



# I-25/Arapahoe Interchange

Environmental Assessment

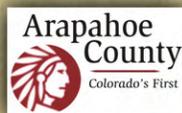


# I-25/Arapahoe Interchange Finding of No Significant Impact

February 2013



Prepared for



In Partnership with Joint Lead Agencies



And Cooperating Agencies





**I-25/Arapahoe Road Interchange NEPA Study  
Finding of No Significant Impact**

Submitted Pursuant to  
42 U.S.C. 4332 (2)(c), 49 U.S.C. 303

By the  
U.S. Department of Transportation  
Federal Highway Administration  
and the  
Colorado Department of Transportation

Project Sponsor  
Arapahoe County

Cooperating Agencies  
City of Centennial  
City of Greenwood Village

Submitted By:



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2-12-13

Date

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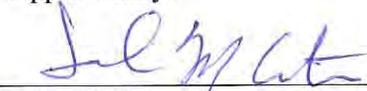


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# Statute of Limitations

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The Federal Highway Administration may publish a notice in the Federal Register, pursuant to 23 United States Code (USC) § 139(1), once the Finding of No Significant Impact is available. If such notice is published, a claim arising under Federal law seeking judicial review of a permit, license, or approval issued by a Federal agency for a highway or public transportation capital project shall be barred unless it is filed within 150 days after publication of a notice in the Federal Register announcing that the permit, license, or approval is final pursuant to the law under which the agency action is taken, unless a shorter time is specified in the Federal law pursuant to which judicial review is allowed. If no notice is published, then the periods of time that otherwise are provided by the Federal laws governing such claims will apply.

# Information Availability

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# Acronyms and Abbreviations

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APCD	Air Pollution Control Division
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Health and Environment
CDPS	Colorado Discharge Permit System
CO	Carbon monoxide
DRCOG	Denver Regional Council of Governments
DTC	Denver Technological Center
EA	Environmental Assessment
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
I-25	Interstate 25
LOS	Level of service
LRT	Light rail transit
MS4	Municipal Separate Storm Sewer System
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
ROW	Right-of-way
RTD	Regional Transportation District
SH 88	State Highway 88
SMFRA	South Metro Fire Rescue Authority
TMA	Transportation Management Area

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# Chapter 1: Project Description

This chapter describes why this project is proposed and intended outcomes of this project.

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## 1.1 Background

This Finding of No Significant Impact (FONSI) is being prepared under requirements of the National Environmental Policy Act (NEPA). Preparation of this FONSI has been a cooperative effort by the Federal Highway Administration (FHWA) and the Colorado Department of Transportation (CDOT) as joint lead agencies; Arapahoe County as project sponsor; and City of Centennial and City of Greenwood Village as cooperating agencies. Arapahoe County provided overall project management. In addition, the following agencies were consulted during the Environmental Assessment (EA) process: Denver Regional Council of Governments (DRCOG), Regional Transportation District (RTD), Environmental Protection Agency (EPA), Colorado Parks and Wildlife, Colorado Department of Health and Environment, United States Army Corps of Engineers, and the Colorado State Historic Preservation Office.

In accordance with NEPA, an EA was conducted to evaluate two alternatives, including the No Action Alternative and the improved partial cloverleaf Action Alternative.

The Action Alternative evaluated in the EA identified roadway, bridge, and intersection improvements to the Interstate 25 (I-25)/Arapahoe Road (State Highway [SH] 88) interchange complex. The interchange complex refers to the intersecting highway facilities, as well as the ramps and roadway approaches serving and interacting with the interchange between Yosemite Street and Boston/Clinton Street. As shown in **Figure 1**, the project area includes the specific roadways and intersections that are being proposed for physical modification. The study area extends beyond the project area from approximately Quebec Street on the west to Havana Street on the east, and from Orchard Road on the north to Dry Creek Road on the south.

The Action Alternative was identified as the Preferred Alternative. FHWA approved the EA on August 29, 2012.

## 1.2 Summary of Project Purpose and Need

The purpose of the project is to reduce congestion and improve traffic operations and safety for the traveling public within the I-25 and Arapahoe Road interchange complex.

Improvements are needed to:

- ◆ **Improve traffic operations of the interchange complex and meet future traffic demands (2035).**
  - ✦ The existing design and capacity of the interchange no longer accommodates traffic demands. The I-25 and Arapahoe Road interchange complex area experiences heavy traffic throughout the day, with very high traffic volumes during peak periods. Volumes are projected to increase by over 30 percent through 2035.



addition, high traffic volumes along Arapahoe Road do not allow sufficient green signal time to clear the ramp traffic. The result is a long line of vehicles waiting to exit I-25 on the southbound off-ramp, which backs up onto I-25 during peak periods.

- ✦ In addition, the close spacing and high turning traffic volumes at the Yosemite Street and Boston/Clinton Street intersections on Arapahoe Road add to traffic congestion and delays within the interchange area, and up to one-half mile of eastbound and westbound traffic queuing on Arapahoe Road approaching the interchange. These conditions cause drivers to slow their speeds through the interchange area, which further limits the capacity of the interchange and adversely affects through traffic on Arapahoe Road.
- ✦ **Improve safety for motorists, pedestrians, and bicyclists.**
  - ✦ Congestion at the interchange contributes to traffic crashes as drivers attempt to navigate the high traffic volume conditions. Safety concerns related to congestion also exist at the southbound I-25 off-ramp. Queuing on the southbound off-ramp frequently exceeds the capacity of the ramp and results in traffic backing up onto southbound I-25. Slowed and stopped vehicles on southbound I-25 adjacent to free-flowing high-speed through travel lanes pose a safety issue. The severity and frequency of this issue is anticipated to increase over time with traffic volumes projected to increase 30 percent through 2035, based on Safety Performance Function procedures developed by CDOT.
  - ✦ Emergency service providers have identified Arapahoe Road as a primary east-west route for emergency responders. Although fire stations exist on both sides of the interchange area, South Metro Fire Rescue Authority (SMFRA) dispatches units based on their proximity to an emergency location. Therefore, the closest unit can be on the opposite side of the interchange. SMFRA representatives noted that Arapahoe Road is frequently unusable as an emergency service route due to severe congestion at the interchange through the narrow, barrier-separated segment of Arapahoe Road between the I-25 off-ramp intersections.
- ✦ **Accommodate multimodal connections.**
  - ✦ Bus routes operate along Arapahoe Road east and west of the interchange and along Yosemite Street and Boston Street. Bus operations along these roadways are negatively impacted by traffic congestion and increased travel times through the project area. As a result, timeliness of bus service is degrading at stops along the corridor and at the Arapahoe Village Center Light Rail Transit (LRT) station.
  - ✦ Sidewalks in the project area are narrow in places and located immediately adjacent to the high volume arterial roadways. This situation exists not only along Arapahoe Road, but also along Yosemite Street and Boston/Clinton Streets leading to the interchange. Pedestrian crossing of the high volume cloverleaf on-ramps is difficult because traffic is not controlled and does not stop on these free-flowing highway ramps.
  - ✦ Although there are no designated bike lanes or shoulder areas through the interchange on Arapahoe Road or on the intersecting streets, bicycle and pedestrian focus group meeting attendees noted that bicyclists use Yosemite Street and the Yosemite Street overpass of I-25 and other routes to avoid travel on the narrow lanes along Arapahoe Road through the congested interchange.

## 1.3 Preferred Alternative

The improved partial cloverleaf interchange is the Preferred Alternative. Physical and operational improvements would occur, designed to improve traffic flow through the interchange complex. Components of the conceptual design for this alternative, including local access, major intersection configuration along Arapahoe Road, and movements to/from I-25, are discussed in the following text and shown in **Figure 2**.

### 1.3.1 Physical Improvements

**I-25 Mainline:** I-25 would be generally unchanged under the Preferred Alternative. However, in order to accommodate the additional through lanes proposed on Arapahoe Road beneath I-25, the existing bridge would be replaced with a longer structure, which would be approximately 7 feet higher than the existing I-25 bridge. The additional height would require reconstruction of approximately 2,000 feet of I-25 to meet with the existing I-25 mainline lanes. In addition, the I-25 bridge would be wider than the existing structure in order to provide adequate room for temporary lane-alignment shifts during construction. The location of the merge/diverge points along I-25, where on-ramp and off-ramp lanes meet with through traffic lanes, would remain unchanged.

**I-25 Ramps:** The interchange ramps would remain unchanged from existing conditions at the points of entry and exit from I-25. The ramps would be shifted slightly to accommodate the wider I-25 bridge. Because Arapahoe Road would be raised approximately 1 foot, the ramps' height would also be raised approximately 1 foot at their intersection with Arapahoe Road. From that point, the ramps would gradually increase in elevation to meet with mainline I-25 at the existing merge/diverge points. Both the northbound and southbound off-ramps would be restriped to provide triple left turns onto Arapahoe Road to address capacity issues of the exit ramps.

**Arapahoe Road:** Improvements to Arapahoe Road would be designed to meet CDOT and local agency design standards. The Preferred Alternative would include the addition of one eastbound and one westbound through lane between the Yosemite Street and Boston/Clinton Street intersections. Arapahoe Road would be raised approximately 1 foot within the interchange complex in order for ramp grades to meet design criteria. The Preferred Alternative would include the following auxiliary lane improvements along Arapahoe Road:

- ◆ Modification and extension of the auxiliary lane (turn lane and acceleration/deceleration lane) along Arapahoe Road extending from South Clinton Court to the northbound I-25 on-ramp in order to separate right turning traffic bound for the northbound on-ramp from the lanes leading to the southbound on-ramp loop.
- ◆ Addition of a westbound auxiliary lane on Arapahoe Road extending from Yosemite Street to Greenwood Plaza Boulevard.
- ◆ Conversion of the eastbound right turn lane on Arapahoe Road at Yosemite Street to a shared through/right turn lane and extension of the lane to the west about 300 feet.
- ◆ Addition of an eastbound auxiliary acceleration/deceleration lane extending from the northbound off-ramp to Clinton Street.

