



COLORADO
Department of Transportation

SH 52 Coalition Meeting

November 18, 2021



Agenda

- Milestones Review
- Using the PEL
- Using the ACP
- Next Steps





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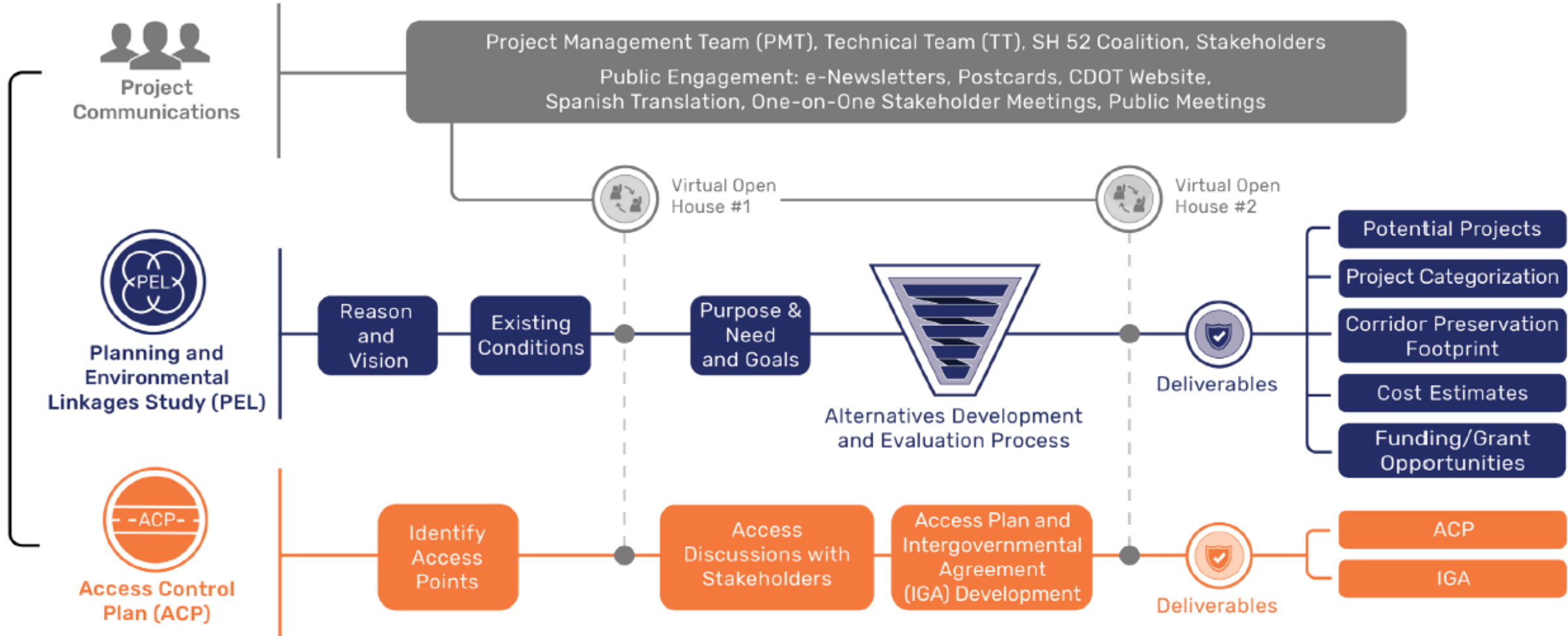
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Milestones Review



