

Appendix F.

## PROJECT RECOMMENDATIONS INFORMATION SHEETS



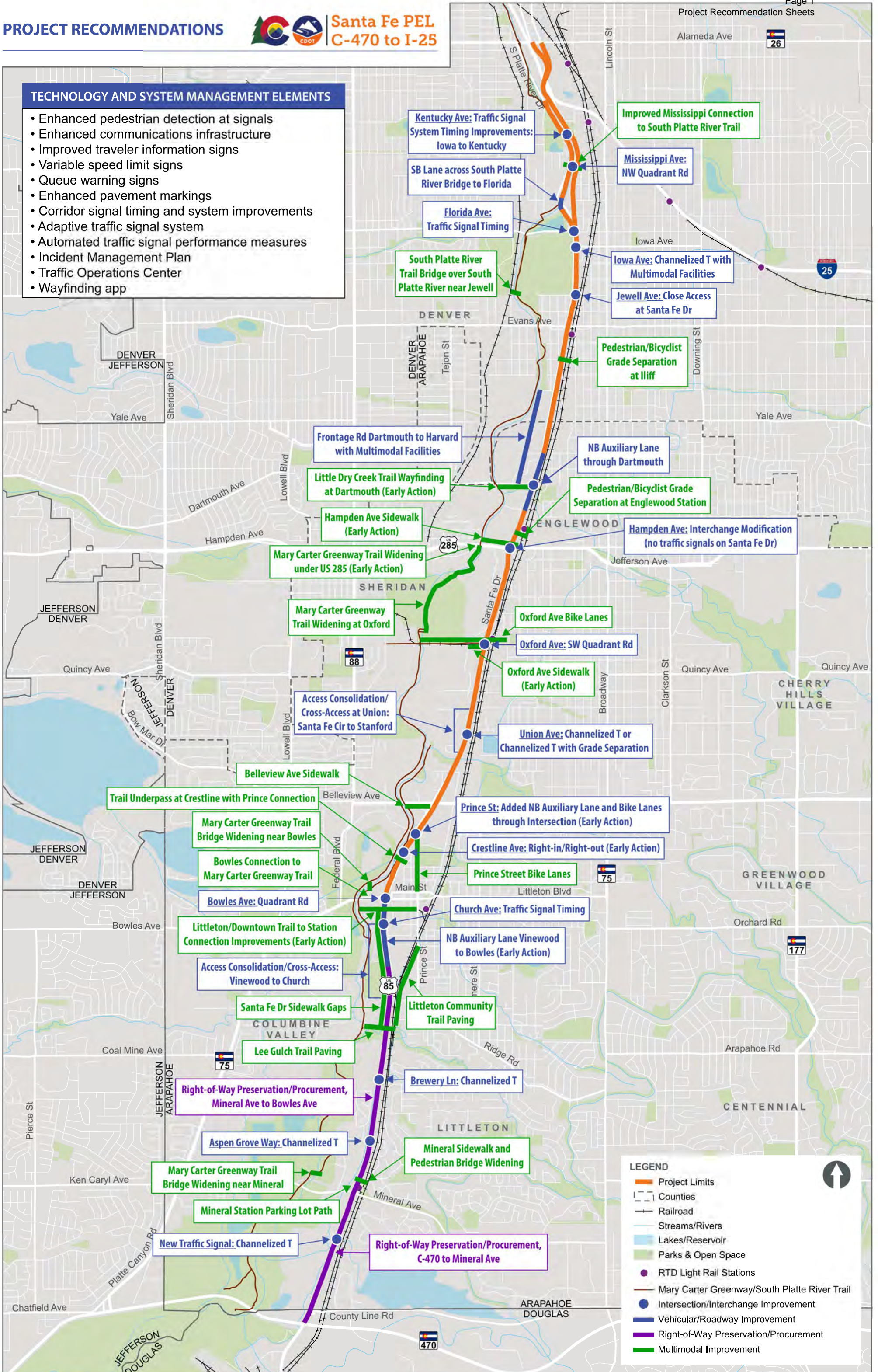
# PROJECT RECOMMENDATIONS



## Santa Fe PEL C-470 to I-25

### TECHNOLOGY AND SYSTEM MANAGEMENT ELEMENTS

- Enhanced pedestrian detection at signals
- Enhanced communications infrastructure
- Improved traveler information signs
- Variable speed limit signs
- Queue warning signs
- Enhanced pavement markings
- Corridor signal timing and system improvements
- Adaptive traffic signal system
- Automated traffic signal performance measures
- Incident Management Plan
- Traffic Operations Center
- Wayfinding app



**Kentucky Ave: Traffic Signal System Timing Improvements: Iowa to Kentucky**

**SB Lane across South Platte River Bridge to Florida**

**Florida Ave: Traffic Signal Timing**

**South Platte River Trail Bridge over South Platte River near Jewell**

**Improved Mississippi Connection to South Platte River Trail**

**Mississippi Ave: NW Quadrant Rd**

**Iowa Ave: Channelized T with Multimodal Facilities**

**Jewell Ave: Close Access at Santa Fe Dr**

**Pedestrian/Bicyclist Grade Separation at Iliff**

**Frontage Rd Dartmouth to Harvard with Multimodal Facilities**

**Little Dry Creek Trail Wayfinding at Dartmouth (Early Action)**

**Hampden Ave Sidewalk (Early Action)**

**Mary Carter Greenway Trail Widening under US 285 (Early Action)**

**Mary Carter Greenway Trail Widening at Oxford**

**NB Auxiliary Lane through Dartmouth**

**Pedestrian/Bicyclist Grade Separation at Englewood Station**

**Hampden Ave: Interchange Modification (no traffic signals on Santa Fe Dr)**

**Oxford Ave Bike Lanes**

**Oxford Ave: SW Quadrant Rd**

**Oxford Ave Sidewalk (Early Action)**

**Access Consolidation/Cross-Access at Union: Santa Fe Cir to Stanford**

**Union Ave: Channelized T or Channelized T with Grade Separation**

**Bellevue Ave Sidewalk**

**Trail Underpass at Crestline with Prince Connection**

**Mary Carter Greenway Trail Bridge Widening near Bowles**

**Bowles Connection to Mary Carter Greenway Trail**

**Bowles Ave: Quadrant Rd**

**Littleton/Downtown Trail to Station Connection Improvements (Early Action)**

**Access Consolidation/Cross-Access: Vinewood to Church**

**Santa Fe Dr Sidewalk Gaps**

**Lee Gulch Trail Paving**

**Prince St: Added NB Auxiliary Lane and Bike Lanes through Intersection (Early Action)**

**Crestline Ave: Right-in/Right-out (Early Action)**

**Prince Street Bike Lanes**

**Church Ave: Traffic Signal Timing**

**NB Auxiliary Lane Vinewood to Bowles (Early Action)**

**Right-of-Way Preservation/Procurement, Mineral Ave to Bowles Ave**

**Aspen Grove Way: Channelized T**

**Mary Carter Greenway Trail Bridge Widening near Mineral**

**Mineral Station Parking Lot Path**

**Mineral Sidewalk and Pedestrian Bridge Widening**

**New Traffic Signal: Channelized T**

**Right-of-Way Preservation/Procurement, C-470 to Mineral Ave**

### LEGEND

- Project Limits
- Counties
- Railroad
- Streams/Rivers
- Lakes/Reservoir
- Parks & Open Space
- RTD Light Rail Stations
- Mary Carter Greenway/South Platte River Trail
- Intersection/Interchange Improvement
- Vehicular/Roadway Improvement
- Right-of-Way Preservation/Procurement
- Multimodal Improvement





## C-470 TO MINERAL - RIGHT-OF-WAY PRESERVATION/PROCUREMENT

In addition to the transportation infrastructure, technology, and system management recommendations, the project recommendations include the **preservation or procurement of right-of-way along Santa Fe between C-470 and Bowles Avenue**. The future improvements within the area are undefined within the near-term, but this recommendation provides room for future potential cross-sections with additional lanes and/or multimodal elements to improve safety, traffic flow, and multimodal connections.

CDOT or the local agencies would obtain the additional right-of-way adjacent to Santa Fe as opportunities arise with property development, redevelopment, or other construction projects.

The additional right-of-way would provide flexibility for future vehicular and/or multimodal infrastructure to address safety, operational, and connection needs along the corridor as land use and regional and local travel needs transform. The roadway and multimodal improvement recommendations along this section of Santa Fe would be augmented and enhanced with future facilities utilizing additional right-of-way.

### BENEFITS:

- Flexibility to provide additional safety, operational, and multimodal improvements
- Leverage development, redevelopment, or other construction projects to invest in future improvements along the corridor with possibilities for donated right-of-way or reduced costs

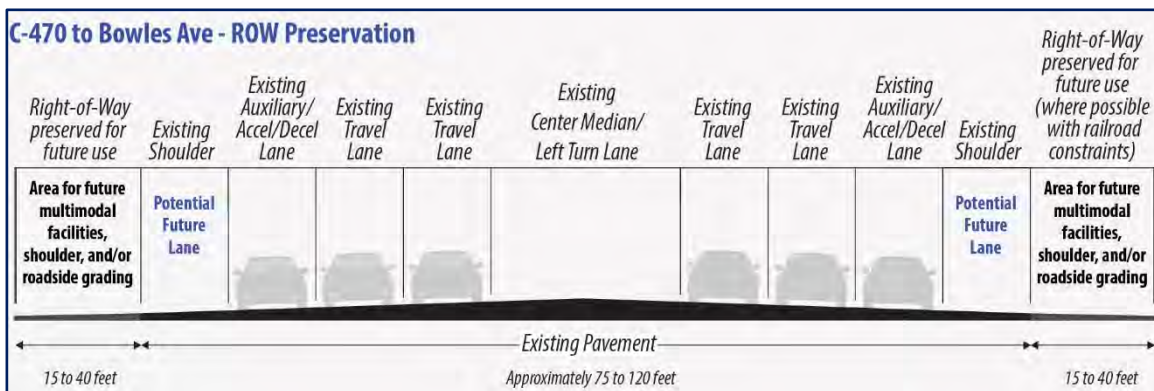
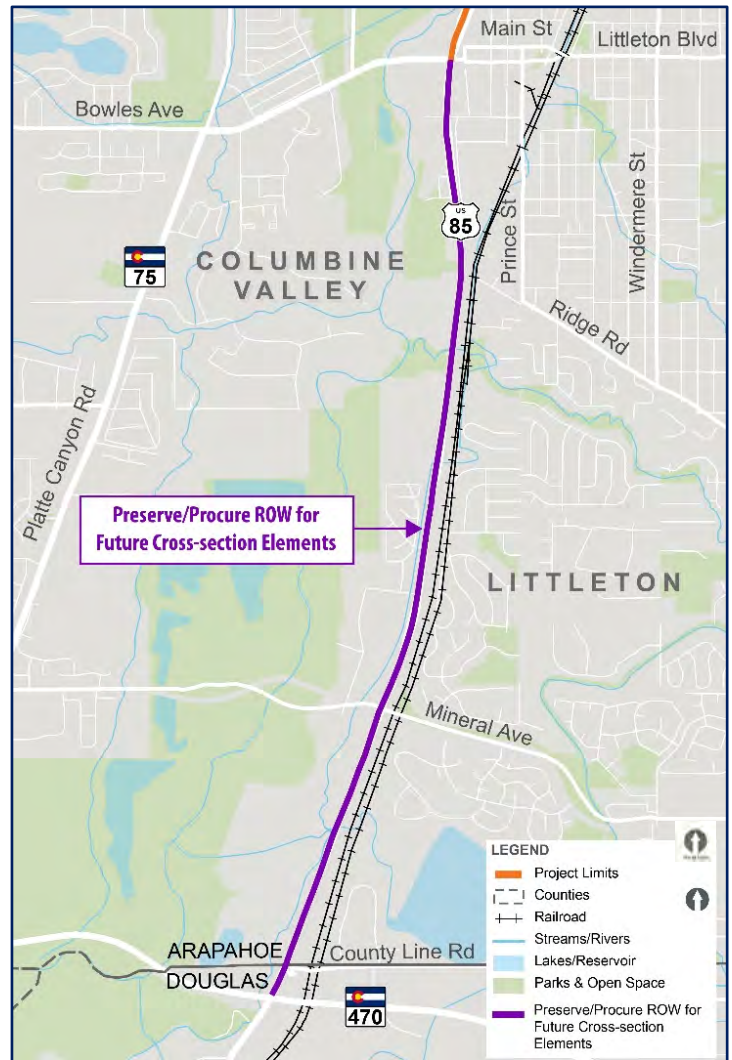
### TRADE-OFFS:

- Without defined improvements, funding sources for right-of-way preservation may not be available

### NEXT STEPS:

- Agency coordination plan for communication with adjacent development or construction projects that may present an opportunity for additional right-of-way along Santa Fe

**AGENCIES:** CDOT, City of Littleton, Douglas County, Arapahoe County





## MINERAL AREA

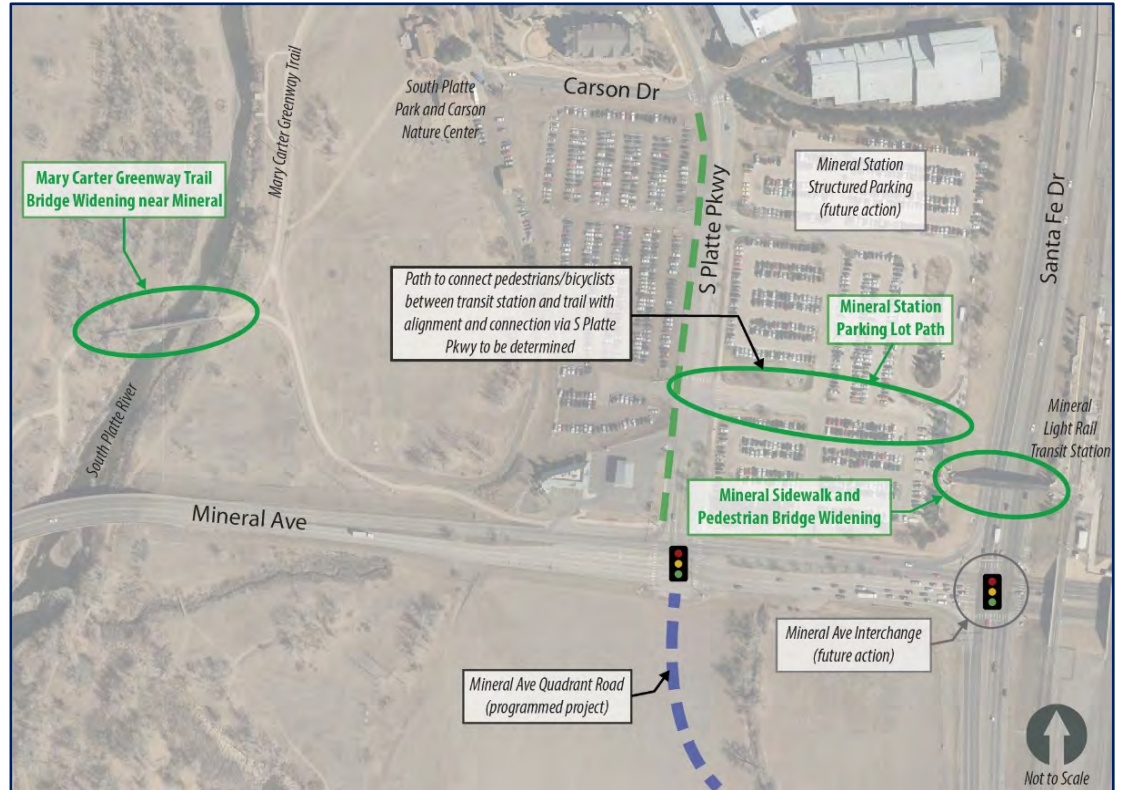
The project recommendations near the Santa Fe Drive and Mineral Avenue intersection consist of options to improve multimodal connections and safety at the Mary Carter Greenway Trail and light rail transit station.

A **new pedestrian/bicyclist path through the Mineral Station parking area** improves safety and provides a more direct connection for pedestrians and bicyclists between the Mary Carter Greenway Trail and the light rail station. The alignment and connection of the path with multimodal facilities along South Platte Parkway will be coordinated with local planners and area stakeholders to complement future development as well as the structured parking planned as a future action in the area.

**Widening the pedestrian bridge over Santa Fe at Mineral and sidewalks east of the station** increases capacity and safety for pedestrians and bicyclists accessing the light rail station.

The **Mary Carter Greenway Trail bridge widening** increases capacity and safety for pedestrians and bicyclists along the regional trail system.

The quadrant road intersection at the Santa Fe and Mineral signal is a programmed project that serves as a near-term improvement for the intersection, while the **Mineral Avenue interchange** is a larger-scale future action.



### Mineral Station Parking Lot Path

#### BENEFITS:

- More direct connection for pedestrians/bicyclists to travel through parking area between trail and light rail station
- Improved safety with reduced conflicts for pedestrians/bicyclists with more clear circulation through parking area
- Complements future plans for Mineral Station structured parking

#### TRADE-OFFS:

- Path alignment must be coordinated with future plans for structured parking and future development to minimize future throwaway
- Potential historic ditch under parking lot and floodplain resource impacts

#### NEXT STEPS:

- Concept design with public engagement and stakeholder input to define alignment and connections

**AGENCIES:** RTD, South Suburban Park and Recreation, City of Littleton, Arapahoe County

## MINERAL AREA RECOMMENDATIONS

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### Mineral Sidewalk and Pedestrian Bridge Widening

#### BENEFITS:

- Increased width across bridge and wider sidewalks enhance safety and provides improved connection for pedestrians/bicyclists accessing the light rail transit station and/or seeking a safer crossing of Santa Fe
- Better connection for residential neighborhoods east of Santa Fe to the light rail station, consistent with local planning efforts (*City of Littleton Mineral Station East Mobilityshed Improvements*)
- Increased pedestrian bridge and sidewalk capacity accommodates more pedestrian/bicyclist volume
- Improved comfort and safety for pedestrians/bicyclists crossing Santa Fe may reduce vehicular traffic through the Santa Fe and Mineral intersection with mode shift

#### TRADE-OFFS:

- Potential historic and floodplain resource impacts and recreational impacts to Mineral Trail

#### NEXT STEPS:

- NEPA and design

**AGENCIES:** RTD, City of Littleton, Arapahoe County

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### Mary Carter Greenway Trail Bridge Widening near Mineral

#### BENEFITS:

- Increased width across bridge and trail intersection improvements enhance safety for pedestrians/bicyclists traveling on trail
- Increased trail capacity accommodates more pedestrian/bicyclist volume

#### TRADE-OFFS:

- Potential environmental impacts to South Platte River, habitat, and floodway with bridge reconstruction

#### NEXT STEPS:

- Concept design with trail user engagement and stakeholder input to define improvements
- NEPA and design

**AGENCIES:** South Suburban Park and Recreation, City of Littleton, Arapahoe County





# ASPEN GROVE AND BREWERY LANE AREA

The project recommendations located at the Santa Fe Drive intersections with Aspen Grove Way and Brewery Lane consist of improvements to improve safety and traffic flow.

**Channelized T intersections at the Santa Fe and Aspen Grove Way and Santa Fe and Brewery Lane signals** reduce delays and queuing along Santa Fe Drive and improve safety at the intersections, addressing areas of substantial congestion along the corridor. The two channelized T intersections together would allow free-flow traffic without stops along northbound Santa Fe for almost two miles between the Mineral and Vinewood/Sumner signals.

A potential future action project to provide a connection from properties to Brewery Lane with property redevelopment would enhance safety and operations along Santa Fe with the removal of direct access driveways.

## Brewery Lane Channelized T

### BENEFITS:

- Improved safety with reduced potential for angle and rear end crashes with channelized turns and no stopping for northbound Santa Fe traffic
- Less overall delay and free-flow northbound traffic reduces bottleneck congestion and improves travel time on Santa Fe
- Increased signal efficiency would accommodate additional planned development along Brewery Lane

### TRADE-OFFS:

- Potential impacts to historic site to the north, environmental justice impact to neighborhood north of Brewery Lane, and floodplain resources
- Intersection design may require closure of existing driveway south of Brewery Ln

### NEXT STEPS:

- Traffic study and concept design to identify intersection layout and operations
- NEPA and design

**AGENCIES:** City of Littleton, Arapahoe County

## Aspen Grove Channelized T

### BENEFITS:

- Improved safety with reduced potential for angle and rear end crashes with channelized turns and no stopping for northbound Santa Fe traffic
- Less overall delay and free-flow northbound traffic reduces bottleneck congestion and improves travel time on Santa Fe
- Increased signal efficiency would accommodate additional development density planned for Aspen Grove

### TRADE-OFFS:

- Potential impacts to historic City Ditch and Waters of the U.S.
- Design to be coordinated with Aspen Grove development to minimize impacts

### NEXT STEPS:

- Traffic study and concept design to identify intersection layout and operations
- NEPA and design

**AGENCIES:** City of Littleton, Arapahoe County







# DOWNTOWN LITTLETON AREA

The project recommendations located around the area south of downtown Littleton consist of a variety of roadway and multimodal improvements to improve multimodal connections, safety, and traffic flow through this constrained and congested area of the Santa Fe corridor.

**Paving the Lee Gulch Trail and Littleton Community Trails** improves the existing multimodal connections across Santa Fe and increases capacity and safety for pedestrians and bicyclists traveling along the trails.