**Yosemite Street:** Improvements to Yosemite Street would be designed to meet the requirements of local agency design standards. The Preferred Alternative would include the following auxiliary lane improvements along Yosemite Street:

Figure 2. Action Alternative

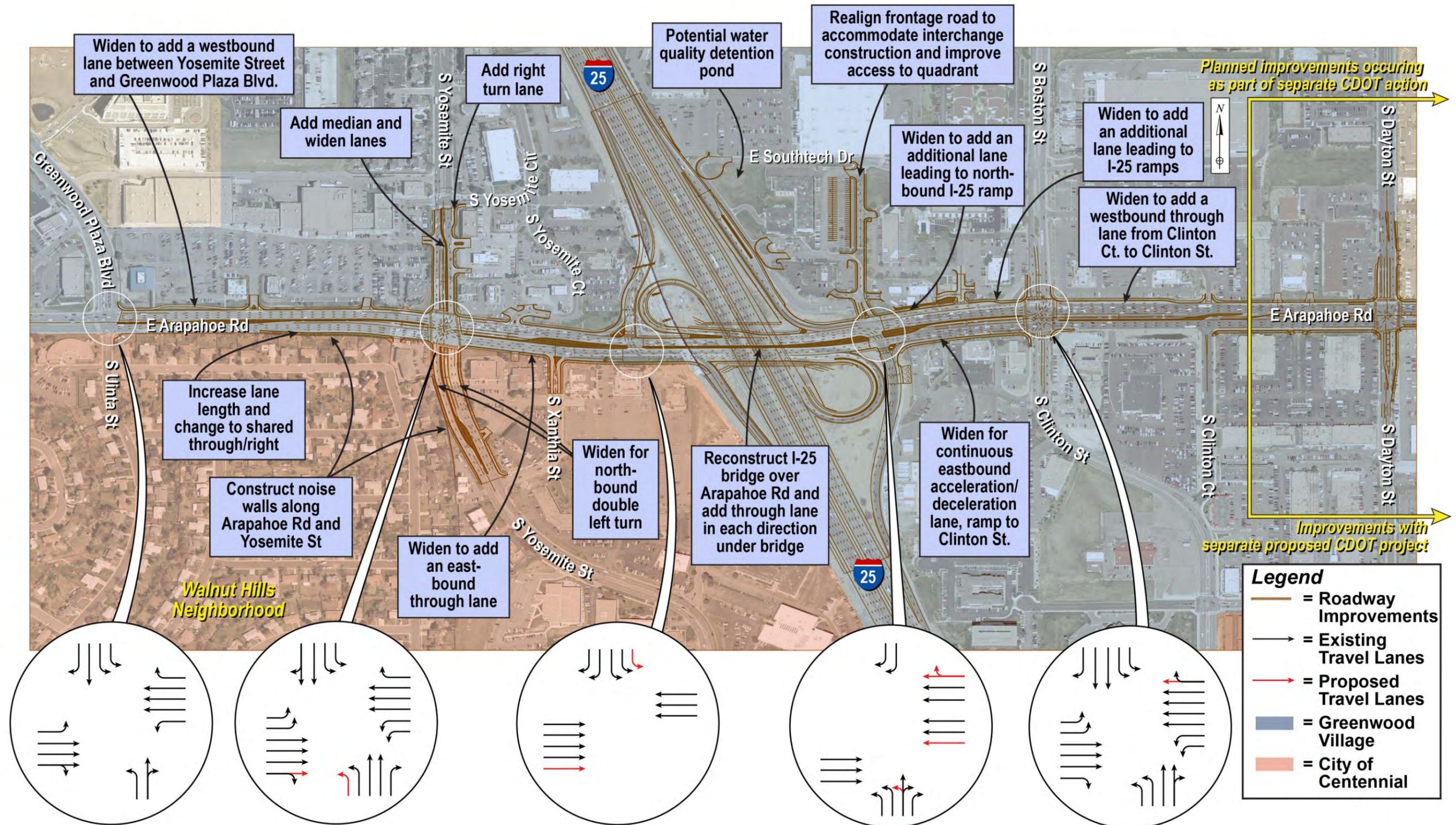
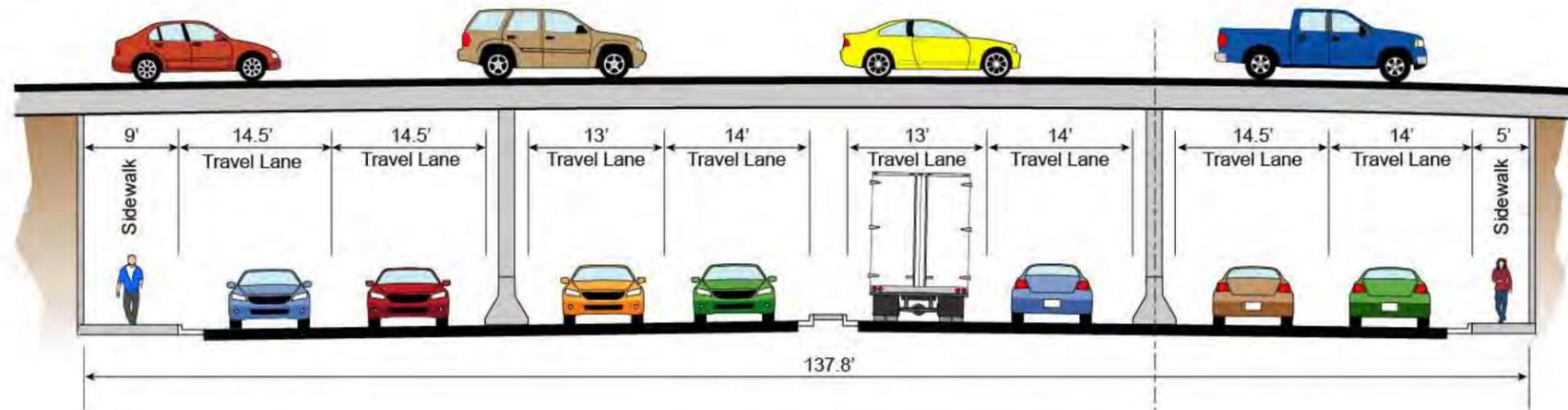
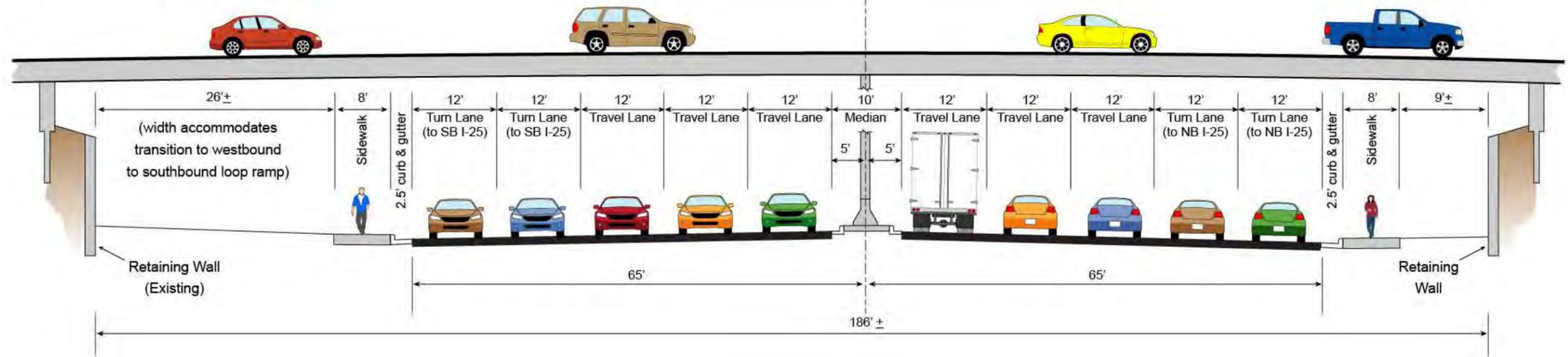


Figure 3. Existing and Action Alternative Cross Section - Looking East

**Existing Cross Section**



**Action Alternative Cross Section**



Note: EA Appendix A, Conceptual Design Plan Set (June 2012) includes cross sections for Arapahoe Road east and west of I-25.

- ◆ A second northbound left turn lane on Yosemite Street at Arapahoe Road with associated widening of the north leg of Yosemite Street for lane alignment.
- ◆ Raised median with curb and gutter on Yosemite Street for approximately 500 feet north and south of Arapahoe Road.
- ◆ A northbound right turn lane on Yosemite Street at the Yosemite Circle signalized intersection to better accommodate truck access into the northwest quadrant of the interchange

**Frontage Road:** The existing frontage road along the east side of I-25 north of Arapahoe Road would be relocated to help facilitate bridge construction phasing and northbound on-ramp modifications. A new road extending straight north of the northbound off-ramp intersection with Arapahoe Road would be constructed. This new roadway would pass through a parking lot between two hotels and would terminate at Southtech Drive on the north. At the frontage road intersection with Arapahoe Road, access would remain limited to right turn in and out plus the northbound through movement from the northbound I-25 off-ramp. The southbound right turn out movement would be limited to the maximum 6 seconds of green time per the 1997 Eagle Hardware/Gart Highway Access Appeal legal agreement addressing this access (included in Appendix A of the EA). Any future redevelopment of the northeast quadrant land uses should encourage improved development circulation and connections to Southtech Drive and Boston Street to minimize traffic loading onto the frontage road, and ideally closure of the frontage road connection to Arapahoe Road. Redevelopment would also require a new access permit for the frontage road public street connection with Arapahoe Road (SH 88), and for the driveway described below.

**Business Access:** In addition to the frontage road modifications in the northeast quadrant, the right turn only driveway to the gas station just east of the frontage road and the motel access drive to Boston Street just north of Arapahoe Road would be impacted by the widening of Arapahoe Road. A combined right turn only replacement drive would be constructed approximately 350 feet east of the frontage road to provide combined access to the gas station, motel, and restaurant northwest of the Arapahoe Road/Boston Street intersection. A permanent easement to provide for cross-access between properties would be provided.

Business access in the southwest quadrant of the interchange would remain generally unchanged, with right turn only driveway access to a tire store west of South Xanthia Street and at the South Xanthia Street public street intersection. Access to the northwest quadrant would be improved with a new right turn lane added on northbound Yosemite Street at the Yosemite Court signalized intersection to facilitate large truck turns that are prohibited from turning right from westbound Arapahoe Road to South Yosemite Court.

**Sidewalks and Crosswalks:** In compliance with CDOT Procedural Directive 1602.1, appropriate pedestrian accommodations are included in the Preferred Alternative to promote transportation mode choice. Existing sidewalks would be reconstructed along both the north and south sides of Arapahoe Road from west of Yosemite Street, through the interchange, to east of Boston/Clinton Street. Sidewalk widths would vary from 8 to 10 feet in the project area. All attempts will be made to maximize sidewalk width and construct detached sidewalks where reasonable within available right-of-way (ROW). However, 5-foot sidewalk segments may be utilized along Arapahoe Road west of Yosemite Street and along Yosemite Street south of Arapahoe Road where a commitment was made to avoid residential property acquisition. Accordingly, no ROW acquisitions are planned or required from residential properties.

Appropriate pavement markings and signage for pedestrian crosswalks of Arapahoe Road at Yosemite Street and at Uinta Street/Greenwood Plaza Boulevard will be addressed during final

design. Sufficient pedestrian signal time will be provided for pedestrians to cross Arapahoe Road at the signalized arterial street intersections within the interchange complex.

