# WELCOME!

US 85

(I-76 TO 124th Avenue)

# Project



COLORADO

**Transportation** 

# Study Area & Vicinity



# How to Comment & Stay Connected

Leave your comments at today's meeting



Visit the project website:



www.codot.gov/library/studies/us-85-from-i-76-to-124th-avenue-highway-design-improvements

Contact the US 85 (I-76 to 124th Ave) Stakeholder Engagement team: jody@jseassociates.com





## Schedule



# What is the Purpose of the Transportation Improvements?

The purpose of the proposed transportation improvements in the US 85 corridor from I-76 to 124th Avenue are to:

- Improve safety
- Reduce existing and future traffic congestion
- Improve connectivity for and between transit (bus), bicyclists, and pedestrians
- Improve regional operations for cars, freight, and transit (bus), along US 85 between the Denver metropolitan area and communities in Adams and Weld Counties and provide reasonable access for existing and future land use

# Why are the Transportation Improvements Needed?

Safety



There is a higher than expected number of rear-end crashes at the US 85/104th Avenue and US 85/120th Avenue intersections. The proximity of the railroad to the intersections is not adequate to safely accommodate queues that form between the railroad tracks and US 85 when a train is present.

## Vehicle and Transit (Bus) Operations

Traffic operations along the corridor and at the intersections are congested today and are expected to worsen by 2040 due to local and regional population and employment growth.

# Bicycle and Pedestrian Connectivity

Infrastructure for, and connectivity among, multimodal travel modes (transit, bicyclist, and pedestrian) do not meet the existing or future (2040) needs. Corridor demand for biking and walking trips east-west across the US 85 corridor and to access transit along US 85 is expected to increase in the future.

## Regional Operations and Access Control

US 85 is a regionally significant corridor for regional operations for cars, freight movement (truck and rail), and transit. The spacing distance (O'O') (O'O') between the at-grade intersections of US 85/104th Avenue, US



between the at-grade intersections of US 85/104th Avenue, US 85/Longs Peak Drive, US 85/112th Avenue, US 85/120th Avenue, and US 85/124th Avenue conflict with the corridor's mobility function.

# Existing & Forecasted 2040 Operational Deficiencies

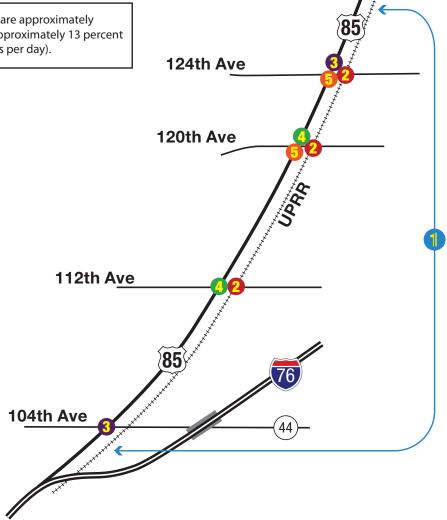
Existing daily traffic volumes along the corridor are approximately 32,000 to 42,000 vpd. Daily truck volumes are approximately 13 percent of the daily traffic volumes (4,100 to 5,500 trucks per day).

The distance between the railroad and US 85 ranges from approximately 200 to 220 feet between US 85 and the 112th Avenue, 120th Avenue, and 124th Avenue at-grade railroad crossings. The distance between US 85 and the 104th Avenue railroad crossing is approximately 800 feet.

Existing and projected average queues exceed the available storage between the railroad crossing and US 85 at these locations when a train is present. The eastbound vehicle queues can extend onto the northbound US 85 mainline causing northbound vehicles to come to a complete stop. There is a moderate risk of increased crash and severity rates on the northbound US 85 mainline.

Existing traffic operations for the US 85/104th Avenue, US 85/112th Avenue, US 85/120th Avenue, and US 85/124th Avenue intersections in the morning (AM) and evening (PM) are LOS D/E, LOS D/E, LOS C/D, and LOS B/D respectively.

Projected 2040 traffic volumes indicate that the US 85/104th Avenue, US 85/120th Avenue, and US 85/124th Avenue intersections in the morning (AM) and evening (PM) are F/F, E/E, F/F, and E/D respectively.



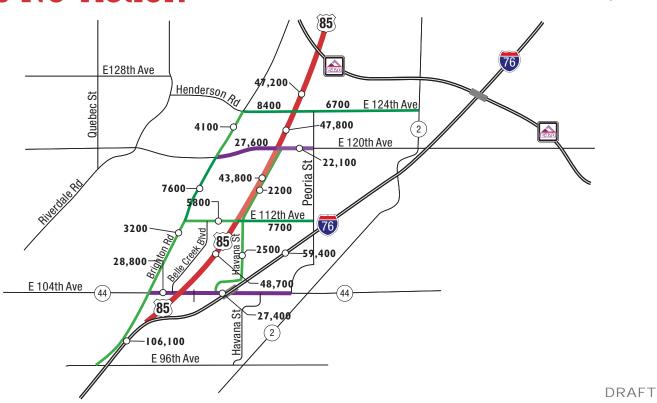
The US 85/104th Avenue, US 85/112th Avenue, US 85/120th Avenue, and the US 85/124th Avenue intersections have an above average number of rear end crashes compared to other similar facilities. Fatalities have occurred at US 85/112th Avenue, US 85/120th Avenue, US 85/124th Avenue, and in the median along the corridor.

Sidewalks for pedestrians and transit users do not exist at US 85/112th Avenue, US 85/120th Avenue, and the US 85/124th Avenue intersections. Northbound and southbound bus stops are located along US 85 at 104th Avenue, 112th Avenue, and 120th Avenue. Eastbound and westbound bus stops are located along 104th Avenue and 120th Avenue.

## **Existing Conditions**

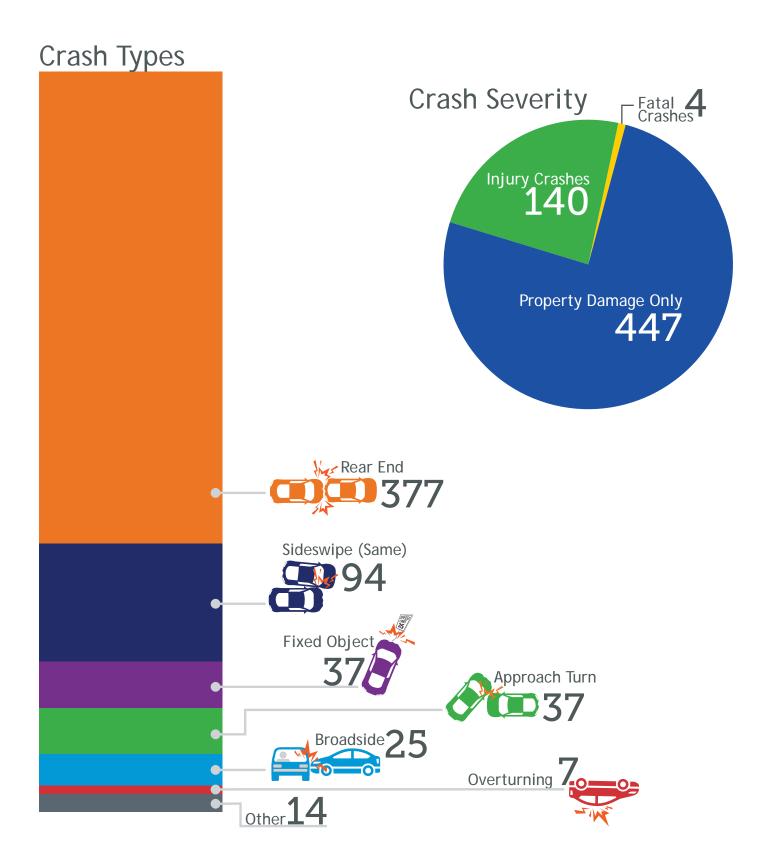


## 2040 No-Action



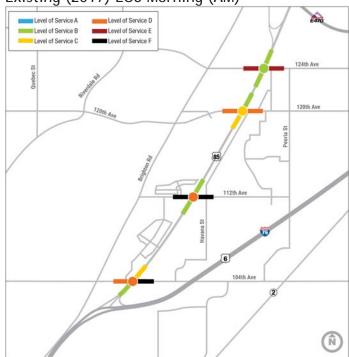
## Corridor Crash History

January 1st, 2011-June 30th 2016 (Intersection and Non-Intersection Related Crashes)



## Level of Service

# Existing Conditions Existing (2017) LOS Morning (AM)

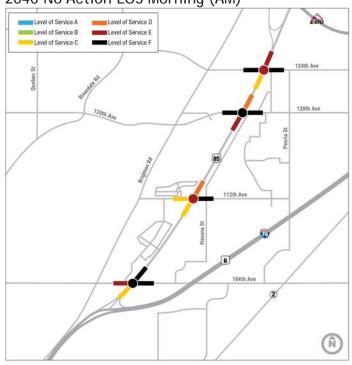




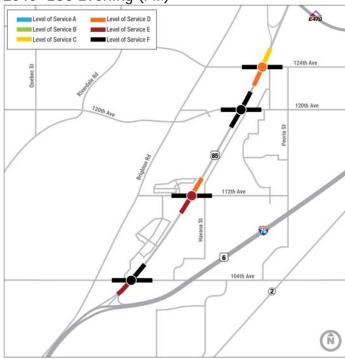


## 2040 No-Action

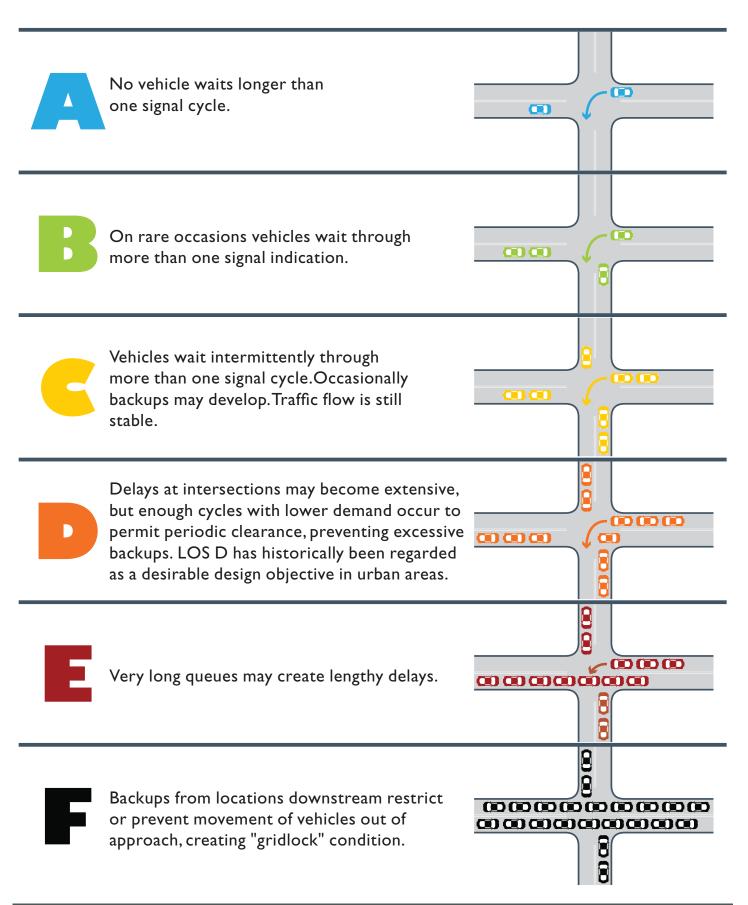
2040 No Action LOS Morning (AM)