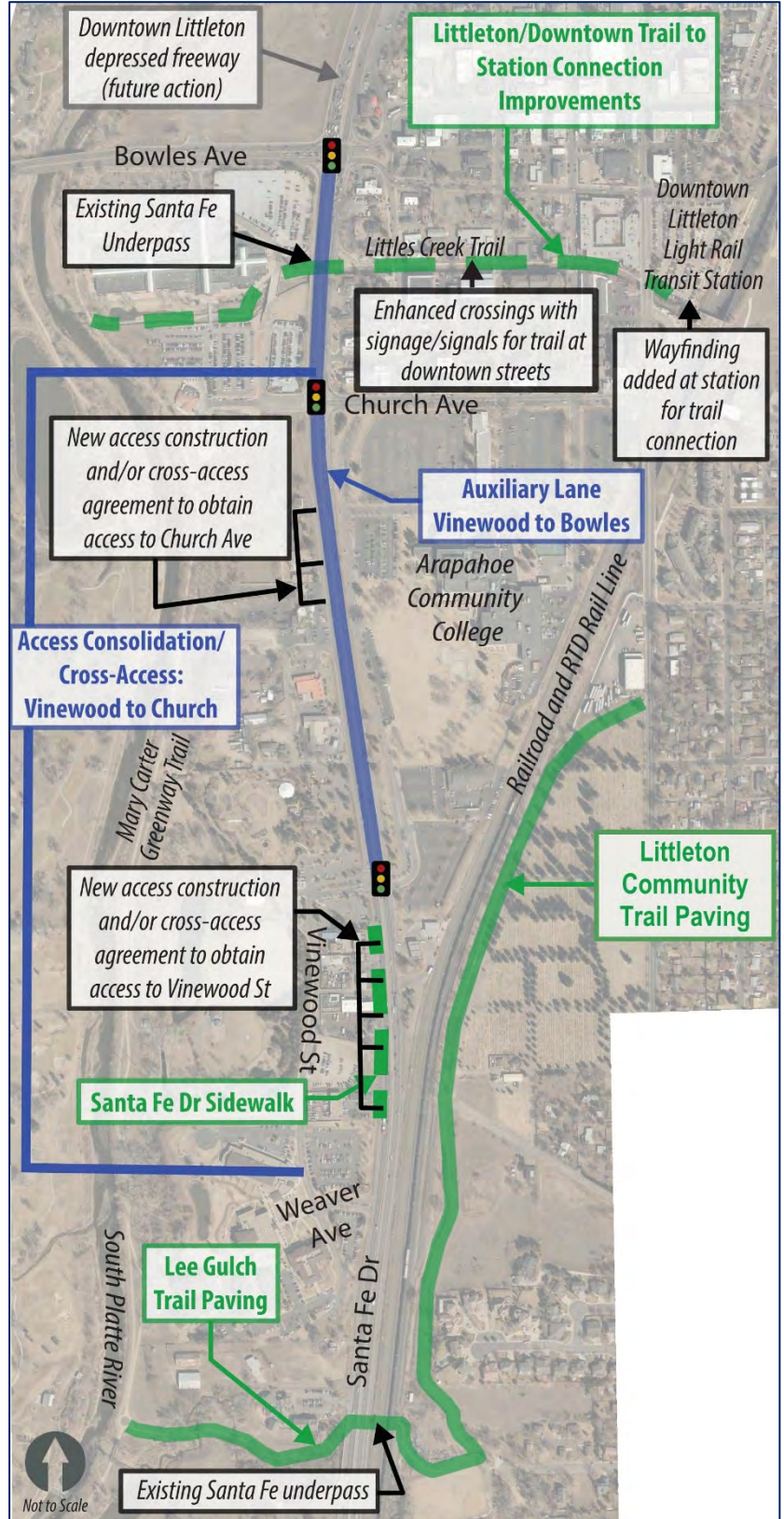
**Constructing sidewalk along the west side of Santa Fe** south of the Vinewood/Sumner signal provides new multimodal connections along the corridor with a direct connection to adjacent properties.

**Reducing direct access to Santa Fe between Vinewood and Church** with cross-access agreements or construction of new accesses to side streets improves operations and safety along Santa Fe, addressing existing congestion and safety issues due to driveway turbulence and conflicts. Driveway modifications would be coordinated with local planners, property owners, and development plans to provide alternate property access.

A **northbound auxiliary lane** would provide an additional auxiliary lane approximately 2,500 feet through the Vinewood/Sumner, Church Street, and Bowles Avenue signals, addressing a congestion bottleneck and improving safety with reduced queues. New northbound right turn lanes would be provided at the Church Street and Bowles Avenue signals. Traffic signal timing at all three intersections would be evaluated to optimize traffic flow and integrate pedestrian/bicyclist crossings.

**Improvements along the Little's Creek Trail** would enhance the multimodal connection from the areas west of Santa Fe to downtown Littleton and the Downtown Littleton Light Rail Transit Station. Additional wayfinding and enhanced at-grade street crossings improve safety for pedestrians and bicyclists.

A **potential future action to depress the Santa Fe roadway** through downtown Littleton with local streets bridging across Santa Fe would improve multimodal and community land use connections on the east and west sides of Santa Fe. These near-term improvements would not preclude that Littleton long-term vision.



## DOWNTOWN LITTLETON AREA RECOMMENDATIONS

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### Lee Gulch Trail Paving

#### **BENEFITS:**

- Improved comfort and safety for pedestrians/bicyclists crossing Santa Fe may reduce traffic at area intersections with mode shift
- Increased trail capacity with hard surface accommodates more pedestrian/bicyclist volume

#### **TRADE-OFFS:**

- Potential floodplain, wetlands, waters of the U.S., and riparian habitat resource impacts

#### **NEXT STEPS:**

- Trail user engagement and stakeholder input
- NEPA and design

**AGENCIES:** South Suburban Park and Recreation, City of Littleton, Arapahoe County, CDOT

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### Littleton Community Trail Paving

#### **BENEFITS:**

- Improved comfort and safety for pedestrians/bicyclists adjacent to Santa Fe may reduce traffic with mode shift
- Increased trail capacity with hard surface accommodates more pedestrian/bicyclist volume

#### **TRADE-OFFS:**

- Potential historic City Ditch, floodplain, wetlands, waters of the U.S., and riparian habitat resource impacts

#### **NEXT STEPS:**

- Trail user engagement and stakeholder input
- NEPA and design

**AGENCIES:** South Suburban Park and Recreation, City of Littleton, Arapahoe County

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### Santa Fe Drive Sidewalk

#### **BENEFITS:**

- Improved multimodal connection for properties along the west side of Santa Fe
- Improved safety for pedestrians with defined path adjacent to Santa Fe

#### **TRADE-OFFS:**

- Potential impacts to multiple property driveways, parking, and business signage

#### **NEXT STEPS:**

- Concept design with public engagement and property owner coordination to evaluate property impacts
- NEPA and design

**AGENCIES:** CDOT, City of Littleton, Arapahoe County



## DOWNTOWN LITTLETON AREA RECOMMENDATIONS

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### Access Consolidation/Cross-Access: Vinewood to Church

#### BENEFITS:

- Improved safety with reduced conflicts between through and turning traffic, addressing an area of identified safety issues due to driveway frequency
- Improved operational performance with less turbulence between through and turning traffic

#### Safety Benefits

Estimated to reduce crashes by 8 crashes/year through this section of the corridor

#### TRADE-OFFS:

- Potential property impacts with changes in site circulation for alternate access
- Potential business and socioeconomic impacts with loss of direct driveway access to Santa Fe

#### NEXT STEPS:

- Concept design with public engagement and property owner coordination to evaluate property impacts

**AGENCIES:** CDOT, City of Littleton, Arapahoe County

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### Northbound Auxiliary Lane Vinewood to Bowles

#### BENEFITS:

- Improved safety with reduced queues, addressing an area of identified safety issues due to recurring congestion at the signals
- Improved operational performance, enhancing travel connections to area with better traffic flows

#### Traffic Operation Benefits

Reduces northbound Santa Fe travel time by approximately 20% through this section of corridor

#### TRADE-OFFS:

- Potential property impacts at intersections for added right turn lanes
- Potential floodplain, wetlands, waters of the U.S., and riparian habitat resource impacts crossing Little's Creek Trail and potential 4(f) if impacting Arapahoe Community College Frisbee Golf Course

#### NEXT STEPS:

- Traffic study to identify lane configurations and intersection operations
- Concept design with public engagement and stakeholder input to evaluate property impacts
- NEPA and design

**AGENCIES:** CDOT, City of Littleton, Arapahoe County

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### Littleton/Downtown Trail to Station Connection Improvements

#### BENEFITS:

- Improved multimodal connections across Santa Fe and between Mary Carter Greenway Trail, downtown Littleton, and the light rail transit station via improvements to Little's Creek and area wayfinding
- Improved pedestrian/bicyclist crossing Santa Fe may reduce traffic at area intersections with mode shift
- Improved safety with enhanced crossings at downtown Littleton streets

#### TRADE-OFFS:

- Potential floodplain, wetlands, waters of the U.S., and riparian habitat resource impacts along Little's Creek

#### NEXT STEPS:

- NEPA and design

**AGENCIES:** City of Littleton, South Suburban Park and Recreation, CDOT, Arapahoe County



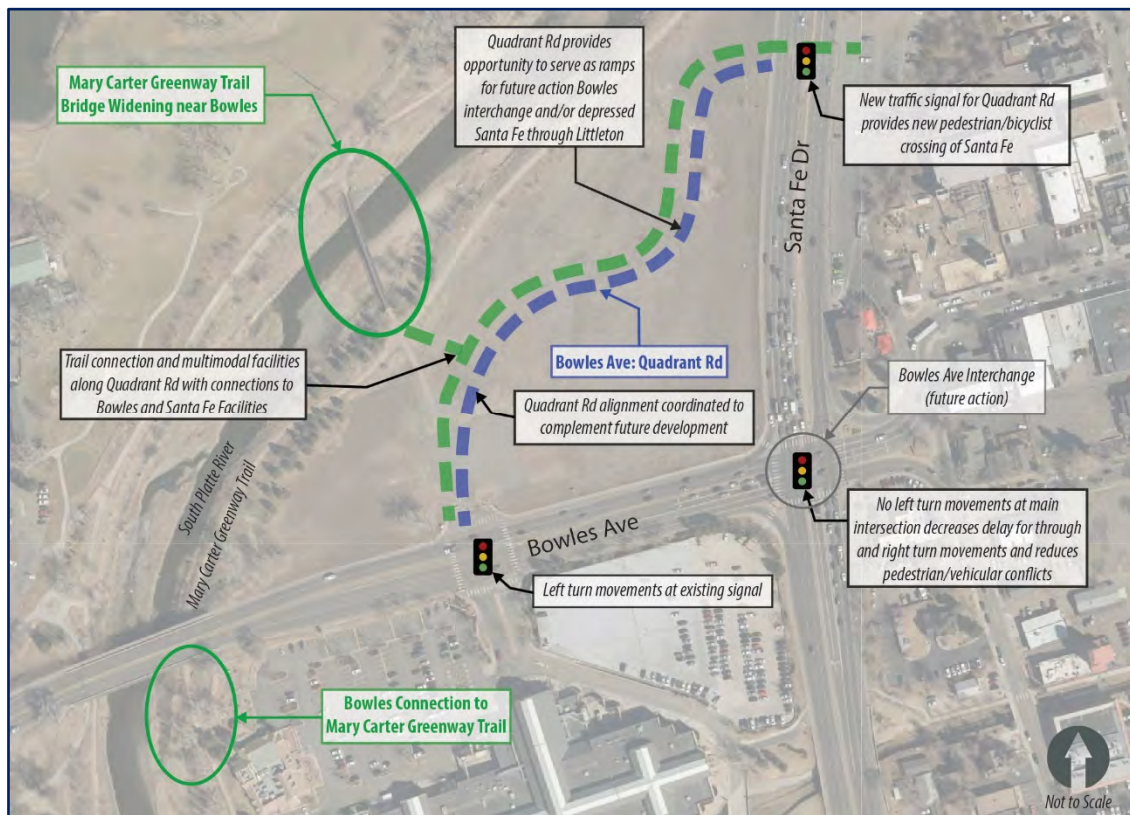
## BOWLES AREA

The project recommendations located around the entrance to downtown Littleton at the Santa Fe Drive and Bowles Avenue intersection consist of improvements to improve multimodal connections, safety, and traffic flow.