**Noise Barriers:** Noise mitigation barriers are recommended to be constructed in the following general locations, which will be defined during final design:

- ◆ Along the south side of Arapahoe Road adjacent to residences in the Walnut Hills neighborhood. The noise barrier would extend from Uinta Street east to the west property line of the commercial business on the southwest corner of Arapahoe Road and Yosemite Street. The noise barrier would be approximately 8 feet high and would mitigate noise impacts for residential lots (specific lengths, heights and end treatment of noise barriers would be determined during final design based on results of the noise analysis).
- ◆ Along the west side of Yosemite Street south of Arapahoe Road. The noise barrier would extend approximately 500 feet south from the southern property line of the business on the southwest corner. The noise barrier would be approximately 8 to 11 feet high, to be confirmed during final design. Although there is greater traffic volume along Arapahoe Road than Yosemite Street, a shorter wall could be built along Arapahoe Road because the road is lower than the adjacent residences, which provides additional effective noise abatement.

Specific wall heights, materials and aesthetic treatment will be determined with public input during final design. The design will consider existing landscaping that can be maintained or replaced. All structures identified for the project, including noise walls, will be evaluated for safety in final design per state and federal design and construction guidelines.

Timing for construction of noise mitigation is tied to impacts caused by physical improvements. Therefore, noise mitigation along Arapahoe Road will be constructed with improvements to Arapahoe Road directly adjacent to the wall, and the noise mitigation along Yosemite Street tied to Yosemite Street improvements directly adjacent.

A maintenance agreement regarding the noise abatement walls and adjacent sidewalk will be established during final design, addressing the existing General Improvement District, access for maintenance activities, long-term wall maintenance/repair, any financial or other terms of the agreement, and routine maintenance of the sidewalk and landscaping in the Arapahoe Road public ROW. Potential parties to the agreement include the cities of Centennial and Greenwood Village and the General Improvement District.

A similar maintenance agreement for the wall, sidewalk and landscaping along Yosemite Street south of Arapahoe Road will also be established. Potential parties to that agreement include the City of Centennial and the General Improvement District.

### 1.3.2 Operational Improvements

The Preferred Alternative includes signal system re-timing to maximize operational efficiency once the improvements are completed. Signal timing for the frontage road at the Arapahoe Road intersection with the northbound off ramp and frontage road will remain unchanged per the 1997 Eagle Hardware/Gart Highway Access Appeal legal agreement included in Appendix A of the EA.

Signal system upgrades would be implemented for the signalized intersections along Arapahoe Road from Quebec Street to Havana Street to reduce air pollution emissions, reduce delay for drivers, improve roadway efficiency through reduced congestion, and decrease fuel consumption. The improvements would build upon the signal timing updates being implemented by DRCOG.

Appropriate agencies will review traffic signal timing along detour routes to minimize queuing vehicles blocking access to residential communities.

### 1.3.3 Phasing of Construction

Based on a constructability analysis, it has been determined that elements of the overall project can be constructed in useful phases. Projects considered for phased implementation will be analyzed based on amount of available funding, independent utility, logical termini and usefulness of the improvement to address operational needs within the interchange complex.

Federal funding was recently granted by DRCOG for the first phase of interchange complex improvements to Yosemite Street at Arapahoe Road. The proposed improvements are estimated to cost \$5.0 million, with \$3.0 million funded federally and \$2.0 million from local agencies. Funds are budgeted for fiscal years 2014 and 2015. Subsequent phases of construction could address Arapahoe Road improvements west of Yosemite Street or the frontage road in the northeast quadrant. However, the I-25 bridge replacement and Arapahoe Road widening from Yosemite Street to Boston/Clinton Street would likely need to be constructed all in one phase.

Improvements to Yosemite Street are an important component of the recommended Improved Partial Cloverleaf Interchange improvements at I-25 and Arapahoe Road, and will benefit overall operations of the interchange complex. Additional turn lane capacity on Yosemite Street will allow for greater green signal time for Arapahoe Road. Due to the proximity of Yosemite Street to I-25, improved traffic operations at Yosemite Street will also benefit operations at the I-25 ramp intersections.

Funded Yosemite Street improvements include:

- ◆ A second northbound left turn lane on Yosemite Street at Arapahoe Road.
- ◆ Widening of the north and south legs of Yosemite Street at Arapahoe Road for lane alignment.
- ◆ A northbound right turn lane on Yosemite Street at the Yosemite Court signalized intersection to better accommodate truck access to businesses in the northwest quadrant of the interchange.
- ◆ Raised median with curb and gutter on Yosemite Street for approximately 500 feet north and south of Arapahoe Road.
- ◆ Noise barrier along the west side of Yosemite Street south of Arapahoe Road as described in Section 1.3.1.

### 1.3.4 Cost

The probable construction cost of the Preferred Alternative is approximately \$65 to \$70 million (in 2010 dollars). This approximated cost includes construction materials, labor, ROW acquisitions, and engineering. Construction cost would likely increase with inflation by the time of construction. General maintenance costs would increase slightly due to increased pavement widths.

### 1.3.5 Funding

The interchange improvements at I-25 and Arapahoe Road are included in the *DRCOG Fiscally Constrained 2035 Regional Transportation Plan* with a budget of \$83 million in the 2015-2024 time frame (DRCOG 2011b). The project is listed as “Regionally Funded.” The 2012-2017 DRCOG Transportation Improvement Program identifies \$4.2 million plus local matching funds for a total of \$6.0 million for final design of the interchange improvements (DRCOG 2011a).

Non-federal funding participation has yet to be formalized with CDOT and the I-25 and Arapahoe Road Interchange Coalition. The Coalition is comprised of the City of Greenwood Village, City

of Centennial, and Arapahoe County, Colorado. The Coalition agencies are committed to work together with CDOT to ensure that the recommended interchange improvements can be implemented in a timely manner. In addition, the interchange is located within the Southeast Public Improvement Metropolitan District, a Transportation Management Area (TMA) that is supported partially via a mill-levy from adjacent metropolitan districts that have earmarked funding for I-25 corridor improvements. The I-25/Arapahoe interchange improvements are eligible for this funding. The TMA funded half of the local match towards the EA and has additional funding which could be used for design and construction.



## Chapter 2: Summary of Impacts, Mitigation and Commitments

This chapter summarizes how the proposed project is likely to affect the social, economic, and natural environment within the study area, and how impacts will be mitigated.

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A summary of impacts and mitigation is depicted in **Table 1**. Additional information on Mitigation Commitments associated with the Arapahoe /I-25 Interchange improvements is included in **Appendix A** in a table titled “Colorado Department of Transportation Mitigation Commitment Monitoring and Reporting”.

**Table 1. Summary of Impacts and Mitigation**

	No Action Alternative	Action Alternative	Mitigation Measures for the Action Alternative
<b>Impact Topic</b>			
<b>Transportation</b> Traffic Capacity and Operations	Negative direct impacts would occur to traffic operations within the study area as congestion increases. Negative indirect impacts would occur along roadways outside the study area from diverted traffic avoiding the I-25/Arapahoe Road interchange area.	Positive direct impacts would occur as traffic operations improve and traffic congestion decreases surrounding the I-25/Arapahoe Road interchange complex and throughout the project area.  The Action Alternative would have a short-term negative direct impact to traffic operations during construction through the I-25/Arapahoe Road interchange complex and throughout the study area. Both regional and local traffic traveling through the interchange and along Mainline I-25 would experience some delays during construction.	Mitigation measures have been designed into the Action Alternative. Attention was given to shifting lane alignments to avoid residential property acquisition, realigning the frontage road to minimize business impacts, and phasing construction to maintain business access during construction.  A minimum of two through lanes will be maintained in each direction along Arapahoe Road during construction, with the addition of turn lanes at various locations. Temporary business access wayfinding signage will be utilized to help mitigate impacts during times of construction when business access would be limited.  Appropriate agencies will review the traffic signal timing along detour routes to minimize queuing vehicles blocking access to residential communities.
Safety	Negative direct impacts would occur as congestion increases, resulting in increased crash frequency. Slight negative indirect impacts could occur to safety outside the study area from diverted traffic avoiding the I-25/Arapahoe Road interchange area.	Positive direct impacts would occur as crashes are anticipated to decrease along Arapahoe Road and at intersections within the vicinity of the interchange.	No mitigation needed.

	No Action Alternative	Action Alternative	Mitigation Measures for the Action Alternative
<b>Impact Topic</b>			
Transit Operations	Negative direct impacts would potentially occur as bus travel times could increase along Arapahoe Road to the west and east of the interchange due to congestion. Slightly negative indirect impacts to bus operations outside the study area from diverted traffic and increased congestion would occur. LRT operations would not be impacted. Positive indirect impacts would potentially occur from individuals using alternative transportation as a result of increased congestion thereby increasing transit ridership.	Positive direct impacts would occur as bus operations along Arapahoe Road to the west and east of the interchange would benefit from improved traffic flow through the corridor. Light rail operations would not be impacted. Improved timeliness of bus service would facilitate timely transfers between buses and LRT.	Mitigation measures have been designed into the Action Alternative. This includes traffic signal timing optimization at the Arapahoe/Yosemite and Arapahoe/Boston/Clinton intersections that serve buses traveling to and from timed transfers with the Southeast Corridor LRT at the Arapahoe at Village Center LRT station.
Pedestrian and Bicycle Facilities	Negative direct impacts would occur to pedestrian and bicycle operations and safety due to increased congestion. Slight negative indirect impacts could occur outside the study area from diverted traffic avoiding the I-25 / Arapahoe Road interchange area. Positive indirect impacts would potentially occur from individuals using pedestrian and bicycle facilities to avoid the traffic congestion.	Slight positive direct impacts would occur from widened sidewalks and improved traffic operations, including signal timing.	During final design, consideration will be given to sidewalks widened to a minimum of 8 feet and detached, where practical. Signal timing will be adjusted to provide sufficient time for pedestrian crossing of Arapahoe Road.

	No Action Alternative	Action Alternative	Mitigation Measures for the Action Alternative
<b>Impact Topic</b>			
<b>Land Use</b>	Existing land uses would remain the same, with no direct or indirect impacts.	There would be improved accessibility to the commercial land uses in the northeast quadrant due to the realigned frontage road. Slight impacts may be associated with the acquisition of ROW for the improvements; however, the area is highly developed and these would not measurably affect land use.	The Action Alternative is consistent with local plans; no mitigation is required. Mitigation for ROW acquisitions and displacements are addressed in the Right-of-Way Section.
<b>Socioeconomic Conditions</b>			
Demographic and Neighborhood Characteristics	No direct or indirect impacts.	The study area may become more easily accessible, but no measurable change expected.	No mitigation required.
Economic Development	Negligible direct and indirect impacts would occur as mobility between employment centers and local businesses continues to degrade.	Slight beneficial impacts would occur due to improved mobility to reach area businesses. Temporary beneficial impacts would occur as construction workers patronize study area establishments. However, construction activities may temporarily impede access to local establishments.	Project construction would be implemented in phases or other methods would be employed to maintain access to businesses, such as timing construction activities to avoid peak periods, and providing temporary business access wayfinding signing during construction.