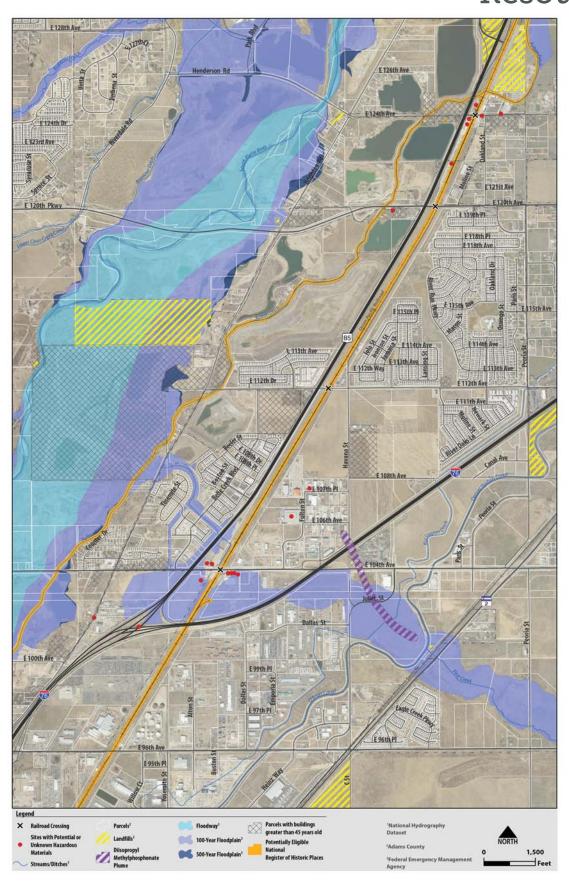




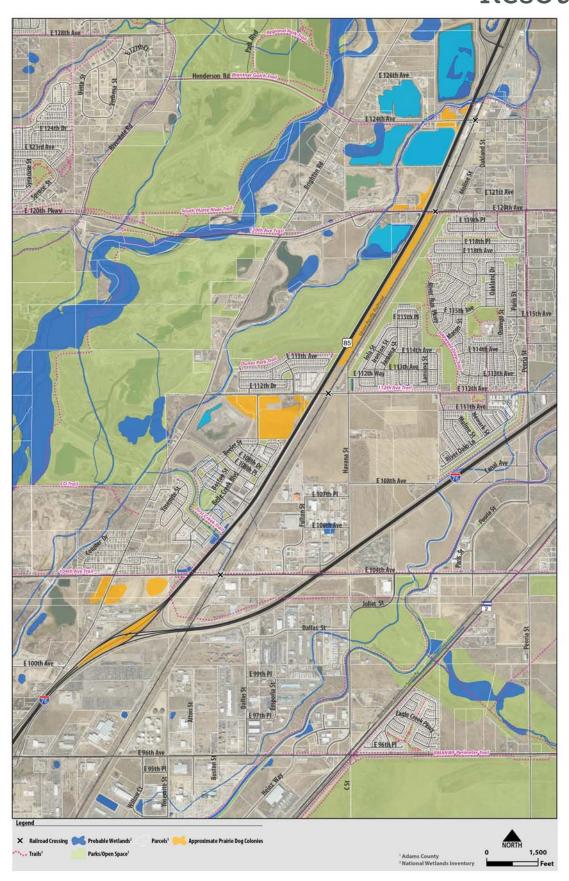
## Level of Service (LOS)



# Environmental Resources

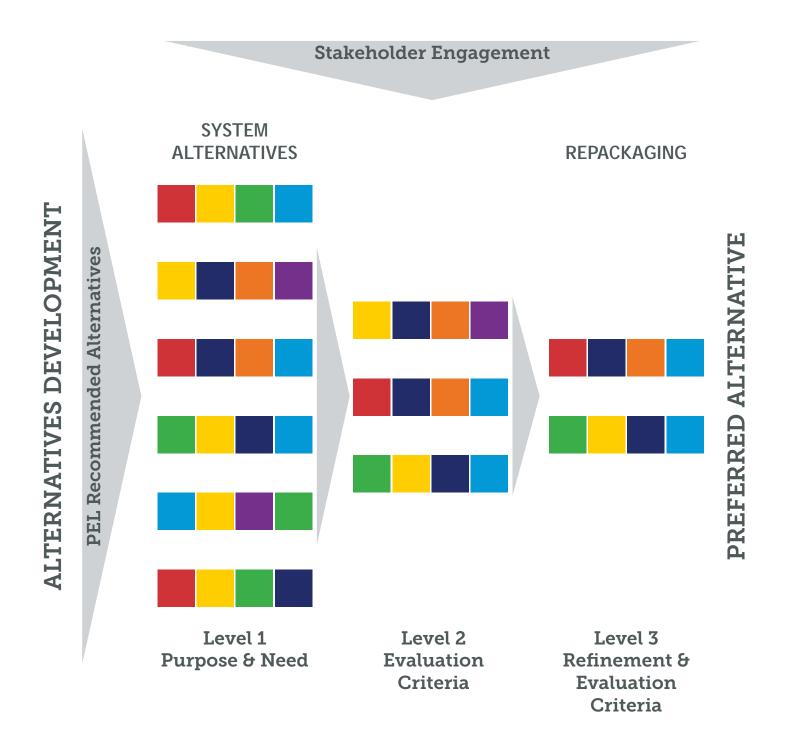


# Environmental Resources



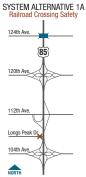


# Alternatives Evaluation Process



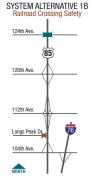


- US 85/124th Avenue Signalized At-Grade Intersection
- US 85/120th Avenue Signalized At-Grade Intersection
- US 85/112th Avenue Signalized At-Grade Intersection
- US 85/Longs Peak Drive 3/4 Movement Non-Signalized Intersection
- US 85/104th Avenue Signalized At-Grade Intersection



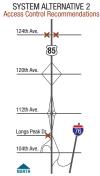
- 124th Avenue Bridge over US 85 (No Access) US 85/120th Avenue Diverging
- Diamond Interchange US 85/112th Avenue Single Loop Partial Cloverleaf Interchange US 85/Longs Peak Drive Closed
- US 85/104th Avenue Diverging Diamond Interchange

Access



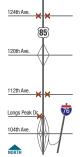
- 124th Avenue Bridge over US 85 (No Access)
- LIS 85/120th Avenue Tight Diamond Interchange US 85/112th Avenue Single Point Urban Interchange (SPUI) US 85/Longs Peak Drive Closed
- US 85/104th Avenue Split Diamond Interchange

Access



- US 85/124th Avenue Closed Access US 85/120th Avenue Diamond Interchange
- US 85/112th Avenue Skewed SPUI US 85/Longs Peak Drive Closed
- US 85/104th Avenue Partial Cloverleaf Interchange

#### SYSTEM ALTERNATIVE 3 Use of Existing Facilities

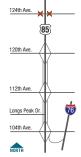


- US 85/124th Avenue Closed Access US 85/120th Avenue Tight Diamond Interchange
- US 85/112th Avenue Closed Access with Local Street Network Improvements
- US 85/Longs Peak Drive Closed Access US 85/104th Avenue SPUI Flyover

Road US 85/104th Avenue Diamond Interchange with

Collector-Distributor Roads

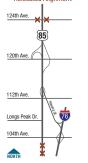
#### SYSTEM ALTERNATIVE 4 Local Access



- US 85/124th Avenue Closed Access US 85/120th Avenue Tight Diamond Interchange with Interchange
- Collector-Distributor Roads US 85/112th Avenue Tight Diamond Interchange with Collector-Distributor Roads
- US 85/Longs Peak Drive with Devolution of existing US 85 from Right-in/Right-out Access to Southbound Collector-Distributor
  - from 104th Avenue to 112th Ave New I-76/104th Avenue Diamond

New I-76/Havana Street

#### SYSTEM ALTERNATIVE 5A



US 85/124th Avenue Closed Access US 85/120th Avenue Partial Cloverleaf

Bridge over 112th Avenue with Partial Diamond Interchange

Longs Peak Drive Full Movement Intersection

104th Avenue to 112th Avenue (Existing US 85 becomes local street between 104th Avenue and 112th Avenue)

Relocation of US 85 to new alignment Interchange

System-to-System Interchange (Havana Street Alignment)



SYSTEM ALTERNATIVE 5B

US 85/124th Avenue Closed Access US 85/120th Avenue Partial Cloverleaf Interchange

Bridge over 112th Avenue with Partial Diamond Interchange

Longs Peak Drive Full Movement Intersection

Devolution of existing US 85 from 104th Avenue to 112th Avenue (Existing US 85) becomes local street between 104th Avenue and 112th Avenue)

Relocation of US 85 to new alignment from 104th Avenue to 112th Avenue

New I-76/104th Avenue Diamond Interchange

New I-76/Havana Street System-to-System Interchange (Havana Street Alignment)

#### Purpose and Need Safetv: Does the alternative improve existing and future conditions that NO YES YES YES YES YES YES YES contribute to higher than expected crash rates at the US 85/104th Avenue and US 85/120th Avenue intersections? Vehicle and Transit (Bus) Operations: Does the alternative NO YES YES YES YES YES YES YES improve existing and future traffic operations along the US 85 corridor? Bicycle and Pedestrian Connectivity: Does the alternative include infrastructure for and NO YES YES YES YES YES YES YES connectivity between bicyclists/pedestrians across the US 85 corridor and accessing existing and planned transit along the US 85 corridor **Regional Operations and Access** Control: Does the alternative improve YES NO NO YES YES YES YES YES regional operations for northern Colorado along US 85?

#### Summary of Results Retained Retained Retained Retained Retained Retained Retained Eliminated

#### Notes

The No-Action Alternative has been retained for baseline comparison purposes.

Retained for further analysis because this system alternative meets purpose and need

Retained for further analysis because this system alternative meets purpose and need.

Existing I-76 to US 85 system-to-system interchange access would be preserved with the US 85/104th Avenue Split Diamond Interchange Although access would be preserved, the westbound I-76 off-ramp to US 85 would not access 104th Avenue. Existing traffic volumes (2017) on the westbound I-76 off-ramp to 104th Avenue and northbound US 85 are less than 100 vehicles in the morning (AM) and evening (PM) peak hours

Retained for further analysis because this system alternative meets purpose and need

Existing L76 to US 85 system-to-system interchange access would be preserved with the US 85/104th Avenue Partial Cloverleaf Interchange. Although access would be preserved, the westbound I-76 off-ramp to 104th Avenue and northhound US 85 would access US 85 through a signalized intersection at the US 85 northbound on- and off-ramps to 104th Avenue. Existing traffic volumes (2017) on the westbound I-76 off-ramp to northbound US 85 are less than 100 vehicles in the morning (AM) and evening (PM) peak hours.