A **quadrant road intersection at the Santa Fe and Bowles signal** reduces delays and queuing along both Santa Fe Drive and Bowles Avenue, addressing an identified congestion bottleneck along Santa Fe. The quadrant road improves safety with reduced conflict points, addressing crashes at the Bowles intersection, which was identified as the intersection with the third-highest number of crashes along the Santa Fe study corridor (2016-2018).

The alignment of the quadrant road in the northwest quadrant of the intersection will be coordinated with local planners and the property owner to complement future development by providing access and circulation through the site. The quadrant road design will also include multimodal facilities (e.g., sidewalks and bike lanes) to provide new connections to crossings at the existing Bowles Avenue signal and the new signal on Santa Fe Drive.

The quadrant road could serve as ramps for the future actions of a Bowles Avenue interchange and/or a depressed Santa Fe under the Bowles intersection. Having the quadrant road connection would reduce the physical impacts of the future actions in the area immediately adjacent to Santa Fe and would also provide a valuable bypass during major construction at the Bowles intersection.



The **Mary Carter Greenway Trail bridge widening** increases capacity and safety for pedestrians and bicyclists along the regional trail system. A trail connection to multimodal facilities along the quadrant road with the new Santa Fe signal would improve the multimodal connection from the trail and river area west of Santa Fe to downtown Littleton.

A **new trail connection from the Mary Carter Greenway Trail to Bowles** provides a more direct connection for pedestrians and bicyclists to travel along Bowles Avenue into downtown Littleton.

These near-term improvements would enhance the Littleton long-term vision for improving multimodal and community land use connections on the east and west sides of Santa Fe.



## BOWLES AREA RECOMMENDATIONS

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### Bowles Avenue Quadrant Road Intersection

#### **BENEFITS:**

- Improved safety with reduced conflict points where vehicles cross paths
- Increased signal efficiency with less delay reduces bottleneck congestion and improves travel time on both Santa Fe and Bowles
- Quadrant road provides multimodal facilities and new Santa Fe signalized crossing for pedestrians/bicyclists to access downtown Littleton
- Quadrant road provides flexibility to serve as ramps and a bypass during construction for future, long-term, grade-separated options at the Bowles intersection

#### **Traffic Operation Benefits**

Compared to the No Action Alternative, the quadrant road intersection results in an improvement of 3 to 4 Levels of Service grades (overall intersection) during the peak periods

#### **TRADE-OFFS:**

- Alignment for quadrant road in northwest quadrant must be coordinated with future plans to alleviate impacts to future land use and to complement development opportunities and Littleton long-term vision
- Potential historic impacts to buried ditch and noise and recreational impacts to Mary Carter Greenway Trail

#### **NEXT STEPS:**

- Detailed study to identify specific quadrant road cross-section, intersection configurations, and operations
- Concept design with public engagement and stakeholder input to define quadrant road layout
- Planning process for Littleton's long-term vision for transportation and land use in the area
- NEPA and design

**AGENCIES:** CDOT, City of Littleton, Arapahoe County, South Suburban Park and Recreation

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### Mary Carter Greenway Trail Bridge Widening near Bowles

#### **BENEFITS:**

- Increased width across bridge and trail intersection improvements enhance safety for pedestrians/bicyclists traveling on trail
- Increased trail capacity accommodates more pedestrian/bicyclist volume

#### **TRADE-OFFS:**

- Potential environmental impacts to South Platte River, habitat, and floodway with bridge reconstruction

#### **NEXT STEPS:**

- Concept design with trail user engagement and stakeholder coordination
- NEPA and design

**AGENCIES:** South Suburban Park and Recreation, City of Littleton, Arapahoe County

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### Bowles Connection to Mary Carter Greenway Trail

#### **BENEFITS:**

- More direct connection for pedestrians/bicyclists to travel along Bowles Avenue
- Improved safety with reduced conflicts for pedestrians/bicyclists currently traveling through parking lot to access Bowles Avenue

#### **TRADE-OFFS:**

- Potential property impacts for ADA-compliant connection
- Potential habitat impacts to South Platte River

#### **NEXT STEPS:**

- NEPA and design

**AGENCIES:** South Suburban Park and Recreation, City of Littleton, Arapahoe County



# PRINCE AREA

The project recommendations located around the entrance to downtown Littleton at the Santa Fe and Prince Street intersection consist of improvements to improve multimodal connections, safety, and traffic flow.

A new **trail underpass of Santa Fe south of Crestline** improves pedestrian/bicyclist crossings of Santa Fe and multimodal and community land use connections on the east and west sides of Santa Fe. The new connection increases capacity and safety for pedestrians and bicyclists accessing the Mary Carter Greenway Trail and residential and commercial land uses on the north side of downtown Littleton. This connection could be tied in to new multimodal facilities constructed with development and/or transportation improvements at the Santa Fe and Bowles Avenue intersection.

**Prince Street bike lanes** provide a more direct connection for bicyclists between land uses on the west side of Santa Fe, including Mary Carter Greenway Trail, and downtown Littleton. The bike lanes east of Santa Fe connect to existing bike lanes along Prince Street west of Santa Fe.

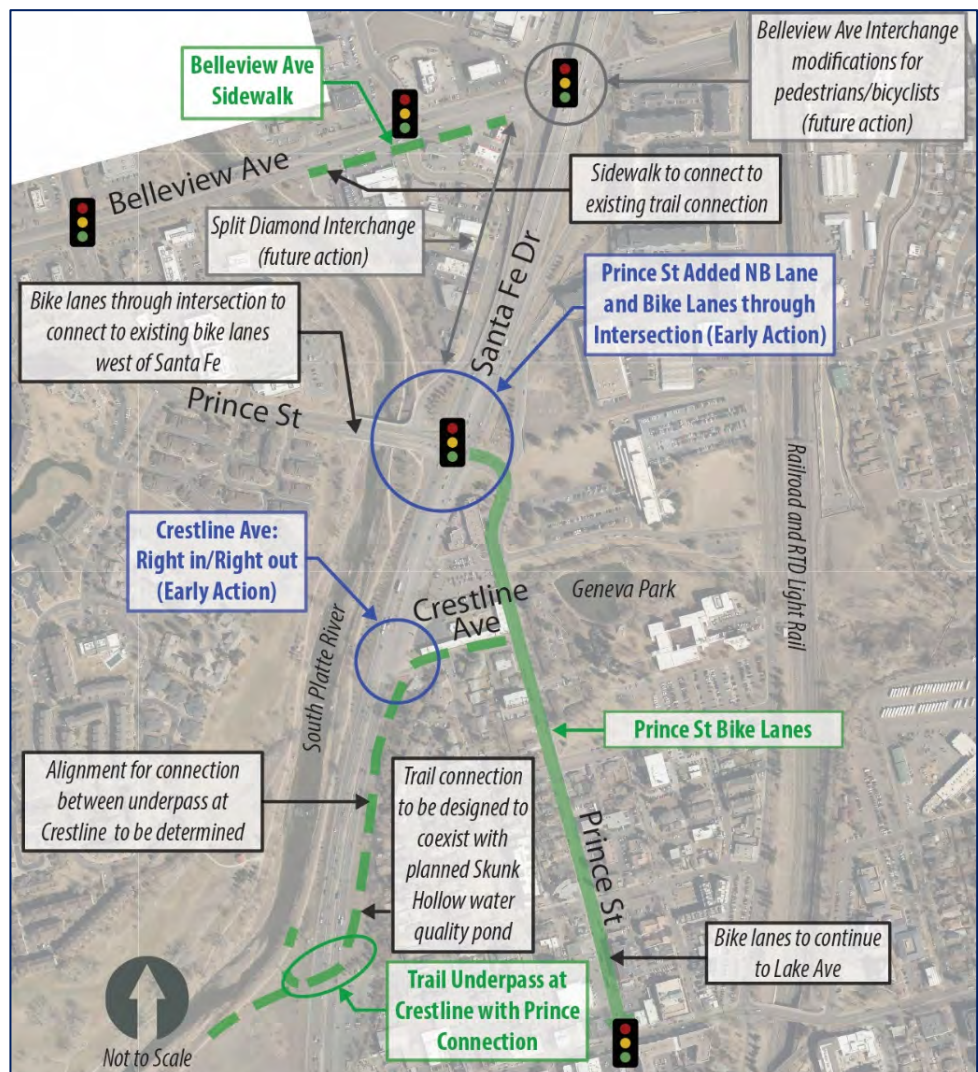
**Converting the Crestline Avenue intersection to right-in/right-out only** improves safety with reduced intersection movements and conflict points. Adding a northbound right turn lane improves safety and operations by shifting slower, turning traffic out of the through lanes of mainline Santa Fe.

**Improvements at the Prince Street signal to add a northbound auxiliary lane and eastbound/westbound bike lanes** through the intersection improve safety by reducing existing conflicts due to driver confusion with the northbound HOV lane and providing multimodal intersection treatments. The operations along Santa Fe are improved, reducing a congestion bottleneck at Prince Street.

**Widening sidewalk along the south side of Belleview** west of Santa Fe provides improved multimodal connections from the Mary Carter Greenway Trail to cross Santa Fe.

Together, the area multimodal and intersection improvements substantially improve pedestrian and bicyclist safety and circulation with new and improved multimodal connections across Santa Fe and between community land uses on the east and west sides of Santa Fe.

The potential modifications at the Belleview interchange to facilitate pedestrian/bicyclist crossings is identified as a future action, to occur with other large-scale interchange reconstruction.