	No Action Alternative	Action Alternative	Mitigation Measures for the Action Alternative
<b>Impact Topic</b>			
Community Resources	Negative impacts would occur as congestion increases, diminishing access to community resources. Congestion would continue to increase emergency service response. Slight beneficial impacts could occur if more individuals use alternative transportation as a result of increased congestion.	Beneficial impacts from improved access to and within communities would occur. Emergency vehicle response would improve, lessening the amount of time required to reach emergency events.	No mitigation needed. However, coordination with emergency service providers will occur during construction.
Community Cohesion and Connections	Slight negative impacts from increased congestion due to impeded travel across the interstate would reduce community cohesion.	Slight beneficial impacts from improved access to community facilities for motorists, transit users, bicyclists and pedestrians would occur. Direct benefits would occur in some areas to benefit emergency response time.	No mitigation needed.
<b>Environmental Justice</b>	No disproportionate and adverse impacts to minority or low-income populations would occur.	Overall impacts of the Action Alternative are expected to be beneficial. Negative impacts would be negligible and would affect all populations approximately equally. Therefore, no disproportionate and adverse impacts are expected to minority and low-income populations.	No mitigation needed.

	No Action Alternative	Action Alternative	Mitigation Measures for the Action Alternative
Impact Topic			
<p><b>Right-of-Way</b></p>	<p>No direct or indirect impacts anticipated.</p>	<p>One business would be impacted, resulting in a full acquisition of one commercial business northeast of the interchange. Partial acquisition of three other commercial properties in the same shopping center would be required.</p> <p>Other impacts would include the partial acquisition of commercial parcels located northeast of the interchange, along the northern perimeter of Arapahoe Road between Greenwood Plaza Boulevard and South Yosemite Street and between Clinton Street and Clinton Court, and along the western edge of South Yosemite south of Arapahoe Road.</p> <p>A portion of a commercial property could be acquired for a water quality pond, although selection of this site would not be determined until final design.</p> <p>No residences would be displaced. There would be no partial or full acquisition of any residential property.</p> <p>Temporary construction impacts would occur to adjoining commercial and residential property from road construction activities.</p>	<p>Acquisition:</p> <p>For any person(s) whose real property interests may be impacted by this project, the acquisition of those property interests will comply fully with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, (Uniform Act). The Uniform Act is a federally mandated program that applies to all acquisitions of real property or displacements of persons resulting from federal or federally assisted programs or projects. It was created to provide for and insure the fair and equitable treatment of all such persons. To further ensure that the provisions contained within this act are applied “uniformly,” CDOT requires Uniform Act compliance on any project for which it has oversight responsibility regardless of the funding source. Additionally, the Fifth Amendment of the United States Constitution provides that private property may not be taken for a public use without payment of “just compensation.” All impacted owners will be provided notification of the acquiring agency’s intent to acquire an interest in their property including a written offer letter of just compensation specifically describing those property interests. A Right of Way Specialist will be assigned to each property owner to assist them with this process.</p>

	No Action Alternative	Action Alternative	Mitigation Measures for the Action Alternative
<b>Impact Topic</b>			
			<p>Relocations:</p> <p>In certain situations, it may also be necessary to acquire improvements that are located within a proposed acquisition parcel. In those instances where the improvements are occupied, it becomes necessary to “relocate” those individuals from the subject property (residential or business) to a replacement site. The Uniform Act provides for numerous benefits to these individuals to assist them both financially and with advisory services related to relocating their residence or business operation. Although the benefits available under the Uniform Act are far too numerous and complex to discuss in detail in this document, they are available to both owner occupants and tenants of either residential or business properties. In some situations, only personal property must be moved from the real property and this is also covered under the relocation program. As soon as feasible, any person scheduled to be displaced shall be furnished with a general written description of the displacing agency’s relocation program which provides at a minimum, detailed information related to eligibility requirements, advisory services and assistance, payments, and the appeal process. It shall also provide notification that the displaced person(s) will not be required to move without at least 90 days advance written notice.</p>

	No Action Alternative	Action Alternative	Mitigation Measures for the Action Alternative
<b>Impact Topic</b>			
			For residential relocatees, this notice cannot be provided until a written offer to acquire the subject property has been presented, and at least one comparable replacement dwelling has been made available. Relocation benefits will be provided to all eligible persons regardless of race, color, religion, sex, or national origin. Benefits under the Act, to which each eligible owner or tenant may be entitled, will be determined on an individual basis and explained to them in detail by an assigned Right of Way Specialist.
<b>Utilities</b>	No direct or indirect impacts anticipated.	Several utilities, including above ground electric lines, cable television lines, natural gas valves, manholes and sewer lines, fire hydrants and water lines, and fiber optic lines would need to be relocated.	During final design, utilities would be avoided through design modifications or, where conflicts cannot be avoided, utilities will be relocated. Utility relocations will be coordinated with the local jurisdictions/CDOT and private utility providers prior to construction.
<b>Visual</b>	No direct or indirect impacts anticipated.	No measurable direct or indirect impacts anticipated.	No mitigation needed.

	No Action Alternative	Action Alternative	Mitigation Measures for the Action Alternative
<b>Impact Topic</b>			
<b>Noise</b>	Direct impacts to 16 residential properties and 2 commercial properties would occur from traffic noise. No noise abatement measures would be implemented.	Direct impacts to 16 residential properties and 2 commercial properties would occur from traffic noise (same as the No Action Alternative). Implementation of noise abatement would provide a noise-reduction benefit to all 16 impacted homes and 2 commercial properties and reduce estimated noise levels below the CDOT Noise Abatement Criteria (NAC) for 14 of the homes. Temporary impacts would occur to adjoining properties from road construction activities.	A barrier along Arapahoe Road approximately 8 feet high by 1,060 feet long and a barrier along Yosemite Street approximately 8-11 feet high by 500 feet long are being recommended preliminarily for the Action Alternative.  A pre-construction survey of the impacted residents will be conducted to garner input on abatement actions. The final decision on the noise barriers will be made during final design through the public involvement process.  Timing of construction will be tied to construction of adjacent roadway improvements.  Mitigation for noise from temporary construction impacts includes: use of barriers, limiting work to certain hours of the day, re-routing traffic away from residential areas and using well-maintained equipment.
<b>Energy</b>	Direct negative impacts would occur as congestion increases, which reduces fuel economy. Indirect benefits to air quality may occur if more people start using transit as a result of increased congestion.	Benefits would occur as congestion decreases and fuel economy is improved. Indirect impacts could occur if transit riders switch back to driving cars. This could be offset by more transit riders due to enhanced accessibility to transit.  Energy use would increase temporarily during construction.	For impacts associated with construction:  The contractor will conduct activities when feasible during periods of reduced traffic volumes to reduce idling vehicles. The contractor will keep equipment well-maintained and will use cleaner fuels, when possible and encourage carpooling to and from the site. Staging areas will be located as close to the project area as possible.

	No Action Alternative	Action Alternative	Mitigation Measures for the Action Alternative
<b>Impact Topic</b>			
<b>Air Quality</b>	None. Future emissions from vehicles would be minimized through federal regulations (e.g., emission standards) and regional controls (e.g., street sanding regulations).	None. Future emissions from vehicles would be minimized through federal regulations (e.g., emission standards) and regional controls (e.g., street sanding regulations). Overall air pollution would be lower than the No Action Alternative due to lower overall congestion.  Indirect impacts from construction activities may be sources of temporary air quality impacts from fugitive dust or equipment emissions.	The construction contractor will prepare and implement a fugitive dust control plan. The contractor will plan to minimize idling and maintain equipment. Particular attention will be given to minimizing total emissions near sensitive areas. The contractor will keep its maintenance equipment well-maintained and will use cleaner fuels when possible.  Staging areas will be located as close to the project area as possible.
<b>Hazardous Materials</b>	No direct or indirect impacts anticipated.	Nine sites with potential or recognized environmental conditions may be affected directly through property acquisition or indirectly by construction activities.	For properties that are to be acquired by the project, further investigation and/or coordination may be necessary to confirm the presence or absence of contamination and to determine the extent and severity, appropriate methodology and preliminary costs of corrective or preventive action. The following mitigation measures will be implemented to ensure proper management of contaminated material, if encountered:  Protective measures (including development of a Materials Management Plan or Safety Plan, if required) will be taken before, during, and after construction to minimize the risk of encountering hazardous materials. Either a Materials Management Plan or Health and Safety Plan may be required per Section 250.03 of the CDOT Standard

	No Action Alternative	Action Alternative	Mitigation Measures for the Action Alternative
<b>Impact Topic</b>			
			<p>Specifications for Road and Bridge Construction (CDOT 2011c), when stated as such in the contract with the Engineer's approval. Section 250 of CDOT Standard Specifications for Road and Bridge Construction (CDOT 2011c) will be followed for any work that involves the transportation, handling, monitoring, and disposal of hazardous materials encountered during construction.</p> <p>If structure demolition is expected, asbestos-containing materials, lead-based paint, and miscellaneous hazardous materials surveys will be conducted at each site, where applicable, prior to demolition. If construction debris is encountered during excavation, the material will be inspected, and if found to contain asbestos, the material will be handled and disposed of in accordance with the procedures and policies described in Appendix A of the I-25/Arapahoe Interchange Environmental Assessment (2012).</p> <p>Lead-based paint may need to be removed prior to demolition if the lead is leachable at concentrations greater than regulatory levels. Where lead-based painted surfaces would be removed via torching, additional health and safety monitoring requirements are applicable.</p>

	No Action Alternative	Action Alternative	Mitigation Measures for the Action Alternative
<b>Impact Topic</b>			
<b>Water Resources and Water Quality</b>	No direct or indirect impacts anticipated.	Direct, temporary, and construction impacts would occur from ground disturbance and an increase in impervious surfaces. Benefits would occur due to required water quality improvements. The minor drainage basin would have a slightly higher percent of imperviousness, and peak flows would increase. Added paved surfaces would not measurably alter the water table or groundwater quality.	Mitigation will include Best Management Practices during construction. A detailed erosion control plan will be developed. Mitigation for the drainage infrastructure may be required. Municipal Separate Storm Sewer System (MS4) permits require that permanent water quality facilities, including ponds, be installed to treat the runoff. A detailed analysis of the existing drainage system will be performed. Dewatering permits will be obtained if necessary.
<b>Biological Resources</b>	No direct or indirect impacts anticipated.	No known direct or indirect impacts are anticipated.	If construction is to occur during the breeding season, a nest survey will be conducted. Existing nests will be removed prior to the nesting season.  No construction work can occur that would impact the nests, if occupied nests are observed during construction.
<b>Cultural, Historic, and Archaeological</b>	No direct or indirect impacts anticipated. However, ground-disturbing construction activities may result in unexpected discovery of cultural remains that could have historic significance or be important to Native American tribes. Also, some structures may have become 50 years or older by the time of construction.	No direct or indirect impacts are anticipated.	CDOT's Standard Specifications Section 107.23 for Road and Bridge Construction will be followed regarding procedures for emergency (unanticipated) discoveries during construction.  At the time of final design/construction, any structures that have recently become 50 years or older will need to be assessed under Section 106. A Section 106 consultation will need to occur if there will be any permanent or temporary easements or full or partial property acquisitions.

