



**COLORADO**

Department of  
Transportation



# Traffic Incident Management Program: Introduction & Call to Action



# What is Traffic Incident Management?

Traffic incident management (TIM) is a planned and coordinated program to detect and remove incidents and restore traffic capacity as safely and as quickly as possible. (FHWA)

## Benefits of TIM

- Saves Lives
- Saves Money
- Saves Time

CDOT's Mile High Courtesy Patrol historic B/C is 20:1

Nationally, B/C ranges from 2:1 to 36:1 for TIM program elements



## Our Mission

Work together and establish multi-agency partnerships to advance the delivery of Traffic Incident Management (TIM) services and products by:

- Improving responder safety
- Enhancing safe and quick clearance of traffic incidents
- Supporting prompt, reliable, and interoperable communications
- Reducing secondary incidents



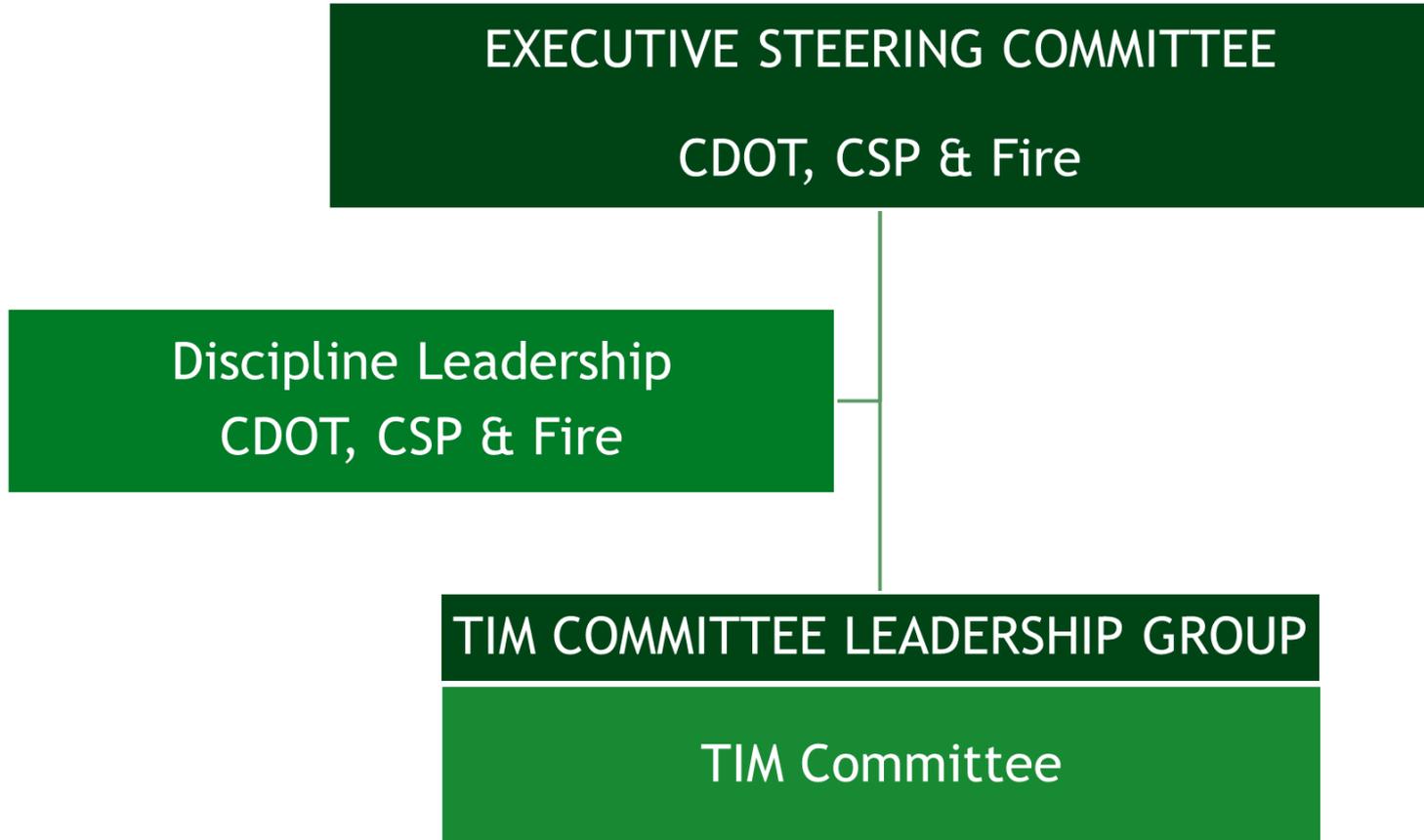
# Promote Safety by Addressing Congestion