## PRINCE AREA RECOMMENDATIONS

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### Trail Underpass at Crestline with Prince Street Connection

#### **BENEFITS:**

- Additional connection for pedestrians/bicyclists to travel across Santa Fe from the Mary Carter Greenway Trail and river area west of Santa Fe to downtown Littleton
- Improved safety for pedestrians/bicyclists with new grade-separated crossing of Santa Fe
- Improved comfort and safety for pedestrians/bicyclists crossing Santa Fe may reduce traffic at area intersections with mode shift for travelers between the east and west sides of Santa Fe
- Complements future plans for development and multimodal connections in the northwest quadrant of the Santa Fe and Bowles intersection, as well as future Littleton water quality pond east of Santa Fe Drive.

#### **TRADE-OFFS:**

- Trail to be designed to complement the planned Skunk Hollow water quality pond on east side of Santa Fe
- Potential historic ditch and hazardous materials impacts and recreational impacts to Mary Carter Greenway Trail

#### **NEXT STEPS:**

- Concept design with public engagement and stakeholder input to define alignment and connections

**AGENCIES:** South Suburban Park and Recreation, City of Littleton, CDOT, Arapahoe County

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### Prince Street Bike Lanes

#### **BENEFITS:**

- Improved connection for bicyclists between land uses on the west side of Santa Fe, including Mary Carter Greenway Trail, and destinations on the east side of Santa Fe, including downtown Littleton and the transit station
- More bicycle facilities increase bicyclist capacity to accommodate more bicyclist travel

#### **TRADE-OFFS:**

- Potential parking, property, and/or access impacts along Prince Street
- Potential historic, floodplain, wetlands, waters of the U.S., and riparian habitat resource impacts and recreational impacts to Littleton City Hall Park

#### **NEXT STEPS:**

- Concept design with public engagement and stakeholder input to define layout and operations
- NEPA (if federal nexus exists) and design

**AGENCIES:** City of Littleton, Arapahoe County

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### Crestline Ave Right-in Right-out

#### **BENEFITS:**

- Improved safety with elimination of southbound Santa Fe left turn conflicts
- Improved operations with shifting slower, right-turning traffic out of the through lanes on northbound Santa Fe

#### **TRADE-OFFS:**

- Potential historic resource impacts of eligible homes and buried ditch
- Additional southbound left turn volume at Santa Fe and Prince Street signal

#### **NEXT STEPS:**

- NEPA and design

**AGENCIES:** CDOT, City of Littleton, Arapahoe County

## PRINCE AREA RECOMMENDATIONS

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### Prince St Northbound Auxiliary Lane and Bikes Lanes through Intersection

#### BENEFITS:

- Improved safety with median and striping modifications to more clearly delineate the northbound left turn lane from the HOV lane
- Improved multimodal safety and connections across Santa Fe with striped bike lane through the intersection connecting to existing bike lanes on Prince west of Santa Fe
- Improved operations along northbound Santa Fe with additional through lane (approximately 850 feet long) reducing bottleneck at Prince signal

#### Traffic Operation Benefits

Compared to the No Action Alternative, the additional auxiliary lane results in an improvement of one Level of Service grade (overall intersection) during the peak periods

#### TRADE-OFFS:

- If construction expands beyond existing ROW, potential floodplain, wetlands, waters of the U.S., and riparian habitat resource impacts adjacent to the South Platte River and recreational impacts to Mary Carter Greenway Trail

#### NEXT STEPS:

- Traffic study to optimize vehicular and multimodal operations with concept design to identify intersection configuration
- NEPA and design

**AGENCIES:** CDOT, City of Littleton, Arapahoe County, South Suburban Parks and Recreation

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### Bellevue Avenue Sidewalk

#### BENEFITS:

- Improved safety for pedestrians with wider sidewalk adjacent to Santa Fe
- Increased multimodal capacity with wider sidewalk accommodates more pedestrian/bicyclist volume

#### TRADE-OFFS:

- Potential impacts to multiple property driveways, parking, and business signage

#### NEXT STEPS:

- Concept design with public engagement and property owner coordination to evaluate property impacts
- NEPA and design

**AGENCIES:** City of Littleton, Arapahoe County





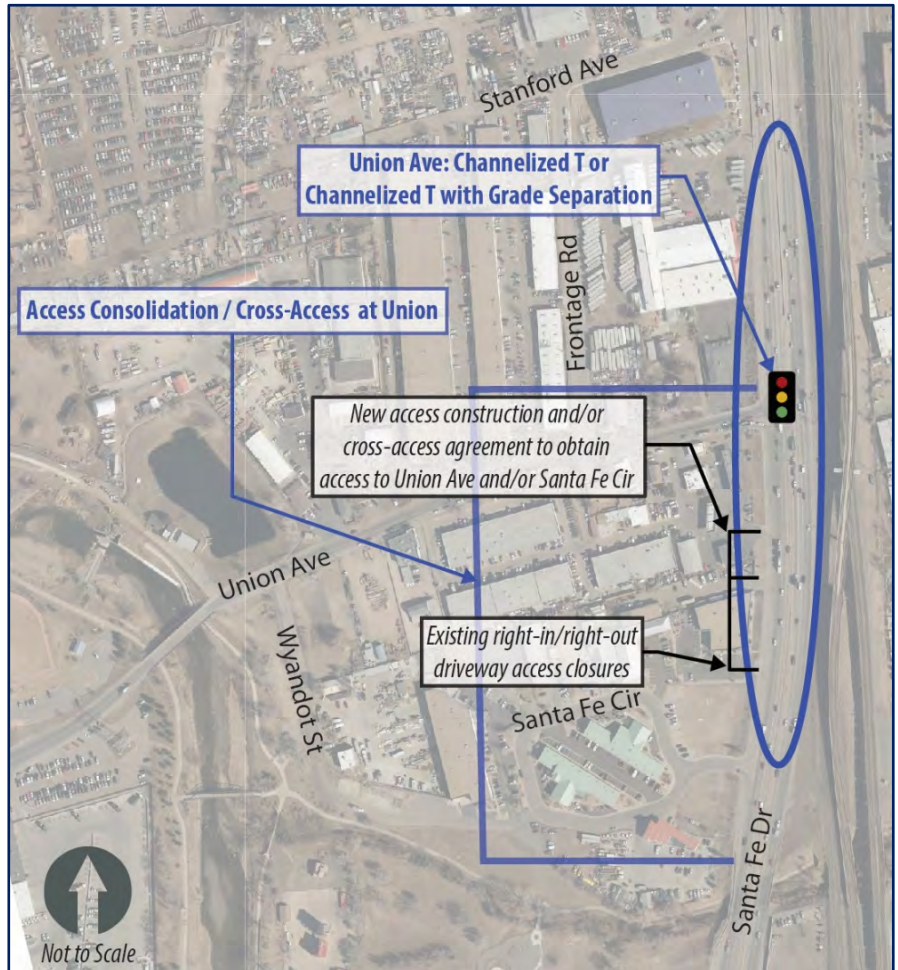
## UNION AREA

The project recommendations located near the Santa Fe Drive and Union Avenue intersection consist of a variety of roadway and intersection improvements to improve safety and traffic flow through this congested area of the Santa Fe corridor.

**Reducing direct access to Santa Fe at Union** with cross-access agreements or construction of new accesses to side streets improves operations and safety along Santa Fe by reducing driveway turbulence and conflicts. Driveway modifications would be coordinated with local planners, property owners, and development plans to provide alternate property access to Santa Fe Circle and/or Union Avenue.

A **channelized T intersection at the Santa Fe and Union signal** reduces delays and queuing along Santa Fe Drive and improves safety at the intersection. The channelized T intersection would allow free-flow traffic without stops along northbound Santa Fe for 1.5 miles between the Prince and Oxford signals.

The option to grade separate southbound Santa Fe at the channelized T intersection would also allow free-flow traffic along southbound Santa Fe, further reducing delays and queuing along Santa Fe. Exploration of this option would consider the heavy truck movements accessing the industrial area along Union west of Santa Fe.



### Access Consolidation/Cross-Access at Union

#### BENEFITS:

- Improved safety with reduced conflicts between through and turning traffic within an industrial area with heavy truck turning movements and acceleration/deceleration
- Improved operational performance with less turbulence between through and turning traffic

#### TRADE-OFFS:

- Potential property impacts with changes in site circulation for alternate access
- Potential business and socioeconomic impacts with loss of direct driveway access to Santa Fe

#### NEXT STEPS:

- Concept design with public engagement and property owner coordination to evaluate property impacts

**AGENCIES:** CDOT, City of Englewood, Arapahoe County

## UNION AREA RECOMMENDATIONS

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### Union Avenue Channelized T

#### BENEFITS:

- Improved safety with reduced potential for angle and rear end crashes with channelized turns and no stopping for northbound Santa Fe traffic
- Improved operational performance with free-flow traffic on Santa Fe reducing heavy truck acceleration/deceleration impacts to overall traffic flow
- Less overall delay and free-flow northbound traffic reduces bottleneck congestion and improves travel time on Santa Fe
- Additional reduction in delay and improvements in traffic flow with the option to grade separate southbound Santa Fe at the channelized T intersection

#### TRADE-OFFS:

- Assuming new bridge widening over Big Dry Creek, potential floodplain, wetlands, waters of the U.S., and riparian habitat resource impacts to Big Dry Creek Trail and Creekside Experience
- Intersection design may require closure of existing driveways south of Union Avenue

#### NEXT STEPS:

- Detailed traffic study and concept design to optimize intersection operations with heavy truck movements and identify intersection configuration with public engagement and property owner coordination to evaluate property impacts
- NEPA and design

**AGENCIES:** CDOT, City of Englewood, City of Sheridan, Arapahoe County

#### Traffic Operation Benefits

**Channelized T:** Compared to the No Action Alternative, the channelized T results in an improvement of two Levels of Service grades (overall intersection) during the AM peak period

**Channelized T with Grade Separation:** Compared to the No Action Alternative, the channelized T with the additional southbound grade separation results in an improvement of four Levels of Service grades (overall intersection) during both peak periods

