |  |
| Tier 6: Road Capacity |  |  |
| Auxiliary Lanes | X |  |
| Climbing Lanes |  |  |
| Grade-Separated Crossings/Intersections |  |  |
| New Lanes/Roads |  |  |
| Roundabouts | Toll/Express Lanes |  |

- Complete and maintain infrastructure consistent with Regional Non-Motorized Corridors (RNMCs) $2,3,4,5,6,7$, and 11
- Implement regional transit service consistent with Regional Transit Corridors (RTCs) 1, 6, 7, 8, 10, and 12


## Parties Responsible:

- CDOT
- Larimer County
- Weld County
- Fort Collins
- Timnath
- Windsor
- Loveland
- Johnstown
- Berthoud


## RSC \#2: US34 Corridor

The vision for RSC \#2 is to increase mobility and to maintain system quality and improve safety. The communities along the RSC also value transportation choices, and connections to other areas. Future travel modes to be planned for include passenger vehicles, bus service, bus rapid transit, truck freight, and bicycles and pedestrians. Transportation Demand Management (TDM) strategies in the urban portions of Loveland and Greeley are important along this RSC. There is transit access to the City of Loveland Transit (COLT) system, the Greeley Evans Transit (GET) system, Bustang, and a Park-n-Ride lot. The transportation system in the area serves towns, cities, and destinations both along and outside of the RSC. Both passenger and freight traffic volumes are expected to increase significantly. The University of Northern Colorado (UNC) and Rocky Mountain National Park contribute to the activity on either end of this RSC. While the majority of the area surrounding the RSC is transitioning from agricultural to suburban, sections of the RSC through Loveland and Greeley are urbanized.

## Opportunities:

- Implement strategies from the US34 PEL
- Complete and maintain infrastructure consistent with RNMCs 1, 2, 3, 4, 5, 6, 7, and 11
- Implement regional transit service consistent with RTCs 4, 5, 6, 7, 8, 10, 11, and 12
- Study Commercial Vehicle Signal Priority (CVSP) opportunities



## Parties Responsible:

- CDOT • Johnstown
- Larimer County • Greeley
- Weld County - Evans
- Loveland - Garden City


## RSC \#3: US34B Corridor

The vision for RSC \#3 is to increase mobility as well as to maintain system quality and improve safety. To account for increasing passenger volumes, future travel modes to be planned for include passenger vehicles, bus service, and bicycles and pedestrians. Users of this RSC support the movement of tourists, commuters, freight, and farm-tomarket products while recognizing the environmental, economic, and social needs of the surrounding area. This corridor has access to the GET transit system and is a major west-east arterial for Greeley.

## Opportunities:

- Continue to improve operations through signal timing adjustments
- Consider additional auxiliary lanes
- Implement incident management strategies
- Consider adopting a Complete Streets policy
- Implement dynamic parking management where feasible
- Complete and maintain infrastructure consistent with RNMC 10
- Implement regional transit service consistent with RTCs 8,10 , and 11


## Parties Responsible:

- CDOT
- Weld County
- Greeley

| Metric | 2018 | 2030 | 2045 |
| :---: | :---: | :---: | :---: |
| Percent of corridor with a TTI >= 1.5 | 0.3\% |  |  |
| Percent of corridor with a TTR >= 1.5 | 11.7\% | - | - |
| Population living within $1 / 4$ mile | 17,218 | 18,178 | 24,312 |
| Jobs located within $1 / 4$ mile | 18,819 | 19,421 | 22,677 |
| Source: NFRMPO 2015 Regional Travel Demand Model (RTDM), NFRMPO 2010 Land Use Allocation Model, INRIX, NPMRDS |  |  |  |
|  |  |  | Plan |
| Tier 1: Reducing Trip Generation and Shortening Trips |  |  |  |
| Efficient Land Use and Development Practices |  |  | X |
| Tier 2: Encouraging Shift to Alternative Modes of Transportation |  |  |  |
| Bike Infrastructure |  |  | X |
| Bike Share Service |  |  |  |
| Bus Rapid Transit |  |  |  |
| Car Sharing |  |  |  |
| Complete Streets Policies |  |  |  |
| Mobility Hubs |  |  |  |
| Parking Pricing or Parking Restrictions |  |  |  |
| Pedestrian Infrastructure |  |  |  |
| Transit Incentives |  |  |  |
| Transit Service Quality Factors |  |  |  |
| Transit Service Quantity Factors |  |  |  |
| Tier 3: Increasing Vehicle Occupancy and Shifting Travel Times |  |  |  |
| Congestion Pricing |  |  |  |
| High Occupancy Vehicle (HOV) Lanes |  |  |  |
| Tier 4: Improving Roadway Operations without Expansion |  |  |  |
| Access Management |  |  |  |
| Advanced Traveler Information System |  |  |  |
| Automatic Road Enforcement |  |  |  |
| Dynamic Parking Management |  |  |  |
| Electronic Toll Collection |  |  |  |
| Fiber-Optic Communications |  |  | X |
| Maintenance Decisions and Support System (MDSS) |  |  | X |
| Ramp Metering |  |  |  |
| Signage Improvements |  |  |  |
| Traffic Operations Center |  |  |  |
| Traffic Signal Timing Adjustments |  |  |  |
| Transit Signal Priority |  |  | X |
| Variable Speed Limits |  |  |  |
| Tier 5: Traffic Incident Management |  |  |  |
| Courtesy Patrol |  |  |  |
| Traffic Incident Management Plan |  |  |  |
| Tier 6: Road Capacity |  |  |  |
| Auxiliary Lanes |  |  |  |
| Climbing Lanes |  |  |  |
| Grade-Separated Crossings/Intersections |  |  |  |
| New Lanes/Roads |  |  |  |
| Roundabouts |  |  |  |
| Toll/Express Lanes |  |  |  |

## RSC \#4: US85 Corridor

The vision for RSC \#4 is to increase mobility, maintain system quality and improve safety. Future travel modes to be planned for include passenger vehicles, bus service, truck freight, and freight rail. As both passenger and freight traffic volumes are expected to increase, TDM could be effective along this RSC. Users of the RSC support the movement of commuters, freight, farm-tomarket products, and hazardous materials while recognizing the environmental, economic, and social needs of the surrounding area.

The transportation system in the area primarily serves towns, cities, and destinations in the surrounding area, characterized by manufacturing, agriculture, commercial activity, and oil and gas activity, with main street characteristics through Eaton and LaSalle. RSC \#4 provides interregional connections to the Denver metropolitan area to the south and Wyoming to the north, is part of the National Highway System (NHS), and is a segment of the international CanAm Highway extending from Mexico to Canada.

## Opportunities:

- Implement strategies from the US 85 PEL
- Expand inter-regional transit connectivity
- Implement US 85 TIMP recommendations
- Incorporate VMS at strategic locations
- Complete and maintain infrastructure consistent with RNMC $1,4,6,10$, and 11
- Implement regional transit service consistent with RTCs 1, 5, and 11
- Study Commercial Vehicle Signal Priority (CVSP) opportunities

| Metric | 2018 | 2030 | 2045 |
| :--- | :---: | :---: | :---: |
| Percent of corridor with a TTI >= 1.5 | $0.6 \%$ |  |  |
| Percent of corridor with a TTR >= 1.5 | $9.8 \%$ | - | - |
| Population living within $1 / 4$ mile | 7,444 | 8,412 | 8,504 |
| Jobs located within $1 / 4$ mile | 10,908 | 11,671 | 13,965 |
| Source: NFRMPO 2015 Regional Travel Demand Model (RTDM), NFRMPO 2010 Land Use |  |  |  |
| Allocation Model, INRIX, NPMRDS |  |  |  |