The US 85/104th Avenue ¾ Single Point Urban Interchange (SPUI) sub-alternative would preserve the existing free-flow movement from the westbound I-76 off-ramp to northbound

Retained for further analysis because this system alternative meets purpose and need.

Existing I-76 to US 85 system-to-system interchange access would be preserved with the US 85/104th Avenue SPUI Fly-over Interchange. Although access would be preserved, the westbound I-76 off-ramp to northbound US 85 would not access 104th Avenue. Existing traffic volumes (2017) on the westbound I-76 off-ramp to northbound US 85 are less than 100 vehicles in the morning (AM) and evening (PM) peak hours.

Retained for further analysis because this system alternative meets purpose and need.

Existing I-76 to US 85 system-to-system interchange access would be preserved with the US 85/104th Avenue Diamond Interchange. Although access would be preserved, the westbound I-76 off-ramp to 104th Avenue and northbound US 85 would access US 85 through a signalized intersection at the US 85 northbound on- and off-ramps to 104th Avenue. Existing traffic volumes (2017) on the westbound I-76 off-ramp to northbound US 85 are less than 100 vehicles in the morning (AM) and evening (PM) peak hours.

Retained for further analysis because this system alternative meets purpose

Eliminated in the Level 1 Evaluation. This system alternative is not responsive to purpose and need because it would reduce regional operations for northern Colorado along 115.85

Existing daily traffic volumes along the US 85 corridor are approximately 38,000 to 47,000 vehicles per day (vpd), and the existing I-76/US 85 directional interchange is a system-to-system movement

The proposed I-76/Havana Street Single Loop Partial Cloverleaf Interchange would not be able to process as much volume (vpd) as the existing I-76/US 85 directional interchange with direct connect ramps at US 85/I-76. The reduced capacity at the proposed I-76/Hayana Street Single Loop Partial Cloverleaf Interchange would reduce regional operations along US 85.