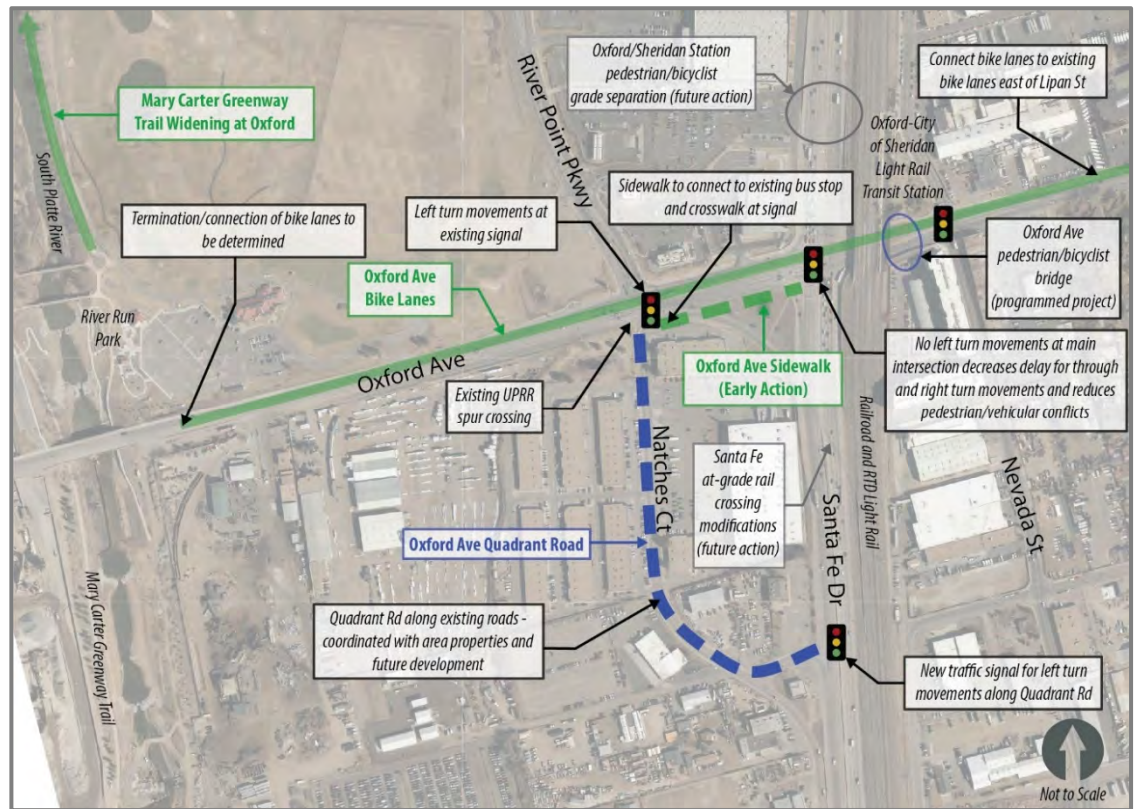


## OXFORD AREA

The project recommendations located around the entrance to Sheridan’s South Santa Fe Business Park and the River Point development area at the Santa Fe Drive and Oxford Avenue intersection consist of improvements to improve multimodal connections, safety, and traffic flow.

A **quadrant road intersection at the Santa Fe and Oxford signal** reduces delays and queuing along both Santa Fe Drive and Oxford Avenue, addressing an identified congestion bottleneck for southbound traffic along Santa Fe. The quadrant road improves safety with reduced conflict points and addressing crashes at the Oxford intersection, which was identified as an intersection in the top five along the Santa Fe study corridor (2016-2018) with the highest number of crashes.

The alignment of the quadrant road in the southwest quadrant of the intersection is expected to utilize the existing local streets and the alignment, operations, and infrastructure elements (e.g. sidewalks, bike lanes, parking) will be coordinated with local planners and area property owners to complement future development consistent with the City of Sheridan’s vision of the area.



**Constructing sidewalk along the south side of Oxford** west of the Santa Fe and Oxford signal provides a new multimodal connection along the corridor with a connection for pedestrians/bicyclists to cross Santa Fe and access the development on the west side and the transit station on the east side of the highway. The new sidewalk would connect to existing sidewalk at the bus stop east of River Point Parkway and at the Santa Fe intersection with a raised crosswalk or other design treatments to enhance safety of the crossing.

**Bike lanes on Oxford Avenue west of Santa Fe** provide a more direct connection for bicyclists between land uses on the west side of Santa Fe, including Mary Carter Greenway Trail, and the residential areas and transit station on the east side of Santa Fe. The bike lanes connect to existing bike lanes along Oxford Avenue east of Santa Fe.

The **Mary Carter Greenway Trail widening** north of River Run Park increases capacity and safety for pedestrians and bicyclists along the regional trail system.

These near-term improvements would enhance Sheridan’s long-term vision for improving multimodal and community land use connections on the east and west sides of Santa Fe. In addition, **future planning efforts at the Oxford Avenue intersection should incorporate an evaluation for modifications to the at-grade rail crossing of Santa Fe south of the signal**, as it presents challenges for area economic development and traffic circulation.

## OXFORD AREA RECOMMENDATIONS

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### Oxford Avenue Quadrant Road Intersection

#### **BENEFITS:**

- Improved safety with reduced conflict points where vehicles cross paths
- Less signal delay reduces bottleneck congestion on Santa Fe
- Improved traffic operations reduce queues along Oxford Avenue that currently impact access to River Point Parkway development and extend to impact Santa Fe operations in peak periods
- Quadrant road provides infrastructure and additional travel connections to facilitate development in the South Santa Fe Business Park area.

#### **Traffic Operation Benefits**

Compared to the No Action Alternative, the quadrant road intersection results in an improvement of 4 Levels of Service grades (overall intersection) during the peak periods

#### **TRADE-OFFS:**

- Alignment for quadrant road in southwest quadrant must be coordinated with local planners and property owners to complement development opportunities and Sheridan's long-term vision
- Potential hazardous material impacts and noise and recreational impacts to Oxford Avenue Trail in close proximity

#### **NEXT STEPS:**

- Detailed traffic study to identify specific quadrant road cross-section, intersection configurations, and operations
- Concept design with public engagement and stakeholder input to define quadrant road layout
- NEPA and design

**AGENCIES:** CDOT, City of Sheridan, Arapahoe County

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### Oxford Avenue Sidewalk

#### **BENEFITS:**

- Provides important missing pedestrian/bicyclist connections across Santa Fe between development on the west side and the transit station on the east side of Santa Fe
- Improved safety with reduced conflicts for pedestrians adjacent to Oxford Avenue

#### **TRADE-OFFS:**

- Potential property impacts and impacts to railroad spur line on south side of Oxford
- Potential hazardous material impacts

#### **NEXT STEPS:**

- Concept design with property owner coordination to evaluate property impacts
- NEPA and design

**AGENCIES:** CDOT, City of Sheridan, Arapahoe County

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### Oxford Avenue Bike Lanes

#### **BENEFITS:**

- Improved connection for bicyclists between commercial and recreational land uses on the west side of Santa Fe, including Mary Carter Greenway Trail, and residential area and transit station on the east side of Santa Fe
- More bicycle facilities increase bicyclist capacity to accommodate more bicyclist travel

#### **TRADE-OFFS:**

- Potential impacts to properties with widening or traffic operations with reduced lanes along Oxford Avenue
- Potential hazardous material resource impacts

#### **NEXT STEPS:**

- Concept design with public engagement and stakeholder input to define layout and operations
- NEPA and design

**AGENCIES:** City of Sheridan, Arapahoe County



## OXFORD AREA RECOMMENDATIONS

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### Mary Carter Greenway Trail Widening at Oxford

#### **BENEFITS:**

- Increased width enhances safety for pedestrians/bicyclists traveling on trail
- Increased trail capacity accommodates more pedestrian/bicyclist volume

#### **TRADE-OFFS:**

- Potential hazardous material, floodplain, wetland, water of the U.S. and riparian habitat impacts
- Potential recreational impacts to Broken Tee Golf Course

#### **NEXT STEPS:**

- Concept design with trail user engagement and stakeholder coordination
- NEPA and design

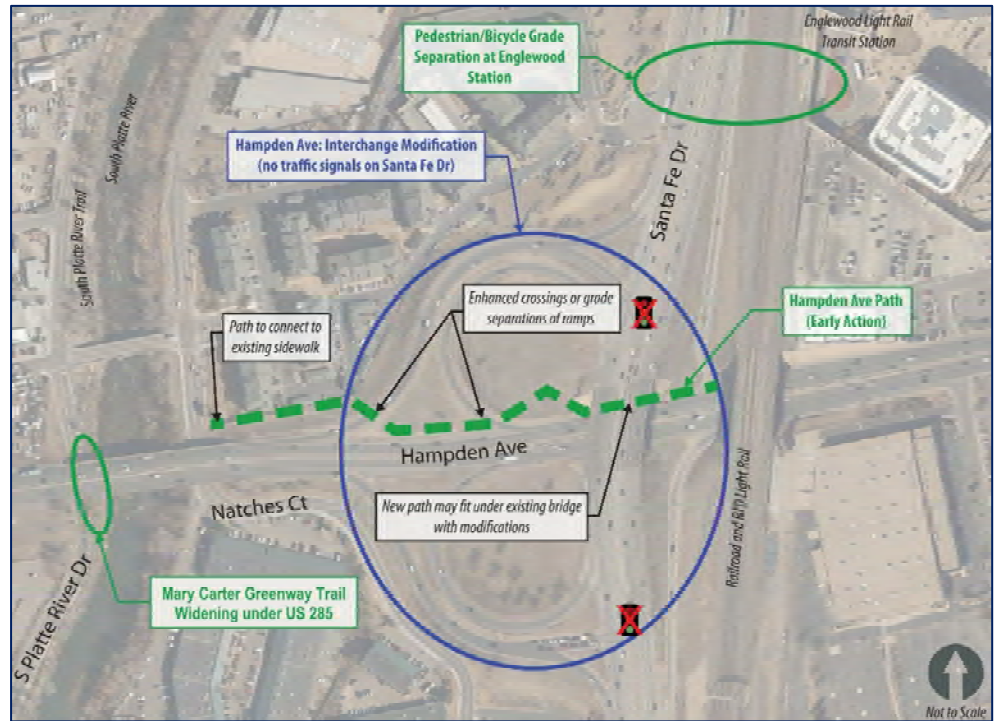
**AGENCIES:** South Suburban Park and Recreation, City of Englewood, City of Sheridan, Arapahoe County

## HAMPDEN AREA

The project recommendations located around the Santa Fe Drive and Hampden Avenue interchange consist of improvements to improve multimodal connections, safety, and traffic flow.

The **Hampden Avenue interchange modifications to remove traffic signals on Santa Fe** reduce delays and improves travel time along Santa Fe. Ramp signals are shifted to Hampden, as a lower functional classification (Principal Arterial). The modifications improve safety on Santa Fe with the elimination of signal conflict points. Traffic delay and crashes on Hampden may increase with new traffic signals, but safety concerns may be mitigated with the interchange configuration.

**Constructing sidewalk along the north side of Hampden** through the Santa Fe interchange addresses a missing east-west multimodal connection between residential areas on the west side and commercial areas and transit station on the east side of Santa Fe. The new sidewalk connects to existing sidewalk at South Platte River Drive and would include design treatments at the interchange ramp crossings to enhance pedestrian/bicyclist safety.



The **Mary Carter Greenway Trail widening** under US 285 west of Santa Fe increases capacity and safety for pedestrians and bicyclists along the regional trail system, addressing an existing narrow choke point along the trail.

A new **pedestrian/bicyclist grade separation of Santa Fe at the Englewood Station** improves pedestrian/bicyclist crossings of Santa Fe and multimodal and community land use connections on the east and west sides of Santa Fe. The new connection increases capacity and safety for pedestrians and bicyclists accessing the Englewood Light Rail Transit Station and residential and commercial land uses in Englewood. This connection could be tied in to new multimodal facilities constructed with Santa Fe and Hampden interchange modifications.