- Traffic crashes and struck-by incidents are the leading causes of on-duty injuries and deaths for responders
- 1 minute of incident = +2.8% likelihood of a secondary crash (A 36 minute queue will likely result in a secondary crash)
- 1 minute of blocked lane = 4 minutes of delay (15 minutes of lane blockage = 1 hour to return to pre-incident conditions)



# TIM Organizational Structure

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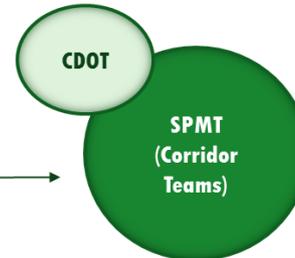
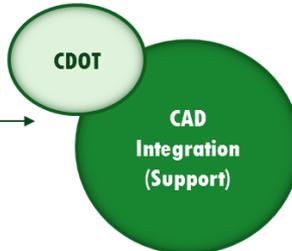
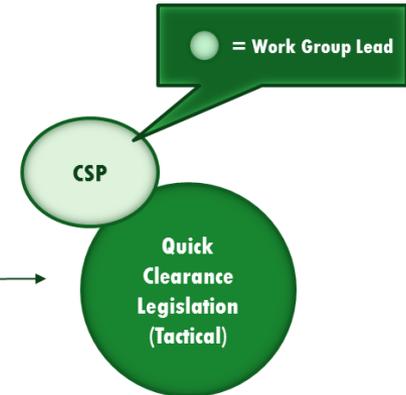
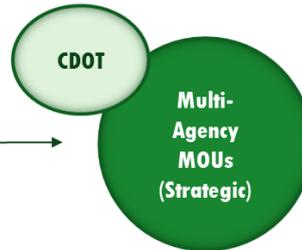
# TIM Workgroups

## Strategic Guidance and Support

## Partner-Driven Action



Community Partners





# Colorado TIM Committee

- Formed in 2015 following FHWA TIM Self-assessment
- Recruit support and participation
- Set and pursue meaningful goals
- Solve current and future issues
- Cultivate our teams and train together
- Develop dedicated funding to address needs for all
- Report on Program Status including performance measures and benefit/cost



# Successful TIM Program at Maturity

- One Scene Culture, One Team Results
- Multi-disciplinary Trust Built on Vision, Competence, and Character
- Common Understanding of Success
- Train Together
- Habit of Continuous Improvement



# Corridor Standing Program Management Teams (SPMTs)

Facilitate a continuing dialog about TIM best practices

Local leadership

Specific to the area and local jurisdictions

Collaboration in:

- Executing mutually beneficial training
- Enhancing communication
- Maintaining current agency contact information
- Training together
- Developing MOUs
- Funding of TIM programs
- Data collection/performance measure tracking



# One Scene Culture

## Northern Colorado Case Study

2012	Today
I-25 TIMP originally developed in 1996	I-25 TIM updated as needed by SPMT
Agencies agree on importance of quick clearance	Active SPMT with prioritized list of objectives for improving corridor outcomes including quick clearance
Each agency has a critical core mission; disciplines work independently to mitigate incidents	Expanded practice of multi-disciplinary team approach to highway incident mitigation
Train together for planned events	Working and training together for everyday events and planned events
Reserve Unified Command for extreme situations and planned events	Operate in Unified Command structure for every multi-discipline incident; can be simple in structure
Multi-disciplinary After Action Reviews for catastrophic events	Multi-disciplinary After Action Reviews Quarterly