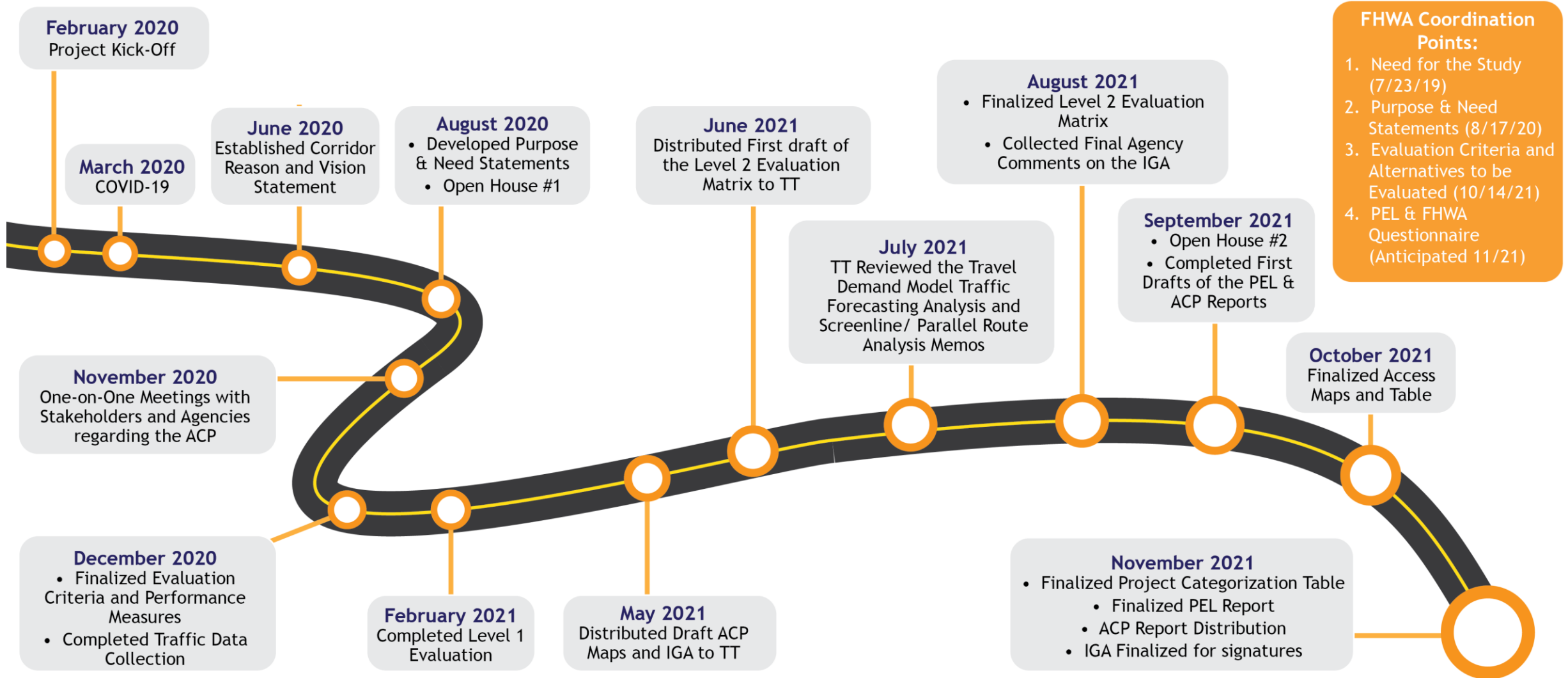
CO 52 PEL & ACP Project Delivery

PROJECT ELEMENTS





PEL Milestones





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Using the PEL & ACP



Using the PEL



1. Introduction
2. Existing Conditions Overview
3. Purpose & Need and Goals
4. Alternatives Development and Evaluation
5. Identification of Potential Projects
6. Agency and Public Coordination



Existing Conditions Overview

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CO 52 PLANNING AND ENVIRONMENTAL LINKAGES STUDY
EXISTING CONDITIONS REPORT

AUGUST 2020
CDOT Project Code 21656

CO 52
CO 119 - CO 79

State of the State

One month before initiating the Existing Conditions phase of the State Highway (CO) 52 Planning and Environmental Linkages (PEL) / Access Control Plan (ACP), the COVID-19 pandemic caused a near country-wide shut down. The shutdown resulted in global social- and economic- disruption, mass cancellations and postponements of events, and the largest economic recession since the Great Depression. Without a vaccination in place to prevent transmission of the virus, several urban centers around the country mandated "Stay at Home" orders in an effort to prevent additional spread of the virus. Colorado followed this trend and issued a similar order which allowed only essential workers to travel outside of their local communities. The order significantly decreased the amount of people traveling outside of their communities. By August 2020, Colorado was under a "Safer at Home" prevention and management strategy which asked citizens to work remotely as much as possible and required stores, entertainment venues, and restaurants to operate at a limited capacity. The Colorado COVID-19 guidelines resulted in a significant change to traffic patterns on CO 52. Commuter traffic to employment and education centers decreased while freight traffic increased due to a larger number of people ordering goods online.