|  | Imp | Plan |
| :---: | :---: | :---: |
| Tier 1: Reducing Trip Generation and Shortening Trips |  |  |
| Efficient Land Use and Development Practices | X | X |
| Tier 2: Encouraging Shift to Alternative Modes of Transportation |  |  |
| Bike Infrastructure |  | X |
| Bike Share Service |  |  |
| Bus Rapid Transit |  |  |
| Car Sharing |  |  |
| Complete Streets Policies |  |  |
| Mobility Hubs | X |  |
| Parking Pricing or Parking Restrictions |  |  |
| Pedestrian Infrastructure |  | X |
| Transit Incentives |  |  |
| Transit Service Quality Factors |  |  |
| Transit Service Quantity Factors |  |  |
| Tier 3: Increasing Vehicle Occupancy and Shifting Travel Times |  |  |
| Congestion Pricing |  |  |
| High Occupancy Vehicle (HOV) Lanes |  |  |
| Tier 4: Improving Roadway Operations without Expansion |  |  |
| Access Management | X |  |
| Advanced Traveler Information System | X |  |
| Automatic Road Enforcement |  |  |
| Dynamic Parking Management | X | X |
| Electronic Toll Collection |  |  |
| Fiber-Optic Communications |  | X |
| Maintenance Decisions and Support System (MDSS) | X |  |
| Ramp Metering |  |  |
| Signage Improvements |  |  |
| Traffic Operations Center | X |  |
| Traffic Signal Timing Adjustments | X |  |
| Transit Signal Priority |  | X |
| Variable Speed Limits |  |  |
| Tier 5: Traffic Incident Management |  |  |
| Courtesy Patrol |  |  |
| Traffic Incident Management Plan | X |  |
| Tier 6: Road Capacity |  |  |
| Auxiliary Lanes | X |  |
| Climbing Lanes |  |  |
| Grade-Separated Crossings/Intersections | X |  |
| New Lanes/Roads |  |  |
| Roundabouts |  |  |
| Toll/Express Lanes |  |  |

## Parties Responsible:

- CDOT • Evans
- Weld County • Garden City
- Eaton - LaSalle
- Greeley


## RSC \#5: US85B Corridor

The vision for RSC \#5 is to increase mobility as well as to maintain system quality and improve safety as both passenger and freight traffic volumes are expected to increase. Users of the RSC support the movement of commuters, freight, farm-to-market products, and hazardous materials to and through the RSC while recognizing the environmental, economic, and social needs of the surrounding area.

The corridor is characterized by manufacturing, agriculture, commercial activity, and oil and gas activity, with main street characteristics through Greeley. The area surrounding this RSC is diverse and includes urban characteristics through the Greeley area. There is access to the GET transit system for this corridor.

## Opportunities:

- Improve access management
- Expand dynamic parking management
- Upgrade transit service
- Complete and maintain infrastructure consistent with RNMCs 6 and 11
- Implement regional transit service consistent with RTCs 5 and 11


## Parties Responsible:

- CDOT
- Weld County
- Greeley
- Evans
- Garden City

| Metric | 2018 | 2030 | 2045 |
| :--- | :---: | :---: | :---: |
| Percent of corridor with a TTI >= 1.5 | $0.0 \%$ |  |  |
| Percent of corridor with a TTR >=1.5 | $0.0 \%$ | - | - |
| Population living within $11 / 4$ mile | 8,732 | 8,916 | 9,013 |
| Jobs located within $1 / 4$ mile | 21,445 | 21,634 | 24,167 |
| Source: NFRMPO 2015 Regional Travel Demand Model (RTDM), NFRMPO 2010 Land Use |  |  |  |
| Allocation Model, INRIX, NPMRDS |  |  |  |


|  | Imp | Plan |
| :---: | :---: | :---: |
| Tier 1: Reducing Trip Generation and Shortening Trips |  |  |
| Efficient Land Use and Development Practices | X | X |
| Tier 2: Encouraging Shift to Alternative Modes of Transportation |  |  |
| Bike Infrastructure |  |  |
| Bike Share Service | X |  |
| Bus Rapid Transit |  |  |
| Car Sharing |  |  |
| Complete Streets Policies |  |  |
| Mobility Hubs |  |  |
| Parking Pricing or Parking Restrictions |  |  |
| Pedestrian Infrastructure | X |  |
| Transit Incentives | X |  |
| Transit Service Quality Factors | X |  |
| Transit Service Quantity Factors | X |  |
| Tier 3: Increasing Vehicle Occupancy and Shifting Travel Times |  |  |
| Congestion Pricing |  |  |
| High Occupancy Vehicle (HOV) Lanes |  |  |
| Tier 4: Improving Roadway Operations without Expansion |  |  |
| Access Management | X |  |
| Advanced Traveler Information System | X |  |
| Automatic Road Enforcement |  |  |
| Dynamic Parking Management | X |  |
| Electronic Toll Collection |  |  |
| Fiber-Optic Communications |  |  |
| Maintenance Decisions and Support System (MDSS) |  |  |
| Ramp Metering |  |  |
| Signage Improvements | X |  |
| Traffic Operations Center | X |  |
| Traffic Signal Timing Adjustments | X |  |
| Transit Signal Priority |  | X |
| Variable Speed Limits |  |  |
| Tier 5: Traffic Incident Management |  |  |
| Courtesy Patrol |  |  |
| Traffic Incident Management Plan |  |  |
| Tier 6: Road Capacity |  |  |
| Auxiliary Lanes | X |  |
| Climbing Lanes |  |  |
| Grade-Separated Crossings/Intersections | X |  |
| New Lanes/Roads |  |  |
| Roundabouts |  |  |
| Toll/Express Lanes |  |  |

## RSC \#6: US287 Corridor

The vision for RSC \#6 is to increase mobility, maintain system quality, and improve safety as both passenger and freight traffic volumes are expected to increase significantly. Users of this RSC want to retain the character of the area, including the dedicated open space between Fort Collins and Loveland, while supporting the movement of commuters and freight to and through the RSC.

This RSC provides north-south connections within Fort Collins, Loveland, and Berthoud and connections south to the Denver metropolitan area and north to Laramie, Wyoming and I-80. US287 is an NHS facility and acts as a main street through both Fort Collins and Loveland and is an important corridor to both the COLT and Transfort transit systems.

## Opportunities:

- Conduct ADA compliance review
- Improve bicycle and pedestrian facilities
- Complete and maintain infrastructure consistent with RNMCs 2, 3, 4, 5, 6, 7, 8, and 11
- Implement regional transit service consistent with RTCs $1,2,4,6,9$, and 12
- Study Commercial Vehicle Signal Priority (CVSP) opportunities


## Parties Responsible:

- CDOT
- Larimer County
- Fort Collins
- Loveland
- Berthoud

| Metric | 2018 | 2030 | 2045 |
| :--- | :---: | :---: | :---: |
| Percent of corridor with a TTI >= 1.5 | $3.8 \%$ |  |  |
| Percent of corridor with a TTR >= 1.5 | $2.1 \%$ | - | - |
| Population living within $1 / 4$ mile | 27,186 | 31,532 | 35,506 |
| Jobs located within $1 / 4$ mile | 45,125 | 44,436 | 49,972 |

Source: NFRMPO 2015 Regional Travel Demand Model (RTDM), NFRMPO 2010 Land Use Allocation Model, INRIX, NPMRDS

|  | Imp | Plan |
| :---: | :---: | :---: |
| Tier 1: Reducing Trip Generation and Shortening Trips |  |  |
| Efficient Land Use and Development Practices | X | X |
| Tier 2: Encouraging Shift to Alternative Modes of Transportation |  |  |
| Bike Infrastructure | X | X |
| Bike Share Service | X | X |
| Bus Rapid Transit | X | X |
| Car Sharing | X |  |
| Complete Streets Policies | X |  |
| Mobility Hubs | X |  |
| Parking Pricing or Parking Restrictions | X |  |
| Pedestrian Infrastructure | X | X |
| Transit Incentives | X |  |
| Transit Service Quality Factors | X | X |
| Transit Service Quantity Factors | X | X |
| Tier 3: Increasing Vehicle Occupancy and Shifting Travel Times |  |  |
| Congestion Pricing |  |  |
| High Occupancy Vehicle (HOV) Lanes |  |  |
| Tier 4: Improving Roadway Operations without Expansion |  |  |
| Access Management | X |  |
| Advanced Traveler Information System | X |  |
| Automatic Road Enforcement | X |  |
| Dynamic Parking Management | X |  |
| Electronic Toll Collection |  |  |
| Fiber-Optic Communications | X |  |
| Maintenance Decisions and Support System (MDSS) | X |  |
| Ramp Metering |  |  |
| Signage Improvements | X |  |
| Traffic Operations Center | X |  |
| Traffic Signal Timing Adjustments | X |  |
| Transit Signal Priority | X |  |
| Variable Speed Limits |  |  |
| Tier 5: Traffic Incident Management |  |  |
| Courtesy Patrol |  |  |
| Traffic Incident Management Plan |  |  |
| Tier 6: Road Capacity |  |  |
| Auxiliary Lanes | X |  |
| Climbing Lanes |  |  |
| Grade-Separated Crossings/Intersections | X |  |
| New Lanes/Roads |  |  |
| Roundabouts |  |  |
| Toll/Express Lanes |  |  |

