

# Notice of Intent (NOI) Additional Information

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## I-270 Corridor Improvements Environmental Impact Statement

Identification Number FHWA-CO-EIS-24-001

Federal Project No.: STU 2706-046, CDOT Project Code: 25611

July 2024



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## Acronyms

a.m.	morning
AASHTO	American Association of State Highway and Transportation Officials
BNSF	BNSF Railway
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CDOT	Colorado Department of Transportation
CO	carbon monoxide
C.R.S.	Colorado Revised Statute
DEIS	Draft Environmental Impact Statement
DL	drivability life
EA	Environmental Assessment
EIS	Environmental Impact Statement
FF5	Flatiron Flyer 5
FHWA	Federal Highway Administration
FRICO	Farmers Reservoir and Irrigation Company
GHGs	greenhouse gas emission
I-25	Interstate 25
I-70	Interstate 70
I-270	Interstate 270
MPH	miles per hour
MS4	Municipal Separate Storm Sewer System
MSATs	mobile source air toxics
NEPA	National Environmental Policy Act
NO <sub>2</sub>	nitrogen dioxide
NOI	Notice of Intent
NO <sub>x</sub>	nitrogen oxides
O <sub>3</sub>	ozone
p.m.	evening
PM <sub>10</sub>	particulate matter 10 microns or less in diameter

PM <sub>2.5</sub>	particulate matter 2.5 microns or less in diameter
ROW	Right-of-way
RTD	Regional Transportation District U.S. EPA United States Environmental Protection Agency
U.S.	United States
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USDOT	U.S. Department of Transportation
VOCs	volatile organic compounds

## 1.1 Introduction

The Federal Highway Administration (FHWA) in coordination with the Colorado Department of Transportation (CDOT) is issuing a Notice of Intent (NOI) to solicit comment and advise the public, agencies, and stakeholders that an Environmental Impact Statement (EIS) will be prepared for transportation improvements to the Interstate 270 (I-270) Corridor. The I-270 Corridor Improvement Project is located in the City of Commerce City, Adams County, and City and County of Denver in the state of Colorado (Figure 1). The study limits include the full extent of I-270 from Interstate 25 (I-25) to Interstate 70 (I-70) (approximately 6.5 miles). I-270 is a controlled-access interstate highway with two general-purpose lanes in each direction.

CDOT and FHWA began a National Environmental Policy Act (NEPA) process in 2020, initially anticipating an Environmental Assessment (EA). The EA process was paused in late 2022 when CDOT determined a more detailed environmental review was needed and requested an EIS be initiated.

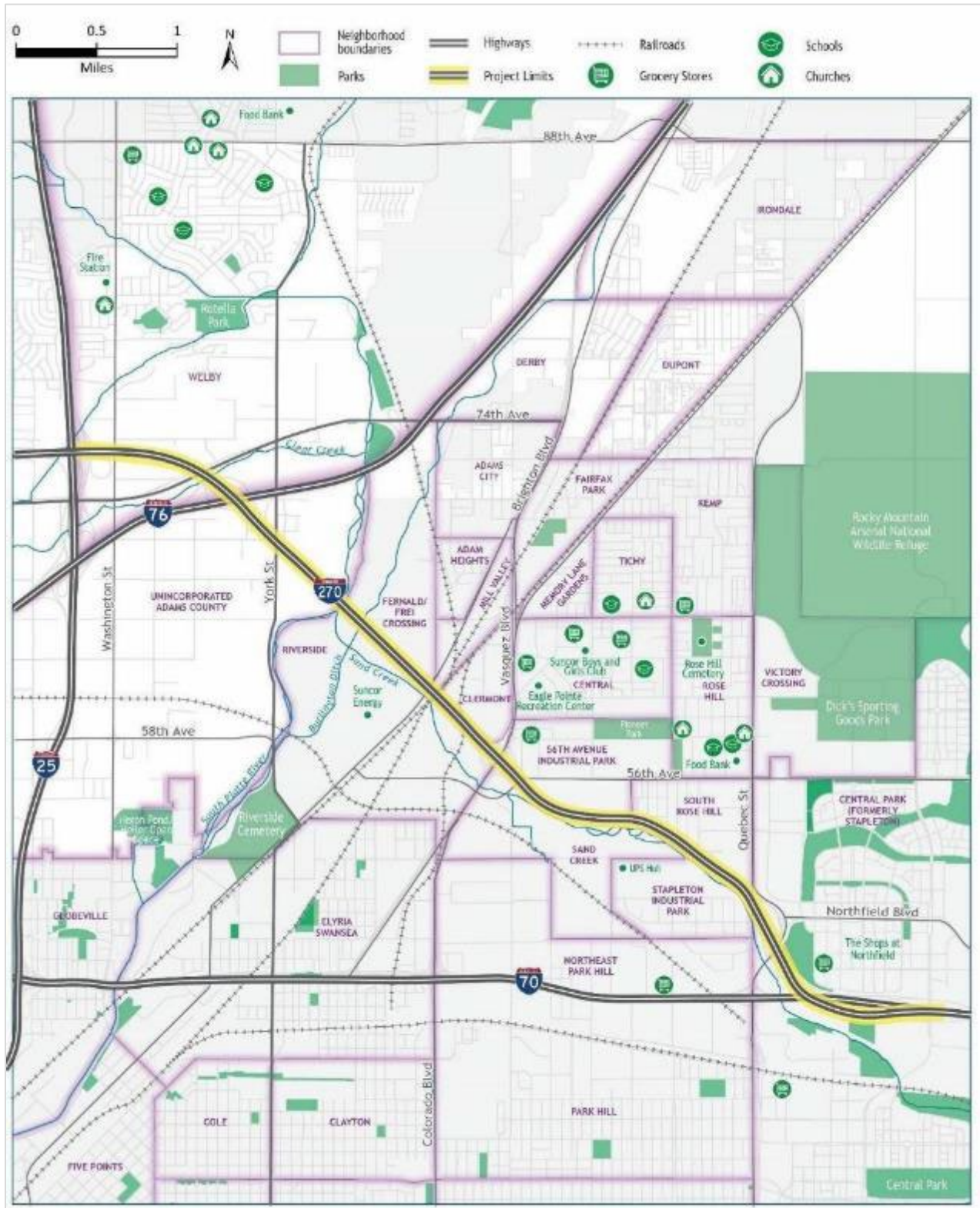
The project conducted a public open house on October 10, 2023, at the Eagle Pointe Recreation Center (Commerce City), to present the draft purpose and need and the proposed alternatives to the public. The public open house had 81 participants sign in to the event; attendees were highly engaged and provided detailed comments and thoughts. Participants were a mixture of local residents, commuters, interested groups, agency staff, and elected officials. A summary of the October public open house is available on the project website. Additional public meetings are planned to support the EIS process.

CDOT and FHWA identified agencies with jurisdiction over resources within the study area. On June 8, 2023, FHWA and CDOT conducted an agency coordination meeting. After the meeting agencies were formally contacted by FHWA through the United States Postal Service and email to determine Cooperating and Participating Agency status. Another agency coordination meeting was held on November 1, 2023. Agency coordination is planned quarterly or more frequently as needed.

In December 2023, CDOT hosted community “listening sessions” to gather feedback from area residents. The listening sessions were held at community locations in the study area; all included Spanish- and English-speaking staff. CDOT has also conducted numerous one-on-one meetings with stakeholders. In March 2024, CDOT held stakeholder workshops to further understand community concerns and gather input on the project, project alternatives, and potential environmental impacts and mitigation measures.

Persons and agencies who may be interested in or affected by the proposed project are encouraged to comment on the information in the NOI and this NOI Additional Information document. All comments received in response to this NOI will be considered and any information presented herein, including the preliminary purpose and need, preliminary alternatives and identified impacts, may be revised in consideration of the comments.

Figure 1. Project Location



## 1.2 Preliminary Purpose and Need

### 1.2.1 Project Purpose

The purpose of the I-270 Corridor Improvements project is to implement transportation solutions that modernize the I-270 corridor to accommodate existing and forecasted transportation demands.