The project team initially planned to collect traffic data prior to development of the Existing Conditions Report. In light of the impact COVID-19 has had on the corridor, the team opted to delay traffic data collection with the expectation that normal traffic patterns would resume in the fall. In order to develop a preliminary understanding of existing transportation conditions on the corridor, historic regional data was utilized to characterize traffic patterns; current traffic data would be collected in the fall. The result of this pandemic allowed the project team to pause and consider the potential long-term impacts of this pandemic on our communities and discuss if project alternatives could look different moving forward.

- Existing Conditions Report
 - Planning Context
 - Transportation Context
 - Environmental Overview



Purpose & Need and Goals

REASON

Why is this PEL being conducted?

The reason for conducting this PEL is to complete a high level study of CO 52 to better understand transportation issues and environmental resources along the corridor. It will support CDOT, the local agencies, stakeholders, and the public to determine improvements that should be made and estimate right of way preservation for future projects. This study will prioritize a list of short and long term projects that will benefit CO 52 in both Boulder and Weld Counties.

VISION

What is the vision for the CO 52 corridor?

The vision for CO 52 is to improve safety and travel time reliability along the corridor for all modes and accommodate future growth plans of the local communities.

PURPOSE & NEED

What are the greatest needs in the corridor that should be addressed?

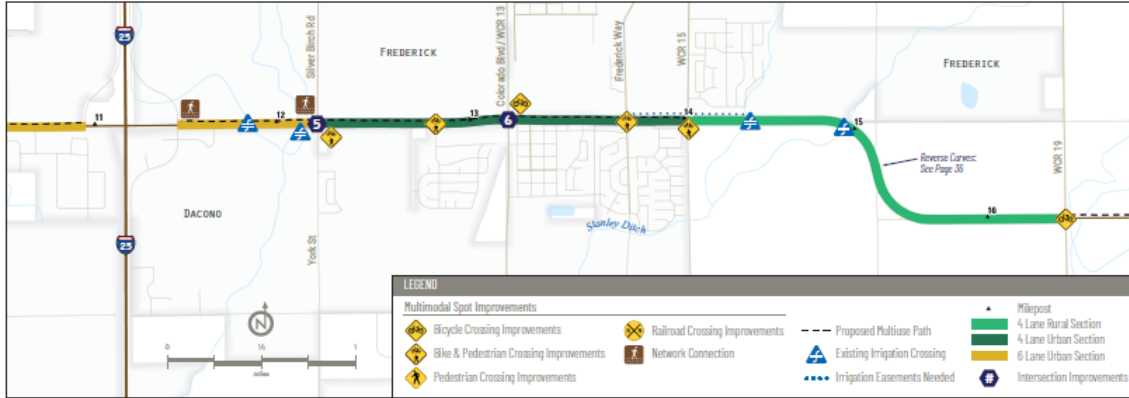
The purpose of the recommended transportation improvements is to increase safety, accommodate increased travel and freight demand, and support multi-modal connections.

GOALS

What additional items need to be addressed?

The project goals should consider the natural and built environment, support local and regional planning efforts, identify estimated ROW needs, and accommodate future technology.

Figure 4-22 | Segment 2 East: Preferred Intersection Improvements



5 Silver Birch Road / York St:

- Currently signalized
- Assuming 6-Lane cross section to west, 4-Lane cross section to east:
 - Provide eastbound dual left-turn lane (Add left-turn lane and northbound receiving lane (terminates))
 - Add northbound right-turn lanes
 - Eastbound right-turn lane-drag
 - Westbound right-turn lane-add
 - Expand northbound and southbound storage to accommodate queues.