	No Action Alternative	Action Alternative	Mitigation Measures for the Action Alternative
<b>Impact Topic</b>			
<b>Paleontological Resources</b>	No direct or indirect impacts are anticipated.	No known direct or indirect impacts are anticipated.	To ensure that important paleontological remains are not destroyed during construction, a qualified, state-permitted paleontologist will examine the final design plans.  If any subsurface bones or other potential fossils are found anywhere within the study area during construction, all ground disturbances in the area will cease and a qualified, state-permitted paleontologist will be notified immediately to assess their significance and make further recommendations.
<b>Soils and Geology</b>	No direct or indirect impacts are anticipated.	No direct or indirect impacts are anticipated. Soils would be disturbed during construction but detailed geotechnical analysis of the surrounding subsurface will be required during the preliminary/final design.	Techniques would be applied to improve soil or ground suitability for roadway construction during project design. Analysis will be used to establish the design of the roadway and structures and to establish erosion control procedures.
<b>Permits</b>	Not applicable.	The following permits may be required for construction: - Colorado Discharge Permit System (CDPS) - Stormwater Construction Permit - CDPS Construction Dewatering Industrial Wastewater Discharge Application - Dewatering Well Permit - Air Pollution Emission Notice - Demolition Permit - Form 137 Access Permit - 1041 Permit	

	No Action Alternative	Action Alternative	Mitigation Measures for the Action Alternative
<b>Impact Topic</b>		<p>Additional permits may be identified during final design. Once permits that are necessary for the project have been identified, the permits will be added as individual commitments in this Mitigation Commitment Tracking Form. Other Local Permits or Approvals may be required for noise abatement walls, utility relocations, land survey, local roadway access, temporary construction detours, retaining walls, erosion control, and grading.</p> <p>A maintenance agreement will need to be established during final design for the sidewalk along the south side of Arapahoe Road from Uinta Street to Yosemite Street. Potential parties to the agreement include the cities of Centennial and Greenwood Village and the General Improvement District.</p>	



## Chapter 3: EA Comments and Responses

This chapter lists public and agency comments received, and responses to those comments.

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A third and final public meeting for this project was held during the EA 30-day public review period, on September 20, 2012. The meeting was advertised in many ways. Over 3,000 hard copies of a postcard advertisement were mailed to property owners and tenants in the interchange area. An electronic newsletter was sent via email to 500 stakeholders on the project mailing list, and hard copies of the newsletter were made available at participating agency offices and the Castlewood Library. A project update news release was sent to local media and public information officers at involved agencies and jurisdictions, as well as the electronic mailing list of interested parties in September 2012. A legal notice was also published. These meeting advertisements are included in **Appendix B**.

Approximately 50 people attended the public meeting. The meeting was conducted as an open house from 4:30 PM to 7:00 PM, with no formal presentation. Exhibits were posted around the large meeting room with project team members and agency representatives available to answer questions, take comments and engage in one-on-one and small group discussions. Wall graphic “stations” included the following: Current NEPA Study, Recommended Alternative, Impacts & Mitigation, Noise Impact Mitigation, Next Steps and Comments.

**Appendix B** also includes the agency and public comments received during the EA public review period in their original formats, including emails, website comment forms, telephone conversation records, public meeting comment sheets and noise wall survey forms.

### 3.1 Agency Comments and Responses

Two agency comments (A-1 to A-2) were received during the document review period. These comments and responses are listed below.

#### **Document A-1. Email from Terry McKee, U.S. Army Corps of Engineers, Denver Regulatory Office**

If any work requires the discharge of dredged or fill material, and any excavation associated with a dredged or fill project, either temporary or permanent in an aquatic site, which may include ephemeral and perennial streams, wetlands, lakes, ponds, drainage ditches and irrigation ditches, this office should be notified by a proponent of the project for Department of the Army permits, changes in permit requirements or jurisdictional determinations pursuant to Section 404 of the Clean Water Act.

Identify what the project is. Also, the work in an aquatic site should be identified by the proponent of the project and be shown on a map identifying the Quarter Section, Township, Range and County or Latitude and Longitude, Decimal Degrees (example 40.55555; -104.55555) and the dimensions of work in each aquatic site. Any loss of an

aquatic site may require mitigation. Mitigation requirements will be determined during the Department of the Army permitting review.

**Response to A-1.** Both preliminary research and site-specific investigations were conducted to determine the presence or absence of aquatic sites in the study area. There are no aquatic waters, wetlands or drainage ditches within the project limits that would qualify for protection under the Clean Water Act of 1972, Section 404, including the 2008 Rapanos guidance. The area surrounding the interchange is a highly developed suburban development area served by storm sewers. Therefore, there will be no discharge or excavation of dredged or fill material, either temporary or permanent to aquatic sites associated with construction of the proposed improvements, so no additional coordination will be necessary.

**Document A-2. Email from Robin Coursen, Office of Ecosystem Protection and Remediation, NEPA Compliance and Review Program, EPA**

**A-2-1.** Page 6, Appendix A, section 2.2, “National Air Quality Standards Overview”, last paragraph: Although this Appendix was prepared in March of 2012, the public would also benefit in knowing that the Metro-Denver/NFR area was also designated as nonattainment for the 2008 8-hour (75 ppb) Ozone NAAQS as of July 20, 2012 (see: 77 FR 30088, May 21, 2012; effective July 20, 2012).

**Response to A-2-1.** The observation is noted that designation of metro Denver as a nonattainment area for the lowered 2008 ozone standard occurred after the EA document was prepared. This condition mirrors the earlier nonattainment designation from the 1997 ozone standard described in the EA document, but does not fundamentally change the conditions or findings regarding ozone, therefore no corrections or clarifications to the EA or technical report text are necessary

**A-2-2.** Page 9, Appendix A, section 2.3 “NAAQS Monitoring Data Overview”: The information noted for carbon monoxide (CO), particulate matter, nitrogen dioxide, and ozone only contain values through 2008. As of May 2012, the Colorado Department of Public Health and Environment (CDPHE) had uploaded quality-assured ambient air quality data up through 2011. There is Air Quality data available for the period from 08-11 that reflect more recent conditions. Please consider whether the recent data would change any analyses or conclusions in the EA.

**Response to A-2-2.** The observation is correct that air quality data more recent than 2008 were not available when the document was prepared. Presently, the most current complete annual air quality dataset is from 2011 and updated monitoring data are provided below.

The most critical values from Page 9 of Appendix A of the EA for CO (1-hour), CO (8-hour), PM10 (24-hour), ozone (8-hour) and ozone (3-year average) would be updated to 2.7 ppm, 1.7 ppm, 42 µg/m<sup>3</sup>, 0.078 ppm and 0.074 ppm, respectively, for 2011. These data do not change the conditions or findings for the project reported from the 2008 data because the 2011 CO and PM10 concentrations are also well below the air quality standards and ozone was already recognized as a concern. Therefore, no corrections or clarifications to the EA or technical report text are necessary.

**A-2-3.** To assist the public in locating relevant AQ data, it may help to refer to the names of the air quality monitoring stations as used by CDPHE (see:

[http://apcd.state.co.us/air\\_quality.aspx](http://apcd.state.co.us/air_quality.aspx) ) rather than selected adjacent street names as used in Appendix A.

**Response to A-2-3.** The convention chosen for the EA document was to refer readers to an EPA website for the air quality monitoring data. To aid readers accessing the online data, the EA document used monitor names reflecting the location data that appeared in EPA's online tables. The Air Pollution Control Division (APCD) monitor names that the comment references do not consistently appear in the online EPA tables and could be confusing. No corrections or clarifications to the EA or technical report text are necessary.

**A-2-4.** Page 10, Appendix A, section 2.4 "Transportation and Circulation System", Table 2: The intersection level of service (LOS) information provided in this table for the 2035 action alternative does not appear to match the 2035 action alternative LOS information provided in Table 10 (page 3-9) in the EA. We recommend correcting or explaining any inconsistencies.

**Response to A-2-4.** The observation is correct that there are some minor discrepancies between these tables. Further refinement of predicted 2035 traffic operations occurred after the air quality analysis. However, the LOS data were only used to identify which intersections, if any, should be modeled for carbon monoxide. The worst-performing intersections (LOS D, E or F) were identified properly (Greenwood Plaza and Yosemite) and analyzed—note that Boston/Clinton was also analyzed but this would be unnecessary based on Table 10 of the EA. (Note that individual turning movement LOS's listed in Table 10 of the EA are not a criterion.) The predicted 2035 traffic volumes were not affected by the fine tuning of signal operations. Therefore, worse (i.e., more conservative) air quality conditions were analyzed for effects and were found not to cause impacts. No corrections or clarifications to the EA or technical report text are necessary.

**A-2-5.** Pages 14 and 15, Appendix A, section 3.3 "Carbon Monoxide Results" and Table 3: In reviewing the EA we found no mention of which EPA-approved mobile sources emissions estimation model was used to prepare the emissions used in the CAL3QHC intersection modeling. It would be helpful to identify in the EA ... The EPA emission factor model that was selected (i.e., MOBILE6.2 or MOVES2010), the basis for the decision to use that model, and an overview of the model input data that were used.

**Response to A-2-5.** The emissions factors were provided by APCD staff and came from the emissions model—MOBILE6.2—APCD used for their regional transportation conformity modeling. This maintains a high degree of consistency between emission factors used for this project and the regional conformity modeling. The numerous MOBILE6.2 input variables used by APCD were not documented independently for this project, but that information is available in the APCD document "Technical Support Document, Carbon Monoxide Maintenance Plan Revision For the Denver-Boulder Attainment Area." These additional technical details are being provided here in the FONSI, but no corrections or clarifications to the EA or technical report text are necessary.

**A-2-6.** Pages 18, 19, and 20, Appendix A, section 3.6 "Toxic Air Pollutants": This section appears to lack the most up-to-date information. This section discusses the acknowledged limitations of EPA's MOBILE6.2 model with predicting accurate emissions of MSATs. For future projects please note, EPA's MOVES2010 model offers improved accuracy, and enhanced ability to estimate both criteria and MSAT

emissions. EPA's current version of the MOVES model, MOVES2010b, was released on April 23, 2012 and not only calculates the six priority MSATs noted in this section, but includes 63 other MSATs. For more information, Please review the MOVES2010b "Q" and "A" document found at the following weblink: <http://www.epa.gov/otaq/models/moves/documents/420f12014.pdf> .

**Response to A-2-6.** Section 3.6 was prepared following FHWA's September 30, 2009 Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents. This project was evaluated utilizing a qualitative analysis per the provisions in this guidance for projects with low potential MSAT effects. The emissions profiles for MSAT compounds included in the interim guidance were developed with MOBILE 6.2, which are being updated by FHWA to include current MOVES model analyses and updated health study references. However, that guidance is not yet available for use. No corrections or clarifications to the EA or technical report text are necessary.