### 1.2.2 Needs for the project

The identified transportation needs are as follows:

- Traveler safety on the corridor
- Travel time and reliability on the corridor
- Transit on the corridor
- Bicycle and pedestrian connectivity across I-270
- Freight operations on the corridor

In addition to addressing project needs, CDOT, FHWA, Cooperating, and Participating Agencies have established a key project goal: to minimize the environmental and community impacts resulting from the project. The project planning and decision-making process will consistently remain mindful of this environmental goal.

#### 1.2.2.1 Traveler safety on the corridor

I-270 experiences approximately 42 crashes per mile per year, 40 percent higher than what other similar four-lane freeways in Colorado experience at an average rate closer to 30 crashes per mile per year. These crashes cause unpredictable and unavoidable traffic congestion, which adds to or worsens the already existing congestion from travel demand that exceeds the normal roadway capacity. The unpredictable nature of traffic congestion and speed differentials on I-270 increases safety concerns for freight carriers, employers, manufacturers, and business interests in the region, as well as commuters and residents.

#### 1.2.2.2 Prevalent crash types and locations

Figure 2 shows the locations along I-270 where the number of crashes is higher than average. From 2014 to 2022, the I-270 corridor experienced more than 3,200 crashes including 14 fatalities. Of these crashes, nearly 500 occurred on the I-270 interchange ramps and more than 2,700 occurred on mainline I-270.

Figure 3 summarizes the locations and patterns of frequent crash types observed on the I-270 corridor between 2014 and 2022.



Figure 2. Safety on the I-270 corridor



Figure 3. I-270 prevalent crash types and locations



Rear end crashes, sideswipe same direction, and fixed-object crashes are the most frequent crash types on I-270. Rear end and sideswipe same direction crashes frequently occur during congested stop-and-go traffic conditions for several reasons:

- **Reduced stopping distances:** In heavy traffic, vehicles often follow closely behind one another with limited space to maneuver. When the leading vehicle suddenly brakes, the following vehicle may not have enough time or space to stop safely, leading to a rear end collision. In addition, distracted drivers may fail to react quickly enough to traffic flow changes, thereby increasing the risk of rear end collisions.
- **Lane changing and merging:** In congested traffic, drivers frequently change lanes to find faster-moving routes or to merge onto highways. These frequent lane changes increase the chances of sideswipe collisions, especially when drivers fail to check their blind spots or properly signal their intentions.

Guardrail and concrete barrier crashes are the most frequent fixed-object crashes recorded on the corridor. These types of crashes often occur as a result of settlement and deterioration of pavement, debris in the road, and/or sudden lane changes/swerving in stop-and-go traffic to avoid rear end collisions.

### 1.2.2.3 Travel time and reliability on the corridor

The I-270 corridor frequently operates at or over capacity (i.e. more vehicles are trying to use I-270 than I-270 can accommodate), resulting in substantial congestion and travel delays. At the posted speed limit of 55 miles per hour (MPH), the corridor takes approximately 6 to 8 minutes to traverse from end to end. However, during peak travel times, it typically takes 12 to 18 minutes during the morning (a.m.) peak and 15 to 25 minutes during the evening (p.m.) peak, with vehicles often moving at speeds below 20 MPH in congested conditions.

Travel reliability refers to the consistency and predictability of travel times on a given freeway or roadway segment. Frequent congestion and erratic travel times increase the likelihood of accidents on freeways. Sudden slowdowns, stop-and-go traffic, and aggressive driving behaviors can create hazardous conditions and contribute to unreliable travel times.

#### *Congestion duration on the corridor*

Figure 4 illustrates congestion along the I-270 corridor in 2023. As shown, westbound traffic encounters severe congestion between 6 a.m. and 6 p.m. Westbound congestion starts near the Vasquez Boulevard Interchange and extends past Quebec for much of this 12-hour period. Congestion at this location is exacerbated by the cloverleaf configuration at the Vasquez interchange. Cloverleaf configurations often create congestion due to the substandard distances and ramp lengths between merging and diverging traffic.

Congestion is less pronounced in the eastbound direction. Eastbound congestion starts near York Street and extends past the I-76 interchange in both the a.m. and p.m. peak periods.

**Figure 4. Hours of congestion on the I-270 corridor**

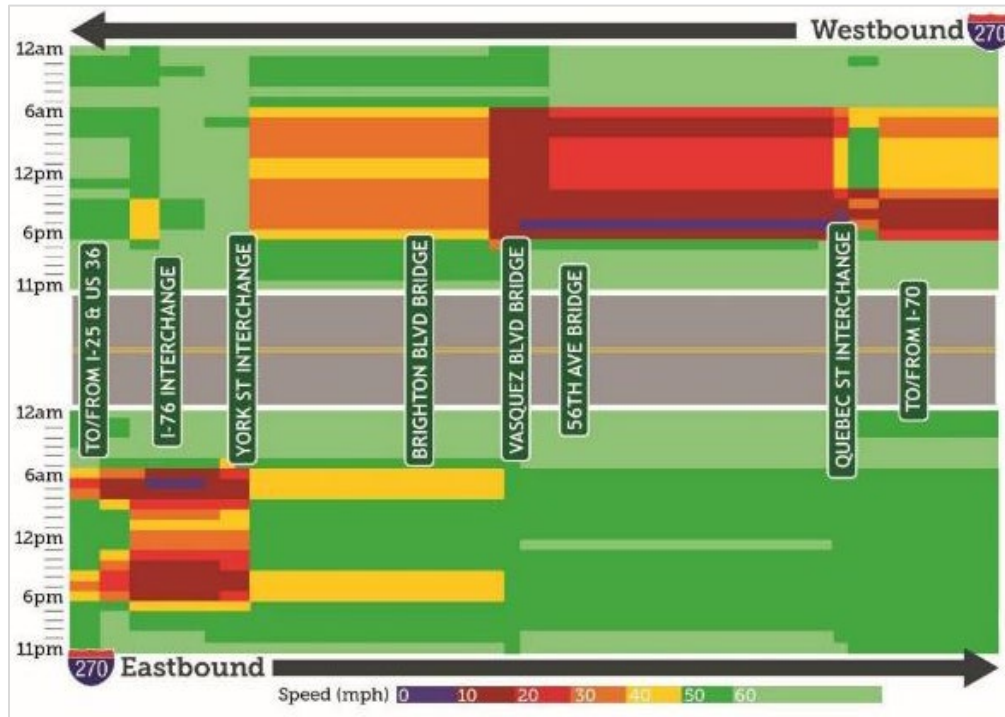
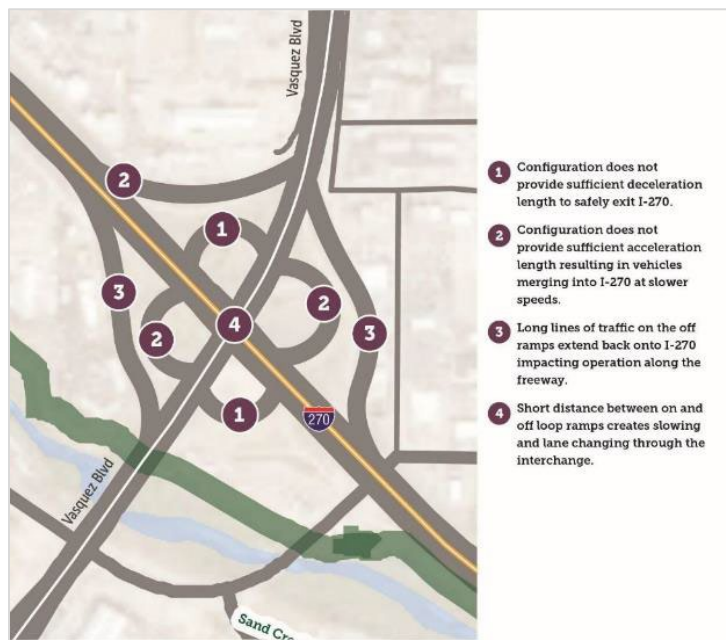


Figure 5 illustrates how merging and exiting traffic movements at the Vasquez cloverleaf interchange slows traffic and causes congestion, thereby negatively impacting travel time and reliability.