Pedestrian/Bicycle Improvement(s)

- Evaluate bicycle detection for on-shoulder alternatives.
- Include bike lanes through the intersection located left of right-turn lanes for on-shoulder alternative or bring bikes to the intersection and have them cross with pedestrians.
- Install turn islands and provide pedestrian accessibility improvements at intersection.

6 Colorado Boulevard / WCR 13:

- Currently signalized
- Assuming 4-Lane Cross Section:
 - All approaches to have dual left-turn lanes, two thru lanes, and a channelized right-turn lane.



Pedestrian/Bicycle Improvements:

- Evaluate bicycle detection for on-shoulder alternatives.
- Include bike lanes through the intersection located left of right-turn lanes for on-shoulder alternative or bring bikes to the intersection and have them cross with pedestrians.
- Consider tunnel or ped/bike bridge for Old Railroad Trail.

7 Glen Creighton Dr. / Frederick Way:

- Currently signalized
- Assuming 4-Lane Cross Section:
 - Add southbound left-turn lane.
 - Extend northbound storage and modify lane designations for one left-turn, shared left-turn/thru lane, and right-turn lane (maintains split phasing).
 - Maintain eastbound and westbound right-turn lanes.

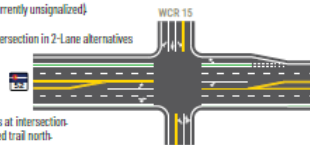


Pedestrian/Bicycle Improvement(s)

- Evaluate bicycle detection for on-shoulder alternatives.
- Include bike lanes through the intersection located left of right-turn lanes for on-shoulder alternative or bring bikes to the intersection and have them cross with pedestrians.
- Future connection to proposed off-street paved trail to the north.
- Provide pedestrian accessibility improvements at intersection.

8 Weld County Road 15:

- Signalize intersection when warrants are met (currently unsignalized)
- Assuming 4-Lane Cross Section:
 - Secondary through lane terminates east of intersection in 2-Lane alternatives
 - Add northbound left-turn lane
 - Add southbound left-turn and right-turn lanes
 - Maintain westbound right-turn lane



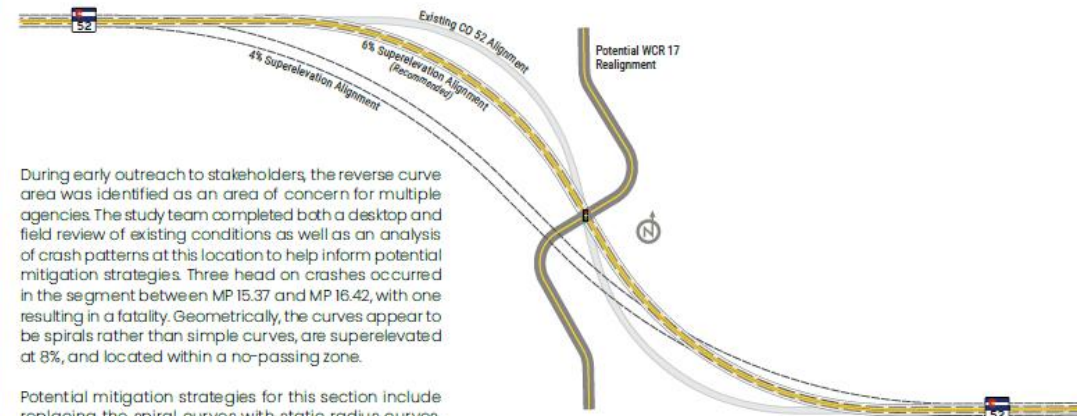
Pedestrian/Bicycle Improvements:

- Provide pedestrian accessibility improvements at intersection
- Future connection to proposed off-street paved trail north
- Install crossing visibility improvements
- Include bike lanes through the intersection located left of turn lanes for on-shoulder alternative
- Provide pedestrian accessibility improvements at intersection

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Reverse Curves (MP 15.5 to MP 15.57)

Figure 4-16 | Reverse Curves and Potential Weld County Road 17 Realignment



During early outreach to stakeholders, the reverse curve area was identified as an area of concern for multiple agencies. The study team completed both a desktop and field review of existing conditions as well as an analysis of crash patterns at this location to help inform potential mitigation strategies. Three head on crashes occurred in the segment between MP 15.37 and MP 16.42, with one resulting in a fatality. Geometrically, the curves appear to be spirals rather than simple curves, are superelevated at 8%, and located within a no-passing zone.