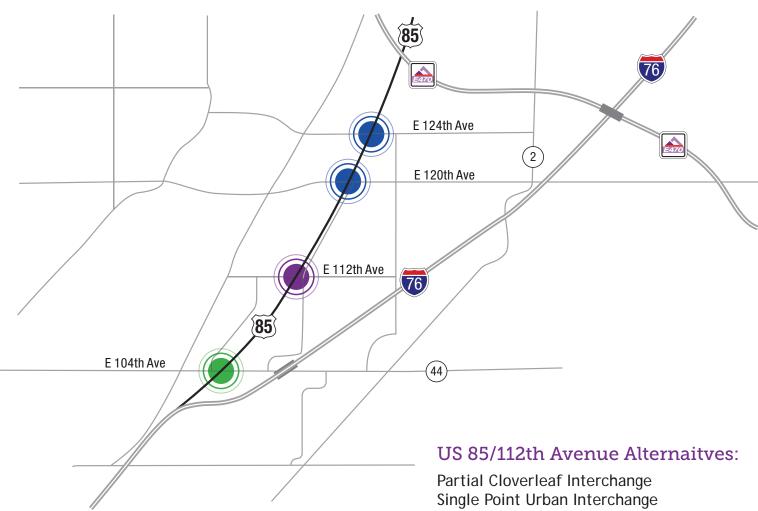
US 85: I-76 to 124th Avenue									
	NO ACTION	SYSTEM ALTERNATIVE 1A Railroad Crossing Safety	SYSTEM ALTERNATIVE 1B Railroad Crossing Safety	SYSTEM ALTERNATIVE 2 Access Control Recommendations	SYSTEM ALTERNATIVE 3 Use of Existing Facilities	SYSTEM ALTERNATIVE 4 Local Access	SYSTEM ALTERNATIVE 5A Relocated Alignment		
	124th Ave.	124th Ave.	124th Ave.	124th Ave. 🗙 🗙	124th Ave. 🗙 🗙	124th Ave. 🗙 🗙	124th Ave. 🗙 🗙		
	<u> </u>	8	6	85	■	85	8		
Syrotom	120th Ave.	1200 Aug	120th Ave.	120th Ave.	120th Ave.	120th Ave.	1200h Ave.		
System Alternative	112th Ave.	1128) Avc.	112th Ave.	112th Ave.	112th Ave.	11289 Ave.	112th Ave.		
Atternative	Longs Peak Dr.	Longs Peak Dr	Longs Peak D. 👼	Longs Peak Dr.	Longs Peak Dy	Longs Peak Dr.	Longs Pask D:		
	104th Ave.	1040 Avc	104th Ave.	104th Ave.	104th Ave.	104th Ave.	104th Ave.		
	<u>kan</u>	<b></b>	<u> </u>	<u> </u>		<u> </u>	<u></u>		
Evaluation Criteria/Results									
Address unsafe physical or operational conditions at	NO Without improvements, the intersections at US 85/104th Ave., US 85/112th Ave., US 85/120th Ave., and US 85/124th Ave. would continue to experience	YES This alternative would grade separate the US 85/104th Ave., US 85/112th Ave. and US 85/120th Ave. Intersec- tions and close the US 85/Longs Peak Drive and US	YES This alternative would grade separate the US 85/104th Ave., US 85/112th Ave. and US 85/120th Ave. Intersec- tions and close the US 85/Longs Peak Drive and US	YES This alternative would grade separate the US 85/104th Ave., US 85/112th Ave. and US 85/120th Ave. Intersec- tions and close the US 85/Longs Peak Drive and US	YES This alternative would grade separate the US 85/104th Ave. and US 85/120th Ave. intersections and close the US 85/Longs Peak Drive, US 85/112th Ave., and US	YES This alternative would grade separate the US 85/104th Ave., US 85/112th Ave. and US 85/120th Ave. intersec- tions and close the US 85/124th Ave. intersection	YES This alternative would realign US 55 north of 104th Ave. along a Havana Street alignment with an access controlled facility, grade separate the US 85/112th Ave. and US 95/120th Ave. Intersections and close the US 85/124th Ave. Intersection. This alternative would		
conditions at intersections to reduce crash rates.	high levels of rear-end collisions.	tions and close the US 85/Longs Peak Drive and US 85/124th Ave. Intersections along the corridor. This alternative would eliminate the rapid decreases in speed along the corridor due to the congested signal-	tions and close the US 85/Long Peak Drive and US 85/124th Ave. Intersections along the corridor. This alternative would eliminate the rapid decreases in speed along the corridor due to the congested signal-	tions and close the US 85/Longs Peak Drive and US 85/124th Ave. Intersections along the corridor. This alternative would eliminate the rapid decreases in speed along the corridor due to the congested signal-	Wee. and see 2 Joseph Center and Consecution and Consecution US 85/Longs Peak Orlive, US 85/1218 Mare, and US 85/1244h Ave. Intersections along the corridor. This alternative would eliminate the rapid decreases in speed along the corridor due to the congested signal-	tions and close the US 85/124th Ave. Intersection along the corridor. The US 85/Longs Peak Brive Inter- section would be converted to right-in/right-out access with the southbound collector-distributor road.			
		ized intersections, which would decrease the levels of rear-end crashes related to congestion.	ized intersections, which would decrease the levels of rear-end crashes related to congestion.	ized intersections, which would decrease the levels of rear-end crashes related to congestion.	ized intersections, which would decrease the levels of rear-end crashes related to congestion.	This alternative would eliminate the rapid decreases in speed along the corridor due to the congested signalized intersections, which would decrease the levels of rear-end crashes related to congestion.	dor due to the congested signalized intersections, which would decrease the levels of rear-end crashes related to congestion.		
Improve safety for all	NO Sidewalks for pedestrians and transit users do not exist at the US 85/112th Ave., US 85/120th Ave., and the US 85/124th Ave. Intersections. High traffic volumes and	YES This alternative would increase safety for vehicles (cars, trucks, and transit) by removing the at-grade signalized intersections at US 85/104th Ave., US 85/112th Ave.,	YES This alternative would increase safety for vehicles (cars, trucks, and transit) by removing the at-grade signalized intersections at US 85/104th Ave., US 85/	YES This alternative would increase safety for vehicles (cars, trucks, and transit) by removing the at-grade signalized intersections at US 85/104th Ave., US 85/	YES This alternative would increase safety for vehicles (cars, trucks, and transit) by removing the at-grade signalized intersections at US 85/104th Ave., US 85/	YES This alternative would increase safety for vehicles (cars, truds, and transit) by removing the at-grade signalized intersections at US 85/104th Aur., US 85/ 112th Aur., US 85/120th Aur., and US 85/124th Aur.	YES This alternative would increase safety for vehicles (cars, frucks, and transit) by removing the al-grade signalized intersections at US 85/104th Ave., US 85/111th Ave., US 85/120th Ave., and US 85/124th Ave.		
users (car, truck, transit, pedestrian, and bicyclist	high travel speeds along us 85, paired with a lack of bicycle and pedestrian facilities, create safety concerns	intersections at US 85/104th Ave., US 85/112th Ave., US 85/120th Ave., and US 85/124th Ave Pedestrians and bicyclists would cross US 85 on grade	signalized intersections at US 85/104th Ave., US 85/ 112th Ave., US 85/120th Ave., and US 85/124th Ave Pedestrians and bicyclists would cross US 85 on grade	signalized intersections at US 85/104th Ave., US 85/ 112th Ave., US 85/120th Ave., and US 85/124th Ave Pedestrians and bicyclists would cross US 85 on grade	signalized intersections at US 85/104th Ave., US 85/ 112th Ave., US 85/120th Ave., and US 85/124th Ave Pedestrians and bicyclists would cross US 85 on grade	signalized intersections at US 85/104th Ave., US 85/ 112th Ave., US 85/120th Ave., and US 85/124th Ave Pedestrians and bicyclists would cross US 85 on grade	signalized intersections at US 85/104th Ave., US 85/ 112th Ave., US 85/120th Ave., and US 85/124th Ave Pedestrians and bicyclists would cross US 85 on grade		
SAFE	for bicyclists and pedestrians traveling across US 85, as well as for transit users accessing bus stops along the corridor.	separated structures at US 85/104th Ave., US 85/112th Ave., US 85/120th Ave., and US 85/124th Ave	separated structures at US 85/104th Ave., US 85/112th Ave., US 85/120th Ave., and US 85/124th Ave	separated structures at US 85/104th Ave., US 85/112th Ave., and US 85/120th Ave	separated structures at US 85/104th Ave. and US 85/120th Ave	separated structures at US 85/104th Ave., US 85/112th Ave., and US 85/120th Ave	separated structures at US 85/104th Ave., US 85/112th Ave., and US 85/120th Ave		
Address vehicle storage for east-bound vehicles	NO Existing and projected average queues exceed the avail- able storage between the railroad crossing and US 85 at 104th Ave., 112th Ave., 120th Ave., and 124th Ave The	YES This alternative would grade separate 104th Ave., 112th Ave., 120th Ave., and 124th Ave. with the rail- road. Vehicles would no longer queue at the railroad	YES This alternative would grade separate 104th Ave., 112th Ave., 120th Ave., and 124th Ave. with the rall- road. Vehicles would no longer queue at the railroad	YES This alternative would grade separate 104th Ave., 112th Ave., and 120th Ave. with the railroad. The 124th Ave. crossing of the railroad would be closed. Vehicles would no longer queue at the railroad crossing.	YES This alternative would grade separate 120th Ave. with the railroad. The 112th and 124th Ave. crossings of the railroad would be closed. Weblics would no longer queue at the railroad crossing at these locations. 104th	NO This alternative would close the 124th Ave., crossing of the railroad. 104th Ave., 112th Ave., and 120th Ave. would remain at grade with the railroad crossing. The eastbound vehicles queues could extend onto the	YES This alternative would grade separate 120th Ave. with the railroad. The 124th Ave. crossing of the railroad would be closed. The 104th Ave. and 121th Ave. at-grade crossings of the railroad would remain. The eastbound weblicts queues could extend onto the		
queueing at the railroad crossings of 104th Ave., 112th Ave., 120th Ave.,	eastbound vehicle queues can extend onto the north- bound US 85 mainline causing northbound vehicles to come to a complete stop.	crossing.	crossing.	no longer queue at the railroad crossing.		eastbound vehicles queues could extend onto the existing northbound US 85 mainline causing north- bound vehicles to come to a complete stop at the US 85/104th Ave., US 85/112th Ave., and US 85/120th			
and 124th Ave					wed: woold reliabilit at glade with reliabilities quoues and existing US 85. The eastbound vehicles quoues could extend onto the existing northbound US 85 main line causing northbound vehicles to come to a com- plete stop at the US 85/704th Ave. Intersection. The distance between the UPRR and the US 83/704th Ave.	85/104th Ave., US 85/112th Ave., and US 85/120th Ave. intersections.	vehicles to come to a complete stop at the US 85/104th Ave. and US 85/112th Ave. intersections.		
					intersection is approximately 800 feet. Queues would need to be greater than 800 feet in length to affect the northbound US 85 mainline.				
Address vehicle storage	NO Existing and projected average queues exceed the avail- able storage between the railroad crossing and US 85 at 104th Ave., 112th Ave., 120th Ave., and 124th Ave The	YES This alternative would grade separate 104th Ave., 112th Ave., 120th Ave., and 124th Ave. with the rail- road. Vehicles would no longer queue at the US 85	YES This alternative would grade separate 104th Ave., 112th Ave., 120th Ave., and 124th Ave. with the rall- road. Vehicles would no longer queue at the US 85	YES This alternative would grade separate 104th Ave., 112th Ave., and 120th Ave. with the railroad. The 124th Ave. crossing of the railroad would be closed. Vehicles would	YES This alternative would grade separate 120th Ave. with the railroad. The 112th and 124th Ave. crossings of the railroad would be closed. Vehicles would no longer	NO This alternative would close the 124th Ave. crossing of the rallroad.	YES This alternative would grade separate 120th Ave. with the railroad. The 124th Ave. crossing of the railroad would be closed. The US 85/104th Ave. and US 85/		
Address vehicle storage for west-bound vehicles queueing at US85/104th Ave., US 85/112th Ave.,	104th Ave., 112th Ave., 120th Ave., and 124th Ave The westbound vehicle queues can extend across the railroad tracks creating safety concerns with railroad operations.	road. Vehicles would no longer queue at the US 85 Intersections and cross the railroad tracks.	road. Vehicles would no longer queue at the US 85 intersections and cross the railroad tracks.	crossing of the railroad would be closed. Vehicles would no longer queue at the US 85 intersections and cross the railroad tracks.	ralifraad would be closed. Vehicles would no longer queue at these intersections across the railroad tracks. 104th Ave. would remain at grade with the railroad crossing and existing US 85. The westbound vehicles	104th Ave., 112th Ave., and 120th Ave. would remain at grade with the railroad crossing. Westbound vehicles would queue at the signalized intersection at the north- bound US 85 ramp terminal with 104th Ave., 112th Ave.,	would be closed. The US 85/104th Ave. and US 85/ 112th Ave. at-grade intersections would remain. The westbound vehicle queues could extend across the railroad tracks.		
US 85/120th Ave., and US 85/124th Ave					queues at the US 85/104th Ave. Intersection could extend across the railroad tracks. The distance between the UPRR and the US 85/104th Ave. Intersec- tion is approximately 800 feet. Queues would need to	bound US 85 ramp terminal with 104th Ave., 112th Ave., and 120th Ave. and could extend across the railroad tracks.	Tallious tracks.		
					tion is approximately 800 feet. Queues would need to be greater than 800 feet in length to extend across the UPRR tracks from the US 85/104th Ave. Intersection.				
Improve operations at intersections during	NO Existing traffic operation for the US 85/104th Ave., US 85/12th Ave., US 85/120th Ave., and US 85/124th Ave.	YES This alternative would grade separate the US 85/104th Ave., US 85/112th Ave. and US 85/120th Ave. intersec-	YES This alternative would grade separate the US 85/ 104th Ave., US 85/112th Ave. and US 85/120th Ave.	YES This alternative would grade separate the US 85/ 104th Ave., US 85/112th Ave. and US 85/120th Ave. intersec-	YES This alternative would grade separate the US 85/ 104th Ave. and US 85/120th Ave. intersections and close the	YES This alternative would grade separate the US 85/ 104th Ave., US 85/112th Ave. and US 85/120th Ave. intersec-	YES This alternative would realign US 85 north of 104th Ave. along a Havana Street alignment with an access controlled facility, grade separate the US 85/112th Ave. and US 85/126th Ave. Intersections and close the		
existing and future (2040) peak hours.	Intersections are LOS D/E, LOS D/E, LOS C/D, and LOS B/D respectively in the morning (AM) and evening (PM). Projected 2040 traffic volumes indicate that the US	tions and close the US 85/Longs Peak Drive and US 85/124th Ave. Intersections along the corridor, which would improve operations during existing and 2040	intersections and close the US 85/Longs Peak Drive and US 85/124th Ave. Intersections along the corridor, which would improve operations during existing and 2040 peak hours.	tions and close the US 85/Longs Peak Drive and US 85/124th Ave. Intersections along the corridor, which would improve operations during existing and 2040 peak	US 85/Longs Peak Drive, US 85/112th Ave., and US 85/124th Ave. Intersections along the corridor, which would improve operations during existing and 2040	tions and close the US 85/Longs Peak Drive and US 85/124th Ave. Intersections along the corridor, which would improve operations during existing and 2040			
OPER	Projected 2040 traffic volumes indicate that the US 85/104th Ave., US 85/112th Ave., US 85/12th Ave., and US 85/124th Ave. Intersections will operate at LOS F/F, LOS E/E, LOS F/F, and LOS E/D in the AM and PM.	peak hours.	2040 peak hours.	hours.	peak hours.	peak hours.	operations during existing and 2040 peak hours.		
Improve future (2040) travel time along the corridor.	NO Travel time is expected to worsen by 2040 due to local and regional population and employment growth.	YES This alternative would grade separate the US 85/ 104th Ave., US 85/112th Ave. and US 85/120th Ave.	YES This alternative would grade separate the US 85/ 104th Ave., US 85/112th Ave. and US 85/120th Ave.	YES This alternative would grade separate the US 85/104th Ave., US 85/112th Ave. and US 85/120th Ave. Intersec- tions and close the US 85/Longs Peak Drive and US	YES This alternative would grade separate the US 85/104th Ave. and US 85/120th Ave. Intersections and close the US 85/Longs Peak Drive, US 85/112th Ave., and US	YES This alternative would grade separate the US 85/ 104th Ave., US 85/112th Ave. and US 85/120th Ave. Intersec- tions and close the US 85/Longs Peak Drive and US	YES This alternative would realign US 85 north of 104th Ave. along a Havana Street alignment with an access controlled facility, grade separate the US 85/112th		
corridor.		intersections and close the US 85/Longs Peak Drive and US 85/124th Ave. Intersections along the corridor, which would improve travel time along the corridor.	intersections and close the US 85/Longs Peak Drive and US 85/124th Ave. Intersections along the corridor, which would improve travel time along the corridor.	85/124th Ave. Intersections along the corridor, which would improve travel time along the corridor.	85/124th Ave. Intersections along the corridor, which would improve travel time along the corridor.	85/124th Ave. Intersections along the corridor, which would improve travel time along the corridor.	Ave. and US 85/120th Ave. Intersections and close the US 85/124th Ave. Intersection, which would improve travel time along the corridor.		