**Figure 5. Vasquez cloverleaf interchange areas of congestion**



### *Deficient structures and pavement*

The I-270 corridor includes 19 existing structures that were designed to last 50 years. Upon recent review of all 19 structures, 12 are reaching the end of their useful life. These bridges require substantially more maintenance when compared to those in good operating condition.

In the last 10 years, CDOT has conducted 160 planned maintenance activities and 65 emergency maintenance repairs. These emergency repairs often require lane closures, commonly during peak travel times, which result in more congestion, slower speeds, longer travel times and safety concerns for the traveling public and maintenance personnel. Sudden changes in traffic patterns force the traveling public to merge or change lanes, sometimes unexpectedly, especially when drivers are not prepared or attentive to the changing conditions, thereby increasing the risk of crashes. Maintenance operations often abut the travel lanes to provide as much space as feasible to reduce congestion resulting from construction activities. Safety measures separating maintenance personnel from the traveling public is frequently only a temporary concrete barrier that can move if impacted by the traveling public. In addition, unplanned maintenance, lane closures, and congestion impede the movement of emergency vehicles that rely on quick and unobstructed access to their destinations.

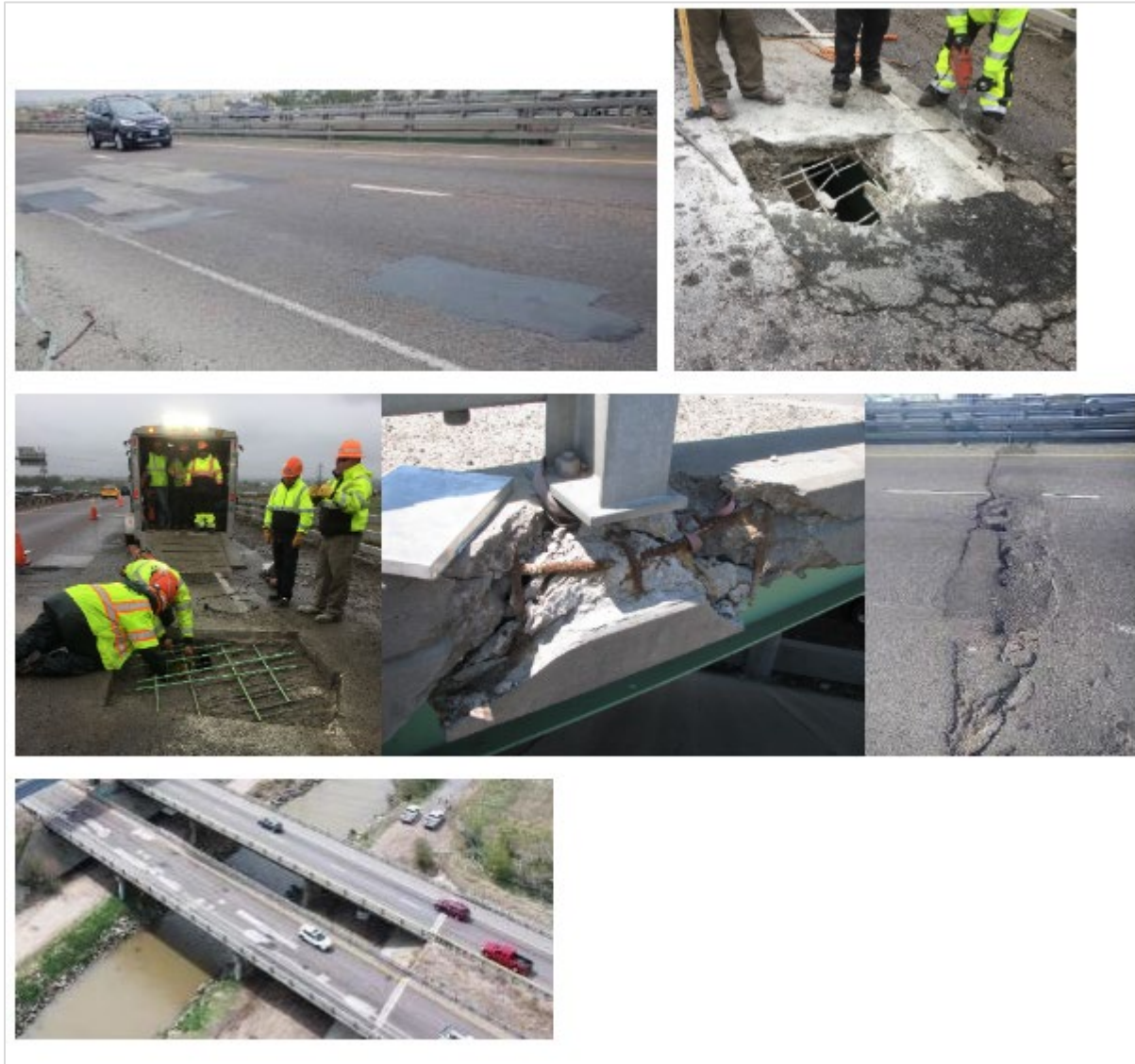
The driving surface on these bridges were deteriorating and required more frequent repairs. The traveling public frequently reduced speeds or quickly changed lanes to avoid the worse parts of the failing pavement. This resulted in more congestion and raised additional safety concerns. In 2023, CDOT completed a preventative bridge repair project that resurfaced six of the eight bridges on I-270. The driving surface and overall safety of these bridges are greatly improved to address immediate deficiencies, though the bridges are still at the end of their useful lives and may not meet current bridge standards. Figure 6 includes several photos demonstrating the condition of some of the I-270 bridges.

CDOT assesses the condition of pavement using a metric called drivability life (DL), which indicates how many years a road is anticipated to have acceptable driving conditions. The assessment is based on the presence of cracking, rutting, and roughness of the pavement. The 3-mile segment of I-270 from I-76 to east of Vasquez Boulevard has between two and four years of DL remaining (CDOT 2020b) before it no longer meets acceptable driving conditions and would need repair through emergency maintenance and lane closures. I-270 between the South Platte River and Brighton Boulevard is built over an old landfill that is causing the material underneath the driving surface to be unstable. As the landfill continues to settle, the infrastructure settles with it causing damage to guardrail, pavement, and bridge abutments and reducing the design life of the roadway.

The ongoing maintenance required to keep the existing bridges and pavement in useable condition impacts traffic operations caused by construction work zones, often leading to disruptions and safety concerns. These disruptions negatively impact drivers' travel time and reliability along the I-270 corridor. In addition, deteriorating road surfaces pose challenges for freight operations by making travel uncomfortable and dangerous. The wear and tear of

freight vehicles on aging infrastructure may increase maintenance needs and costs, limits the efficient movement of goods, and potentially leads to damage to the freight.

**Figure 6. I-270 bridge photos**



***Projected 2050 traffic conditions***

2050 projections indicate that daily volumes along I-270 are likely to increase by approximately 15 percent. Growth on other study area roadways is projected to outpace the growth on I-270. I-270 growth is limited because the facility currently operates over capacity. Without improvements to I-270, this growth will increase travel time and further reduce travel reliability. As traffic volumes increase without corresponding improvements, traffic operations, including freight reliability, and safety concerns worsen. In addition, emergency response times would be compromised, impacting public safety.

### 1.2.2.4 Transit on the corridor

Reliable transit systems increase the person-carrying capacity of the transportation network by encouraging more people to use public transportation instead of relying on single occupant vehicles.

#### *Travel delays for public transit*

Congested roadways, as discussed previously, result in slower travel speeds for both private vehicles and public transit. When transit buses get stuck in traffic, travel times increase. Congestion and highly variable travel speeds also results in unpredictable travel times and reduce transit schedule reliability.

The Regional Transportation District (RTD), a participating agency for the project, operates one bus route along the I-270 corridor, the Flatiron Flyer 5 (FF5). This route connects downtown Boulder to Anschutz Medical Campus in Aurora with a limited-stop service as shown on Figure 7. The frequent congestion and variable travel speeds on I-270 has resulted in RTD publishing an official route deviation to this service; the deviation uses I-70 and I-25 instead of I-270.