Potential mitigation strategies for this section include replacing the spiral curves with static radius curves, installing centerline rumble strips, and introducing curves with larger radii to flatten the superlevation. In addition to evaluating replacing the spiral curves with simple curves generally following the existing alignment, the study team evaluated two options for flattening the superlevation – a 6% and a 4% option. Although the traffic projections do not indicate a signal will be warranted at the intersection of CO 52 and WCR 12 within the forecasted period, the team recognizes that a realignment would be a major investment and therefore chose to evaluate options that did not preclude future signal installation.

The 8% superlevation alignment was not recommended following the Level 2 evaluation, the 4% alternative was carried forward, and the 6% alternative was recommended. In order to preserve the most flexibility possible, the ROW preservation line was set to accommodate all three alternatives.



CO 52 'Reverse Curves' in Segment 2

Planning and Environmental Linkages Study | CO 52 from CO 119 to CO 79 38

Alternatives Evaluation

Alternatives Evaluation



Project Categorization

Table 5.1 | Table of Purpose & Need Measurement Ratings

Rating	Measure
Increase Safety (Qualitative Information)	
1	Not expected to improve safety
3	Expected to have a positive safety impact
5	Improves safety by addressing an identified safety issue
Improved Traffic Operations to Accommodate Increased Travel and Freight Demand (Quantitative Data)	
1	Would not improve intersection LOS or segment travel time
2	Moderate potential to improve peak hour intersection LOS 1 letter grade
3	Moderate potential to improve peak hour intersection LOS 2 letter grades; or improves segment travel time 5 to 15%
4	Moderate potential to improve intersection LOS 3 letter grades
5	High potential to improve intersection LOS 4 letter grades; or improves segment travel time >15%
Support Multimodal Connections (Qualitative Information)	
1	Does not provide multimodal infrastructure or safety improvements
2	Project provides minor improvements such as widening of existing shoulders that are already four feet or greater
3	Provides shoulders of at least 4-foot width where no multimodal facilities already exist
4	Provides on-street bicycle lanes or other dedicated improvements
5	Provides separated bicycle/pedestrian infrastructure, such as a multiuse path

- Project Categorization Table
- Potential Funding tab



Appendices

Appendix A: Letters of Support

Appendix B: Access Control Plan Report

Appendix C: FHWA Check-in Points

Appendix D: PEL Questionnaire

Appendix E: Existing Conditions Report

Appendix F: Technical Memos

- Logical Termini Memo
- Project Terminology Memo
- Purpose and Need Memo
- State Policy Memo
- Traffic Forecasting and Screenline Analysis
- Telework Analysis
- Origin-Destination Trip Pattern Memo
- Freight Analysis
- Traffic and Operations Memo
- Alternative Analysis Terminology memo
- Bicycle and Pedestrian Connectivity Analysis
- Technology Memo
- Funding Memo
- Travel Demand Forecasting Memo

Appendix G: Alternatives Analysis - Evaluation Matrices

Appendix H: Project Categorization Table

Appendix I: Agency Coordination and Public Engagement Report



Using the Access Control Plan (ACP)

The ACP is...