Improve ease of	NO Ease of movement of trucks along US 85 is expected to worsen by 2040 due to congestion.	YES This alternative would grade separate the US 85/104th Ave., US 85/112th Ave., and US 85/120th Ave., intersec-	YES This alternative would grade separate the US 85/104th Ave., US 85/112th Ave. and US 85/120th Ave. intersec-	YES This alternative would grade separate the US 85/104th Ave., US 85/112th Ave. and US 85/120th Ave. intersec-	YES This alternative would grade separate the US 85/104th Ave. and US 85/120th Ave. intersections and close the	YES This alternative would grade separate the US 85/104th Ave US 85/112th Ave. and US 85/120th Ave. Intersec-	YES This alternative would realign US 85 north of 104th Ave. along a Havana Street alignment with an access con-		
movement of trucks (freight) along US 85.	,	Ave., US 85/112th Ave. and US 85/120th Ave. Intersec- tions and close the US 85/Longs Peak Drive and US 85/ 124th Ave. Intersections along the corridor, which would improve ease of movement of trucks (freight)	Ave., US 85/112th Ave. and US 85/120th Ave. Intersec- tions and close the US 85/Longs Peak Drive and US 85/124th Ave. Intersections along the corridor, which would improve ease of movement of trucks (freight)	Are., US 85/112th Ave. and US 85/120th Ave. Intersec- tions and close the US 85/Longs Peak Drive and US 85/124th Ave. Intersections along the corridor, which would improve ease of movement of trucks (freight)	Ave. and US 85/120th we intersections and closs the US 85/Longs Peak Drive, US 85/121th Ave., and US 85/124th Ave. Intersections along the corridor, which would improve ease of movement of trucks (freight) along the corridor.	Ave., US 85/112th Ave. and US 85/120th Ave. Intersec- tions and close the US 85/Longs Peak Drive and US 85/124th Ave. Intersections along the corridor, which would improve ease of movement of trucks (freight)	along a Havana Street alignment with an access con- trolled facility, grade separate the US 85/112th Ave. and US 85/120th Ave. intersections and close the US 85/ 124th Ave. intersection, which would improve ease of		
Provide	NO Existing infrastructure for pedestrian, bicycle and transit	along the corridor.  YES Pedestrians and bicyclists would cross US 85 on grade	YES Pedestrians and bicyclists would cross US 85 on grade	YES Pedestrians and bicyclists would cross US 85 on grade	YES Pedestrians and bicyclists would cross US 85 on grade	YES Pedestrians and bicyclists would cross US 85 on grade	TES Pedestrians and bicyclists would cross US 85 on grade		
interconnectivity between the various	users is inadequate or incomplete. Sidewalks for pedes- trians and transit users do not exist at US 85/112th Ave., US 85/120th Ave., and the US 85/124th Ave. Inter-	separated structures at US 85/104th Ave., US 85/112th Ave., US 85/120th Ave., and US 85/124th Ave Transit users would continue to have access to the bus service along US 85 at 104th Ave., 112th Ave., and 120th Ave	separated structures at US 85/104th Ave., US 85/112th Ave., US 85/120th Ave., and US 85/124th Ave Transit users would continue to have access to the bus service along US 85 at 104th Ave., 112th Ave., and 120th Ave	separated structures at US 85/104th Ave., US 85/112th Ave., and US 85/120th Ave Transit users would contin- ue to have access to the bus service along US 85 at 104th Ave., 112th Ave., and 120th Ave	separated structures at US 85/104th Ave. and US 85/120th Ave Transit users would no longer have access to the north-south bus service along US 85 at	separated structures at US 85/104th Ave., US 85/ 112th Ave., and US 85/120th Ave Transit users would continue to have access to the bus service along US 85 at 104th Ave., 112th Ave., and 120th Ave	separated structures at US 85/104th Ave., US 85/112th Ave., and US 85/120th Ave Transit users would no longer have access to the north-south bus service along		
travel modes (pedestrian, bicycle, and transit).	assured is				112th Ave Transit users would continue to have access to the bus service along US 85 at 120th Ave		US 85 at 104th Ave. and 112th Ave Transit users would continue to have access to the bus service along US 85 at 120th Ave		
Provide for transit stops.	YES Northbound and southbound bus stops are located along US 85 at 104th Ave., 112th Ave., and 120th Ave East- bound and westbound bus stops are located along 104th	YES For the DDI configurations at US 85/104th Ave. and US 85/120th Ave. and the Single Loop Partial Cloverleaf Interchange at US 85/112th Ave., bus-only pull outs	YES For the US 85/104th Ave. Split Diamond Interchange, US 85/112th Ave. SPUI, and US 85/120th Ave. Tight Diamond Interchange, transit stops could be provided	YES For the US 85/104th Ave. Partial Cloverleaf Interchange, bus-only pull outs along the US 85 corridor could be provided with pedestrian connections along and then	YES For the US 85/104th Ave. SPUI Flyover interchange and US 85/120th Ave. interchange, transit stops could be provided along with pedestrian connections on the	YES For the US 85/104th Ave., US 85/112th Ave., and US 85/120th Ave. Diamond interchanges, , transit stops could be provided along with pedestrian connections	YES Transit stops along US 85 at 104th Ave. and 112th Ave. would no longer be provided. For the US 85/120th Ave. Diamond Interchange, transit stops could be provided.		
STRL	Ave. and 120th Ave	along the US 85 corridor could be provided with pedes- trian connections along and then under the ramps. Buses would not be routed through the ramp terminal	Diamond Interchange, transit stops could be provided along with pedestrian connections on the Interchange ramps for bus service along US 88. Bus could be routed through the ramp terminal intersections. The approxi-	under the ramps. Buses would not be routed through the ramp terminal intersections but would instead proceed directly back onto the highway from the pull out. For	interchange ramps for bus service along US 85. Bus could be routed through the ramp terminal intersec- tions. Transit stops at 112th Ave. for north -south bus	could be provised along with podestrian connections on the interchange ramps for bus service along US 85. Bus could be routed through the ramp terminal inter- sections. The approximate location and access to the transit stops along 104th Ave. and 120th Ave. would not be affected.	Diamond Interchange, transit stops could be provided along with pedestrian connections on the interchange ramps for bus service along US 85. Bus could be routed through the ramp terminal intersections. The approxi-		
PEDE		intersections but would instead proceed directly back onto the highway from the pull out. The approximate location and access to the transit stops along 104th Ave., 112th Ave., and 120th Ave. would not be affected.	mate location and access to the transit stops along 104th Ave. and 120th Ave. would not be affected.	the US 85/112th Ave. Skewed SPUI and US 85/120th Ave. Diamond interchange, transit stops could be provided along with pedestrian connections on the interchange country for buy sporter along US 95. Buy could be posted	service would not be provided. The approximate loca- tion and access to the transit stops along 104th Ave. and 120th Ave. would not be affected.	not be affected.	mate location and access to the transit stops along 104th Ave. and 120th Ave. would not be affected.		
AND		,		ramps for bus service along US 85. Bus could be routed through the ramp terminal intersections. The approxi- mate location and access to the transit stops along 104th Ave. and 120th Ave. would not be affected.					
Provide for grade separation of pedestrian/ bicycle	NO Existing intersections would not be grade separated in this alternative. Pedestrians and bicyclists would cross at-grade through the existing signalized intersections.	YES Pedestrians and bicyclists would cross US 85 on grade separated structures at US 85/104th Ave., US 85 /112th Ave., US 85/120th Ave., and US 85/124th Ave	YES Pedestrians and bicyclists would cross US 85 on grade separated structures at US 85/104th Ave., US 85/ 112th Ave., US 85/120th Ave., and US 85/124th Ave	YES Pedestrians and bicyclists would cross US 85 on grade separated structures at US 85/104th Ave., US 85/112th	YES Pedestrians and bicyclists would cross US 85 on grade separated structures at US 85/104th Ave. and US 85/ 120th Ave Bicyclists and pedestrians would no longer	YES Pedestrians and bicyclists would cross US 85 on grade separated structures at US 85/104th Ave., US 85/112th Ave., and US 85/120th Ave., Bicyclists and pedestrians	YES Pedestrians and bicyclists would cross US 85 on grade separated structures at US 85/104th Ave., US 85/112th Ave. and US 85/170th Ave. Bicyclists and nedestrians		
crossings across US 85.  Preserve	YES Currently, existing I-76/ US 85 is a directional inter-	YES Existing I-76 to US 85 system-to-system interchange	YES Existing I-76 to US 85 system-to-system interchange access would be preserved with the US 85/104th Ave.	would no longer be able to cross US 85 at 124th Ave  YES Existing I-76 to US 85 system-to-system interchange	be able to cross US 85 at 112th Ave. and 124th Ave  YES Existing I-76 to US 85 system-to-system interchange	would no longer be able to cross US 85 at 124th Ave  YPS Existing L76 to US 85 system to system interchange	would no longer be able to cross US 85 at 124th Ave  YES Existing 1-76 to US 85 system-to-system interchange		
system-to-system interchange access	change with direct connect ramps to US 85/1-76 and would not be modified. The southbound US 85 to eastbound 1-76 movement does not currently existing.	access would be preserved with the US 85/104th Ave. DDI. Although access would be preserved, the west- bound 1-76 off-ramp to US 85 would not access 104th	access would be preserved with the Us by Jouth May. split diamond interchange. Although access would be preserved, the westbound 1-76 off-ramp to US 85 would not access 104th Ave. Existing traffic volumes (2017) on the westbound 1-76 off-ramp to 104th Ave.	access would be preserved with the US 85/104th Ave. partial cloverleaf interchange.	access would be preserved with the US 85/104th Ave. SPUI Flyover interchange. Although access would be preserved, the westbound I-76 off-ramp to US 85 would not access 104th Ave	access would be preserved at a new location with the relocated free flow interchange and the I-76/104th Ave. diamond interchange.	access would be preserved with the US 85/104th Ave. diamond interchange.		
between 1-76 and US 85.		Ave. Existing traffic volumes (2017) on the westbound 1-76 offr-ramp to 104th Ave. and northbound US 85 are less than 100 vehicles in the morning (AM) and evening (PM) peak hours.	(2017) on the westbound I-76 off-ramp to 104th Ave. and northbound US 85 are less than 100 vehicles in the morning (AM) and evening (PM) peak hours.		Existing traffic volumes (2017) on the westbound I-76 off-ramp to 104th Ave. and northbound US 85 are less				
Provide for grade separation of directional access to US	NO This alternative does not provide grade separation of directional access to US 85. It does not provide access	YES This alternative would grade separate directional access to US 85 at all interchanges. One-mile access	YES This alternative would grade separate directional	YES This alternative would grade separate directional	than 100 vehicles in the morning (AM) and evening (PM) peak hours. <b>YES</b> This alternative would grade separate directional	YES This alternative would grade separate directional	YES This alternative would grade separate directional		
of directional access to US 85 and access spacing of one-mile along US 85.	directional access to US 85. It does not provide access spacing of one-mile between 104th Ave., Longs Peak, and 112th Ave One-mile access spacing is provided between 112th Ave 120th Ave., and 124th Ave	access to US 85 at all interchanges. One-mile access spacing is provided along US 85.	access to US 85 at all interchanges. One-mile access spacing is provided along US 85.	access to US 85 at all interchanges. One-mile access spacing is provided along US 85.	access to US 85 at all interchanges. One-mile access spacing is provided along US 85.	access to US 85 at all interchanges. One-mile access spacing is provided along US 85.	access at 120th Ave. over existing US 85, and 104th Ave. and 112th Ave. over the new alignment.		
Õ Minimira	YES No changes to the current interchange complex.	YES The existing % movement intersection at US 85/Longs Peak Drive will be closed. Drivers currently accessing US	NO The existing % movement intersection at US 85/Longs	YES The existing % movement intersection at US 85/Longs Peak Drive will be closed. Drivers currently accession.	YES The existing % movement intersection at US 85/Longs Peak Drive will be closed. Drivers currently accessing US	YES The existing % movement intersection at US 85/Longs	YES The existing % movement intersection at US 95/Longs Peak Drive will be closed. Drivers currently accessing		
out-of-direction travel to access US 85.		85 through this intersection will be required to access US 85 at either 104th Ave. or 112th Ave The existing	Peak Drive will be closed. Drivers currently accessing US 85 through this intersection will be required to access US 85 at either 104th Ave. or 112th Ave The existing full movement signalized intersection at US 85/124th	Peak Drive will be closed. Drivers currently accessing US 85 through this Intersection will be required to access US 85 at either 104th Ave. or 112th Ave The existing full movement signalized intersection at US 85/124th Ave. will be closed. Drivers currently	85 through this intersection will be required to access US 85 at either 104th Ave. or 120th Ave The existing	Peak Drive will be closed. Drivers currently accessing US 85 through this intersection will be required to access US 85 at either 104th Ave. or 112th Ave The existing full movement signalized intersection at US	US 85 through this intersection will be required to access US 85 at either 104th Ave. or 112th Ave The existing full movement signalized intersection at US		
LOP		Ave. will be closed. Drivers currently accessing US 85 through this intersection will be required to access US 85 at 120th Ave	Ave. will be closed. Drivers currently accessing US 85	85/124th Ave. will be closed. Drivers currently accessing US 85 through this intersection will be required to access US 85 at 120th Ave	full movement signalized intersections at US 85/112th Ave. and US 85/124th Ave. will be closed. Drivers cur- rently accessing US 85 through these intersections will be required to access US 85 at 104th Ave. or 120th Ave.	existing full movement signalized intersection at US 85/124th Ave. will be closed. Drivers currently access- ing US 85 through this intersection will be required to access US 85 at 120th Ave	85/124th Ave. will be closed. Drivers currently		
ONA			85 at 120th Ase. This alternative would not meet driver expectancy, since it does not provide typical traffic operations as at other Colorado interchanges. This alternative would require motorists to remain on I-7 and exist at 104th Ase. Instead of exiting at US 85 and		rently accessing US 85 through these intersections will be required to access US 85 at 104th Ave. or 120th Ave The westbound 1-76 of Tramp to US 85 would not have access to 104th Ave. via US 85 or 1-76. Existing traffic volumes (2017) on the westbound 1-76 off-ramp to 104th Ave. and northbound US 85 are less than 100 vehicles in		required to access US 85 at 120th Are. This alterna- tive creates out of direction access to 1-76 and US 85 for 104th Are. and 121th Are. traffic. 104th Are. traffic can access east and westbound 1-76 by driving approximately # mile to the east. 104th Are. traffic		
REGIONAL			and exit at 104th Ave. Instead of exiting at US 85 and 104th Ave. Motorsist raveling eastbound on 1-76 would no longer exit directly onto 104th from US 85. Neither the US 85/104th Ave. Interchange nor the 1-76/104th Ave. Interchange would contain the same directional		Ave. and northbound US 85 are less than 100 vehicles in the morning (AM) and evening (PM) peak hours.		approximately % mile to the east. 104th Ave. traffic can access northbound US 85 by driving existing US 85 north for approximately 1 mile. 112th Ave. traffic can access northbound US 85 from the existing intersec- tion. 112th Ave. traffic can access southbound US 85		
<b>E</b>			westbound I-76 off-ramp to US 85 would not have access				tion. 112th Ave. traffic can access southbound US 85 and east and westbound I-76 by traveling new Havana Street to 104th Ave. (approximately 1 mile)		
			to 104th Ave. via US 85 or 1-76. Existing traffic volumes (2017) on the westbound 1-76 off-ramp to 104th Ave. and northbound US 85 are less than 100 vehicles in the morning (AM) and evening (PM) peak hours.						
			morning (AM) and evening (PM) peak hours.						