Figure 7. RTD bus route FF5 map



Source: RTD-Denver.com

RTD data shows that the FF5 operates at speeds below 35 MPH despite being a freeway route with limited stops. Table 1 shows RTD's recent on-time performance data for the FF5. Based on that data, the FF5 operates on time less than 85 percent of the time eastbound and less than 50 percent of the time westbound. The western portion of the route operates in the express lanes along US 36 providing a higher level of travel time reliability. This indicates that much of the unreliability is incurred along the I-270 portion of the trip.

**Table 1. Transit performance metrics for the Bus Route FF5**

Year	Direction	Total Boardings	Average On-Time Performance
2022	Eastbound	73	81.37%
2022	Westbound	94	45.28%

Due to frequent congestion on the I-270 corridor, bus operators for the FF5 have a published route diversion strategy to bypass congestion and minimize schedule disruptions by using I-70 and I-25. In 2023, RTD Dispatch noted that the diversion was used at the operator's discretion and reported that the diversion route was being used daily with some drivers regularly using the alternate route.

Congestion diminishes the overall efficiency of transit systems. Buses stuck in traffic and congestion are less productive, spending more time idling and less time in active service. Such situations result in increased operating costs and, in some instances, reduced service frequency. Faster travel times can help agencies provide more frequent service along a corridor, making transit a more competitive and viable option (Transit Street Guide, NACTO).

The FF5 currently operates in mixed traffic and does not provide a competitive and reliable alternative to private vehicle use.

#### 1.2.2.5 Bicycle and pedestrian connectivity across I-270

Bicyclists, pedestrians, micromobility devices such as electric bicycles and scoots, and those using other non-vehicular modes have limited opportunities to cross the I-270 corridor, thereby limiting cyclists' and pedestrians' ability to travel between neighborhoods and to connect to the Sand Creek Regional Greenway safely and efficiently. The Denver Metro Area transportation grid provides, on average, eight east-west roadways with sidewalks per mile. However, along I-270, there are fewer than two crossings (roadways or non-motorized paths) per mile, with some lacking sidewalks or bike and pedestrian trails. Figure 8 shows the existing bicycle and pedestrian crossings, with descriptions following the map.

Crossings of I-270 are shown in Figure 8 and described (by numbered key shown in Figure 8) below.

**Figure 8. Existing bicycle and pedestrian crossings of I-270**



- 1) **Washington Street:** Washington Street is a north-south roadway with five-foot attached sidewalks on both sides. The sidewalks connect to the neighborhoods on either side of I-270. There are no separate bicycle facilities on Washington Street.



**Picture: Washington Street at I-270 Looking Northbound**

- 2) **Clear Creek Trail/East 70<sup>th</sup> Avenue (State Highway 224):** The Clear Creek Trail is an eight-foot wide non-motorized bicycle and pedestrian trail that crosses under I-270 along



Clear Creek. The trail connects Commerce City and Golden, Colorado. Clear Creek Trail runs parallel to East 70<sup>th</sup> Avenue (SH 224) but there are no formal connections between East 70<sup>th</sup> Avenue (SH 224) and the Clear Creek Trail; East 70<sup>th</sup> Avenue (SH 224) does not provide sidewalks or bicycle facilities.



Picture: East 70<sup>th</sup> Avenue (SH 224) and Clear Creek Trail Under I-270 Looking Eastbound

- 3) **York Street:** The York Street bridge over I-270 does not provide sidewalks or a bicycle facility. There are sidewalk connections on both sides of York Street north and south of the I-270 bridge. The sidewalk north of I-270 along the west side of York Street is narrow and attached to a guardrail. This configuration is difficult to maintain with standard equipment and procedures.



Picture: York Street at I-270 Looking Southbound

- 4) **South Platte Trail:** The South Platte Trail is a high-quality, non-motorized bicycle and pedestrian trail that crosses under I-270 along the South Platte River. The trail connects Commerce City to downtown Denver and the south Denver metro area.



Picture: South Platte River Trail Bridge Over Clear Creek (Source: GoogleMaps)

- 5) **64<sup>th</sup> Avenue/N-Line:** 64<sup>th</sup> Avenue is an east west roadway. In this portion of the corridor, 64<sup>th</sup> Avenue runs west from Vasquez Boulevard to the Farmers Reservoir and Irrigation Company (FRICO) irrigation ditch. At the FRICO ditch, a dirt service roadway extends south of 64<sup>th</sup> Avenue along the east side of the ditch to provide access to RTD's commuter rail service in the area, the N-Line and provides an informal access to the Sand Creek Regional Greenway. 64<sup>th</sup> Avenue also crosses to the west over the FRICO irrigation ditch where it becomes a dirt road and passes under I-270 on the west side of the ditch, and dead ends at the Sand Creek Regional Greenway Trail. There are no existing sidewalks or bicycle facilities on 64<sup>th</sup> Avenue or the connection across the irrigation ditch.



Picture: East 64<sup>th</sup> Avenue/N Line at I-270

- 6) **Brighton Boulevard/60<sup>th</sup> Avenue/Sand Creek Regional Greenway Spur:** Brighton Boulevard, 60<sup>th</sup> Avenue, and the spur off the Sand Creek Regional Greenway pass under I-270. The sidewalk on the west side of Brighton Boulevard does not connect under the I-270 bridge; the sidewalk on the east side of Brighton Boulevard provides a connection under the I-270 bridge providing a connection to the Sand Creek Regional Greenway. 60<sup>th</sup> Avenue also passes under the I-270 bridges at this location. It has no existing sidewalks or bicycle facility.



**Picture: Brighton Boulevard at I-270 Looking Southbound**

- 7) **60<sup>th</sup> Avenue/BNSF Railway (BNSF)/United Asphalts:** 60<sup>th</sup> Avenue, the United Asphalts access road and the BNSF railroad pass under I-270 to the west of the Vasquez Interchange. There are no existing sidewalks or bicycle facilities on either 60<sup>th</sup> Avenue or the United Asphalts access road.



**Picture: 60<sup>th</sup> Avenue and BNSF Railroad Under I-270**

- 8) **Vasquez Boulevard:** Vasquez Boulevard is a north-south road with detached sidewalks that pass under I-270. These sidewalks don't connect to sidewalks on either side of the I-270 interchange. The need for north and south sidewalks can be seen by the dirt footpaths worn along the side of Vasquez north and south of the interchange. This crossing of I-270 does not accommodate bicycles.



Picture: Vasquez Boulevard at I-270 Looking Northbound

- 9) **56th Avenue:** 56th Avenue is a two-lane road with a 5-foot attached sidewalk on both sides of the bridge. The narrow configuration attached to the bridge structure is difficult to maintain with standard equipment and procedures. On the west side, the lack of connectivity to the south has likely contributed to the lack of maintenance and the sidewalk is difficult to navigate. On the east side, the sidewalk extends to the south and then east along Sand Creek Drive and connects to the Dahlia Trailhead. This crossing of I-270 does not accommodate bicycles.



Picture: 56th Avenue at I-270 Looking Northbound

- 10) **Quebec Street:** Quebec Street is a north-south road crossing over the top of I-270 with a 12-foot bidirectional multiuse attached path on the east side. The path connects to the Northfield Trail and the Stapleton Link Trail.



Picture: Quebec Street over I-270 Looking Northbound

#### 1.2.2.6 Freight operations on the corridor

Freight operations on interstates is critical to economic vitality and supply chain efficiency. It underpins economic growth, job creation and competitiveness, and highlights the importance of maintaining a safe, sustainable, and robust transportation network.

I-270 between I-76 and I-70 is designated as part of the Primary Highway Freight System—the “network of highways identified as the most critical highway portions of the United States (U.S.) freight transportation system” (FHWA 2020). I-270 serves regional and local freight movement.

Freight vehicles are designed to carry goods, materials, or cargo and are larger and heavier than typical passenger cars and pickup trucks. These vehicles play a critical role in the transportation of freight, supporting industries such as logistics, manufacturing, and construction by efficiently moving goods and ensuring the supply chain's functionality. Freight vehicles represent 8 to 17 percent of the daily total traffic on I-270.