**A-2-7.** Pages 21 and 22, Appendix A, section 3.8 "Mitigation": In addition to the construction mitigation measures mentioned in this section and the requirements from CDPHE, EPA recommends consideration of the following mitigation measures to reduce construction air quality impacts (and their potential health effects) caused by diesel and other particulate emissions in the proximity of residential and business areas nearby this project.

- ◆ Requiring heavy construction equipment to use the cleanest available engines or to be retrofitted with diesel particulate control.
- ◆ Using alternatives for diesel engines and/or diesel fuels such as: biodiesel, LNG or CNG, fuel cells, and electric engines.
- ◆ Installing engine pre-heater devices to eliminate unnecessary idling during winter time construction.
- ◆ Prohibiting the tampering of equipment to increase horsepower or to defeat emission control device's effectiveness.
- ◆ Using construction vehicles and equipment with the minimum practical engine size for the intended job.
- ◆ Scheduling work outside of normal hours for sensitive receptors; this should be necessary only in extreme circumstances, such as construction immediately adjacent to a health care facility, church, outdoor playground, or school.

**Response to A-2-7.** The actions listed in the comment are acknowledged as best management practices and air pollution minimization steps that should be considered by the contractor during construction where appropriate. No corrections or clarifications to the EA or technical report text are necessary.

## 3.2 Public Comments and Responses

Three emails (E-1 to E-3) were received during the document review period, one phone call was received (P-1), six comments were submitted on the project website (W-1 to W-6) and 23 comments (M-1 to M-23) were received at the final public meeting held on September 20, 2012. In addition, a letter (L-1) was submitted to FHWA and responded to by CDOT. Comments and responses are listed below.

**E-1. Andrea Suhaka**

I just noticed that you got Castlewood Library's address wrong. I don't think it will make any difference, but the ZIP code is 80112. I make that mistake constantly.

**Response to E-1.** Thank you. The zip code of Castlewood Library was updated in subsequent public release information.

**E-2. Don Doerr**

I have seen this and it all looks good. At meeting #2 they said there would be an additional lane between Dayton Street West to I-25. This does not show in this presentation, does that mean it will not be done?

**Response to E-2.** The Preferred Alternative for interchange improvements includes an additional westbound lane beginning at Clinton Court and extending to I-25. The additional westbound lane widening between Dayton Street and Clinton Court is included in a separate adjacent CDOT project addressing turn lane improvements at the Dayton Street and Arapahoe Road intersection. An eastbound lane extending east from Clinton Street to Dayton Street is also being considered in that separate but related project.

**E-3. Dustin Pulciani, Lead Property Manager, Rocky Mountain Region & West Division, McDonald's USA**

I thought CDOT agreed early this year that No Action was the direction? Has CDOT now re-opened its thinking to potentially closing off access points along Arapahoe Rd.?

**Response to E-3.** Earlier this year, the involved project agencies agreed that Yosemite Court's access to Arapahoe Road would not be closed or modified as part of the EA's recommendations. That remains true. The EA Action Alternative does not recommend access modification to the Yosemite Court intersection; it would remain a right turn only intersection.

**P-1. Barbara Calder**

Barbara was calling in response to the recent Walnut Hills Newsletter. An article states that when people removed snow from the sidewalk in the past they were ticketed by Greenwood Village Police. The sidewalk along Arapahoe Road belongs to Walnut Hills. Barbara has talked to Faith Bolen with Greenwood Village, and asked if people were ticketed because they illegally put snow onto Arapahoe Road. Snow should be put on the landscaped area. The article did not tell the whole story. Barbara would like to know the plans for removing snow from the sidewalk. According to the Americans with Disabilities Act, sidewalks need to be accessible and there needs to be a plan to remove the snow. Barbara understands that Centennial doesn't have an ordinance that requires shoveling.

**Response to P-1.** A maintenance agreement will be established during final design for the sidewalk along the south side of Arapahoe Road from Uinta Street to Yosemite Street. Potential parties to the agreement include the cities of Centennial and Greenwood Village and the General Improvement District. The existing sidewalk is within the City of Greenwood Village (the northern property line of the residences along the south side of Arapahoe Road is the boundary between the cities of Centennial and Greenwood

Village). The sidewalk is currently maintained by the Walnut Hills General Improvement District. Greenwood Village Municipal Code prohibits depositing snow or ice in roadways.

**W-1. Don Doerr**

I travel the Yosemite/Arapahoe intersection daily and the Clinton/Arapahoe intersection very often. I believe that there was talk of an additional lane from Boston to I-25. I believe this lane to be useful and necessary but I see nothing in the plan. I will not be able to attend the meeting on the 20th but would like an update on this additional lane.

**Response to W-1.** The Preferred Alternative for interchange improvements includes an additional westbound lane beginning at Clinton Court and extending to I-25. The additional westbound lane widening between Dayton Street and Clinton Court is included in a separate adjacent CDOT project addressing turn lane improvements at the Dayton Street and Arapahoe Road intersection. An eastbound lane extending east from Clinton Street to Dayton Street is also being considered in that separate but related project.

**W-2. John W. Husk**

I own the property at \_\_\_\_\_ which backs up to Arapahoe Road between South Uinta Street and S. Yosemite Street. We are temporarily out of the house, and it is occupied by my daughter and son-in-law and family for the next 2 years. As an owner and resident of \_\_\_\_\_ for 35 years, have seen the significant increase in traffic behind the house on Arapahoe Road. I am very much in favor of the sound/noise wall. Having been involved in looking into a sound fence for that section from S. Uinta to S. Yosemite back in the mid 1980s, a sound consultant told us that the fence needs to be wrapped on each end to prevent sound from entering and increasing noise for the first three houses near the end of the fence. Therefore the sound fence should wrap down S. Uinta Street in the same position as the current perimeter fence.

**Response to W-2.** Thank you for your comment. Specific details of the noise abatement wall will be determined during final design, including the end treatment at Uinta Street and will follow the appropriate Federal and State guidelines and requirements.

**W-3. Roger Wiggin**

The congestion on Arapahoe during peak hours appears to extend well beyond the I-25 interchange. As shown in the Executive Summary, expanded fixed route services may include a Yosemite to Costilla connection over I-25 to avoiding the Arapahoe interchange - as in the Yosemite overpass. That looks quite impactful to businesses and doesn't necessarily address Arapahoe congestion to the year 2030. What happened to the Peakview overpass option - with opportunities to expand to just west of the S. Revere Pkwy/Arapahoe intersection (an E. Euclid Dr. exit to merge to E. Peakview) to west of I-25 fully to S. Quebec St.?

**Response to W-3.** None of the supplemental I-25 crossing alternatives were determined to be of sufficient benefit to substantially reduce traffic volumes at the I-25/Arapahoe Road interchange, thus not meeting purpose and need for the project, and were therefore not included with the recommended interchange improvements. For additional

information, please refer to the *Interchange and Supplemental I-25 Crossing Alternatives Technical Report*, August 2011 included in the Appendices of the EA.

#### **W-4. Brian Bern**

In looking at the alternatives and a couple of typical sections please make every effort to provide better pedestrian accommodations through the interchange area. The typical sections as they stand are less than ideal. I am especially concerned with the areas that are only receiving 5' sidewalks. It appears that there will be areas that will have a 5' sidewalk immediately adjacent to Arapahoe Road with a retaining wall and/or sound wall at the edge of sidewalk. With cars traveling 40-50 miles per hour on Arapahoe the 2' of sidewalk closest to the road is in essence unusable and with the wall immediately adjacent it's impossible to walk within 1.5' of the wall without chopping off an arm and shoulder so the project has in essence designed a 1' foot path of usable sidewalk. There are also cyclists that use this sidewalk to get to their destinations. Arapahoe Road is less than ideal for a cyclist but many times it is the most direct route.

**Response to W-4.** The project improves sidewalks to as great an extent as possible without taking adjacent residential property, which was determined to be a critical issue during alternatives development and conceptual design. Existing sidewalks would be reconstructed along both the north and south sides of Arapahoe Road from west of Yosemite Street, through the interchange, to east of Boston/Clinton Street. Sidewalk widths would vary from 8 to 10 feet in the project area. All attempts will be made to maximize sidewalk width and construct detached sidewalks where reasonable within available ROW. However, 5-foot sidewalk segments may be utilized along Arapahoe Road west of Yosemite Street and along Yosemite Street south of Arapahoe Road where a commitment was made to avoid residential property acquisition. Maximizing sidewalk width within the available ROW will be considered again during final design.

#### **W-5. Randy and Jana Lutton**

We own and reside in directly impacted residential property

Many patrons of the businesses on the southwest corner of Arapahoe Rd. and Yosemite St. enter the parking lot via the Yosemite St. entrance/exit. Many of the people using that entrance/exit do so after making a left turn from westbound Arapahoe Rd. onto southbound Yosemite St. The EA drawings indicate that left turns from Arapahoe Rd. onto southbound Yosemite St. will be guided onto the center and easternmost lanes. Those who make the turn onto the center lane and wish to enter the parking lot must make an immediate and unsafe lane change onto the westernmost lane. This situation also increases the potential for those making a right turn from Arapahoe Rd. onto southbound Yosemite St. to compete for that westernmost lane. This situation along with the high speed of those making a left onto southbound Yosemite St. creates an additional safety concern for our residential property located immediately south of the parking lot entrance/exit. We strongly believe that the strength of the sound wall at Yosemite needs to be considered.

**Response to W-5.** No modifications are proposed related to improper lane changes mentioned above for traffic entering the business driveway on Yosemite Street south of Arapahoe Road. There is no documented crash history at this location to warrant driveway modification.

Noise mitigation barriers are proposed for Walnut Hills in conjunction with the planned improvements. Specific wall heights, materials and aesthetic treatment will be determined with public input during final design. All structures identified for the project, including noise walls, will be evaluated for safety in final design per state and federal design and construction guidelines. The design will also consider existing landscaping that can be maintained or replaced.

**M-1. Barb Kuwitzky**

We need to stop thinking “noise” walls and think “safety” walls. This is really important for the folks who back up to Arapahoe Road.

I also think it is important to consider reimbursing the Walnut Hills neighborhood for the landscaping on Arapahoe. The neighborhood had to fund a general improvement district on its own and should be reimbursed for the removed landscaping.

There is no doubt the roads and interchange need improvement. There is also much discussion about the development around I-25 and improvement of access to light rail. Lots of folks would walk to the shopping north of Arapahoe and to the Arapahoe light rail if there was a pedestrian underpass/overpass across Arapahoe at say Uinta. You literally take you life in your hands walking across Arapahoe. Why not improve pedestrian access with this project?

Again, these should be safety walls not just sound walls. You need to protect the Walnut Hills community not invade it! We need the support of our city and government.