## RSC \#8: SH14 Corridor

The vision for RSC \#8 is to increase mobility as well as to maintain system quality and improve safety. The communities along this RSC also value transportation choices and connections to other areas. As passenger and freight traffic volumes increase, travel modes to be planned for include passenger vehicles, bus service, truck freight, and bicycles and pedestrians. TDM would likely be effective along this RSC. Users of this RSC support the movement of commuters, freight and hazardous materials while recognizing the environmental, economic, and social needs of the surrounding area. Future annexation and development will enhance the urban and suburban character of the corridor. Part of the NHS, this RSC is currently used as a connection for interregional and interstate freight and travelers to and from I-25 (RSC \#1), US287 (RSC \#6), and I-80. This RSC is an important route for the Transfort system.

## Opportunities:

- Study grade separation opportunities
- Study Commercial Vehicle Signal Priority (CVSP) opportunities
- Complete and maintain infrastructure consistent with RNMCs 6 and 7
- Implement regional transit service consistent with RTCs $2,3,6$, and 9


## Parties Responsible:

- CDOT
- Larimer County
- Weld County
- Fort Collins
- Timnath
- Severance

| Metric | 2018 | 2030 | 2045 |
| :---: | :---: | :---: | :---: |
| Percent of corridor with a TTI >= 1.5 | 0.3\% |  |  |
| Percent of corridor with a TTR >= 1.5 | 0.0\% | - | - |
| Population living within $1 / 4$ mile | 4,582 | 5,852 | 10,844 |
| Jobs located within $1 / 4$ mile | 13,316 | 13,434 | 14,986 |
| Source: NFRMPO 2015 Regional Travel Demand Model (RTDM), NFRMPO 2010 Land Use Allocation Model, INRIX, NPMRDS |  |  |  |
|  |  |  | Plan |
| Tier 1: Reducing Trip Generation and Shortening Trips |  |  |  |
| Efficient Land Use and Development Practices |  |  | X |
| Tier 2: Encouraging Shift to Alternative Modes of Transportation |  |  |  |
| Bike Infrastructure |  |  | X |
| Bike Share Service |  |  |  |
| Bus Rapid Transit |  |  |  |
| Car Sharing |  |  |  |
| Complete Streets Policies |  |  |  |
| Mobility Hubs |  |  |  |
| Parking Pricing or Parking Restrictions |  |  |  |
| Pedestrian Infrastructure |  |  | X |
| Transit Incentives |  |  |  |
| Transit Service Quality Factors |  |  |  |
| Transit Service Quantity Factors |  |  |  |
| Tier 3: Increasing Vehicle Occupancy and Shifting Travel Times |  |  |  |
| Congestion Pricing |  |  |  |
| High Occupancy Vehicle (HOV) Lanes |  |  |  |
| Tier 4: Improving Roadway Operations without Expansion |  |  |  |
| Access Management |  |  |  |
| Advanced Traveler Information System |  |  |  |
| Automatic Road Enforcement |  |  |  |
| Dynamic Parking Management |  |  |  |
| Electronic Toll Collection |  |  |  |
| Fiber-Optic Communications |  |  | X |
| Maintenance Decisions and Support System (MDSS) |  |  | X |
| Ramp Metering |  |  |  |
| Signage Improvements |  |  |  |
| Traffic Operations Center |  |  |  |
| Traffic Signal Timing Adjustments |  |  |  |
| Transit Signal Priority |  |  |  |
| Variable Speed Limits |  |  |  |
| Tier 5: Traffic Incident Management |  |  |  |
| Courtesy Patrol |  |  |  |
| Traffic Incident Management Plan |  |  |  |
| Tier 6: Road Capacity |  |  |  |
| Auxiliary Lanes |  |  |  |
| Climbing Lanes |  |  |  |
| Grade-Separated Crossings/Intersections |  |  | X |
| New Lanes/Roads |  |  | X |
| Roundabouts |  |  | X |
| Toll/Express Lanes |  |  |  |

## RSC \#10: SH60 Corridor

The vision for RSC \#10 is to maintain system quality and improve safety as both passenger and freight traffic volumes are expected to increase. Future travel modes to be planned for include passenger vehicle, bus service, and truck freight. Users of this RSC want to support the movement of commuters and freight to and through the RSC while recognizing the environmental, economic, and social needs of the surrounding area. TDM investment throughout portions of Johnstown and Milliken provide important connections along this corridor. The area surrounding this RSC is transitioning from agricultural to suburban. The RSC provides local area-wide access to higher functional class facilities and makes west-east connections within and between Johnstown, Milliken, and Berthoud.

## Opportunities:

- Consider implementing Truck Parking Information Management System at Johnson's corner
- Complete and maintain infrastructure consistent with RNMCs 1, 2, 7, 8, and 9
- Implement regional transit service consistent with RTCs 6 and 9


## Parties Responsible:

- CDOT
- Larimer County
- Weld
- Johnstown
- Milliken



## RSC \#11: SH257 Corridor

The vision for RSC \#11 is to maintain system quality as well as to increase mobility and improve safety as passenger traffic volumes are expected to remain relatively constant, while freight volume will increase. Communities in the area will continue to depend on manufacturing, agriculture, and residential development for economic activity in the area. TDM improvements along this corridor are important, especially through Windsor. Portions of the surrounding area are transitioning from rural and agricultural to suburban.

## Opportunities:

- Implement strategies from the Windsor Area Network Study
- Consider adopting a Complete Streets policy
- Complete and maintain infrastructure consistent with RNMCs $2,3,4,6$, and 11
- Implement regional transit service consistent with RTCs $1,3,4,8,10$, and 12


## Parties Responsible:

- CDOT
- Weld County
- Severance
- Windsor
- Milliken

| Metric | 2018 | 2030 | 2045 |
| :--- | :---: | :---: | :---: |
| Percent of corridor with a TTI >= 1.5 | $0.0 \%$ |  |  |
| Percent of corridor with a TTR >=1.5 | N/A |  |  |
| Population living within $1 / 4$ mile | 4,580 | 6,677 | 12,824 |
| Jobs located within $1 ⁄ 4$ mile | 2,766 | 4,432 | 5,457 |
| Source: NFRMPO 2015 Regional Travel Demand Model (RTDM), NFRMPO 2010 Land Use |  |  |  |
| Allocation Model, INRIX |  |  |  |


|  | Imp | Plan |
| :---: | :---: | :---: |
| Tier 1: Reducing Trip Generation and Shortening Trips |  |  |
| Efficient Land Use and Development Practices |  | X |
| Tier 2: Encouraging Shift to Alternative Modes of Transportation |  |  |
| Bike Infrastructure | X | X |
| Bike Share Service |  |  |
| Bus Rapid Transit |  |  |
| Car Sharing |  |  |
| Complete Streets Policies |  |  |
| Mobility Hubs |  |  |
| Parking Pricing or Parking Restrictions |  |  |
| Pedestrian Infrastructure | X | X |
| Transit Incentives |  |  |
| Transit Service Quality Factors |  |  |
| Tier 3: Increasing Vehicle Occupancy and Shifting Travel Times |  |  |
|  |  |  |
| Congestion Pricing |  |  |
| High Occupancy Vehicle (HOV) Lanes |  |  |
| Tier 4: Improving Roadway Operations without Expansion |  |  |
| Access Management | X |  |
| Advanced Traveler Information System |  |  |
| Automatic Road Enforcement |  |  |
| Dynamic Parking Management | X |  |
| Electronic Toll Collection |  |  |
| Fiber-Optic Communications |  |  |
| Maintenance Decisions and Support System (MDSS) |  | X |
| Ramp Metering |  |  |
| Signage Improvements |  |  |
| Traffic Operations Center |  |  |
| Traffic Signal Timing Adjustments | X |  |
| Transit Signal Priority |  |  |
| Variable Speed Limits |  |  |
| Tier 5: Traffic Incident Management |  |  |
| Courtesy Patrol |  |  |
| Traffic Incident Management Plan |  |  |


| Tier 6: Road Capacity | X |
| :--- | :---: |
| Auxiliary Lanes |  |
| Climbing Lanes | X |
| Grade-Separated Crossings/Intersections | X |
| New Lanes/Roads |  |
| Roundabouts |  |
| Toll/Express Lanes |  |