#### 1.2.2.7 Freight movement efficiency

Multiple factors impact the efficiency of freight movement in the I-270 corridor, including traffic congestion, poor road surface conditions, tight turns at interchange ramps, narrow shoulder widths, short acceleration and deceleration ramps at interchanges, and the occurrence of crashes involving freight vehicles. The 2019 Colorado Freight Plan highlights the section of I-270, from I-76 to 56th Avenue, as a “congested bottleneck area” with “economic connectivity needs” (CDOT 2019a).

Corridor deficiencies impact freight mobility on the corridor:

- **Poor Road Surface Conditions:** Potholes, cracks, and deteriorating road surfaces make travel uncomfortable and dangerous for freight vehicles; potentially leading to damage to the freight.
- **Tight Curves at Interchange Loop Ramps:** At the Vasquez Boulevard interchange, the tight loop ramps do not provide sufficient pavement width for large trucks. Feedback from the Colorado Motor Carriers Association indicates that truck wheels often do not stay on the road surface during tight turns. Trucks navigate these tight loop ramps by operating at slower speeds.
- **Narrow Shoulder Widths:** Trucks hauling large loads over long distances are subject to mechanical failure and tire blowouts, resulting in the need for adequate breakdown lanes or shoulders. The absence of adequate shoulder space poses challenges when trucks encounter mechanical issues or need a place to pull over. Lack of space can lead to traffic disruptions and safety concerns. The American Association of State Highway and Transportation Officials (AASHTO) recommends that high-volume freight highways, like I-270, have usable shoulder widths of at least 10 feet and a preferable width of 12 feet (AASHTO 2018).
- **Short Acceleration and Deceleration Ramps at Interchanges:** Because trucks are heavier than passenger vehicles, they require additional space to accelerate and decelerate onto and off the highway. Trucks use the travel lanes to continue accelerating or begin deceleration. This creates differential speeds between passenger vehicles and trucks, leading to congestion and increases the likelihood of rear end and sideswipe same direction crashes.

Operational and safety needs of the corridor also impact freight:

- **Congestion:** Heavy traffic congestion on I-270 leads to delays, longer travel times, and increased operational costs for freight carriers.
- **Crashes Involving Freight Vehicles:** Between 2014 and 2022, trucks were involved in 14 percent of total mainline crashes and 11 percent of severe mainline crashes (injuries and fatalities) in the corridor. The 2019 Colorado Freight Plan identifies that I-270 had higher than statewide average truck crash rates for five consecutive years (CDOT 2019a).

These factors not only result in operational inefficiencies for freight carriers but also pose safety risks and contribute to traffic disruptions for all travelers on the I-270 corridor.

### 1.3 Preliminary Alternatives

The EIS will evaluate a range of reasonable alternatives. The alternatives are developed to address transportation needs and meet the project's goal to minimize environmental and community impacts resulting from the project. The types of improvements considered in the alternatives developed include elements such as general-purpose lanes, managed lanes (Express Lanes), and transit-only lanes on the existing alignment; safety improvements such as wider shoulders and lengthened entrance or exit ramps; and bicycle and pedestrian improvements on existing, new, and adjacent alignments. The preliminary alternatives will go

through a screening process, informed by public and agency input through the scoping process. Alternatives that have the potential to meet the project purpose, needs, and goal are moved forward for more detailed evaluation. Project elements that may not fulfill the purpose and need on their own could be included as elements of other alternatives.

Public and agency involvement are central to the EIS process, and the Lead Agencies are committed to developing alternatives with stakeholder input. Accordingly, the alternatives presented here are subject to change based on input. The public involvement process has included robust scoping, including scoping meetings, community listening sessions, and stakeholder workshops; this input has helped define and refine the alternatives considered. Stakeholder input will influence the identification of the preferred alternative, which is planned to be included in the Draft Environmental Impact Statement (DEIS).

### 1.3.1 Preliminary Alternatives

The preliminary alternatives under consideration are summarized below. As a result of the screening process, one or more of the preliminary alternatives may be screened out and not fully analyzed in the EIS or other alternatives may be added.

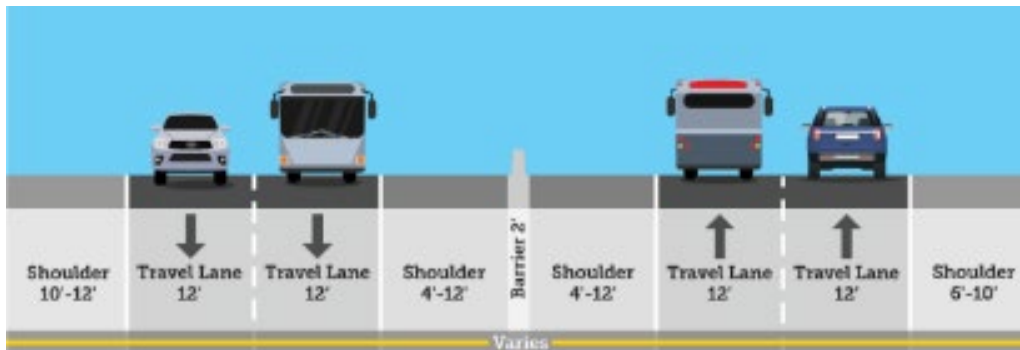
#### 1.3.1.1 No Action Alternative

The No Action Alternative would maintain the existing highway configuration of two general-purpose travel lanes in each direction. Bridges and pavement would continue to be maintained and repaired but underlying infrastructure deficiencies would remain.

The cross section would remain unchanged along I-270 under the No Action Alternative. The No Action Alternative cross sections are illustrated in Figure 9 and Figure 10.

**Figure 9. No Action Alternative (west of Vasquez Boulevard)**



**Figure 10. No Action Alternative (east of Vasquez Boulevard)**


### 1.3.1.2 Bicycle, Pedestrian, and Transit Enhancements Alternative

This alternative focuses on improvements to bicycle, pedestrian, and transit connections in lieu of additional highway capacity. It would include substantial ongoing maintenance and rehabilitation of existing highway structures and pavement and would retain the existing highway configuration (i.e., no added highway capacity). This alternative would include elements such as new or improved bus stops, crossings of I-270, wayfinding, lighting, intersections, sidewalks, and trails, which are still being developed with community input; specifics have not been finalized. The I-270 cross section would be the same as the No Action Alternative (Figure 9 and Figure 10).

### 1.3.1.3 Minimal Build Alternative

This alternative would not provide any additional I-270 travel lanes. It focuses investments on bringing deficient and obsolete I-270 infrastructure up to current standards, including replacing bridges that are reaching the end of their useful life, and addressing pavement condition and subsurface settling. It would also include safety improvements, such as widening shoulders and redesigning the I-76, York Street, Vasquez Boulevard, and Quebec Street interchange on- and off-ramps to provide adequate acceleration and deceleration lanes to meet design standards. Expanding the width of the shoulders and extending the entrance and exit ramps could help traffic move somewhat more smoothly without adding travel lanes.

It would also:

- Reconstruct existing pavement and travel lanes.
- Improve shoulders.
- Lengthen and/or redesign exit and entrance ramps at the I-76, York Street, Vasquez Boulevard, and Quebec Street interchanges.
- Add a new eastbound I-270 ramp from northbound Vasquez Boulevard and reconstruct the Vasquez Boulevard interchange.
- Reconstruct bridges that have reached the end of their useful life



- Provide sidewalks at existing crossings of I-270 at York Street, Vasquez Boulevard, and Dahlia Street where there are gaps.

### 1.3.1.4 Three General-Purpose Lanes Alternative

This alternative reconstructs I-270 to provide three general-purpose lanes in each direction as shown in Figure 11.