# Catalyst for Change

## Northern Colorado Case Study

March 23, 2013

- 3 mile scene
- 60+ vehicles involved - 40 Individual crashes w/54 Tows
- 20 Fire apparatus
- 54 Fire personnel
- 11 patients transported
- Semi-truck fire w/HazMat
- I-25 Closed for approximately 8 hours

[https://www.youtube.com/watch?v=Yt9x3\\_3RErA](https://www.youtube.com/watch?v=Yt9x3_3RErA)



# One Scene Culture

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# Colorado TIM Highlights

- Building partnerships by establishing minimum of one SPMT per CDOT Region by June 30, 2016
- Integrating CDOT TOC systems with CAD systems to improve communication and situational awareness
- Expanding Courtesy Patrol Service and CDOT ICs into Northern Colorado and Colorado Springs areas
- Updating CDOT's training and practices to reflect the current state of TIM
- Actively training on TIM with responders around the state



# TIM Training

## Current Trainings

- FHWA SHRP2 4 hour
- FHWA SHRP2 12 hour (Train-the-Trainer)
- Corridor Specific TIMP Training
- Executive Level Briefings
- Public Safety Conference Presentations

## Paradigm shift

- Multi-disciplinary approach
- Putting training into action



# Upcoming Events

## Standing Program Management Team (SPMT) Meetings

Date	TIMP Area	Location
March 3	I-25 North	Fort Collins
March 16	DRCOG Area	Lakewood
March 23	I-70 High Plains	Limon
April 13	DRCOG Area	TBD
April 27	I-70 High Plains	Limon
April 28	I-25 North	Fort Collins

## Training

Date	Type	Location
March 23-24	FHWA SHRP2 Train-the-Trainer	Colorado Springs
April 28	I-25 TIMP	Fort Collins



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## Contact Us

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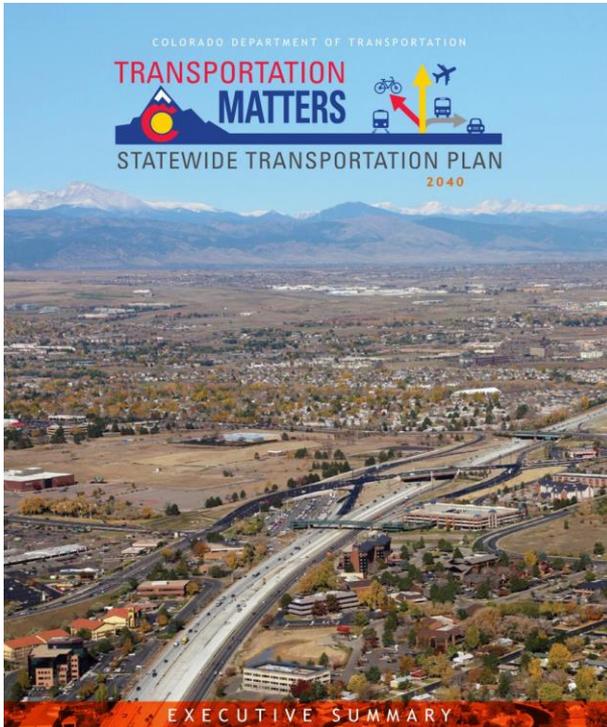


# Statewide Transportation Plan Lessons Learned Update

## Michelle Scheuerman, Statewide Planning Manager



# Presentation Overview



MARCH 19, 2015



- Purpose and Intent of Lessons Learned
- Timetable
- TPR Chair Lessons Learned Kit
- Review of Lessons Learned To-Date
- Questions and a Comments



## Purpose and Intent

- Understand Lessons Learned from Statewide Plan Process
- What went well?
- What could be enhanced?
- What could be done differently?
- Improve the planning process





**February –  
Pre-STAC**

- Provide material so TPR STAC reps can conduct their own Lessons Learned Discussions
- Conduct internal CDOT Lessons Learned Interviews

**STAC and  
SWMPO  
Meetings**

- STAC – Review to-date Lessons Learned results, Review material provided so TPRs can conduct their discussions
- SWMPO – Conduct a Lessons Learned Small Group Discussion