	System	NO ACTION	SYSTEM ALTERNATIVE 1A Railroad Crossing Safety	SYSTEM ALTERNATIVE 1B Railroad Crossing Safety	SYSTEM ALTERNATIVE 2 Access Control Recommendations	SYSTEM ALTERNATIVE 3 Use of Existing Facilities  1200 Am. My A	SYSTEM ALTERNATIVE 4 LOCAL ACCESS  1500 Ann. W W	SYSTEM ALTERNATIVE SA Relocated Alignment
	Alternative	1170h Ann. Lango Penin D. 100h Ann.	11200 Ans. Lamps Press Cy. 10000 Ans.	112th Ann.	13200 Ann. Langur Paulo Cy. 10000 Ann.	Lamp Print Co.	1120 Am. Long Paid N. 1000 Am.	1230h Ans. Langa Paula Cr. 150m Ans.
Ev	aluation Criteria/Results							
	Minimize temporary impacts on existing residents, businesses, and properties during construction.	YES No temporary impacts would occur if the no-action alternative is selected, since no construction is proposed.	YES Existing residents, businesses, and properties near 104th Ave., 112th Ave., 120th Ave., and 124th Ave. would be temporarily impacted during construction.	YES Existing residents, businesses, and properties near 104th Ave., 112th Ave., 120th Ave., and 124th Ave. would be temporarily impacted during construction.	YES Existing residents, businesses, and properties near 104th Ave., 112th Ave., and 120th Ave. would be temporarily impacted during construction	YES Existing residents, businesses, and properties near 104th Ave., and 120th Ave. would be temporarily impacted during construction.	YES Existing residents, businesses, and properties near 104th Ave., 112th Ave., 120th Ave., and 124th Ave. would be temporarily impacted during construction.	YES Existing residents, businesses, and properties near 104th Ave., 112th Ave., and 120th Ave. would be temporarily impacted during construction.
	Facilitate development or redevelopment and support future planned growth.	NO fase of movement along ILI 85 and side streets is capected to several by 200 did not local and regional population and employment growth. This would hinder opportunities for redevelopment and support of future planned growth.	YES Maheter, cuiting development apportunities along LE Six with appointmently in time agent and interchange. Increased operations throughout the corridor would alid the planned residential and industrial development.	YES substates outsing development oper-travilles along is set with approximately in large larger of intercongue, increased operations throughout the corridor would aid the planned residential and industrial development.	YES Librature outling development operaturalities along librature in the proposal properties of the proposal properties of the properties increased operations throughout the corridor would aid the planned residential and industrial development.	YES Mantain: outling isoen/opment oper-travilles doing by St. St. stift approximately: I mile justing of interchology. Colours of 112th Are. would reduce access to US 80. Increased operations: throughout the corridor would aid the planned residential and industrial development.	YES bilation validity development apportunities along UE or with approximately 1 mile againg of interchange. Collector-distributor roads would increase accordability along currior. Increased operations throughout the corridor would aid the planned residential and industrial development.	and 112th Ave. would have reduced access to US \$5. With the closure of 124th Ave. and reduced access at 112th Ave. only northbound access to US \$5 and south- bound access to 112th), access to US \$5 would be reduced to the US \$6/120th Ave. Interchange for approximately 3.4 miles between 1-6 and 6-470.
	Improve the ability of local residents to access community facilities both across and along US 85.	NO Ease of movement along US 85 and side streets is expected to worsen by 2040 due to local and regional population and employment growth. This laternative would not improve access to community facilities.	YES This alternative provides grade separated interchanges for 104th, 112th, 120th, and 124th Are., providing connectivity for the communities along the east-west regional roads.	YES This alternative provides grade separated interchanges for 104th, 12th, 12th, and 124th Ave., providing connectivity for the communities along the east-west regional roads.	YES This alternative provides grade separated interchanges for 104th, 112th, and 120th Ave., providing connectivity for the communities along the east-west regional roads. 124th Ave. would be closed, reducing east-west connectivity. Local street network improvements may improve connectivity at the closed intersections.	YES This alternative provides grade separated interchanges for 104th and 120th Ave., providing connectivity for the communities along the east-west regions roads. 112th and 124th Ave. would be closed, reducing east-west connectivity. Local street network improvements may improve connectivity at the closed intersections.	NO This alternative provides a grade separated interchange from US 85 however, it does not grade separate 104th Ave. and 120th Ave. from the railroad tracks and would not improve regional connectivity.	YES This alternative provides a grade separation from US 85 for 120th and 124th Ave., improving east-west regional connectivity.
	Minimize properties to be acquired for right-of-way.	YES No properties would be acquired or displaced with this alternative.	YES 45 acres of property to be acquired for ROW.	YES 30 acres of property to be acquired for ROW.	YES 41 acres of property to be acquired for ROW.	YES 13 acres of property to be acquired for ROW.	YES 26 acres of property to be acquired for ROW.	YES 49 acres of property to be acquired for ROW.
COMMUNITY	Improve east-west regional connectivity along 104th and 120th Ave. across US 85.	NO see of movement along each seet 134th; Mrs. and 13500; Mrs. It required the vinaries 3500 ft See in Social and regional population and employment growth. This alternative would not improve 194th Ave. and 120th Ave. connectivity across US 85.	YES This alternative provides grade separated interchanges at US 567/96th Ave. and US 567/20th Ave., which is the separated of the Service of US 567/96th Ave. and US 567/20th Ave. and 125th Ave. The existing US 567/96th Ave. and US 567/20th Ave. signalized interactions and the replaced by two signalized interactions and the rorthbound and south-bound ramps.	YES This alternative provides grade separated intercharges at US 5670th Aee., which would be separated to 15670th Aee. Which would be separated to 15670th Aee. The self-time of time of the self-time of the self	YES This alternative provides grade separated interchanges at US 55704th Ame, and US 55705th Ame, which record us US 55705th Ame, which record Ame, and Control American Security a	YES The alternative provides a grade opportunit of ter- brangs remained to 18 and and difference uses well respirated connectivity and 19 and	YES The attendine prodes grade reparated thetechange.  The Standard behave and Standards, washin would improve each west regional connect hely along 10th the and 12th Anc The existing US \$87.09th Anc. and US \$87.12th Anc. signalized intersections would be replaced by two signalized intersections at the northboard and south- board ramps.	YES This atternative provides grade separated interchange as at 15 Ser 76th New and 15 Ser 70th New, which is the 15 Ser 70th New, which is the 15 Ser 70th New (New York 15 Ser 70th New S
	Enhance local street connectivity to US 85.	NO This alternative does not enhance local street connectivity as the existing configuration remains.	YES 104th and 117th Aev. would be grade separated over the railread. Accesses no 104th and 117th Aev. are too close to the bridge structure for the side streets to meet discovered to the result of the side streets to meet discovered to the result of the side street connectivity. 120th and 124th Aev. grade separate over the railread but opportunities may be assigned be ordered included the connectivity at 120th and 124th Aev.	YES, 10th and 11th Are, would be grade operated over the allmed Accesses in 10th and at 11th Are, are to close to the bridge structure for the side streets to meet existing access points. The class street heavies would be impacted and may hinder local street connec- tivity; 12th and 12th Ave., great expands over the railmed but opportunities may be available to enhance local street connectivity at 120th and 124th Ave	YES 116th and 118th Are, would be grade separated over the nillined Accesses to 18th and 117th Are, are to close to the bridge structure for the side streets to meet existing access points. The class I street retentive would be impacted and may hinder local street connec- tivity 120th Are grade would separate over the rail- road but opportunities may be available to enhance local street connectivity at 120th Are. 124th Are, would be closed which reduces the east-west cornec- tivity rather than enhancing the connectivity.	YES 10th New would remain at gade at the railroad with US 80 overhead. The local railroct connectivity would be maintained. 120th New grade would separate over the local street connectivity. 120th and 12th New would be local street connectivity. 120th and 12th New would be closed which reduces the east-west connectivity rather than enhancing the connectivity.	YES 16th, 11th, and 12th hav, would remain at grade with the nilled and undermost IN IBS. The bical street connectivity is maintained, however, future quouse due to the railrador consumy my reduce overall travel time. 124th hie would be closed which reduces the east-vest connectivity rather than enhancing connectivity.	NO. This alternative relocates US \$5 to the cast. Local street scroes in impacted and there are opportunities for re-establishing local networks, however, it creates out of direction access for 1984 and 1970 Aire. This out of direction access for 1984 and 1970 Aire. This out of Aire was not to the cast which was not alternative to the cast work connectivity rather than enhancing connectivity.
	Maintain local street network circulation.	YES No changes to the current local street network circulation.	YES (19th and 112th her, usual be grade signated our US as and the national Accessor of 19th and 112th An are two close to the bridge structure for the cide streets the meet existing access plants. The local street network would be impacted and requires new side read improvements. These interchanges do not maintain local street network circulation. 10th and 12th Ave. grade separe does over the relations being opportunities may grade separe does over the relations being programation and to all 120th and 12th Ave.	YES (19th and 112th Ann. would be grade separated over US 8 and the railroad. Accesses no 10th and 112th Ane, are too close to the bridge structure for the side streets to more clasting access point. The local street network would be impacted and requires new side road improvements. These interchanges do not maintain and the company of the side of the company of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the side of side of the side of the side of the side of the side of the side of the side of the side of the side of the side of the 12th and 12th Ann.	YES 104th and 112th Ann. would be grade separated over US 8s and the Instinual Accessors on 104th and 112th Ann. are too close to the bridge structure for the side streets to meet existing access points. The local street network would be impacted and requires now side read improvements. These interchanges do not maintain, and the street of the control of the contr	YES 304th Are, would remain at grade at the nilmad with US 50 overhead. The local street network circulation would be maintained. 120th Are, would be grade sepa- nated over the nilmade for operatives are available to enhance local street network circulation at 10th Are. Local street network circulation sould not be maintained at 112th and 124th Are. due to closure.	YES 10th, 11th, and 12th Anu seuds remain at grade with the callinated and undermost his 5th. The local street network circulation is maintained, however, future queues due to the railration costing may reduce overall travel time. Local street network circulation would not be maintained at 124th Ave. due to closure.	NO This alternative relocates U.S is to the east. Local street access in impacted and there are opportunities for re-establishing local induceds, however, it creates out of the control of the control of the control of direction travel does not maintain local street network circulation.
CES	Avoid and minimize direct impacts to parks, open space, and trails.	YES No direct impacts to parks, open space, or trails with this alternative	NO impact approximately 0.03 acres of parks and open space, 0.5 miles existing trails, and 1.4 miles of pro- posed trails.	YES Impact approximately 0.2 acres of parks and open space, 0.4 miles existing trails, and 1.0 miles of pro- posed trails.	YES Impact approximately 0.3 acres of parks and open space, 0.5 miles existing trails, and 1.3 miles of pro- posed trails.	YES - 0.04 acres of parks and open space, 0.4 miles existing trails and 0.9 miles of proposed trails impacted.	YES - No acres of parks and open space impacted. Approxi- mately 0.3 miles existing trails and 0.5 miles of pro- posed trails.	YES 1.7 acres of parks and open space, 0.1 miles existing trails, and 0.3 miles of proposed trails.
RESOUE	Avoid and minimize traffic noise impacts to noise receptors along the corridor by maintaining or moving the edge of roadway.	YES No additional noise receptors affected by this alterna- tive. Existing noise receptors currently affected would continue to be affected.	YES 591 noise receptors within 500 feet of this alternative that would potentially be affected.	YES 477 noise receptors within 500 feet of this alternative that would potentially be affected.	YES 562 noise receptors within 500 feet of this alternative that would potentially be affected.	YES 448 noise receptors within 500 feet of this alternative that would potentially be affected.	YES 504 noise receptors within 500 feet of this alternative that would potentially be affected.	YES 419 noise receptors within 500 feet of this alternative that would potentially be affected
	maintaining or moving the edge of roadway.  Avoid and minimize direct impacts to previously identified and potential historic sites.	YES No potential or previously identified historic sites are impacted with this alternative.	YES 14 properties greater than 45 years of age and the UPRR and Fulton Ditch affected by this alternative.	YES 12 properties greater than 45 years of age and the UPRR and Fulton Ditch affected by this alternative.	YES 8 properties greater than 45 years of age and the UPRR and Fulton Ditch affected by this alternative.	YES 7 properties greater than 45 years of age and the UPRR and Fulton Ditch affected by this alternative.	YES 4 properties greater than 45 years of age and the UPRR affected by this alternative.	YES 4 properties greater than 45 years of age and the UPRR affected by this alternative.
II I	Avoid and minimize direct impacts to		YES Approximately 30 acres of FEMA floodplains impacted with this alternative.	YES Approximately 37 acres of FEMA floodplains impacted with this alternative.	YES Approximately 25 acres of FEMA floodplains impacted with this alternative.	YES Approximately 15 acres of FEMA floodplains impacted with this alternative.	YES Approximately 29 acres of FEMA floodplains impacted with this alternative.	YES Approximately 7 acres of FEMA floodplains impacted with this alternative.
	Avoid and minimize direct impacts to wetlands and other waters of the US.	YES No direct impacts to wetlands and other waters of the US with this alternative.	YES Approximately 1.5 acres of wetlands and other waters of the U.S. impacted.	YES Approximately 0.4 acres of wetlands and other waters of the U.S. impacted.	YES Approximately 0.4 acres of wetlands and other waters of the U.S. impacted.	YES Approximately 0.2 acres of wetlands and other waters of the U.S. impacted.	YES Approximately 0.5 acres of wetlands and other waters of the U.S. Impacted.	YES Approximately 0.3 acres of wetlands and other waters of the U.S. impacted.
ENTA	Avoid and minimize direct impacts to sensitive species.		YES Approximately 9.2 acres of prairie dog colony habitat impacted.	YES Approximately 6.0 acres of prairie dog colony habitat impacted.	YES Approximately 10.6 acres of prairie dog colony habitat impacted.	YES Approximately 6.6 acres of prairie dog colony habitat impacted.	YES Approximately 8.0 acres of prairie dog colony habitat impacted.	YES Approximately 7.0 acres of prairie dog colony habitat impacted.
	Avoid and minimize direct impacts to sites with hazardous materials concerns	YES No direct impacts to sites with hazardous materials concerns with this alternative.  YES No direct impacts to visual resources with this alter-	YES Approximately 10 sites with hazardous materials con- cerns impacted with this alternative.	YES Approximately 5 sites with hazardous materials con- cerns impacted with this alternative.	YES Approximately 10 sites with hazardous materials con- cerns impacted with this alternative.	YES Approximately 5 sites with hazardous materials con- cerns impacted with this alternative.	YES Approximately 4 sites with hazardous materials con- cerns impacted with this alternative.	YES Approximately 1 site with hazardous materials con- cerns impacted with this alternative.
EN	Avoid and minimize visual impacts.	native.	NO This alternative would result in the strong levels of visual contrast to high sensitivity viewers at US 85/104th Ave., US 85/12th Ave., US 85/12th Ave., US 85/12th Ave.	NO This alternative would have strong levels of visual con- trast to high sensitivity viewers at US 85/104th Ave., US 85/112th Ave., US 85/120th Ave., and US 85/124th Ave	NO This system alternative would have strong levels of visual contrast to high sensitivity viewers at US 85/ 112th Ave. and US 85/120th Ave	YES This system alternative would have strong levels of visual contrast to high sensitivity viewers at US 85/120th Ave	NO This system alternative would avoid visual strong levels of contrast to high sensitivity viewers US 85/104th Ave., US 85/112th Ave., and US 85/120th Ave	NO This system alternative would have strong levels of visual contrast to high sensitivity viewers at 85/112th Ave. and US 85/120th Ave
TRUCTABILITY	Maximize the use of existing infrastructure.	YES This alternative does not require modifications to the existing infrastructure.	YES US 6 may be maintained but existing 104th, 112th, 120th, 124th, 120th, 124th, 12dh, 12	YES US 86 may be maintained but existing 104th, 112th, 112	YES US \$5, 104th, 17th, 120th, and local street access would be reconstructed in its entirely to accommodate larger interchange footprints and grade separation from US 85 and the railroad.	YES US 88, 104th, 112m and 114th her, may be maintained but entiting 120th her, would be reconstructed in its upon the control of the control	YES US 58 would be reconstructed in its entirety to accom- modate the grade separation over east-west streets. 104th, 120th, and 214th Mar. remain at grade and the existing infrastructure may be maintained with additional widening.	YES (sixting US 8 would be maintained between 104th Am. and 117th Am. Intercharge modifications would be a supported to the support of the su
		YES This alternative maintains existing at grade crossing but no construction would impact rail (freight) operations.	YES 104th, 112th, 120th, and 124th would grade separate the railroad removing the st-grade crossings, impacts to the rail (freight) operations may be misimized since the rail (freight) operations may be misimized since the rail of the	YES 04th, 112th, 120th, and 124th would grade separate to the rail read emoving the at-grade crossings. Inseparate to the rail (freight) operations may be minimized since construction would be above the tracks. Side street where the second second construction would be above the tracks. Side street where the second s	YES 112th, 10th, and 12th would grade separate the rail- road removing the air-gade crossing, impacts to the rail (reight) operations may be minimized since construction prival at 10th her. may imperate rail relightly operations due to proximity to tracks. Side street improvements would be roquized at grade at 10th Alev. To maintain access to properties. This may impact rail (reightly operations to construct a new which we have a second or the construction of the operations to committed a new lide street crossing.	YES 104th Nor remains at grade with the railroad tracks with nearlicipated improvements. 112th Ave. and 124th Ave. would be closed and would not impact rail (relight) operations. Therefore, 104th, 112th, and 124th Ave. minimizes impacts to rail (relight) operations. The refore to the rail (relight) operations with the all grade crossings, impacts to the rail (relight) operations may be minimized stince construction would be above the tracks.	NO 194th, 112th, and 126th Are. would remain at grade with the rallined. These alternatives would require improvements to the earl-west systems and may impact the provided of the provided and would not impact the rail (freight) operations.	YES US 8 would be relocated to the eart with grade sepa- rated railroad crossing only at 17th and 120th Are Impacts to the rail (firshit) operations may be mini- mized stone construction would be above the track. The property of the property of the property of the road and would not impact rail (freight operations).
CONS.	Avoid and minimize impacts to major utilities.		NO Impacts to utilities are expected at 104th, 112th, 120th, and 124th Ave Relocations or improvements likely required due to large fill heights, walls, or bridge piers.	NO Impacts to utilities are expected at 104th, 112th, 120th, and 124th Ave Relocations or improvements likely required due to large fill heights, walls, or bridge piers.	NO impacts to utilities are expected at 104th, 112th, and 120th Ave Relocations or improvements likely required due to large fill helpists, walls, or bridge piers. Substan- tial utility impacts likely at 104th Ave	NO Impacts to utilities are expected at 104th and 120th Asc Relocations or improvements likely required due to large fill heights, walls, or bridge piers at 120th.	YES Utility impacts are minimized by maintaining at grade crossings of 104th, 112th, 120th, and closing 124th Ave	NO impacts to utilities are expected east of 112th at the refocated USSS alignment, and at 120th Ave. Reloca- tions or improvements likely required due to large fill heights, walls, or bridge piers.
	Avoid and minimize UPRR property to be acquired for right-of-way.	with this alternative.	YES 35 acres of UPRR right-of-way necessary to acquire for this alternative.	YES 19 acres of UPRR right-of-way necessary to acquire for this alternative.	YES 38 acres of UPRR right-of-way necessary to acquire for this alternative.	YES 33 acres of UPRR right-of-way necessary to acquire for this alternative.	YES 19 acres of UPRR right-of-way necessary to acquire for this alternative.	YES 13 acres of UPRR right-of-way necessary to acquire for this alternative.
	Avoid and minimize UPRR property to be acquired for right-of-way.	YES No UPRR property necessary to acquire for right-of-way with this alternative.	YES as acres or unext right-or-way necessary to acquire for this alternative.	YES 19 acres of UPRR right-of-way necessary to acquire for this alternative.	YES 38 acres of UPRR right-of-way necessary to acquire for this alternative.	YES 33 acres of UPRR right-of-way necessary to acquire for this alternative.	YES 19 acres of UPRR right-of-way necessary to acquire for this alternative.	YES 13 acres of UPRR right-of-way necessary to acquire for this alternative.