**Figure 11. Three General-Purpose Lanes Alternative**

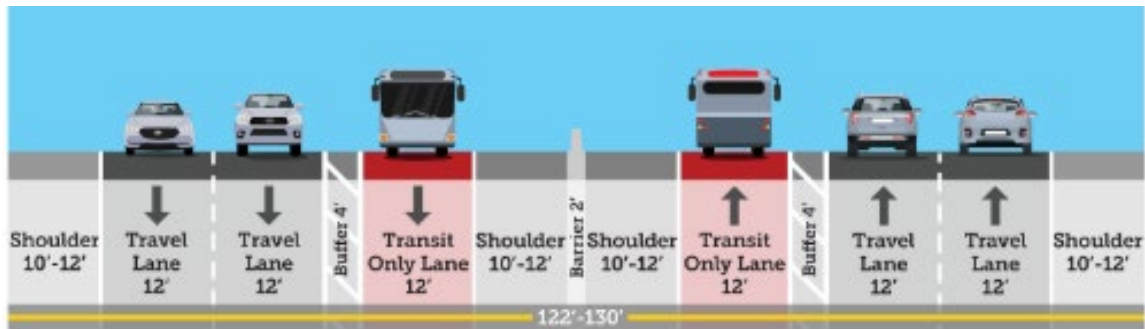


This alternative would:

- Add one general-purpose lane in each direction between I-25 and I-70.
- Reconstruct existing pavement and travel lanes.
- Improve shoulders.
- Lengthen and/or redesign exit and entrance ramps at the I-76, York Street, Vasquez Boulevard, and Quebec Street interchanges.
- Add a new eastbound I-270 ramp from northbound Vasquez Boulevard and reconstruct the Vasquez Boulevard interchange.
- Reconstruct bridges that have reached the end of their useful life
- Provide sidewalks at existing crossings of I-270 at York Street, Vasquez Boulevard, and Dahlia Street where there are gaps.

### 1.3.1.5 Two General-Purpose Lanes and One Transit-Only Lane Alternative

This alternative reconstructs I-270 with two general-purpose lanes and one transit-only lane in each direction as shown in Figure 12.

**Figure 12. Two General-Purpose Lanes and One Transit-Only Lane Alternative**


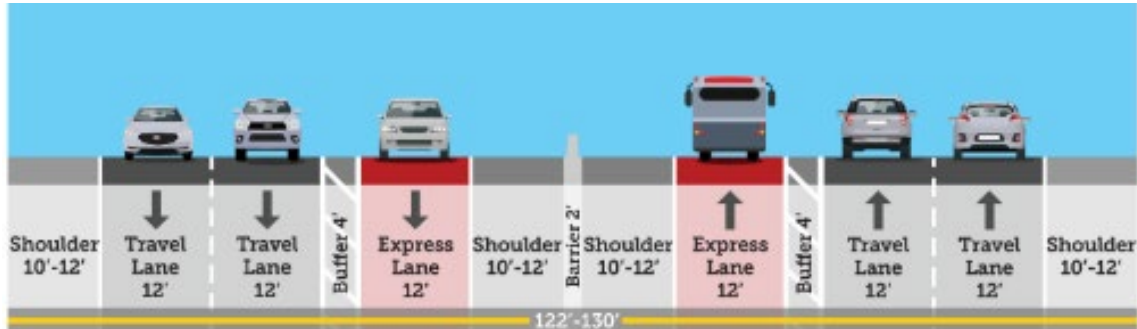
This alternative would:

- Add one transit-only lane in each direction.
- Reconstruct existing pavement and travel lanes.
- Improve shoulders.
- Lengthen and/or redesign exit and entrance ramps at the I-76, York Street, Vasquez Boulevard, and Quebec Street interchanges.
- Add a new eastbound I-270 ramp from northbound Vasquez Boulevard and reconstruct the Vasquez Boulevard interchange.
- Reconstruct bridges that have reached the end of their useful life
- Provide sidewalks at existing crossings of I-270 at York Street, Vasquez Boulevard, and Dahlia Street where there are gaps.

### 1.3.1.6 Two General-Purpose Lanes and One Express Lane that Accommodates Transit Alternative

This alternative reconstructs I-270 with two general-purpose lanes and one Express Lane in each direction as shown in Figure 13. Transit vehicles and high-occupancy vehicles (3 or more people) could travel in the Express Lane free of charge. Other travelers, including freight trucks, who choose to pay a fee could also use the new Express Lane.

**Figure 13. Two General-Purpose Lanes and One Express Lane that Accommodates-Transit Alternative**



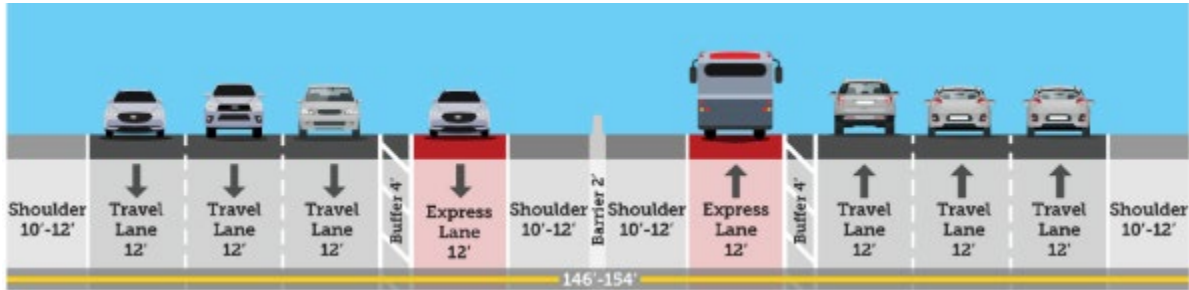
This alternative would:

- Add one Express Lane in each direction that accommodates transit.
- Reconstruct existing pavement and travel lanes.
- Improve shoulders.
- Lengthen and/or redesign exit and entrance ramps at the I-76, York Street, Vasquez Boulevard, and Quebec Street interchanges.
- Add a new eastbound I-270 ramp from northbound Vasquez Boulevard and reconstruct the Vasquez Boulevard interchange.
- Reconstruct bridges that have reached the end of their useful life
- Provide sidewalks at existing crossings of I-270 at York Street, Vasquez Boulevard, and Dahlia Street where there are gaps.

### 1.3.1.7 Three General-Purpose Lanes and One Express Lane that Accommodates Transit Alternative

This alternative reconstructs I-270 with three general-purpose lanes and one Express Lane in each direction to add one general-purpose lane and one Express Lane in each direction as shown in Figure 14. Transit vehicles and high-occupancy vehicles (3 or more people) could travel in the Express Lane free of charge. Other travelers, including freight trucks, who choose to pay a fee could also use the new Express Lane.

**Figure 14. Three General-Purpose Lanes and One Express Lane that Accommodates-Transit Alternative**



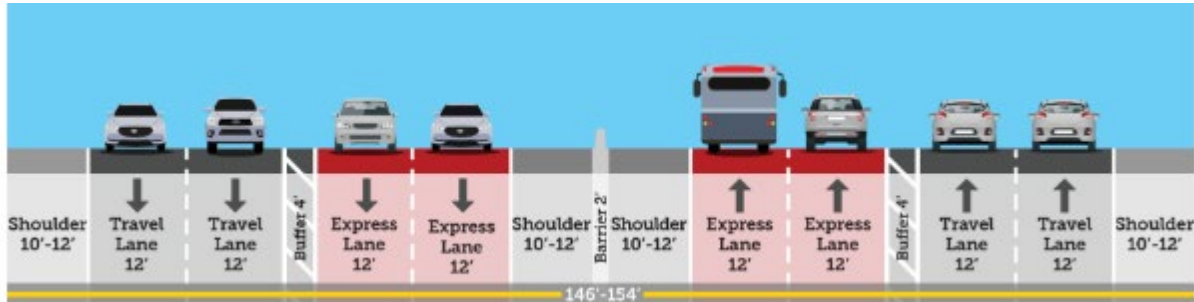
This alternative would:

- Add one general-purpose lane in each direction.
- Add one Express Lane in each direction that accommodates transit.
- Reconstruct existing pavement and travel lanes.
- Improve shoulders.
- Lengthen and/or redesign exit and entrance ramps at the I-76, York Street, Vasquez Boulevard, and Quebec Street interchanges.
- Add a new eastbound I-270 ramp from northbound Vasquez Boulevard and reconstruct the Vasquez Boulevard interchange.
- Reconstruct bridges that have reached the end of their useful life
- Provide sidewalks at existing crossings of I-270 at York Street, Vasquez Boulevard, and Dahlia Street where there are gaps.