**March**

- TPRs conducting Lessons Learned discussions as appropriate (liaisons to help)
- STAC Meeting – Review updated Lessons Learned to-date, decide on workshop format for April

**April**

- Most TPRs conclude lessons learned discussions (for inclusion in STAC Workshop)
- STAC Workshop on Lessons Learned – Discussion/Prioritization of top Lessons Learned

**May**

- Compiling Final Lessons Learned Results
- Final Document Preparation
- This will guide our next planning discussions



# TRP Chair Lessons Learned Kit

- Introduction Memo
- Primer on SWP Elements
- Lessons Learned Questions for TPRs
- Lessons Learned Survey Document (Electronic PDF and On-Line)
- Liaisons Available to Assist with Presentations

**Submit Form**  
This button can be ignored. It is for future processing. Please save and e-mail your survey to [nazarcr@cdmsmith.com](mailto:nazarcr@cdmsmith.com)

### CDOT TPR Lessons Learned Survey

Name:  Date:

Organization:

**Statewide Plan Content and Data Used and Analyzed**

1. Did the Statewide Plan provide right amount of content? Were there areas of too much or too little detail?



## Lessons Learned Results To-Date – Top Items to Continue/Build On

- Plans had the right amount of content, people liked the ability to find more information on Website (drill down).
- Detail and communication of the Needs and Gap Analysis was a big step forward from prior plans.
- Cascading of plan information via the Website was good. Can do even more next time, with greater opportunity for input along the way.



## Lessons Learned Results To-Date – Top Items to Continue/Build On (Continued)

- Best Products/Parts of the Plan Process:
  - Telephone Town Halls
  - Videos
  - Infographics
- Length and balance of content in RTPs was good. Good reference document for further discussions including projects.



## Lessons Learned Results To-Date – Top Potential Improvements

- Look for ways to be even more public friendly including shorter documents and summaries.
- Ideas for more content/data in SWP and RTPs:
  - Asset Management
  - Autonomous Vehicles
  - Freight Data (was a timing issue)
  - Get ahead on trends/use of big data
  - Minority and Low Income Effects
  - Multimodal
  - Planning and Environmental Linkages/Environmental
  - Project Detail and Performance (particularly in RTPs)
  - Safety



## Lessons Learned Results To-Date – Top Potential Improvements (Continued)

- Earlier, proactive education of stakeholders (particularly TPRs) on the process and planning basics will lead to less confusion and better input.
- Hold more workshops/working sessions with STAC, TPRs, Stakeholders, Regions - earlier and more often.
- Greater integration and roll-up of RTPs into the Statewide Plan and more discussions of how the RTPs fit with the Statewide Plan at the Regional Level.
- Timing of the project list for the initiative was disruptive and confusing.



## Next Steps

- SWMPO Small Group Discussion – Today
- TPRs hold optional Lessons Learned Discussions
- Lessons Learned Team Completes Interviews
- March STAC Meeting – Update and Decisions on April Workshop



# Questions and Input





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# Senate Bill (SB) 228 Project Selection

STAC

February 26, 2016

STAC February 2016 Addendum Packet 28



## Candidate SB 228 Projects

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- Candidate projects totaling ~\$2.5 B identified in November 2014
- Eligibility Criteria
  - **Strategic Nature** – regional or statewide significance; demonstrated support
  - **Funding Requirements** – no significant funding identified
  - **Project Readiness** – construction within 5 years of selection
- Evaluation Criteria – focus on mobility and economic vitality
  - Strong **mobility benefits** (reduced congestion, increased reliability, improved connections, etc.)
  - Ability to significantly affect the **economic vitality** of the state or region (facility serving freight, ag, energy, tourism, recreation, or military needs, access to significant inter/multi-modal facilities)
  - Additional criteria relating to **safety and asset life**



## Candidate SB 228 Projects

- SB 228 Forecasts:
  - \$306 million in FY 16 and 17
    - FY 16: \$200 million → Central 70 (\$180 million)  
Transit (\$20 million)
    - FY 17: \$106 million → TBD
  - Future years uncertain
- Projects updated in January to reflect changes in scope, cost, etc.
- Two projects identified as “lower priority”
- Over \$500 M in potential additional candidate highway projects identified by Regions
- Next Steps- March/April
  - Consider potential additional candidate projects
  - Identify priorities for FY 17 (and possibly future years)