System Alternative	NO ACTION 1240 Ave.  63 1200 Ave.  Large Peel D. 1000 Ave.	SYSTEM ALTERNATIVE 1A Railroad Crossing Safety  124th Aug.  1720h Aug.  1122h Aug.  1122h Aug.  1122h Aug.  1122h Aug.	SYSTEM ALTERNATIVE 1B Railroad Crossing Safety  120th Ave.  88  120th Ave.  1120th Ave.  100th Ave.	SYSTEM ALTERNATIVE 2 Access Control Recommendations 126th Ave.  120th Ave.  1120h Ave.  Longo Poul D.  100th Ave.	SYSTEM ALTERNATIVE 3 Use of Existing Facilities  126th Am.  883 120th Am.  Lang Peak D.  106th Am.	SYSTEM ALTERNATIVE 4 Local Access  126th Ann.  120th Ann.  1120th Ann.  1120th Ann.	SYSTEM ALTERNATIVE 5A Relocated Alignment  1260 Aug.  1200 Aug.  11200 Aug.  11200 Aug.  11200 Aug.
Results	RETAINED  The No-Action Alternative has been	RETAINED  Retained for further analysis in	ELIMINATED  This alternative was in eliminated in	RETAINED  Retained for further analysis in	RETAINED  Retained for further analysis in	ELIMINATED	ELIMINATED  This alternative was eliminated in
Summary of Results	netained for baseline comparison purposes.	the Level 3 Evaluation.	the Level 2 Evaluation because it does not meet driver expectancy. It does not provide typical traffic operations as at other Colorado interchanges. This alternative would require motorists to remain on 1-76 and exit at 104th Avenue instead of exiting at US 85 and 104th Avenue as currently exists. Motorists traveling eastbound on 1-76 would no longer exit directly onto 104th from US 85. Neither the US 85/104th Avenue interchange nor the 1-76/104th Avenue interchange would contain the same directional movements as the existing 1-76/US 85 interchange.	the Level 3 Evaluation.	the Level 3 Evaluation.	This alternative was eliminated in the Level 2 Evaluation because 104th Avenue, 112th Avenue, and 120th Avenue would remain at grade with the railroad crossing. The east-bound vehicles queues could extend onto the existing northbound US 85 mainline causing northbound vehicles to come to a complete stop at the US 85/104th Avenue, US 85/104th Avenue, US 85/112th Avenue, and 120th Avenue, intersections. 104th Avenue, intersections. 104th Avenue, would remain at grade with the railroad crossing. Westbound vehicles would queue at the signalized intersection at the northbound US 85 ramp terminal with 104th Avenue, and 120th Avenue and could extend across the railroad tracks. Rail (freight) operations would be affected at these locations.  The collector-distributor roads benefit local access and may be incorporated into the Level 3 Evaluation. The standard diamond interchange at US 85/104th was also retained for additional evaluation.	this leave us sellimitate in the Level 2 Evaluation because it reduces existing development opportunities along US 85 with the creation of a barrier (relocated US 85) along the new Havana Alignment. Properties east of the UPRR between 104th Avenue and 112th Avenue would have reduced access to US 85. With the closure of 124th Avenue (only northbound access to 112th Avenue (only northbound access to US 85 from 112th Avenue and southbound US 85), full movement access to US 85 would be reduced to the US 85/120th Avenue interchange would be the only full movement access to US 85 would be reduced to the US 85/120th Avenue interchange would be the only full movement access to tus 85 would be reduced to the US 85/120th Avenue interchange would be the only full movement access to the only full movement access to the only full movement access to the only full full to the US 85/120th Avenue interchange would be the only full full full to the US 85/120th Avenue and 112th Avenue. Interchange modifications would be made at 104th/1-76 and could utilize some existing infrastructure. The existing 1-76/US 85 interchange would be removed.
Notes		Existing I-76 to US 85 system-to-system interchange access would be preserved with the US 85/104th Avenue diverging diamond interchange. Although access would be preserved, the westbound I-76 off-ramp to US 85 would not access 104th Avenue. Existing traffic volumes (2017) on the westbound I-76 off-ramp to 104th Avenue and northbound US 85 are less than 100 vehicles in the morning (AM) and evening (PM) peak hours.  Approximately 1.5 acres of wetlands and other waters of the U.S. impacted.  This alternative would result in the strong levels of visual contrast to high sensitivity viewers at US 85/104th Avenue, US 85/112th Avenue, US 85/12th Avenue, and US 85/124th Avenue.	Existing I-76 to US 85 system-to-system interchange access would be preserved with the US 85/104th Avenue split diamond interchange. Although access would be preserved, the westbound I-76 off-ramp to US 85 would not access 104th Avenue. Existing traffic volumes (2017) on the westbound I-76 off-ramp to 104th Avenue and north-bound US 85 are less than 100 vehicles in the morning (AM) and evening (PM) peak hours.  This alternative would have strong levels of visual contrast to high sensitivity viewers at US 85/104th Avenue, US 85/120th Avenue, US 85/120th Avenue, and US 85/124th Avenue.	Bicyclists and pedestrians would no longer be able to cross US 85 at 124th Avenue.  This system alternative would have strong levels of visual contrast to high sensitivity viewers at US 85/112th Avenue and US 85/120th Avenue.	Transit users would no longer have access to the north-south bus service along US 85 at 112th Avenue.  Existing I-76 to US 85 system-to-system interchange access would be preserved with the US 85/104th Avenue SPUI Flyover interchange. Although access would be preserved, the westbound I-76 off-ramp to US 85 would not access 104th Avenue. Existing traffic volumes (2017) on the westbound I-76 off-ramp to 104th Avenue and northbound US 85 are less than 100 vehicles in the morning (AM) and evening (PM) peak hours.  Bicyclists and pedestrians would no longer be able to cross US 85 at 112th Avenue and 124th Avenue.  This system alternative would have strong levels of visual contrast to high sensitivity viewers at US 85/120th Avenue.	Bicyclists and pedestrians would no longer be able to cross US 85 at 124th Avenue.  This system alternative would avoid visual strong levels of contrast to high sensitivity viewers at US 85/104th Avenue, US 85/112th Avenue, and US 85/120th Avenue.	Transit users would no longer have access to the north-south bus service along US 85 at 104th Avenue and 112th Avenue. Bicyclists and pedestrians would no longer be able to cross US 85 at 124th Avenue. This system alternative would have strong levels of visual contrast to high sensitivity viewers at 85/112th Avenue and US 85/120th Avenue.