**Response to M-1.** Two noise abatement barriers are being recommended with the Preferred Alternative. These barriers need to meet certain criteria for noise reduction. Specific invitations to participate in the EA public meetings were sent to owners and residents for the affected properties along Arapahoe Road and all comments received were in favor of noise abatement. The final decision on the noise barriers will be made during final design with additional public input. Specific wall heights, materials and aesthetic treatment will be determined with public input during final design. All structures identified for the project, including noise walls, will be evaluated for safety in final design per state and federal design and construction guidelines. The design will also consider existing landscaping that can be maintained or replaced.

A maintenance agreement regarding the noise abatement walls and adjacent sidewalk will be established during final design, addressing the existing General Improvement District, access for maintenance activities, long-term wall maintenance/repair, any financial or other terms of the agreement, and routine maintenance of the landscaping and sidewalk in the Arapahoe Road public ROW. Potential parties to the agreement include the cities of Centennial and Greenwood Village and the General Improvement District. No reimbursement would be made for elimination of the existing fence or impacted landscaping.

Appropriate pavement markings and signage for pedestrian crosswalks of Arapahoe Road at Yosemite Street and at Uinta Street/Greenwood Plaza Boulevard will be addressed during final design. Sufficient pedestrian signal time will be provided for pedestrians to cross Arapahoe Road at the signalized arterial street intersections within the interchange complex.

A grade-separated pedestrian crossing of Arapahoe Road was analyzed, but is not included in the Preferred Alternative (*Arapahoe Road Pedestrian/Bicycle Grade*

*Separation Evaluation*, March 2012.). Given low current expected usage from current area land uses, limited reduction in vehicular delay, additional property acquisition requirements, and substantial funding investment, a pedestrian/bicycle grade separation was not recommended at this time. The technical and executive committees established for this project recommended that a pedestrian grade separation should be re-evaluated as part of future redevelopment of the Arapahoe Road corridor area. Redevelopment of the southwest quadrant of the interchange was addressed in the City of Centennial's *Arapahoe Urban Center Sub-Area Plan (2007)*, indicating the potential for future substantial increase in development density, which could increase pedestrian demand. The Arapahoe at Village Center LRT station is less than 0.5 mile north of Arapahoe Road, which could also contribute to increased future pedestrian demand. Once specific redevelopment plans are confirmed, future pedestrian and bicyclist demand could be estimated from the changes in adjacent land use, along with potential city plans for pedestrian/bicycle routes through the area. In lieu of an overpass, a pedestrian/bicycle underpass could be considered in the future if redevelopment allowed for recontouring adjacent properties to enhance visibility and usage of the grade-separated crossing.

### **M-2. Jan Brainard**

Detours of traffic down (south) on Boston to go left on Caley to access Orchard Rd. and I-25. Our neighborhood will not be able to exit our neighborhood from all the traffic backing up from Caley to East. It happens now with accidents and snowstorms. There are 157 units (157+ cars) that exit from our neighborhood from the Enclave condos who have only Caley and Boston as their only entrance and egress. There is an alternative entrance available for them but it was ordered "closed" at the request of Greenwood Village and Sundance Valley. (2 G.V. council members live in this neighborhood). This should be opened.

Because of the stoplight at Caley and Boston, there are continuous turn-arounds in our neighborhood of people not wanting to wait for the light or too much traffic. They fly through the intersection, quickly u-turn despite signs and make a right on red onto Caley to beat the traffic. It is dangerous and 2 families with children have already moved due to the danger. This will only become worse.

They have damaged our grass, sprinklers, driveway and sidewalk from all the turn-arounds.

I request that Dayton be a detour and "local traffic only" from Home Depot north to Caley.

Also, there are many near misses from the through lanes north and south on Arapahoe and confused drivers make quick moves to change lanes. Barriers currently there should stay in place.

**Response to M-2.** Traffic detours would be determined during design and pre-construction of the interchange improvements, minimizing impediments to local access along detour routes.

Appropriate agencies will review the traffic signal timing along the detour routes to minimize queuing vehicles blocking access to residential communities.

Greenwood Village does not recommend Dayton Street as a detour route. Dayton Street is only 2-lanes north of Peakview Avenue, as is Orchard Road from Dayton Street to Yosemite Street. Boston Street is designed to accommodate a higher volume of traffic.

With the Preferred Alternative improvements, a center median will be built separating east and west traffic. The existing barriers separating through traffic from traffic bound for I-25 loop ramps will be eliminated to enable triple left turns from the off ramps. Removing these barriers will increase weaving distance for traffic bound for the I-25 loop ramps, and along with lane designation signage and pavement markings, should reduce drivers making quick moves to change lanes approaching the interchange ramps.

**M-3. Laura Larson**

Impact on trees on property line?

Impact on current perimeter fence (connects to most other side fences). Will residents be compensated (our taxes paid for current fence)?

I was told fence construction and maintenance would be through an IGA – is this with CDOT/Centennial/Arapahoe County? Who would administer the IGA? How long would the agreement be in place? Would this agreement transfer to new owners (property owners)? What will be covered in the IGA?

Can noise wall installation be moved to early in the construction process? Who makes this decision? Can property owners influence this decision?

Personally, I think the I-25/Arapahoe Road solution will be a short term fix and I am against the project. I do not think that the benefit is worth the cost of this project.

**Response to M-3.** The final decision on the two recommended noise barriers will be made during final design with additional public input. Specific wall heights, materials and aesthetic treatment (as well as assessing impacts to trees) will be determined during final design. The design will consider existing landscaping that can be maintained or replaced. All structures identified for the project, including noise walls, will be evaluated for safety in final design per state and federal design and construction guidelines.

A maintenance agreement regarding the noise abatement walls and adjacent sidewalk will be established during final design, addressing the existing General Improvement District, access for maintenance activities, long-term wall maintenance/repair, any financial or other terms of the agreement, transferability to new owners, and routine maintenance of the landscaping and sidewalk in the Arapahoe Road public ROW. Potential parties to the agreement include the cities of Centennial and Greenwood Village and the General Improvement District.

Noise abatement walls are planned to be built in conjunction with adjacent roadway widening. CDOT will make the decision about timing of noise wall construction within the phases of overall project construction.

The Preferred Alternative was selected through the EA process and provides the best opportunity to meet Purpose and Need for the anticipated project cost.

**M-4. Gerry McNally**

I have not seen specifications on the safety/noise walls – concrete block i.e. County Line Road is unacceptable.

Painted surfaces to look like masonry is not acceptable.

Yes, more than noise, the safety of the occupants of homes along the streets needs to be addressed. Within 2 years auto have crashed thru the wooden fences along Yosemite and hit the homes.

How can I see what the specifications are for the wall? – paint on precast concrete is unacceptable.

**Response to M-4.** A pre-construction survey of the impacted residents will be conducted to garner input on noise abatement actions. The final details regarding the two recommended noise barriers will be made during final design with additional public input. Specific wall heights, materials and aesthetic treatment will be determined during final design. All structures identified for the project, including noise walls, will be evaluated for safety in final design per state and federal design and construction guidelines.

#### **M-5. Clayton Moore**

I am not a traffic engineer so I have to assume the team has done their homework and presenting the best option. That said, I am not overly impressed. I don't see the gain from this option. Appears to be a modified band aid to what we already have. I think a larger project that results in an interchange like I-25 and University would work better. More buildings along the interchange would be lost but they never should have allowed that close to I-25 or Arapahoe in the first place. I assume cost was a factor. We will just have to fix this solution in 25-35 years.

**Response to M-5.** The criteria for selecting the Preferred Alternative included minimizing impacts to residences and businesses in the project area, as well as a solution that was affordable within the budgeted funds. A single point interchange like at University and I-25 would not provide the interstate ramp capacity needed at Arapahoe/I-25. The Preferred Alternative addresses travel demand needs through the year 2035, the approximate 20 year planning horizon for state and federal transportation projects.

#### **M-6. Neville Sarkari**

At Motel 6, consider a sloping drive just north of Conoco as opposed to the driveway near the swimming pool for more direct access.

Consider a shared drive with Hampton Inn to Southtech Drive and incorporate truck parking.

Requesting City of Greenwood Village to approve reconstruction of the building that Pat's is currently in.

Prefer the new ROW line be north of the driveway to Conoco.

**Response to M-6.** CDOT would consider alternative access improvement options developed by Greenwood Village and property owners in the northeast quadrant of the interchange. The options would need to be viable and not substantially increase project cost or conflict with the intent of the improvements planned in conjunction with the Preferred Alternative. Other access alternatives can be explored during final design.

**M-7. Polly Page**

I am amazed at what has been accomplished with so little ROW takings, I am impressed. Thanks for taking out the barriers under I-25. Keep up the good work. Good job and design.

**Response to M-7.** Comments noted.

**M-8. Myra Garcia**

I'm not a fan of the proposed interchange under I-25 going to 4 lanes without the wall currently in place. I foresee many accidents of people trying to merge to I-25.

Coming off of I-25 southbound on concert days @ Comfort Dental – traffic backs up two lanes up to Belleview. Why can't CDOT place signs on freeway in advance to give notice about multiple exits: Orchard, Arapahoe, and Dry Creek.

The traffic signals from Yosemite east up to Dayton need to be studied. The timing of lights is off – sometimes there is no one at a north-south bound light and traffic backs up on Arapahoe in both directions.

I am in favor but only if the walls are built of brick or stone. Something that will last a long time.

**Response to M-8.** The barrier separating concurrent flow lanes under the I-25 bridge will be removed to allow for triple left turn lanes from the I-25 off ramps, and an increase in merge length will result.

For the large, recurring events (i.e., Broncos, Rockies, Nuggets, etc.) CDOT typically asks the organizer to provide traffic control and signing. For smaller events such as at Comfort Dental Amphitheater, the magnitude of impacts are more difficult to predict and assess. Due to budget constraints, CDOT has not had the staff to assess the smaller events nor provide a traffic management plan. CDOT and Greenwood Village will monitor Comfort Dental Amphitheater event traffic next summer and if there is an identified traffic congestion problem, will ask the venue owner to provide portable variable message signs (via a special use permit) to help direct traffic. Since the Comfort Dental Amphitheater does not have direct access from a state highway, CDOT cannot require the owner to provide the signage. If they refuse, CDOT and Greenwood Village will decide if the situation warrants tax payers dollars to be spent on time and resources for traffic control signage.

The Preferred Alternative includes signal system re-timing to maximize operational efficiency once the improvements are completed. DRCOG and CDOT are currently re-timing signals along Arapahoe Road between University Boulevard and Liverpool Street. Signal timing of the frontage road intersection with Arapahoe Road will remain unchanged per a legal agreement.

Aesthetic treatment and materials for the planned noise abatement walls will be determined during final design.