### 1.3.1.8 Two General-Purpose Lanes and Two Express Lanes that Accommodate Transit Alternative

This alternative reconstructs I-270 with two general-purpose lanes and two Express Lanes in each direction as shown in Figure 15. Transit vehicles and high-occupancy vehicles (3 or more people) could travel in the Express Lane free of charge. Freight trucks, and other travelers who choose to pay a fee could also use the new Express Lane.

**Figure 15. Two General-Purpose Lanes and Two Express Lanes that Accommodates-Transit Alternative**



This alternative would:

- Add two Express Lanes in each direction that accommodate transit.
- Reconstruct existing pavement and travel lanes.
- Improve shoulders.
- Lengthen and/or redesign exit and entrance ramps at the I-76, York Street, Vasquez Boulevard, and Quebec Street interchanges.
- Add a new eastbound I-270 ramp from northbound Vasquez Boulevard and reconstruct the Vasquez Boulevard interchange.
- Reconstruct bridges that have reached the end of their useful life
- Provide sidewalks at existing crossings of I-270 at York Street, Vasquez Boulevard, and Dahlia Street where there are gaps.

## 1.4 Summary of Anticipated Impacts

The EIS will evaluate the potential social, economic, and environmental effects resulting from implementation of the build alternatives and the no build alternative. The level of review of the identified resources for the EIS will be commensurate with the anticipated effects to each resource from the proposed project and will be governed by the statutory or regulatory requirements protecting those resources. The analyses and evaluations conducted for the EIS will identify the potential for impacts, whether the anticipated impacts would be adverse, and the appropriate environmental mitigation measures. CDOT and FHWA will evaluate effects to all environmental and community resources in accordance with their NEPA regulations, guidance, and procedures. The following environmental issues and considerations have been identified by the public and agencies as requiring the most attention in the environmental review process.

### 1.4.1 Environmental Justice Communities

The Lead Agencies will identify impacts to environmental justice populations in accordance with Executive Orders 14096, 13985, and 12898 as well as U.S. Department of Transportation (USDOT) Order 5610.2(a) and FHWA Order 6640.23(a). In addition, Colorado state requirements will be followed to identify and analyze “disproportionately impacted communities” as outlined in Senate Bill 21-260 and Colorado House Bill 23-1233. Preliminary data collection shows the neighborhoods surrounding the proposed project should be considered environmental justice communities. There is potential for impacts to these communities due to noise, air quality, and other environmental factors. FHWA and CDOT will work closely with the communities to identify, avoid, minimize, and mitigate these impacts.

### 1.4.2 Air Quality and Greenhouse Gas Emissions

The build alternatives have the potential to impact air quality. The Project is located in a nonattainment area for ozone and is in attainment for other criteria pollutants regulated under the Clean Air Act, including carbon monoxide (CO), particulate matter 10 microns or less in diameter ( $PM_{10}$ ), and particulate matter 2.5 microns or less in diameter ( $PM_{2.5}$ ). Therefore, project-level hot-spot analyses are not required in the air quality analysis to demonstrate conformity for those pollutants.

Although hot-spot modeling under 40 CFR Part 93 is not required to demonstrate conformity for this project, the project will conduct dispersion modeling and analysis to address public concerns about air quality in the study area and to comply with Colorado Revised Statute (C.R.S.) 43-1-128. This analysis will include the No Action Alternative in addition to the build alternatives. It will help inform the NEPA process, disclose any potential impacts of CO and PM emissions from the project, and provide quantified comparison of impacts among alternatives. In accordance with C.R.S. 43-1-128, the project will also conduct an emissions inventory analysis for transportation-related criteria pollutants: CO, nitrogen dioxide ( $NO_2$ ),  $PM_{10}$ ,  $PM_{2.5}$ , and ozone ( $O_3$ ) precursors [nitrogen oxides ( $NO_x$ ) and volatile organic compounds (VOCs)]. The C.R.S. also requires modeling of mobile source air toxics (MSATs) and greenhouse gas emissions. The project will conduct MSAT analysis in accordance with FHWA’s MSAT Guidance (FHWA 2016) and CDOT’s Air Quality Project-Level Analysis Guidance, Version 1 (CDOT 2019a).

A preliminary review of sensitive receptors identified locations that will be evaluated for PM impacts through hot-spot modeling, which include, but are not limited to:

- Welby Community School
- Assumption Catholic School
- Welby and Other Residents
- C4 Campus
- Alsup Elementary School
- Kids First Health Care
- Adam Heights Residents
- Central Elementary School

- Sanville Preschool
- Suncor Boys and Girls Club
- Veterans Memorial Park
- Adams County School District 14
- Kearney Middle School
- Pioneer Park and Paradise Island Pool
- Monaco Park
- Rose Hill Elementary School
- 14 Stars Early Learning Center
- Victory Preparatory Academy
- Sunshine Head Start
- Leyden Park
- Wetland Park
- Northfield Pond Park

### 1.4.3 Noise

Noise-sensitive land uses are present in areas along the I-270 corridor, and the build alternatives have the potential to increase traffic noise within neighborhoods surrounding the highway. Preliminary noise analysis suggests noise levels exceed noise abatement criteria in several locations along the corridor. Additionally, construction of a build alternative may have the potential for temporary noise increases within the neighborhoods surrounding the highway. Noise analyses will be completed per 23 CFR 772 and the CDOT Noise Analysis and Abatement Guidelines.

### 1.4.4 Water Quality

CDOT and FHWA will evaluate the alternatives for potential to impact water quality per the Clean Water Act. The South Platte River, Sand Creek, and Clear Creek traverse or parallel the project area. CDOT will conform to the requirements of the CDOT Municipal Separate Storm Sewer System (MS4) permit with the Colorado Department of Public Health and Environment. The MS4 permit requires CDOT to implement permanent control measures to mitigate potential impacts of the build alternatives to water quality.

The build alternatives may also have temporary construction impacts to surface waters and have the potential need to dewater in order to install caissons and/or piers for bridges. The project will implement temporary control measures to reduce stormwater runoff to surrounding waters.

### 1.4.5 Wetlands and Waters of the U.S.

The build alternatives may require dredge and/or fill of waters of the U.S. and impacts to wetlands, which may require a permit from the U.S. Army Corps of Engineers (USACE). Wetlands and waters of the U.S. analysis will follow Executive Order 11990, USDOT Order 5660.1A, 23 CFR 777, and the Clean Water Act.

The build alternatives are expected to affect wetlands and waters of the US regulated under the Clean Water Act. Impacts to wetlands and surface waters are anticipated to be under 5 acres.

Because this project may require a Clean Water Act Section 404 (Section 404) individual permit, FHWA and CDOT have initiated the NEPA/Section 404 merger process with the USACE. The USACE is also determining the status of potentially affected wetlands and waters of the U.S. to determine which fall under Section 404 permitting jurisdiction. If the project does not impact jurisdictional waters or if impacts fall under a nationwide Section 404 permit for activities that have minimal environmental impact, FHWA and USACE may “exit” the merger process and proceed with a streamlined permitting process.

#### 1.4.6 Hazardous Materials

The area surrounding the I-270 corridor is an industrial and commercial corridor with known sites with recognized environmental conditions, which are sites of hazardous materials concerns. Businesses adjacent to the corridor include a petroleum refinery, sewage wastewater treatment, battery service, diesel mechanics, manufacturing and distribution centers, and concrete suppliers. Additionally, I-270 itself was constructed over previously buried landfills. As a result, construction of the build alternatives may disturb existing contaminated soils or groundwater through activities such as excavation and subsurface drilling for bridge foundations, walls, and installation of signs and lighting. A Phase II investigation is being completed and will be included in the hazardous materials analysis as part of the EIS.