## RSC \#12: SH392 Corridor

The vision for RSC \#12 is to increase mobility and maintain system quality and improve safety as both passenger and freight traffic volumes are expected to continue to increase. Users of this RSC support the movement of commuters, freight, and farm-to-market products in and through the RSC, while recognizing environmental (including preservation and minimization/mitigation of impacts to protected public open lands/natural areas), economic, and social needs. TDM improvements along this corridor provide benefits to commuters. This RSC is Main Street through Windsor, also traversing suburban, urban, and rural agricultural areas.

## Opportunities:

- Implement strategies from the Windsor Area Network Study
- Consider adopting a Complete Streets policy
- Complete and maintain infrastructure consistent with RNMCs 4, 5, 6, 7, and 9
- Implement regional transit service consistent with RTCs $3,6,8,9,11$, and 12


## Parties Responsible:

- CDOT
- Larimer County
- Weld County
- Fort Collins
- Windsor
- Greeley

| Metric | 2018 | 2030 | 2045 |
| :---: | :---: | :---: | :---: |
| Percent of corridor with a TTI >= 1.5 | 0.5\% |  |  |
| Percent of corridor with a TTR >= 1.5 | N/A |  |  |
| Population living within $1 / 4$ mile | 4,920 | 7,276 | 12,744 |
| Jobs located within $1 / 4$ mile | 3,819 | 6,011 | 7,357 |
| Source: NFRMPO 2015 Regional Travel Demand Model (RTDM), NFRMPO 2010 Land Use Allocation Model, INRIX, Bluetoad |  |  |  |
|  |  |  | Plan |
| Tier 1: Reducing Trip Generation and Shortening Trips |  |  |  |
| Efficient Land Use and Development Practices |  |  |  |
| Tier 2: Encouraging Shift to Alternative Modes of Transportation |  |  |  |
| Bike Infrastructure |  |  | X |
| Bike Share Service |  |  |  |
| Bus Rapid Transit |  |  |  |
| Car Sharing |  |  |  |
| Complete Streets Policies |  |  |  |
| Mobility Hubs |  |  |  |
| Parking Pricing or Parking Restrictions |  |  |  |
| Pedestrian Infrastructure |  |  |  |
| Transit Incentives |  |  |  |
| Transit Service Quality Factors |  |  | X |
| Transit Service Quantity Factors |  |  | X |
| Tier 3: Increasing Vehicle Occupancy and Shifting Travel Times |  |  |  |
| Congestion Pricing |  |  |  |
| High Occupancy Vehicle (HOV) Lanes |  |  |  |
| Tier 4: Improving Roadway Operations without Expansion |  |  |  |
| Access Management |  |  |  |
| Advanced Traveler Information System |  |  |  |
| Automatic Road Enforcement |  |  |  |
| Dynamic Parking Management |  |  |  |
| Electronic Toll Collection |  |  |  |
| Fiber-Optic Communications |  |  |  |
| Maintenance Decisions and Support System (MDSS) |  |  |  |
| Ramp Metering |  |  |  |
| Signage Improvements |  |  |  |
| Traffic Operations Center |  |  |  |
| Traffic Signal Timing Adjustments |  |  |  |
| Transit Signal Priority |  |  |  |
| Variable Speed Limits |  |  |  |
| Tier 5: Traffic Incident Management |  |  |  |
| Courtesy Patrol |  |  |  |
| Traffic Incident Management Plan |  |  |  |
| Tier 6: Road Capacity |  |  |  |
| Auxiliary Lanes |  |  |  |
| Climbing Lanes |  |  |  |
| Grade-Separated Crossings/Intersections |  |  |  |
| New Lanes/Roads |  |  | X |
| Roundabouts |  |  |  |
| Toll/Express Lanes |  |  |  |

## RSC \#16: LCR 7 / LCR 9 / Timberline Corridor

The vision for RSC \#28 is to increase mobility, improve safety, and maintain system quality as both passenger and freight traffic volumes increase. The communities along the RSC also value transportation choices, connections to other areas, and intermodal connections. The surrounding area will continue to depend on manufacturing, hightech industries, commercial activity, retail, and residential development for economic activity. Upon completion, the RSC will support the regional movement of commuters.

This RSC provides access to the Northern Colorado Regional Airport (FNL), Centerra, and areas transitioning from rural to suburban. Individually, Timberline Road, LCR 9E, and WCR 7 serve as parallel local arterials west of N I-25 (RSC \#1). Realignment is planned for the section between Fort Collins and Loveland.

## Opportunities:

- Implement high frequency transit in Fort Collins
- Develop Mobility Hubs near Harmony and Vine
- Complete pedestrian infrastructure between Fort Collins and Loveland
- Complete and maintain infrastructure consistent with RNMCs 3, 4, 5, 6, and 7
- Implement regional transit service consistent with RTCs $1,4,6,10$, and 12


## Parties Responsible:

- Larimer County
- Fort Collins
- Loveland
- Berthoud

| Metric | 2018 | 2030 | 2045 |
| :--- | :---: | :---: | :---: |
| Percent of corridor with a TTI >= 1.5 | $7.3 \%$ |  |  |
| Percent of corridor with a TTR >=1.5 | N/A |  |  |
| Population living within $1 / 4$ mile | 15,374 | 20,344 | 24,164 |
| Jobs located within $1 / 4$ mile | 11,299 | 13,624 | 19,606 |
| Source: NFRMPO 2015 Regional Travel Demand Model (RTDM), NFRMPO 2010 Land Use |  |  |  |
| Allocation Model, INRIX |  |  |  |


|  | Imp | Plan |
| :---: | :---: | :---: |
| Tier 1: Reducing Trip Generation and Shortening Trips |  |  |
| Efficient Land Use and Development Practices | X | X |
| Tier 2: Encouraging Shift to Alternative Modes of Transportation |  |  |
| Bike Infrastructure | X | X |
| Bike Share Service |  | X |
| Bus Rapid Transit |  |  |
| Car Sharing |  |  |
| Complete Streets Policies | X |  |
| Mobility Hubs |  |  |
| Parking Pricing or Parking Restrictions |  |  |
| Pedestrian Infrastructure |  |  |
| Transit Incentives |  | X |
| Transit Service Quality Factors |  | X |
| Transit Service Quantity Factors |  | X |
| Tier 3: Increasing Vehicle Occupancy and Shifting Travel Times |  |  |
| Congestion Pricing |  |  |
| High Occupancy Vehicle (HOV) Lanes |  |  |
| Tier 4: Improving Roadway Operations without Expansion |  |  |
| Access Management |  |  |
| Advanced Traveler Information System |  |  |
| Automatic Road Enforcement | X |  |
| Dynamic Parking Management |  |  |
| Electronic Toll Collection |  |  |
| Fiber-Optic Communications | X |  |
| Maintenance Decisions and Support System (MDSS) | X |  |
| Ramp Metering |  |  |
| Signage Improvements | X |  |
| Traffic Operations Center | X |  |
| Traffic Signal Timing Adjustments | X |  |
| Transit Signal Priority |  |  |
| Variable Speed Limits |  |  |
| Tier 5: Traffic Incident Management |  |  |
| Courtesy Patrol |  |  |
| Traffic Incident Management Plan |  |  |
| Tier 6: Road Capacity |  |  |
| Auxiliary Lanes | X |  |
| Climbing Lanes |  |  |
| Grade-Separated Crossings/Intersections | X |  |
| New Lanes/Roads | X | X |
| Roundabouts | X |  |
| Toll/Express Lanes |  |  |

## RSC \#17: LCR17 / Shields / Taft Corridor

Future travel modes to be planned for on RSC \#16 include passenger vehicle, bus service, and bicycle and pedestrian facilities. As passenger volumes increase significantly, and freight traffic volumes remain relatively constant, communities
along the RSC will continue to depend on commercial activity, residential development, Colorado State University (CSU), governmental agencies, as well as manufacturing and high-tech industries for economic activity. Users of this RSC want to retain the character of the area, including the dedicated open space between Fort Collins and Loveland, while supporting the movement of commuters and freight along the RSC and recognizing the environmental, economic, and social needs of the surrounding area. Transit service and TDM consideration are important along this RSC.