### Hampden Avenue Interchange Modifications

#### BENEFITS:

- Free flow traffic through interchange improves travel time along Santa Fe
- Improved safety with reduced conflict points for high-speed traffic on Santa Fe
- Traffic signals on Hampden provide new signalized pedestrian/bicyclist crossings

#### TRADE-OFFS:

- Potential increased delay and crashes on Hampden with new ramp signals

#### NEXT STEPS:

- Detailed interchange study to identify interchange configuration and operations with concept design, public engagement, and stakeholder input (coordinate with current *US 285 Congestion Mitigation Study*)
- NEPA and design

**AGENCIES:** CDOT, City of Englewood, City of Sheridan, Arapahoe County

#### Traffic Operation Benefits

Reduces northbound and southbound Santa Fe travel time by approximately 60% between Oxford and Dartmouth



## HAMPDEN AREA RECOMMENDATIONS

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### Hampden Avenue Sidewalk

#### **BENEFITS:**

- Provides important missing pedestrian/bicyclist connection across Santa Fe between residential area on the west side and the commercial areas and transit station on the east side of Santa Fe
- Improved safety with reduced conflicts for pedestrians adjacent to Hampden Avenue and enhanced crossings for pedestrians/bicyclists crossing Hampden interchange ramps

#### **TRADE-OFFS:**

- Potential property impacts in high-density residential area between the interchange and South Platte River Drive

#### **NEXT STEPS:**

- Concept design with property owner coordination to evaluate property impacts and determine ramp crossing treatments
- NEPA and design

**AGENCIES:** CDOT, City of Englewood, City of Sheridan, Arapahoe County

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### Mary Carter Greenway Trail Widening under US 285

#### **BENEFITS:**

- Increased width addresses trail safety issue and is consistent with local planning efforts along Mary Carter Greenway Trail in area (*South Platte River Implementation Plan*)
- Increased trail capacity accommodates more pedestrian/bicyclist volume

#### **TRADE-OFFS:**

- Potential resource impacts for South Platte River Floodway, wetland, water of the U.S. and riparian habitat impacts adjacent to the South Platte River

#### **NEXT STEPS:**

- Concept design with trail user engagement and stakeholder coordination
- NEPA and design

**AGENCIES:** South Suburban Park and Recreation, City of Sheridan, CDOT, Arapahoe County

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### Pedestrian/Bicyclist Grade Separation at Englewood Station

#### **BENEFITS:**

- Additional connection for pedestrians/bicyclists to travel across Santa Fe between residential area on the west side and the commercial areas and transit station on the east side of Santa Fe
- Improved safety for pedestrians/bicyclists with new grade-separated crossing of Santa Fe
- Improved comfort and safety for pedestrians/bicyclists crossing Santa Fe may reduce traffic at area intersections with mode shift for travelers between the east and west sides of Santa Fe
- Complements future plans for development and multimodal connections in area of Santa Fe and Hampden interchange

#### **TRADE-OFFS:**

- Potential hazardous materials resource impacts

#### **NEXT STEPS:**

- NEPA and design

**AGENCIES:** City of Englewood, RTD, CDOT, Arapahoe County

## DARTMOUTH TO IOWA AREA

The project recommendations located along Santa Fe between Dartmouth and Iowa consist of improvements to improve multimodal connections, safety, and traffic flow.

**Improved Little Dry Creek Trail wayfinding** between South Platte River Trail and Santa Fe would enhance multimodal connection between the regional trail and residential areas east of Santa Fe.

**Northbound auxiliary lane through the Dartmouth signal** (approximately 950 feet long) addresses an identified congestion bottleneck and crash issues, with Dartmouth identified as the intersection with the highest number of crashes along the Santa Fe study corridor (2016-2018). The auxiliary lane improves safety with reduced queues at the signal. Traffic signal timing at Dartmouth would also be evaluated to optimize traffic flow and integrate pedestrian/bicyclist crossings.

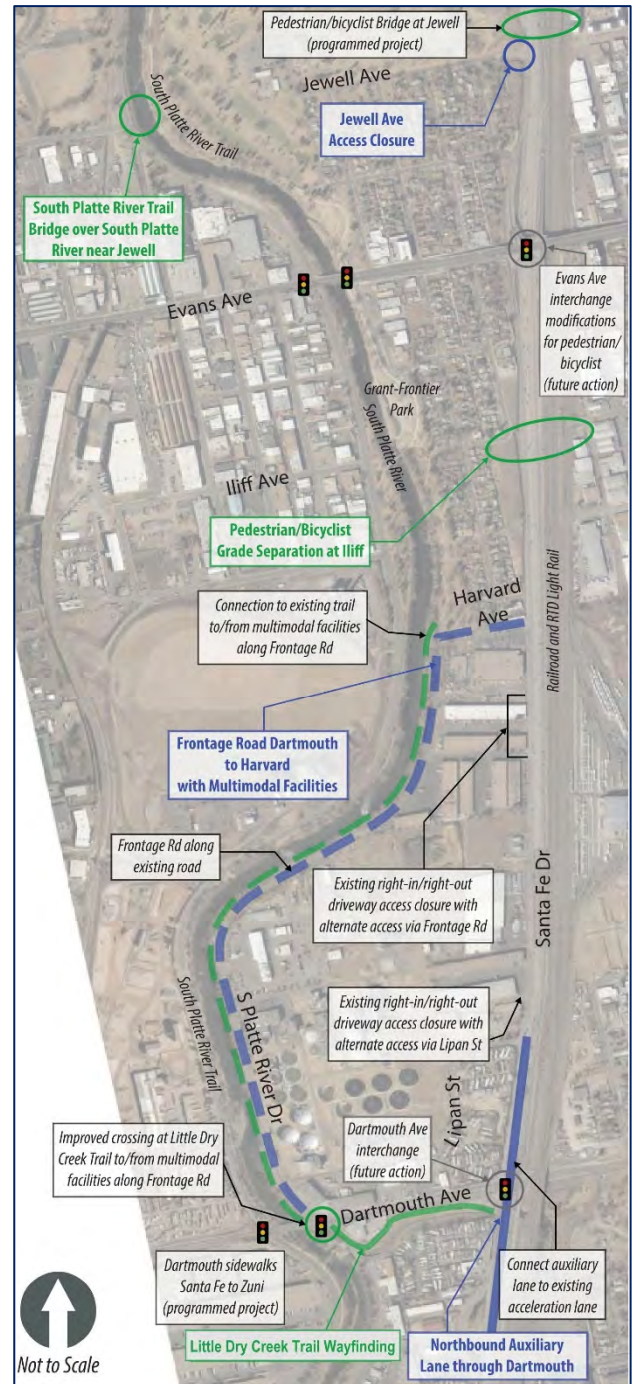
Reducing direct access to Santa Fe between Dartmouth and Harvard with access provided via a **frontage road along South Platte River Drive** improves operations and safety along Santa Fe, addressing identified congestion issues and high crash frequencies. Driveway modifications, operations, and multimodal elements of the frontage road (e.g. sidewalks, bike lanes) will be coordinated with local planners and area property owners to provide alternate property access and enhance multimodal connections through the area. The multimodal facilities along the frontage road will provide connections to Little Dry Creek Trail at the existing Dartmouth Avenue signal and to the South Platte River Trail north of Harvard.

A new **pedestrian/bicyclist grade separation at Iliff** improves pedestrian/bicyclist crossings and multimodal and community land use connections on the east and west sides of Santa Fe. The new connection increases capacity and safety for pedestrians/bicyclists accessing the Evans Light Rail Transit Station and improves access to residential areas east and west of Santa Fe.

A new **South Platte River Trail bridge over the South Platte River** west of the Overland Golf Course near Jewell provides an enhanced multimodal connection for area neighborhoods to the Broadway transit station. The bridge increases capacity for pedestrians and bicyclists along the regional trail system.

**Closing the Jewell Avenue access to Santa Fe** improves operations and safety by removing existing vehicular conflicts in close proximity to the Evans interchange ramp. The new pedestrian/bicyclist bridge over Santa Fe at Jewell (programmed project) will increase multimodal travel in the area, and the access closure will remove driver conflicts with pedestrians/bicyclists on the sidewalk.

The improvements at the Santa Fe and Dartmouth signal serve as a near-term advancement, while an interchange is a larger-scale future action. Another future action that would add corridor operational and safety benefits is to extend the northbound auxiliary lane at Dartmouth through the Evans interchange, connecting to the existing lane added from the Evans ramp. The modifications at the Evans interchange to facilitate pedestrian/bicyclist crossings is identified as a future action, to occur with other large-scale interchange reconstruction.





## DARTMOUTH TO IOWA AREA RECOMMENDATIONS

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### Little Dry Creek Trail Wayfinding at Dartmouth

#### **BENEFITS:**

- Improved multimodal connections across Santa Fe and between South Platte River Trail and residential areas
- Improved trail may reduce at-grade pedestrian/bicyclist crossings at Santa Fe and Dartmouth signal, improving intersection traffic operations and improving safety with reduced crossing conflicts

#### **TRADE-OFFS:**

- Potential floodplain, wetlands, waters of the U.S., and riparian habitat resource impacts and recreational impacts to Little Dry Creek Trail

#### **NEXT STEPS:**

- NEPA and design

**AGENCIES:** CDOT, City of Englewood, Arapahoe County

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### Northbound Auxiliary Lane through Dartmouth

#### **BENEFITS:**

- Improved safety with reduced queues, addressing an area of identified safety issues with high crash frequency due to recurring congestion at Dartmouth signal
- Improved operations with reduction in delays at identified corridor congestion bottleneck at Dartmouth.