- A living document
- A single transportation plan for the highway, that considers multiple access points as a network rather than as individual access points
- A plan that includes corridor-specific considerations

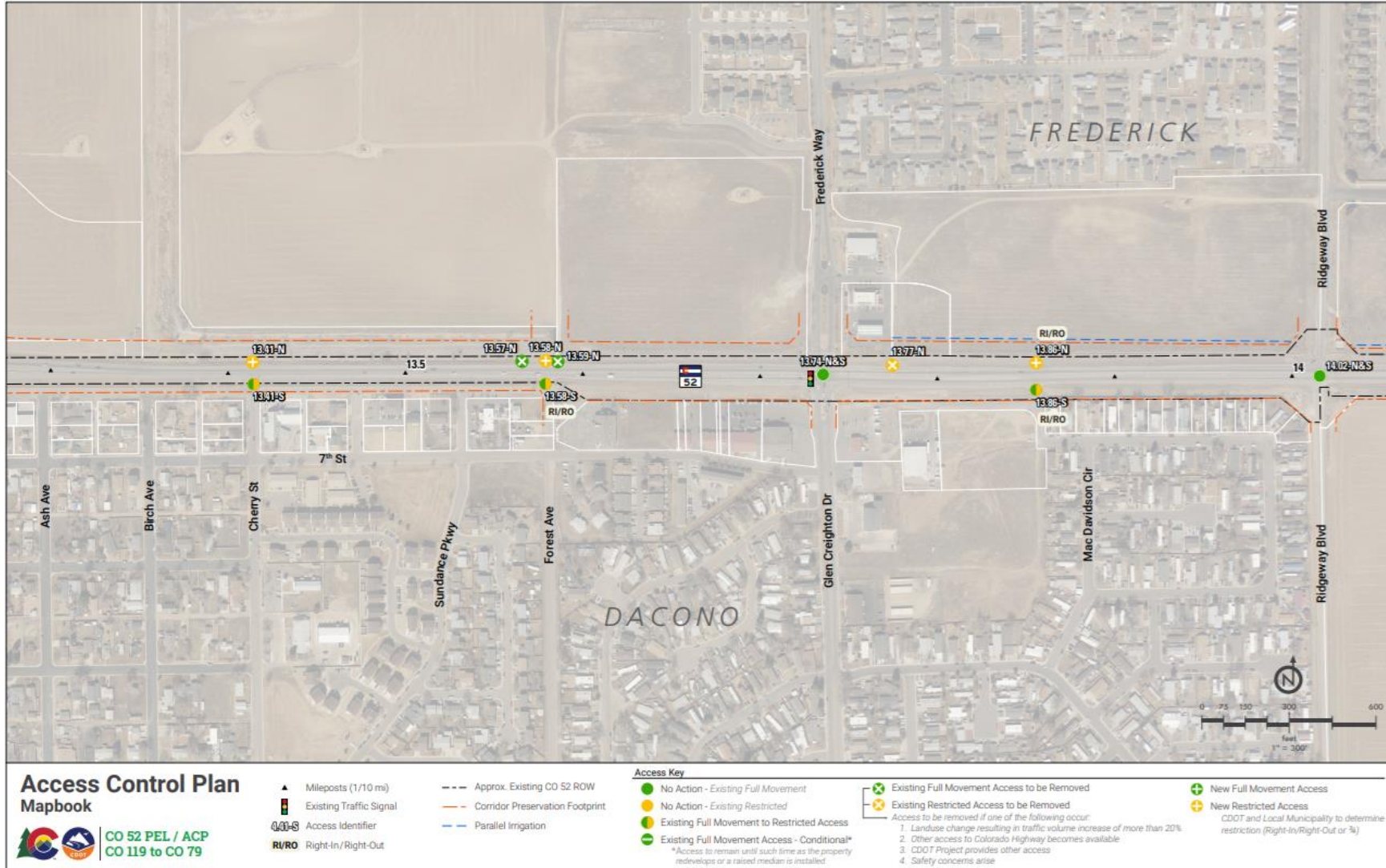
The ACP does NOT...