#### 1.4.7 Right-of-Way

Right-of-way (ROW) along the I-270 corridor is wide, and there is room to expand the highway within CDOT’s ROW both to the median and to the outside of the existing highway footprint. Private property, mostly commercial and industrial businesses with a few pockets of residential properties, abut the highway ROW. Although the existing ROW is large, the build alternatives may require property acquisition or easements, particularly around interchanges. The widest build alternatives—the ones that add two travel lanes in each direction (expanding the highway from a 4-lane to an 8-lane facility)—may require residential and commercial relocations but the other build alternatives are not expected to require residential relocations and limited (1-2) commercial relocations. All build alternatives are expected to require some partial property acquisition and temporary easements. The EIS will evaluate property acquisitions and easements, including any potential impacts to properties in environmental justice communities. CDOT and FHWA will follow the Uniform Relocation and Real Property Acquisition Policies Act of 1970, otherwise known as the Uniform Act for any required property acquisitions or easements.

The EIS will evaluate the expected impacts and benefits to the resources identified above as well as other resources. The level of review of the identified resources for the EIS will be commensurate with the anticipated impacts to each resource from the proposed project and will be governed by the statutory or regulatory requirements protecting those resources. The



analyses and evaluations conducted for the EIS will identify the potential for impacts; whether the anticipated impacts would be adverse; and the appropriate environmental mitigation measures.

## 1.5 Anticipated Permits (and Other Authorizations)

Permits and authorizations anticipated for the project include a Section 401 water quality certification and a Section 404 permit under the Clean Water Act [33 United States Code (U.S.C.) 1344]. The USACE is determining the status of potentially affected wetlands and waters of the US to determine which fall under Section 404 permitting jurisdiction and the associated permitting requirements. FHWA and CDOT will prepare evaluations under Section 4(f) of the USDOT Act of 1966 (23 U.S.C. 138 and 49 U.S.C. 303) and Section 6(f) of the Land and Water Conservation Fund Act of 1965 (54 U.S.C. 200302); will perform consultation under Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. 300101-307108) concurrently with the NEPA environmental review process; and will consult with the U.S. Fish and Wildlife Service in accordance with Section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.). FHWA and CDOT will also work with Cooperating and Participating Agencies, to determine if additional permits or authorizations are required under these or other authorities. The following additional federal, state and local agency permits, and other authorizations, are anticipated to be needed for implementation of a build alternative:

### 1.5.1 Federal

1. Federal Emergency Management Agency - A Conditional Letter of Map Revision will be submitted to conditionally update the effective Flood Insurance Study and Flood Insurance Rate Map panel data, followed by a Letter of Map Revision to formalize the changes
2. National Historic Preservation Act of 1966 consultation with the Colorado State Historic Preservation Office
3. Clean Air Act, Section 309 review by the U.S. EPA

### 1.5.2 State

1. Colorado Department of Public Health and Environment - Colorado Discharge Permit System - Stormwater Construction Permit
2. Colorado Department of Public Health and Environment - Dewatering Permit
3. Colorado Department of Transportation - Construction Access Permit
4. Colorado Department of Public Health and Environment - Demolition Permit
5. Colorado Department of Public Health and Environment - Air Pollutant Emissions Notice (Fugitive Dust Control Plan)
6. Colorado Parks and Wildlife Senate Bill 40 Certification

### 1.5.3 Local

1. Adams County Stormwater Construction Permit
2. Adams County MS4 Permit
3. City of Commerce City Grading Permit
4. City of Commerce City Stormwater Permit
5. City of Commerce City MS4 Permit
6. City of Commerce City Noise Variance Permit (Night Work)
7. City and County of Denver MS4 Permit
8. City and County Denver Construction Activities Stormwater Discharge Permit
9. City and County Denver Noise Variance Permit (Night Work)

### 1.5.4 Railroads

1. BNSF Railway: Permit
2. Union Pacific Railroad: Permit

## 1.6 Schedule for the Decision-Making Process

The project schedule follows the requirements of the environmental review process under 23 U.S.C. 139 and will comply with 40 CFR 1501.10(b)(2), which requires that environmental reviews for major infrastructure projects occur within 2 years (from the date of publication of the NOI) to the date of issuance of the Record of Decision. The Draft EIS is anticipated to be issued between late 2024 and early 2025. A public comment period and public hearing will follow the publication of the Draft EIS. The Final EIS and Record of Decision document(s) is anticipated to be issued between late 2025 and early 2026, within 24 months of the publication of this NOI per 23 U.S.C. 139(d)(10). Per 23 U.S.C. 139(d)(10), permits and authorizations should be completed by no later than 90 days after the issuance of the Record of Decision. However, for this project CDOT has requested in accordance with 23 U.S.C. 139(d)(10)(C)(ii) that the 404 permit and 401 water quality certification follow a different timeline because the construction date is not expected until 2026 or later.

## 1.7 Scoping and Public Review

The project team developed an Agency Coordination Plan and a Public Involvement Plan. These plans will guide CDOT through the scoping and public review process and describe how the public and agencies will continue to be engaged during EIS development. The Public Involvement Plan and the Agency Coordination Plan are attached to this Additional Information document. A multicultural coordination plan supplements these plans to identify

and document enhanced outreach for environmental justice communities; it is updated monthly.

### 1.7.1 Public Involvement

The project held a public open house on October 10, 2023, at the Eagle Pointe Recreation Center (Commerce City), to present the draft purpose and need and the draft proposed alternatives to the public. The public open house had 81 participants sign in to the event; attendees were highly engaged and provided detailed comments and thoughts. Participants were a mixture of local residents, commuters, interested groups, agency staff, and elected officials. A meeting summary is available on the project website. Agencies were briefed on the public open house and input received at the November 1, 2023, agency coordination meeting.

In December 2023 CDOT hosted community “listening sessions” to gather additional feedback from area residents. The listening sessions were held at community locations in the study area; all included Spanish and English speaking staff. CDOT has also conducted numerous one-on-one meetings with stakeholders.

In March 2024 CDOT held stakeholder workshops to further understand community concerns and gather input on the project, project alternatives, and potential environmental impacts and mitigation measures.

Additional public meetings and other events will be held throughout the EIS process. The Draft EIS will be available for public and agency review and comment, and a Public Hearing will be conducted during the comment period.

### 1.7.2 Agency Coordination

CDOT and FHWA identified agencies with jurisdiction over resources within the study area. On June 8, 2023, FHWA and CDOT conducted an agency coordination meeting. After the meeting agencies were formally contacted by FHWA through the United States Postal Service and email to determine Cooperating and Participating Agency status. Another agency coordination meeting was held on November 1, 2023.

CDOT and FHWA will coordinate with Cooperating and Participating Agencies at least quarterly during the environmental review process. Coordination may be through group or individual meetings or written/email updates.

To ensure that a full range of issues related to the study is addressed and all potential issues are identified, FHWA and CDOT invite comments and suggestions from the public and federal, state, tribal, and local agencies. FHWA and CDOT request comments and suggestions on potential alternatives and impacts, and the identification of any relevant information, studies, or analyses of any kind concerning impacts affecting the quality of the human environment. Specifically, agencies and the public are asked to identify and submit potential alternatives for consideration and any information, such as anticipated significant issues or environmental impacts and analyses, relevant to the proposed action for consideration by the

Lead and Cooperating agencies in developing the Draft EIS. Any information presented herein, including the preliminary purpose and need, preliminary alternatives, and identification of impacts may be revised after consideration of the comments. The purpose of this request is to bring relevant comments, information, and analyses to the department's attention, as early in the process as possible, to enable the agency to make maximum use of this information in decision making. Comments may be submitted through the methods listed below.

Project website: <https://www.codot.gov/projects/studies/i270study>

or

Mail: Federal Highway Administration, Colorado Division  
Attention: Chris Horn, Senior Area Engineer  
12300 W Dakota Ave #180  
Lakewood, Colorado 80228  
Email: Chris.Horn@dot.gov  
Telephone: 720-963-3017

or

Mail: Colorado Department of Transportation-Region 1  
Attention: David Merenich, I-270 Project Director  
2829 West Howard Place  
Denver, Colorado 80204  
Email: david.merenich@state.co.us  
Telephone: 720-933-5755