## Remaining Interchange **Alternatives**



### US 85/120th Avenue and US 85/124th Avenue Alternatives:

US85/120th Avenue:

**Diverging Diamond Interchange** Standard Diamond Interchange No-Action

Bridge over UPRR and US 85 (No Access)

Closure No-Action

### US 85/124th Avenue:

Bridge over UPRR and US 85 (No Access) Closure No-Action

### US 85/104th Avenue Alternatives:

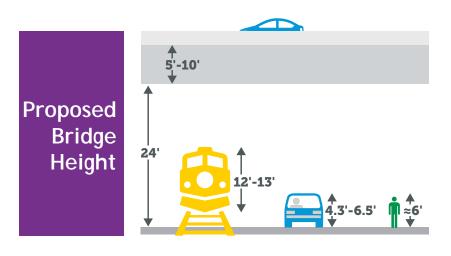
**Diverging Diamond Interchange** Standard Diamond Interchange Partial Cloverleaf Interchange Single Point Urban Interchange Flyover 3/4 Single Point Urban Interchange No-Action





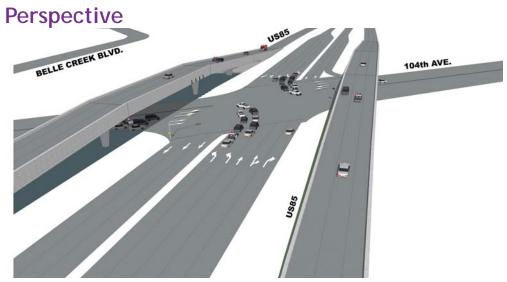
## **Perspective**

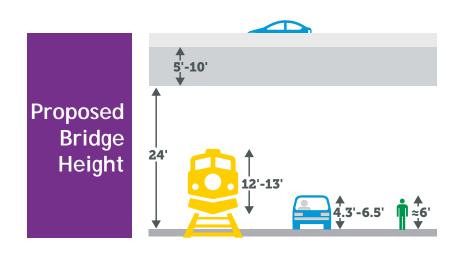












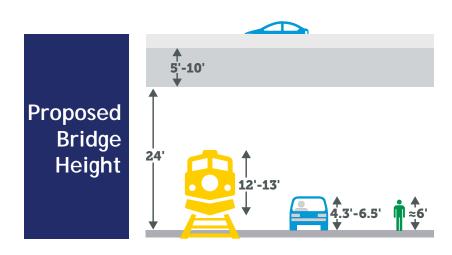
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## **Perspective**





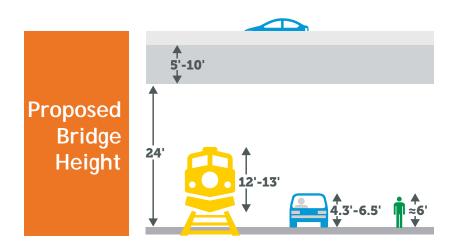
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## **Perspective**



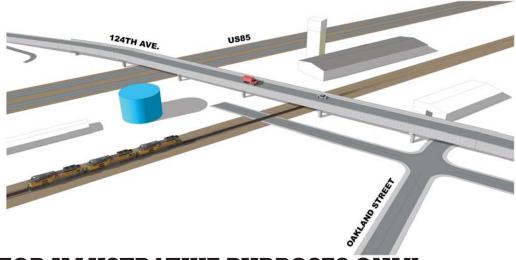


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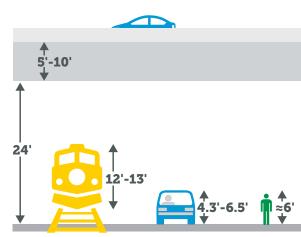




## **Perspective**







FOR ILLUSTRATIVE PURPOSES ONLY