Define capacity improvements, off-network improvements, or funding sources for access improvements





Access Control Plan Maps





Access Control Plan Table

CO 52 Access Inventory (CO 119 to CO 79)

Access ID	Existing Condition	Future Condition	Description
0.02-N&S	Restricted Access	No Change	UP Railroad Crossing
0.17-N	-	Possible Full Movement Access	New full movement access allowed to align with 0.17-S
0.17-S	Full Movement Access	No Change	N. 71st Street
0.41-S	Full Movement Access	To Be Removed	Removed once criteria met*
0.48-N	Full Movement Access	Restricted Access	Dry Creek Parkway. Existing full movement access to be restricted
0.48-S	-	Possible Restricted Access	New restricted access allowed
0.59-S	Full Movement Access	To Be Removed	Removed once criteria met
0.82-N	Full Movement Access	No Change	Monarch Park Place
0.82-S	-	Possible Full Movement Access	New full movement access allowed to align with 0.82-N
0.94-S	Full Movement Access	To Be Removed	Removed once criteria met
0.97-S	Full Movement Access	To Be Removed	Removed once criteria met
1.1-S	Full Movement Access	To Be Removed	Removed once criteria met
1.12-S	Full Movement Access	To Be Removed	Removed once criteria met
1.2-N&S	Full Movement Access	No Change	N. 79th Street.
1.23-N	Full Movement Access	To Be Removed	Removed once criteria met
1.24-N	Full Movement Access	To Be Removed	Removed once criteria met
1.66-N	Full Movement Access	To Be Removed	Removed once criteria met
1.69-N	-	Possible Full Movement Access	New full movement access allowed to align with 1.69-S
1.69-S	Full Movement Access	No Change	
1.82-N	Full Movement Access	To Be Removed	Removed once criteria met
1.93-N	-	Possible Restricted Access	New restricted access allowed
1.93-S	Full Movement Access	Restricted Access	Existing full movement access to be restricted
2.1-S	Full Movement Access	To Be Removed	Removed once criteria met
2.17-N	Full Movement Access	No Change	Somerset Drive
2.17-S	-	Possible Full Movement Access	New full movement access allowed to align with 2.17-N
2.24-S	Full Movement Access	To Be Removed	Removed once criteria met
2.37-N	-	Possible Restricted Access	New restricted access allowed
2.37-S	Full Movement Access	Restricted Access	Existing full movement access to be restricted
2.49-S	Full Movement Access	To Be Removed	Removed once criteria met
2.65-N	Full Movement Access	No Change	Legend Ridge Trail
2.65-S	-	Possible Full Movement Access	New full movement access allowed to align with 2.65-N
2.67-S	Full Movement Access	To Be Removed	Removed once criteria met
2.86-N	-	Possible Restricted Access	New restricted access allowed



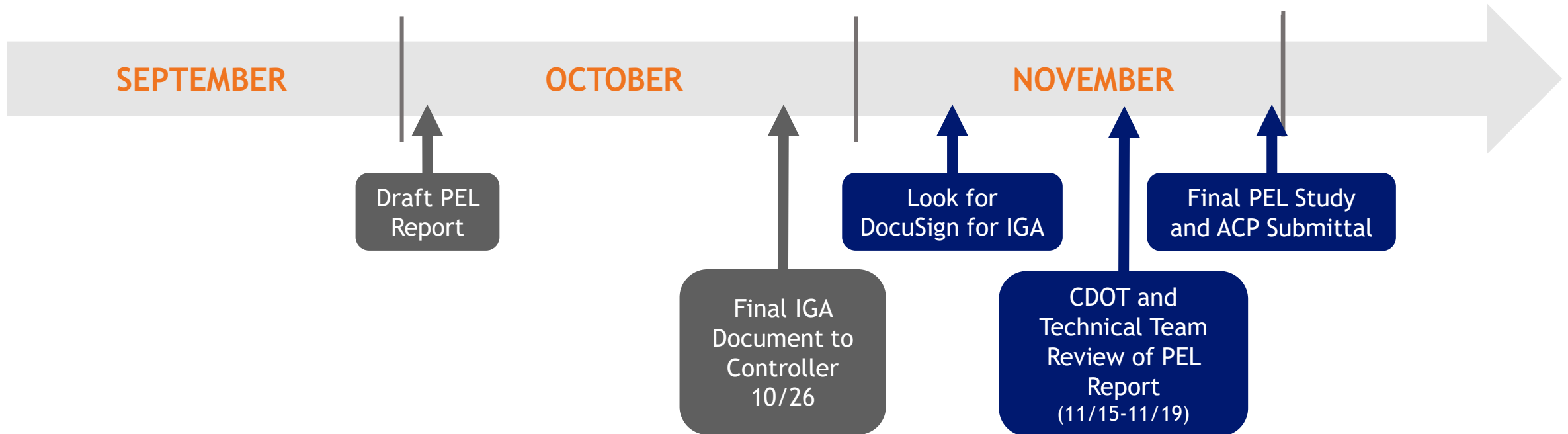
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Next Steps