#### **TRADE-OFFS:**

- Potential historic resource, noise, and environmental justice impacts

#### **NEXT STEPS:**

- Traffic study to optimize vehicular and multimodal operations with concept design to identify intersection configuration
- NEPA and design

**AGENCIES:** CDOT, City of Englewood

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### Frontage Road Dartmouth to Harvard with Multimodal Facilities

#### **BENEFITS:**

- Improved safety with reduced conflicts, addressing an area of identified safety issues along Santa Fe due to driveway frequency
- Improved corridor operations with less turbulence between through and turning traffic
- Additional multimodal connections to regional trail systems and Santa Fe crossings

#### Safety Benefits

Estimated to reduce crashes by 4 crashes/year through this section of the corridor

#### **TRADE-OFFS:**

- Potential property impacts with changes in site circulation for alternate access
- Potential business and socioeconomic impacts with loss of direct driveway access to Santa Fe
- Potential hazardous materials, historic, noise, and environmental justice impacts

#### **NEXT STEPS:**

- Concept design with public engagement and property owner coordination to evaluate property impacts

**AGENCIES:** CDOT, City and County of Denver

## DARTMOUTH TO IOWA AREA RECOMMENDATIONS

Page 3

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### Pedestrian/Bicyclist Grade Separation at Iliff

#### **BENEFITS:**

- Additional connection for pedestrians/bicyclists to travel across Santa Fe between Evans Light Rail Transit Station and residential areas east and west of Santa Fe
- Improved safety for pedestrians/bicyclists with new grade-separated crossing of Santa Fe
- Improved comfort and safety for pedestrians/bicyclists crossing Santa Fe may reduce traffic at area intersections with mode shift for travelers between the east and west sides of Santa Fe

#### **TRADE-OFFS:**

- Potential historic and floodplain resource impacts
- Potential property impacts (east side of Santa Fe)

#### **NEXT STEPS:**

- NEPA and design

**AGENCIES:** CDOT, City and County of Denver

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### South Platte River Trail Bridge over South Platte River near Jewell

#### **BENEFITS:**

- Enhanced multimodal connection for area residential neighborhoods to the transit stations at I-25/Broadway and at Evans
- Increased regional trail capacity accommodates more pedestrian/bicyclist volume

#### **TRADE-OFFS:**

- Potential historic, hazardous material, floodplain, wetland, waters of the U.S. and riparian habitat impacts
- Potential recreational impacts to South Platte River Trail
- Temporary trail closures during construction

#### **NEXT STEPS:**

- Concept design with trail user engagement and stakeholder coordination
- NEPA and design

**AGENCIES:** City and County of Denver

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### Jewell Ave Access Closure

#### **BENEFITS:**

- Improved safety and operations on Santa Fe with elimination of vehicular conflicts
- Improved multimodal comfort and safety with removal of vehicular conflicts with pedestrians/bicyclists

#### **TRADE-OFFS:**

- Additional volume at Evans intersections with traffic diversion

#### **NEXT STEPS:**

- NEPA and design

**AGENCIES:** CDOT, City and County of Denver

## IOWA TO I-25 AREA

The project recommendations located along Santa Fe between Iowa and I-25 consist of improvements to improve safety, traffic flow, and multimodal connections.

A **channelized T intersection at the Santa Fe and Iowa signal** reduces delays and queuing along Santa Fe Drive and improves safety at the intersection. The channelized T intersection would allow free-flow traffic without stops along southbound Santa Fe for two miles between the Florida and Dartmouth signals. To maintain important east-west pedestrian/bicyclist connections, the channelized T design will include a signalized crossing or more robust infrastructure (e.g., grade separation) for multimodal travel across Santa Fe.

**Adding a southbound lane on Santa Fe across the South Platte River bridge** provides a continuous lane from I-25 (with the additional lane to be added with development) to the existing lane at Florida. The additional southbound lane through the Mississippi signal addresses an identified congestion bottleneck on Santa Fe, along with an additional southbound bottleneck anticipated at the South Platte bridge when a lane is added with the development at Kentucky.

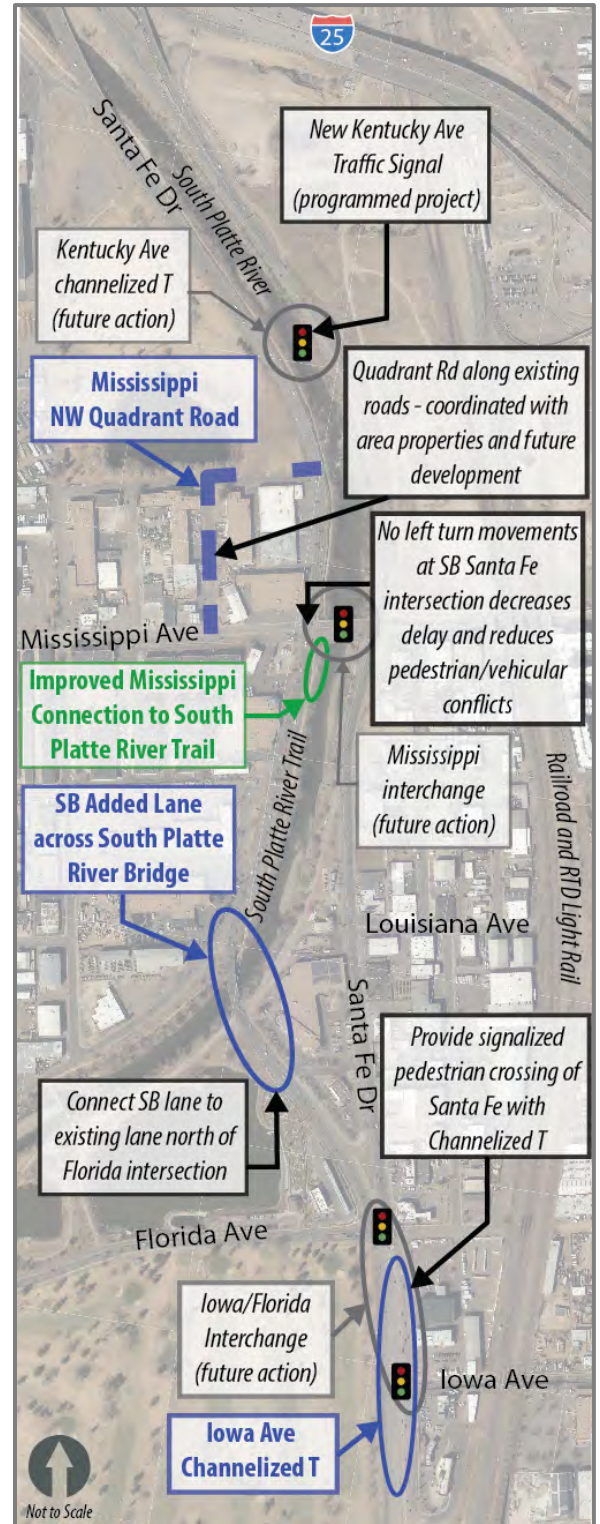
The **South Platte River Trail connection to Mississippi is improved** to provide a better connection for pedestrians and bicyclists to access Mississippi Avenue for east-west travel. Overall pedestrian/bicyclist movements through this intersection area should also be evaluated with the next steps for this improvement, as the highest number of pedestrian- and bicyclist-related crashes along the Santa Fe corridor occurred at the Mississippi intersection (2016-2018).

A **quadrant road in the northwest quadrant of the Santa Fe and Mississippi signal** reduces delays along southbound Santa Fe and westbound Mississippi, shifting those left turn movements from the signal to a right-in, right-out at Tennessee. The quadrant road improves safety with reduced queues at the Mississippi intersection, which was identified as the intersection with the second-highest number of crashes along the Santa Fe study corridor (2016-2018).

The alignment of the quadrant road in the northwest quadrant of the intersection is expected to utilize the existing local streets, and the operations and infrastructure elements (e.g. access, sidewalks, bike lanes, parking) will be coordinated with local planners and area property owners. **The Mississippi quadrant road may be an initial phase of a Mississippi Avenue interchange, serving as future ramps for the larger-scale construction that would address the significant traffic congestion and safety issues that occur at the northbound and southbound Santa Fe signals.**

Traffic signal timing at Mississippi, Florida, and Iowa would be evaluated with the near-term projects in the area to optimize traffic flow and integrate pedestrian/bicyclist crossings.

A potential interchange at Santa Fe and Iowa/Florida is identified as a future action, requiring removal of the direct access of one of the streets to Santa Fe with a connection to a grade-separated interchange at the other street. This would remove two at-grade signals along the corridor.





## IOWA TO I-25 AREA RECOMMENDATIONS

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### Iowa Avenue Channelized T

#### BENEFITS:

- Improved safety with reduced potential for angle and rear end crashes with channelized turns and no stopping for southbound Santa Fe traffic
- Less overall delay and free-flow southbound traffic reduces bottleneck congestion and improves travel time on Santa Fe

#### TRADE-OFFS:

- Potential floodplain, hazardous material, and historic resource impacts
- Intersection design to be coordinated with local planners to maintain multimodal connection across Santa Fe

#### NEXT STEPS:

- Detailed traffic study and concept design to optimize intersection operations and identify intersection configuration with public engagement and property owner coordination to evaluate property impacts
- NEPA and design

**AGENCIES:** CDOT, City and County of Denver

#### Traffic Operation Benefits

Compared to the No Action Alternative, the channelized T results in an improvement of two Levels of Service grades (overall intersection) during the AM peak period

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### Southbound Santa Fe Added Lane across South Platte River Bridge

#### BENEFITS:

- Improved safety with reduced congestion and lane-changing maneuvers, addressing bottleneck anticipated at the South Platte bridge when a lane is added with the Kentucky bridge over the South Platte River and new traffic signal to be installed with new development in area east of Santa Fe/Kentucky
- Improved operations and travel time with balanced lanes along southbound Santa Fe

#### TRADE-OFFS:

- Potential floodplain, wetlands, waters of the U.S., and riparian habitat resource impacts as well as potential hazardous material and noise impacts

#### NEXT STEPS:

- Traffic study to identify lane configurations and operations with concept design and public engagement
- NEPA and design

**AGENCIES:** CDOT, City of and County of Denver

#### Traffic Operation Benefits

Reduces Santa Fe travel time by approximately 10-15% through this section of corridor

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### Improved Mississippi Connection to South Platte River Trail

#### BENEFITS:

- Better connection for pedestrians/bicyclists between the South Platte River Trail and Mississippi Avenue
- Improved safety with overall multimodal evaluation to reduce conflicts for pedestrians/bicyclists at intersection

#### TRADE-OFFS:

- Potential floodplain, wetlands, waters of the U.S., and riparian habitat resource impacts with potential hazardous material impacts and recreational impacts to South Platte River Trail

#### NEXT STEPS:

- NEPA and design

**AGENCIES:** CDOT, City and County of Denver

## IOWA TO I-25 AREA RECOMMENDATIONS

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### Mississippi Avenue Northwest Quadrant Road

#### **BENEFITS:**

- Less signal delay reduces bottleneck congestion on Santa Fe
- Improved traffic operations reduce queues and improve safety along southbound Santa Fe and westbound Mississippi
- Quadrant road provides initial phase to serve as ramps and a bypass during construction for future, long-term, grade-separated options at the Mississippi intersection

#### Traffic Operation Benefits

Compared to the No Action Alternative, the northwest quadrant road results in an improvement of 3 Levels of Service grades (overall intersection) during the PM peak period

#### **TRADE-OFFS:**

- Alignment for quadrant road in northwest quadrant must be coordinated with local planners and property owners to minimize impacts to existing properties and future development and to maximize opportunities for multimodal connections for the area and access to the I-25/Broadway transit station
- Potential floodplain, hazardous materials, noise, and environmental justice resource impacts and recreational impacts to Vanderbilt Park

#### **NEXT STEPS:**

- Detailed traffic study to identify quadrant road operational and safety benefits with concept design to identify quadrant road cross-section and intersection configurations, considering relationship of near-term improvement to the larger-scale Mississippi Avenue interchange configuration and timing
- Public engagement and stakeholder input to define quadrant road layout
- NEPA and design

**AGENCIES:** CDOT, City and County of Denver