## Opportunities:

- Consider adopting a Complete Streets policy
- Complete and maintain infrastructure consistent with RNMCs $5,6,7,8$, and 11
- Implement regional transit service consistent with RTCs 9 and 10

| Metric | 2018 | 2030 | 2045 |
| :--- | :---: | :---: | :---: |
| Percent of corridor with a TTI >= 1.5 | $0.3 \%$ |  |  |
| Percent of corridor with a TTR >= 1.5 | N/A |  |  |
| Population living within $1 / 4$ mile | 33,727 | 35,371 | 37,581 |
| Jobs located within $1 / 4$ mile | 8,577 | 9,261 | 11,458 |
| Source: NFRMPO 2015 Regional Travel Demand Model (RTDM), NFRMPO 2010 Land Use |  |  |  |
| Allocation Model, INRIX, Acyclica |  |  |  |



RSC \#21: WCR 35 / 35 ${ }^{\text {th }}$ Avenue Corridor
The vision for RSC \#22 is to increase mobility. Future travel modes are planned to include passenger vehicle and truck freight; TDM, and bike lanes which could be effective along this RSC. Passenger traffic volumes

| Metric | 2018 | 2030 | 2045 |
| :--- | :---: | :---: | :---: | :---: |
| Percent of corridor with a TTI >= 1.5 | $0.0 \%$ |  |  |
| Percent of corridor with a TTR >=1.5 | N/A |  |  |
| Population living within $1 / 4$ mile | 9,985 | 10,175 | 10,539 |
| Jobs located within $1 / 4$ mile | 3,713 | 3,890 | 4,596 |
| Source: NFRMPO 2015 Regional Travel Demand Model (RTDM), NFRMPO 2010 Land Use |  |  |  |
| Allocation Model, INRIX |  |  |  | are expected to increase around the intersection with RSC \#2. Users of RSC \#22 support the movement of commuters in and through the RSC, while recognizing the environmental, economic, and social needs of the surrounding area. Upon completion, the RSC will improve Greeley's and Evans' access to southbound US85 (RSC \#4). Transit service is important along this corridor and there are plans for bicycle and pedestrian improvements.

## Opportunities:

- Continue to improve operations through signal timing adjustments
- Consider grade separations and interchanges
- Complete and maintain infrastructure consistent with RNMCs 1, 6, and 11
- Implement regional transit service consistent with RTCs 3,8 , and 10


## Parties Responsible:

- Weld County
- Greeley
- Evans



## RSC \#22: WCR 74 / Harmony Corridor

The vision for RSC \#24 is to increase mobility as well as to maintain system quality and improve safety as both passenger and freight traffic volumes increase. Future travel modes to be planned for include passenger vehicle, bus service, freight trucks, and bicycle and pedestrian facilities. Users of this RSC support the movement of commuters, freight, and farm-to-market products in and along the RSC, while recognizing the environmental (including preservation and minimization/mitigation of impacts to protected public open lands/natural areas), economic, and social needs of the surrounding area.

This RSC serves as a local facility, provides commuter access, and an west-east connection between south Fort Collins, Timnath, Windsor, Severance, and Eaton. The area adjacent to the western portion of the RSC is urban, while the areas in the central and eastern portions of the RSC are transitioning from agricultural to suburban. The western portion of the RSC is an important link in the Transfort and Bustang transit systems.

## Opportunities:

- Implement BRT
- Continue to improve operations through signal timing adjustments
- Consider grade separation
- Complete and maintain infrastructure consistent with RNMCs 4, 6, 7, 8, and 9
- Implement regional transit service consistent with RTCs 1, 3, 6, 9, and 11


## Parties Responsible:

| Metric | 2018 | 2030 | 2045 |
| :--- | :---: | :---: | :---: |
| Percent of corridor with a TTI >= 1.5 | $10.7 \%$ |  |  |
| Percent of corridor with a TTR >= 1.5 | N/A |  |  |
| Population living within $1 / 4$ mile | 13,546 | 27,541 | 33,203 |
| Jobs located within $1 / 4$ mile | 15,032 | 16,181 | 18,177 |
| Source: NFRMPO 2015 Regional Travel Demand Model (RTDM), NFRMPO 2010 Land Use |  |  |  |
| Allocation Model, INRIX |  |  |  |



- Larimer County - Timnath
- Weld County - Windsor
- Fort Collins - Loveland
- Timnath • Johnstown
- Windsor - Berthoud
- Severance
- Eaton


## RSC \#28: Prospect Corridor

The vision for RSC \#27 is to increase mobility as well as to improve safety and maintain system quality as passenger traffic volumes increase and freight volumes remain relatively constant. The communities along this RSC also value transportation choices, and connections to other areas. Future travel modes to be planned for include passenger vehicles, bus service, and bicycles and pedestrians. Users of this RSC want to preserve the character of the area including the wetlands surrounding the Poudre River. Users also support the movement of commuters while recognizing the environmental, economic, and social needs of the surrounding area.

This RSC serves as an important regional link between central Fort Collins, Timnath, and N I-25 (RSC \#1) and provides another access point to CSU, several natural areas, the Prospect Rest Area and the Colorado Welcome Center west of $\mathrm{NI}-25$. This RSC is an important route for the Transfort system.

## Opportunities:

- Study grade separation
- Plan roadway operations for development along corridor
- Complete and maintain infrastructure consistent with RNMCs 6 and 7
- Implement regional transit service consistent with RTCs 3,6 , and 9


## Parties Responsible:

- Fort Collins
- Timnath

| Metric | 2018 | 2030 | 2045 |
| :--- | :---: | :---: | :---: |
| Percent of corridor with a TTI >= 1.5 | $4.8 \%$ |  |  |
| Percent of corridor with a TTR >=1.5 | N/A |  |  |
| Population living within $1 / 4$ mile | 4,855 | 6,155 | 9,356 |
| Jobs located within $1 / 4$ mile | 8,163 | 7,851 | 8,362 |

Source: NFRMPO 2015 Regional Travel Demand Model (RTDM), NFRMPO 2010 Land Use Allocation Model, INRIX

|  | Imp | Plan |
| :---: | :---: | :---: |
| Tier 1: Reducing Trip Generation and Shortening Trips |  |  |
| Efficient Land Use and Development Practices | X | X |
| Tier 2: Encouraging Shift to Alternative Modes of Transportation |  |  |
| Bike Infrastructure | X | X |
| Bike Share Service | X |  |
| Bus Rapid Transit |  |  |
| Car Sharing |  |  |
| Complete Streets Policies | X |  |
| Mobility Hubs |  |  |
| Parking Pricing or Parking Restrictions |  |  |
| Pedestrian Infrastructure | X |  |
| Transit Incentives | X |  |
| Transit Service Quality Factors | X |  |
| Transit Service Quantity Factors | X | X |