Development Program

- **Major investment needs of all modes and project types (mobility, safety, asset management, etc.)**
- Projects totaling \$8.5 billion identified

10-Year Development Program

- **Highest priorities for major investments through 2025**
- Projects totaling \$2.5 billion to be identified

**FUNDING OPPORTUNITIES**

SB 228

- Transit and highway projects with a focus on **mobility and economic vitality**
- Up to \$1 billion in projects to be identified from existing candidate SB 228 list

Nationally Significant Freight & Highway Program

- \$100 million+ **freight and highway projects of national significance**
- 2-3 projects to be identified for discretionary grant program

National Highway Freight Program

- **Freight projects on the National Highway Freight Network**
- Projects totaling \$85 million to be identified

Innovative Financing

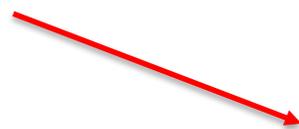
- **Tolling and other projects with P3 potential**

Other Programs

- **Other existing programs such as RPP, FASTER Transit, etc. or new programs**



Major investment priorities for SB 228 and other programs incorporated into 10-Year Development Program



- Major investment needs of all modes and project types (mobility, safety, asset management, etc.)
- Projects totaling \$8.5 billion identified



- Highest priorities for major investments through 2025
- Projects totaling \$2.5 billion to be identified

FUNDING OPPORTUNITIES



- Transit and highway projects with a focus on **mobility and economic vitality**
- Up to \$1 billion in projects to be identified from existing candidate SB 228 list



- \$100 million+ **freight and highway projects of national significance**
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- **Freight projects on the National Highway Freight Network**
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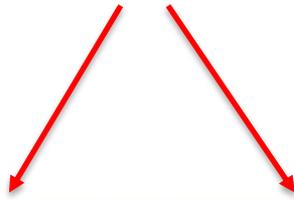
- **Tolling and other projects with P3 potential**



- **Other existing programs such as RPP, FASTER Transit, etc. or new programs**



Consider priorities for SB 228 and  
Nationally Significant Freight &  
Highway Program in tandem



Development  
Program

- **Major investment needs of all modes and project types (mobility, safety, asset management, etc.)**
- Projects totaling \$8.5 billion identified

10-Year  
Development  
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FUNDING  
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Nationally  
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- \$100 million+ **freight and highway projects of national significance**
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National Highway  
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Innovative  
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- **Tolling and other projects with P3 potential**

Other  
Programs

- **Other existing programs such as RPP, FASTER Transit, etc. or new programs**



## Identifying SB 228 Priorities for FY 17 -

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- Key Questions
  - Should additional projects identified as potential candidate projects be considered further?
  - Should priorities for SB 228 be part of a larger strategy with discretionary grant programs such as Nationally Significant Freight & Highway Program?
    - May need SB 228 funds as match to leverage potential discretionary grant funds
  - Should there be a focus on funding a very large project or in funding multiple smaller projects?
  - How should geographic equity be considered?
  - Should projects with other funding options be considered a lower priority?



## Candidate SB 228 Transit Projects

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- Candidate transit projects total nearly \$500 million
  - Projects updated to reflect changes in cost
- One project identified for possible addition



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# Additional Resources

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- CDOT Development Program  
<https://www.codot.gov/programs/planning/projects/development-program>



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## FAST Act Freight Programs

STAC

February 26, 2016

STAC February 2016 Addendum Packet 37



# Key Provisions

- National Highway Freight Network
- National Highway Freight Program (Formula Program)
- Nationally Significant Freight & Highway Program (Discretionary Program)