Next Steps

- The PEL was sent to TT for review on 11/16
- Project Team to compile Letters of Support and/or Resolutions
- Look for IGA signature through DocuSign





Letter of Resolution/Support

AGENCY LETTERHEAD

Agency
Address
Address line 2

Colorado Department of Transportation
Region 4
1420 2nd Street
Greeley, CO 80631

Attention: Chad Hall

August 23, 2021

Subject: Support for the CO 52 PEL Study Recommendations

Dear Mr. Hall,

[INSERT AGENCY NAME] participated in the CO 52 Planning and Environmental Linkages Study (PEL) for the area along the travel corridor stretching from CO 119 north of Boulder to SH 79 east of the Town of Hudson. Final PEL recommendations will be complete by Winter 2021. As an integral participating agency in the study, we are sending this letter of support for the study recommendations. We have regularly attended State Highway 52 Coalition, Technical Team, public outreach, and agency specific meetings; and provided consistent feedback throughout progression of the study. We are writing to endorse the following:

1. The study has been a collaborative effort between FHWA, CDOT and local agencies. The PEL was developed with the participation of our agency and information was made available to all interested parties.
2. The purpose and need for highway improvements on CO 52 are clearly defined.
3. The recommended alternatives were selected because they best meet the purpose and need and goals of the CO 52 corridor.
4. A well-planned transportation system is foundational to efficient economic development of communities along the corridor.
5. Corridor improvements will be phased and future projects will incorporate the identified supplemental elements such as bicycle and pedestrian facilities and technology.
6. Identifying funding and continuing to partner with all agencies involved in developing the PEL will be critical in realizing the corridor vision.

We look forward to continuing communication and collaboration with you and your staff in order to implement improvements to benefit CO 52 users.

Sincerely,

AGENCY

RESOLUTION

RE: SUPPORT OF THE CO52 PLANNING AND ENVIRONMENTAL LINKAGES (PEL) STUDY AND ADOPTION OF THE CO52 ACCESS CONTROL PLAN (ACP) INTERGOVERNMENTAL AGREEMENT (IGA) AND AUTHORIZE THE CHAIR TO SIGN – VARIOUS AGENCIES

WHEREAS, the Board of County Commissioners of Weld County, Colorado, pursuant to Colorado statute and the Weld County Home Rule Charter, is vested with the authority of administering the affairs of Weld County, Colorado, and

WHEREAS, the Board has been presented with the CO52 PEL Study and CO52 ACP IGA on behalf of the Colorado Department of Transportation (CDOT), and

WHEREAS, the limits of the PEL Study and ACP IGA extend from SH119 in Boulder County to SH79, and

WHEREAS, the ACP IGA is between CDOT, Weld and Boulder Counties, the Cities of Dacono and Fort Lupton, the Towns of Erie, Frederick, Hudson and Keenesburg, and

WHEREAS, after review, the Board deems it advisable to support said CO52 PEL Study and adopt the CO52 ACP IGA, a copy of which are attached hereto and incorporated herein by reference.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Weld County, Colorado, the CO52 PEL Study and CO52 IGA of the Colorado Department of Transportation be and hereby is support and approved.

BE IT FURTHER RESOLVED by the Board that the Chair be, and hereby is, authorized to sign said Intergovernmental Agreement.



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Thank You!