Tier 3: Increasing Vehicle Occupancy and Shifting Travel Times

Congestion Pricing

High Occupancy Vehicle (HOV) Lanes

| Tier 4: Improving Roadway Operations without Expansion |  |  |
| :---: | :---: | :---: |
| Access Management | x |  |
| Advanced Traveler Information System |  |  |
| Automatic Road Enforcement |  |  |
| Dynamic Parking Management |  |  |
| Electronic Toll Collection |  |  |
| Fiber-Optic Communications | x |  |
| Maintenance Decisions and Support System (MDSS) |  |  |
| Ramp Metering |  |  |
| Signage Improvements | X |  |
| Traffic Operations Center |  |  |
| Traffic Signal Timing Adjustments | X |  |
| Transit Signal Priority |  |  |
| Variable Speed Limits |  |  |
| Tier 5: Traffic Incident Management |  |  |
| Courtesy Patrol |  |  |
| Traffic Incident Management Plan |  |  |
| Tier 6: Road Capacity |  |  |
| Auxiliary Lanes | X |  |
| Climbing Lanes |  |  |
| Grade-Separated Crossings/Intersections | X |  |
| New Lanes/Roads |  | x |
| Roundabouts |  |  |
| Toll/Express Lanes |  |  |

Figure 1. Truck Travel Time Reliability (TTTR), 2018 - Interstate Only


Data Source: INRIX
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Figure 2. Free Flow Speed Calculated by INRIX, 2018


Data Source: INRIX

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Figure 3. Hourly TTI by RSC, 2018


Data Source: INRIX

AGENDA ITEM SUMMARY (AIS)
North Front Range Transportation \& Air Quality Technical Advisory Committee (TAC)

| Meeting Date | Agenda Item | Submitted By |
| :---: | :---: | :---: |
| May 15, 2019 | 2045 Regional Transportation Plan (RTP) Draft <br> Technology Section | Becky Karasko |
| Objective/Request Action |  |  |

Staff is providing the fourth of six groups of Chapters and Sections for the 2045 Regional Transportation Plan (RTP) for TAC review and discussion.

## Key Points

- MPO staff is developing the 2045 RTP, scheduled for September 2019 Planning Council adoption.
- The 2045 RTP includes a long-term transportation vision for the region.
- The DRAFT 2045 RTP Technology Section for TAC member's review is attached.


## Committee Discussion

This is the first time TAC will discuss this Section of the 2045 RTP.

## Supporting Information

The RTP is a federally-mandated plan for MPOs and includes a long-term transportation vision for the region. The 2045 RTP summarizes the existing transportation system: roadways, transit, bicycle and pedestrian infrastructure, the environment, and includes a fiscally-constrained corridor plan for the future.

## Advantages

Providing the sections as they are drafted allows TAC to maximize their time and input in reviewing the 2045 RTP chapters and sections. Staff will provide presentations on the changes to the RTP to summarize changes to assist TAC in their review.

## Disadvantages

None noted.

## Analysis/Recommendation

Staff requests TAC members review the portions of the 2045 RTP Draft Section applicable to their jurisdictions for accuracy and content.

## Attachments

- 2045 RTP Technology Section


Technology

The rapidly evolving realm of transportation technology is poised to provide great benefits to the region's transportation system. Emerging technologies are helping travelers make betterinformed decisions regarding how and when they will travel and the path they will take to get there. For instance, integrated planning and payment applications may facilitate multi-modal trips by providing information about the entire transportation system and allowing travelers to pay for different modes in one convenient location.

New technologies are also placing safety and mobility at the forefront of transportation innovation. As in-vehicle safety systems continue to advance, travelers are better protected. Meanwhile, technologies to provide enhanced mobility for persons with disabilities and the older adult population, such as safety systems for transit users with a disability, have continued to advance as well.

Though technology promises to provide significant enhancements to safety, mobility, and efficiency, its inherent uncertainty presents a significant challenge to long-range planning. Without knowing which technologies will last, which technologies are yet to come, and how these technologies will transform society, it is difficult to confidently develop plans policies before these technologies hit the market. Still, given the enormous potential to positively impact transportation across the region, the NFRMPO remains dedicated to exploring and supporting technological progress with an eye toward maximizing benefits while minimizing unintended consequences.

## A. Connected and Autonomous Vehicles (CAV)

Connected Vehicles (CV) and Autonomous Vehicles (AV) present some of the greatest opportunities and challenges in the realm of transportation planning today. Collectively referred to as CAVs, this emerging arena of technology is poised to transform the region's transportation network and operations and therefore, requires careful consideration.

## Connected Vehicles (CV)

Connected Vehicles refers to the systems of technologies enabling the sharing of data between vehicles, known as vehicle-tovehicle communication (V2V) and the sharing of roadway information with vehicles, known as vehicles-to-infrastructure communication (V2I). In general, the potential of vehicles to share or receive data from any technology system is referred to as vehicle-to-everything communication (V2X).

> This ability to share data, or to communicate, means vehicles can receive real-time information about traffic and roadway conditions, resulting in potentially significant increases in safety. The positive benefits of connected vehicles directly correlate with the number of vehicles on the road with the pervasiveness of V2X technology.

Already, the National Highway Traffic Safety Administration (NHTSA) has proposed rules to require V2V capabilities in new vehicles. And while policy will certainly help cement progress towards safety, the market is already responding to demand on its own; many auto manufacturers have begun including these capabilities in new vehicles.

It is important to recognize, even as policies change and the market evolves, that realizing the full benefit of these new technologies will require a tipping-point percentage of the fleet to adopt and incorporate these communications technologies.

In addition to the adoption of in-vehicle communication systems, roadway infrastructure will also need to change to allow V2I communications. Fiber-optic connections provide uninterrupted highspeed connection and may help to service the growing demand imposed by emerging communications technologies.

In fact, developing a strong fiber-optic backbone is a high priority at the State level, as outlined in CDOT's RoadX Program. The CDOT RoadX program was developed to address anticipated increases in congestion and travel delay by 2040 through the strategic and integrated implementation of transportation-oriented technologies. Connected vehicles and connected infrastructure is one of the core strategies of the RoadX program.

## Autonomous Vehicles (AV)

The Society of Automotive Engineers (SAE) defines five levels of vehicle automation as shown in Figure 1. Level 1 Automation is present in most of the region's fleet today and includes features like cruise control. Level 2 Automation, with options like parking assist, lane assist, and driver assist, is also already on the market and becoming increasingly popular. Though Level 3 through Level 5 vehicles have been tested and employed to a limited extent, significant market penetration of these vehicles is likely more than a decade away.

Some automobile manufactures anticipate having Level 4 and Level 5 vehicles for sale in 2020; however, potential costs, cyber security concerns, and general distrust of fully automated technology may initially serve as barriers to market penetration. Still, given the large advancement in technology, even over the past decade, the consideration of potential impacts on the transportation network is necessary.

Though Full Automation could dramatically enhance safety, mobility, and efficiency, especially when paired with CV technology, some travel models predict a significant penetration of Full Automation vehicles could actually lead to an increase in VMT, sprawl, or gridlock within urban cores.

With the ability to do other tasks while the vehicle is in motion, travelers may be willing to take much longer trips, which could lead to an increase in VMT and even promote sprawl as people are more willing to live further from their destinations. Other models
predict Full Automation could prompt an increase in driverless ridesharing. While this could lead to a decrease vehicle ownership, without the appropriate policy and infrastructure in place, these automated vehicles may circulate continuously, potentially resulting in gridlock within the urban core.

Ensuring the benefits of CV and AV technology are reaped, while avoiding the associated negative consequences will require continued modeling, vigilant monitoring, and the flexibility and ability to react swiftly to emerging trends.

Figure 1. Society of Automotive Engineers (SAE) Automation Levels


## B. FAST Act Alternative Fuels Corridors

In 2016, CDOT collaborated with a working group made up of members from the STAC to compile a list of CDOT nominations for FAST Act Designation of Alternative Fuel Corridors in the state of Colorado. The focus of this statewide network was to develop a convenient and sustainable alternative fuels market for compressed natural gas (CNG), electric (EV), hydrogen, and propane fuels that would provide flexible statewide travel as well as connections to adjacent states and the national transportation network.

Specifically, for the NFRMPO region I-25, US34, and US85 are part of the Tier 1 list of corridors in the State. Both I-25 and US34 are identified as CNG and EV focus corridors, while US84 is a CNG focus corridor. Figure 2 shows the Alternative Fuels Corridors for Colorado. The goal of this corridor identification is to provide signage for alternative fuel vehicle owners travelling along the State's highways to know where stations with their specific fuel needs are located throughout the state in an effort to reduce anxiety for drivers.