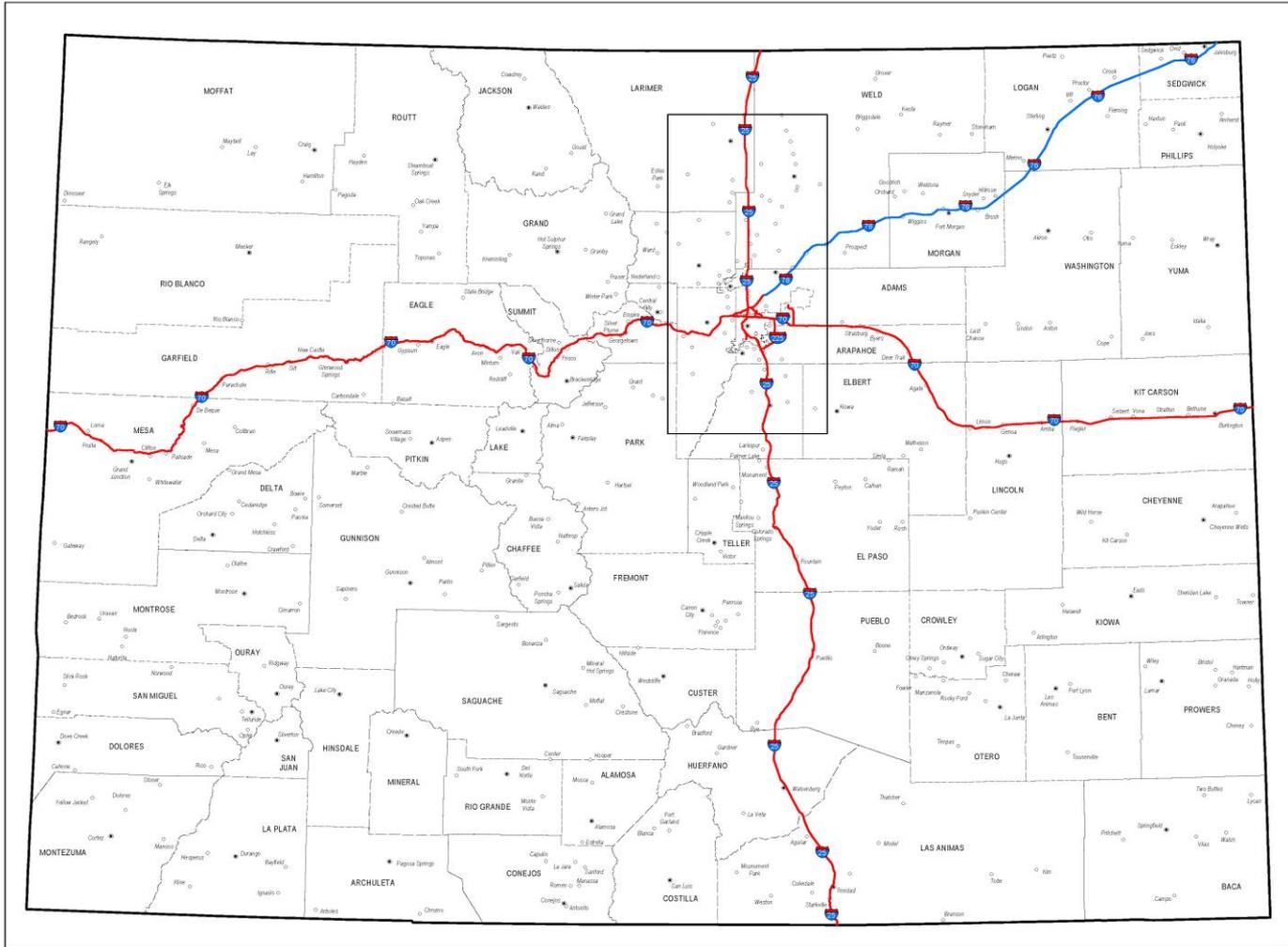


# National Highway Freight Network

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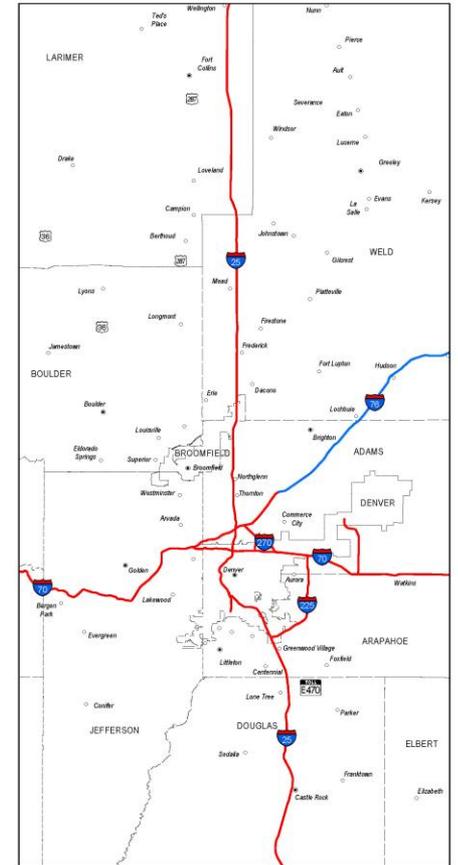
- Establishes National Highway Freight Network (NHFN) consisting of:
  - A primary highway freight system (PHFS) of 41,518 miles identified by FHWA
    - 790 miles in Colorado consisting of I-25, I-70, I-225, I-270, and portions of I-76, E-470, US 6, US 85, and SH 2
  - Critical Urban Freight Corridors – 75 miles designated by the State and MPOs
  - Critical Rural Freight Corridors – 150 miles designated by the State
  - Any portions of interstate highways not included in the above.

- Given limited mileage, may focus on critical corridor segments rather than full corridors – corridors can be changed in the future
- Initial analysis to identify some potential corridor segments
- Outreach planned through STAC, FAC, and TPRs to obtain input on corridor segments (March – June)
- MPOs > 500,000 designate in consultation with the State



### Draft National Highway Freight Network (NHFN)

— Proposed National Primary Freight System (NPFS)  
 — Interstate Non-NPFS





# Nationally Significant Freight & Highway Program

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- Discretionary grant program - \$4.5 B nationally over five years
  - Purpose: Provide financial assistance for projects of national or regional significance
  - A project is eligible for funding if it:
    - Can reasonably be expected to start construction no more than 18 months after obligation of funds
    - Is a highway freight project on the National Highway Freight Network
    - Is a highway or bridge project on the National Highway System
    - Is a freight intermodal or freight rail project
    - A railway-highway grade separation project
- Eligible applicants include States, MPOs > 200,000, local governments, tribal governments, federal land management agencies, and other political subdivisions or special districts/authorities