Figure 2. FAST Act Alternative Fuels Corridors


## C. Mobility

The idea of mobility is growing beyond separate transportation silos with disparate information sources. New technology is making people aware of the options that exist beyond just a single-occupancy vehicle (SOV). Helping people understand their options can round out the first mile/last mile issue many transit agencies face, improve quality of life for residents and visitors, and can help transportation providers build partnerships and find efficiencies.

## Shared Mobility

Shared mobility is a developing concept where transportation services and resources are shared among users, either concurrently or one after another. ${ }^{1}$ Shared mobility can include bike- and scooter-sharing; carsharing; ridesharing and ridehailing; public transit; and microtransit. Additional options beyond just the SOV can make trips more efficient, reduce congestion, and provide options for people who cannot afford or do not want to own or maintain a car.

Currently in the NFRMPO region, Uber and Lyft offer on-demand service; Pace Bikeshare is available within Fort Collins; and ZipCar has vehicles located on Colorado State University's campus. Transfort and CDOT are pursuing the idea of mobility hubs, where travelers can transfer between modes at key locations throughout the City and State. The Kendall Parkway Park-n-Ride on I-25 in Loveland will be a first-in-the-state facility connecting local transit, regional transit, a park-n-ride, and non-motorized trail access. The Park-n-Ride will have an area for carsharing drop-offs and pick-ups.

## Mobility as a Service

Alongside shared mobility, Mobility as a Service (MaaS) is meant to give people information about their available transportation options to make it easier to plan, pay for, and complete trips. MaaS relies on technology like a One-Call/One Click Center or a mobile app to improve the traveler's experience.

The Bustang mobile app allows users to download schedules, purchase tickets, see travel alerts, and track the bus. This type of app allows users to have one location for Bustang information.

The NFRMPO is partnering with local agencies to study the feasibility of a One-Call/One-Click center in Northern Colorado. The goal is to create a central location for information about mobility options in Larimer County and potentially allow users to book rides by calling, going to a website, or using an app. Having these options makes the technology more useful for older adults, rural residents, and individuals who do not own a smartphone.

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## MEMORANDUM

## To: NFRMPO Transportation Advisory Committee (TAC)

## From: Medora Bornhoft

## Date: May 15, 2019

## Re: 2045 Fiscally Constrained Plan - Discussion

## Background

The 2045 RTP is federally required to be fiscally constrained, which means the total estimated cost of maintaining and improving the transportation system cannot exceed the forecasted revenue over the time horizon of the Plan.

Revenue forecasts for state and Federal Highway Administration (FHWA) funding sources were developed based on the draft CDOT 2045 Program Distribution high revenue scenario (statewide total) applied to the 2040 Program Distribution (NFR-specific totals). Additionally, revenue was forecasted for Federal Transit Administration (FTA) sources and for local sources based on extrapolation from 2018 and 2019 revenues, respectively. Local revenue was estimated through FY 2019 budgets from each local government, or the closest year to 2019 publicly available. County transportation revenues were apportioned to the North Front Range based on two factors weighted equally: the percentage of lane miles within the North Front Range and the percentage of Vehicle Miles Traveled (VMT) in the North Front Range. Based on these two factors, 61 percent of Larimer County transportation revenue and 22 percent of Weld County transportation revenue was considered available for the North Front Rage. FTA revenue was forecasted based on revenue received by local agencies in 2017.

As federally required, the anticipated costs for operating and maintaining the transportation system were developed. Operating costs on roadways include the cost of lighting, traffic control, snow and ice removal, design, planning, and engineering. The operations cost per lane mile was calculated by summing the operations cost in the 2012 Census of Governments for municipalities in the North Front Range and dividing by the locally maintained lane miles in 2012. The estimated operations cost is $\$ 27,126$ per lane mile per year in 2018 dollars. Maintenance costs for roadways represent the cost of resurfacing. Maintenance costs were estimated per lane mile based on the 2014 Highway Performance Monitoring System (HPMS)
data for state-maintained facilities in Colorado, with an estimated cost of $\$ 13,175$ per lane mile per year in 2018 dollars.

Operations and maintenance costs for the transit system include vehicle operations and maintenance, general administration, facility maintenance, and state of good repair. Operations and maintenance costs for the existing transit system are estimated at $\$ 6.5 \mathrm{M}$ per year in 2018 dollars.

The RTP is required to identify roadway capacity and major transit projects planned over the 25-year planning horizon for which funding is reasonably expected to be available. The cost of roadway capacity projects on Regionally Significant Corridors (RSCs) submitted by NFR jurisdictions and collected from local plans totals $\$ 2.961 \mathrm{~B}$. The cost of operating the Regional Transit Element (RTE) buildout projects is $\$ 11 \mathrm{M}$ per year. The cost of transit system expansion planned by local agencies is incorporated into the local transit system cost of $\$ 1.259 \mathrm{~B}$ over the time horizon of the Plan.

All revenues and expenditures are presented in year of expenditure (YOE) dollars in accordance with federal requirements. Revenue and expenditures were inflated to YOE using a 2 percent inflation factor.

The total anticipated revenue over the time horizon of the 2045 RTP is $\$ 8.487 \mathrm{~B}$, as shown in Table 1. The total anticipated need over the time horizon of the 2045 RTP is $\$ 10.831 \mathrm{~B}$, as shown in Table 2, which leaves an unmet need of \$2.344B.

## Action

Staff requests TAC review the two summary tables of the fiscally constrained plan, attached, and provide comments by Friday, May 31, 2019.

Table 1. Anticipated Transportation Revenue in Millions, 2020-2045

| Funding Program | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | $\begin{aligned} & 2026- \\ & 2030 \end{aligned}$ | $\begin{aligned} & 2031- \\ & 2035 \end{aligned}$ | $\begin{aligned} & 2036- \\ & 2040 \end{aligned}$ | $\begin{array}{r} 2041- \\ 2045 \end{array}$ | $\begin{aligned} & \text { TOTAL } \\ & 2020-2045 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maintenance | \$17 | \$21 | \$22 | \$17 | \$21 | \$21 | \$107 | \$111 | \$114 | \$118 | \$568 |
| Surface Treatment | \$15 | \$17 | \$17 | \$13 | \$15 | \$15 | \$77 | \$80 | \$79 | \$81 | \$410 |
| Structures On-System | \$3 | \$4 | \$4 | \$3 | \$3 | \$3 | \$14 | \$10 | \$9 | \$9 | \$61 |
| Regional Priority Program | \$4 | \$5 | \$5 | \$4 | \$4 | \$4 | \$22 | \$23 | \$24 | \$25 | \$121 |
| Highway Safety Investment Program | \$2 | \$2 | \$2 | \$2 | \$2 | \$2 | \$11 | \$10 | \$9 | \$10 | \$53 |
| FASTER - Safety | \$3 | \$3 | \$3 | \$3 | \$4 | \$4 | \$20 | \$24 | \$27 | \$28 | \$119 |
| Transportation Alternatives (TA) | \$1 | \$1 | \$1 | \$1 | \$1 | \$1 | \$3 | \$3 | \$3 | \$3 | \$16 |
| Surface Transportation Block <br> Grant (STBG) | \$3 | \$3 | \$3 | \$3 | \$3 | \$4 | \$17 | \$16 | \$15 | \$15 | \$84 |
| Congestion Mitigation \& Air Quality (CMAQ) Improvements | \$4 | \$4 | \$4 | \$4 | \$4 | \$4 | \$20 | \$19 | \$17 | \$18 | \$98 |
| Metropolitan Planning | \$1 | \$1 | \$1 | \$1 | \$1 | \$1 | \$4 | \$4 | \$3 | \$3 | \$21 |
| Transit and Rail Local Grants (FASTER Transit) | \$0.2 | \$0.3 | \$0.3 | \$0.3 | \$0.3 | \$0.2 | \$1 | \$2 | \$2 | \$2 | \$8 |
| New Funding Source | \$6 | \$10 | \$10 | \$4 | \$7 | \$7 | \$40 | \$44 | \$48 | \$50 | \$335 |
| FTA 5307 | \$7 | \$7 | \$7 | \$7 | \$7 | \$8 | \$40 | \$44 | \$49 | \$54 | \$232 |
| FTA 5310 | \$0.2 | \$0.2 | \$0.2 | \$0.2 | \$0.2 | \$0.2 | \$1 | \$1 | \$1 | \$1 | \$5 |
| FTA 5339 | \$0.4 | \$0.4 | \$0.4 | \$0.5 | \$0.5 | \$0.5 | \$3 | \$3 | \$3 | \$3 | \$15 |
| Local - Highway | \$173 | \$177 | \$180 | \$184 | \$188 | \$191 | \$1,016 | \$1,121 | \$1,238 | \$1,367 | \$5,835 |
| Local - Transit | \$15 | \$15 | \$16 | \$16 | \$16 | \$17 | \$88 | \$97 | \$107 | \$119 | \$507 |
| Total | \$256 | \$272 | \$277 | \$262 | \$278 | \$283 | \$1,484 | \$1,611 | \$1,750 | \$1,906 | \$8,487 |

Table 2. Projected Expenditures by Category in Millions, 2020-2045

| Category | Expenditures |
| :--- | :---: |
| Regionally Significant Corridor (RSC) <br> Capacity Projects | $\$ 2,961$ |
| Road Operations and Maintenance | $\$ 6,660$ |
| Transit operations, maintenance, and local <br> system expansion | $\$ 1,259$ |
| Regional Transit Element Corridors - <br> Buildout | $\$ 11$ |
| Total Need | $\mathbf{\$ 1 0 , 8 3 1}$ |
| Anticipated Revenues | $\mathbf{\$ 8 , 4 8 7}$ |
| Unmet Need |  |

## AGENDA ITEM SUMMARY (AIS)

North Front Range Transportation \& Air Quality Technical Advisory Committee (TAC)

| Meeting Date | Agenda Item | Submitted By |
| :---: | :---: | :---: |
| May 15, 2019 | Draft Freight Northern Colorado (FNC) Plan | Ryan Dusil |
| Objective/Request Action |  |  |
| Staff is providing the Draft FNC, the region's first freight plan, for TAC review and discussion. |  | $\square$ Report <br> $\square$ Work <br> Session <br> Discussion Action |
| Key Points |  |  |

- $\underline{\text { FNC }}$ is the first regionwide freight plan for the NFRMPO region.
- The purpose of FNC is to provide a guide for the improvement of the overall freight system within the NFRMPO region. FNC serves as the freight component of the 2045 Regional Transportation Plan (RTP), providing a holistic view of freight and industry in the region and positions the region to pursue funds for freight-benefitting projects.
- Creating a regional freight plan was a recommended action by the Federal Highway Administration (FHWA) in the NFRMPO quadrennial review in 2014.
- FNC is organized into five chapters: $\mathbf{1}$ - Introduction, 2- Existing Conditions, $\mathbf{3}$ - Plans, Studies, and Programs, 4 - Emerging Trends and Opportunities, and 5 - Implementation.
- NFRMPO staff requests TAC members pay particular attention to the Themes from Local Plans section of Chapter 3, Chapter 4, and the Recommendations in Chapter 5.
- The Draft FNC can be found at the following link: https://nfrmpo.org/wp-content/uploads/draft-2019-fnc.pdf


## Committee Discussion

- This is the first time the TAC is discussing the Draft FNC.


## Supporting Information

- It is anticipated the Colorado Freight Plan (CFP), Colorado's first comprehensive multimodal freight planning effort to integrate policies and strategies across freight modes, will be adopted by the Colorado Transportation Commission (TC) in 2019.
- NFRMPO staff anticipates receipt of region-specific data from development of the CFP, including: freight-industry stakeholder survey responses and truck crash "hot spot" analysis results. This data will be incorporated into FNC, accordingly.
- The Final FNC will include an improved Cover Page, Acknowledgements, Executive Summary, List of Figures, List of Tables, Acronym List, standardized citations, and standardized table and figure formatting and numbering.
- Time permitting, truck travel forecasts from the 2045 Regional Travel Demand Model and additional INRIX data from Probe Data Analytics Suite the will be incorporated into the Final FNC.


## Advantages

- Identifying freight-related needs and constraints as well as potential solutions and action steps allows the NFRMPO and its member agencies to improve their planning processes and remain competitive for freight-related funding opportunities.
- FNC allows the NFRMPO and its member agencies to reaffirm the regional importance of recommendations and implementation steps identified in other recent statewide planning efforts such as the Colorado Freight Plan (2019), the Colorado Truck Parking Assessment (2019) the Statewide Freight and Passenger Rail Plan (2018) as well as local agency plans with freight-related components.

Disadvantages

- None.

Analysis/Recommendation
Staff requests TAC review and discuss the Draft FNC.
Attachments

- None.


# Northern Colorado Bike \& Ped Collaborative 

Executive Summary - Wednesday, May 8, 2019<br>Windsor Recreation Center, Pine Room<br>250 11th St. Windsor, CO 80550

## Pace Bike Share: System Expansion Opportunities

Stacy Sebeczek highlighted how bike share has been successful in Fort Collins and asked the group what problems they believe bike share can address, where bike share can fill missing network gaps, what the process is for identification and prioritization, and who can be the local/regional champions. The group saw recreation as a major driver in most communities and inquired about startup cost for a station, ongoing costs, and price per ride. The group suggested it may be a discussion to have with the Poudre River Trail Board of Directors to explore feasibility between Windsor, Weld County, and Greeley. Sebeczek will provide more information to the group on how systems have been successful in smaller communities.

## Facilitated Discussion Prep: Summary and Next Steps

Wade Willis stated the facilitated discussion in April was productive in capturing thoughts of group members, but no next steps were generated. He suggested a second facilitation meeting be held with a team of facilitators from the Weld County Department of Health and Environment, with an emphasis on consensus building using information gathered from the first facilitation meeting. The group clarified the goal is to determine what organizational structure changes, if any, will best help the group achieve its Mission, Vision, Goals, and Objectives. Aaron Buckley and Kelly Zuniga suggested group members research examples of other similar successful groups operating under various models to inform that discussion

## 2019 Walkability Action Institute (WAI)

Ryan Dusil stated a team representing the NFRMPO and the Collaborative attended the 2019 WAI, a four-day workshop in Decatur, Georgia from April 22-25. The team worked with national walkability experts to develop an Action Plan to implement walkability strategies in Northern Colorado. The team consisted of Katie Guthrie Transportation Planner, AICP - City of Loveland Public Works, Matt Ruder - Civil Engineer II - City of Loveland Public Works, Aaron Buckley - Transportation Demand Management Professional - Colorado State University Parking \& Transportation Services, Leslie Beckstrom - Healthy Eating and Active Living Coordinator, MS, RD Weld County Department of Public Health \& Environment, Ryan Dusil - Transportation Planner II - NFRMPO, and Will Karspeck - Mayor - Town of Berthoud. The group must submit their Action Plan to NACDD by May 31. The team will engage many partners to implement the Action Plan, including the NoCo Bike \& Ped Collaborative, disability and mobility advocates, NFRMPO Staff, the NFRMPO TAC, the NFRMPO Planning Council, and others. Currently, the Action Plan consists of the following goals:

- Increase funding and investment in active transportation planning and projects
- Incorporate health and equity into the transportation planning process
- Build capacity to assess needs and opportunities through the development of a Walk Audit Bank train-the-trainer-style program

Will Karspeck stated he has ideas for pilot projects and walk audits in Berthoud if the NoCo Bike \& Ped Collaborative is interested in helping. The group will plan to do this in lieu of a regularly scheduled meeting in the next few months.

## Future Agenda Items

June - Facilitated Discussion on Organizational Structure
Summer/Fall - 2019 Walkability Action Institute (WAI) Action Plan Implementation, Berthoud Pilot Project and/or Walk Audit


[^0]:    ${ }^{1}$ https://sharedusemobilitycenter.org/what-is-shared-mobility/