- Each fiscal year, at least 25% of NSFHP funds reserved for projects in rural areas (outside of designated urbanized areas > 200,000)



# Nationally Significant Freight & Highway Program

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## Large Projects

- Grant amount of at least \$25 M.
- Total project cost of at least \$100 M.
- Federal share under grant program may not exceed 60%
- Total federal share may not exceed 80%

## Small Projects

- Grant amount of at least \$5 M.
- Federal share under grant program may not exceed 60%
- Total federal share may not exceed 80%

Development Program to be used to help identify potential projects, in tandem with identification of SB 228 projects



# National Highway Freight Program

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- Formula program – roughly \$15 M per year to Colorado (\$85 M over 5 years)
  - Purpose: To improve the movement of freight on the National Highway Freight Network (NHFN)
  - A project is eligible for funding if it:
    - Contributes to the efficient movement of freight on the NHFN
    - Is identified in a freight investment plan included in a freight plan
    - Is an intermodal or freight rail project (up to 10%)

- Program development with input from STAC, FAC, and TPRs
- Project identification should relate to identification of critical corridors
- Should structure be a statewide or regional program?
- What criteria should be used for project selection?
- Should program have a specific focus (i.e. mobility, safety, etc.)?



## Additional Resources

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- FAST Act <https://www.fhwa.dot.gov/fastact/legislation.cfm>
- National Highway Freight Program Fact Sheet  
<https://www.fhwa.dot.gov/fastact/factsheets/nhfpfs.pdf>
- CDOT Development Program  
<https://www.codot.gov/programs/planning/projects/development-program>

# STIP ANNUAL UPDATE