**M-9. Sherry Hoover**

I am sick to death of this tearing up Arapahoe Road every time you decide to make a change. Why wasn't this in your brilliant study when you tore up Arapahoe Road and I-25 when Kiewit made improvements? This has not been that long ago. Thought you

had planning committees. Why don't you tear up Orchard Rd. or Belleview? You have bottled up I-25 & Arapahoe since the very beginning. We have lived here for 42 years and seen Arapahoe Road torn up more times than necessary. If you can't plan better than this, get someone who can. You've already done enough damage to businesses and residents.

Maybe you just like to call this a blighted area and come in and take everyone's property. Personally, I think this what the long-term plan is. We don't provide enough money for you and you don't know how to stop spending.

Does it really matter what I think? There is already so much noise coming from Arapahoe Road, on can't keep a window open. I'll be surprised if you do this, this kind of thing has been promised before and you didn't honor it. Surprise!

**Response to M-9.** Improvements to the I-25/Arapahoe interchange have been made over the past 15 years as funding has allowed. Minimal improvements to the interchange occurred in conjunction with the Transportation Expansion project (TREX) due to limited funds available at that time. However, due to efficiencies achieved with that project, contingency funds were available that allowed for the interim improvements completed in 2010.

Noise mitigation barriers are proposed for Walnut Hills in conjunction with the planned improvements. Specific wall heights, materials and aesthetic treatment will be determined with public input during final design. All structures identified for the project, including noise walls, will be evaluated for safety in final design per state and federal design and construction guidelines. The design will also consider existing landscaping that can be maintained or replaced.

**M-10. Anonymous**

Noise abatement wall seems short to decrease the decibels the houses receive. The height of the wall from the backyard level might need to be closer to 7' – 8'.

The plants along Arapahoe Rd. on the south side probably helps absorbs/abate the noise, whereas the wall might not improve the decibels. The sound studies should continue after the project is constructed to confirm what the proposal probably considers sufficient based on the sound studies and wall textures and wall heights and wall materials.

**Response to M-10.** An analysis of the noise barriers was performed to estimate the size of wall necessary to meet the noise reduction criteria. Additional noise analysis will be conducted during final design to determine the specific height of the noise abatement walls, materials and other aesthetic treatments. The ability to provide landscaping is a function of ROW availability without acquiring ROW from residential property.

**M-11. Anonymous**

Noise abatement walls would be more effective if 3' or so taller, particularly along Arapahoe.

A lot of money proposed for not a lot of improvement. It's an okay tweak.

It may be better to leave as is to encourage people to adjust their behavior (public transit, fewer trips, staggered times, alternate routes).

More will telecommute reducing rush hours traffic, like we have seen elsewhere in the south metro and county.

**Response to M-11.** An analysis of the noise barriers was performed to estimate the size of wall necessary to meet the noise reduction criteria. Additional noise analysis will be conducted during final design to determine the specific height of the noise abatement walls, materials and other aesthetic treatments.

The operational and safety benefits of the Preferred Alternative were determined to outweigh the No Action alternative. The No Action Alternative did not meet the Purpose and Need of the project. The improved partial cloverleaf interchange will improve traffic operations of the interchange complex, meet future traffic demands and improve safety for motorists, pedestrians and bicyclists.

#### **M-12. Martin Jones**

I feel that safety walls are a necessity in the scheme of this project. Whenever the construction of a road, expansion of a road, etc., is proposed in an existing residential area, it becomes a safety issue for the residents. Safety walls will also somewhat mitigate the devaluation of residential properties. Sound walls are also a necessity, so a combination safety/sound wall is the appropriate choice.

Yes, it should go without saying. In addition it is of utmost importance that safety walls also be included.

**Response to M-12.** Noise abatement barriers are proposed for Walnut Hills in conjunction with the planned improvements. Specific wall heights, materials and aesthetic treatment will be determined with public input during final design. Project improvements will shift eastbound Arapahoe Road traffic 12 feet closer to the rear property line of five homes and shift southbound Yosemite Street traffic 6 feet closer to the rear property line of four homes. All structures identified for the project, including noise walls, will be evaluated for safety in final design per state and federal design and construction guidelines. The design will also consider existing landscaping that can be maintained or replaced.

#### **M-13. Ilsa Gregg**

I am still concerned that the project is pedestrian hostile.

Widening the road will increase traffic, pollution, and noise. Mitigations will be outpaced.

The wall proposed will be hazardous to pedestrians because it is blocking the sun and the sidewalk is not maintained during snow. Centennial has no ordinance for snow removal. Greenwood Village owns the sidewalk and does not allow it to be shoveled after storms either.

Overall, the project is automobile friendly and human being hostile. No pedestrian concerns have been addressed.

While it may be “impossible” to retrofit the area for pedestrians, given the build in, the caliber and education of the people who have been studying this project for years suggests that alternatives have not been considered because there are competing interests of businesses and city profits that supersede basic empathy and compassion.

I totally oppose this project in any version that does not address pedestrian's safety.

**Response to M-13.** Noise abatement barriers are proposed in conjunction with the planned improvements, with details decided during final design. The walls may have wintertime shading on sidewalks, but will likely be similar to the shading that currently exists from the privacy fences. Greenwood Village does regulate snow removal from sidewalks, and snow and ice cannot be deposited in roadways. However, pedestrian safety is a concern and a noise abatement wall maintenance agreement will be established during final design that will also address routine maintenance of the adjacent sidewalk for pedestrian access/safety. Potential parties to the agreement include the cities of Centennial and Greenwood Village and the General Improvement District.

The project improves sidewalks to as great an extent as possible without taking adjacent residential property, which was determined to be a critical issue during alternatives development and conceptual design. A 5-foot sidewalk section is only proposed along the south side of Arapahoe Road adjacent to homes in Walnut Hills due to ROW constraints. Providing a minimum 8-foot sidewalk width within the available ROW will be considered during final design.

Appropriate pavement markings and signage for pedestrian crosswalks of Arapahoe Road at Yosemite Street and at Uinta Street/Greenwood Plaza Boulevard will be addressed during final design. Sufficient pedestrian signal time will be provided for pedestrians to cross Arapahoe Road at the signalized arterial street intersections within the interchange complex. Future potential pedestrian accommodations are addressed in the *Arapahoe Road Pedestrian/Bicycle Grade Separation Evaluation*, March 2012, included in the Appendix of the EA.

**M-14. Rebecca McClellan**

Along the border of Walnut Hills, the masonry wall should be strong enough to stop a car, due to the incidents involving cars breaking through the fence. The wall must be paid for with project funds.

Yes! The walls for Walnut Hills are very important. Air quality is a concern, and any efforts to reduce pollution are good to consider.

**Response to M-14.** Noise abatement barriers are proposed for Walnut Hills in conjunction with the planned improvements. Specific wall heights, materials and aesthetic treatment will be determined with public input during final design. All structures identified for the project, including noise walls, will be evaluated for safety in final design per state and federal design and construction guidelines. The design will also consider existing landscaping that can be maintained or replaced. The cost of construction of the noise abatement walls is included in the project.

The Preferred Alternative is expected to reduce peak hour traffic congestion which will benefit air quality in the project area.

**M-15. Anonymous**

I recommend a possible right turn at Yosemite heading south and Arapahoe heading west. There is already an additional lane being added to the north side of Arapahoe. At the Red Robin corner the traffic definitely backs up from people leaving DTC not only to get onto

Arapahoe to head east but also to go south on Yosemite and to turn right going west on Arapahoe, as well as the access getting out of the shopping area.

The double turn lane at Arapahoe and Clinton heading east to turn north needs to be extended as far as possible it is really backed up for people turning toward Home Depot/Lowes/RTD.

The stone texture for the sound walls at Walnut Hills needs to be the only choice that blend with the older neighborhood style.

**Response to M-15.** Additional right turn lanes beyond those proposed with the Preferred Alternative design would impact adjacent businesses and were not recommended at this time.

Storage for the eastbound to northbound left turn from Arapahoe Road to Boston Street (opposite Clinton Street) will be maximized with the Preferred Alternative design.

Noise mitigation barriers are proposed for Walnut Hills in conjunction with the planned improvements. Specific wall heights, materials and aesthetic treatment will be determined during final design.

#### **M-16. Wayne Hoover**

Why? Orchard Road and Belleview Ave. still have not been addressed as alternate routes to alleviate traffic congestion on Arapahoe Road.

Why wasn't the engineering on Arapahoe Rd. and I-25 not taken into the traffic study at the time I-25 was widened?

Why? I cannot believe that Arapahoe County Engineering department for highways along with the Federal Highway and Colo. Highway departments have not the forethought, a 1, 5, 10, 20, 30, etc. study on what to expect.

The second thought to widen Arapahoe Road under I-25 should have been addressed when I-25 was widened (engineered)!

Yes but they should have been included in the engineering for I-25. The engineering should have been years ago. It is now time to build this!

Note – I have lived here in Walnut Hills since 1969. Arapahoe Rd. has been widened, dug on widened, discussed and cussed! Planning is the key to a great project and the downfall to a poor planned project. Hire an outside firm. It's time to ask for help. Things have changed, we can't afford to do it over and over!

**Response to M-16.** Arapahoe Road is a state highway from I-25 east and carries significantly more traffic than Belleview or Orchard. The County has previously studied extending Orchard Road or Belleview Avenue to the east as alternative routes, but found these improvements to not be feasible due to the physical barrier created by Cherry Creek Reservoir and Park. Improvements are warranted on Arapahoe Road where the substantial traffic volumes occur.

Improvements to the I-25/Arapahoe interchange have been made over the past 15 years as funding has allowed. Minimal improvements to the interchange occurred in conjunction with the T-REX project, in spite of continued County requests, due to limited funds available at that time. However, due to efficiencies achieved with that project, contingency funds were available that allowed for the interim improvements completed in 2010.

Interim improvements addressed the 5-10 year transportation demand needs of the I-25/Arapahoe Road interchange.

The Preferred Alternative is being planned to address the 20 year plus traffic needs of Arapahoe Road.

**M-17. Sharon Nash**

The best update I have seen so far. In all cases, I think something should be incorporated into the intersection improvements that would discourage cut through traffic! I don't know what that would be, and I hope there is something that you know, but it must be discouraged. Perhaps some narrowing of entry points into the neighborhood would help. Just don't make turning into the neighborhood inviting and easy (for shortcuts, etc.).

They are probably very necessary to those that live in the adjacent homes but PLEASE provide an option for some natural greenery—small space to root some vines or something!

**Response to M-17.** Improving traffic operations at the Arapahoe Road and Yosemite Street intersection should help keep traffic on arterial streets surrounding the Walnut Hills neighborhood rather than cutting through.

Noise mitigation barriers are proposed for Walnut Hills in conjunction with the planned improvements. Specific noise abatement wall heights, materials and aesthetic treatment will be determined with public input during final design. The design will consider existing landscaping that can be maintained or replaced.

**M-18. Lonnie Gregg**

The fence and maintenance on Arapahoe and Yosemite are not owned by the homeowners, all fencing is maintained and replaced by the General Improvement District.

Significant impacts with two projects, Yosemite funded by DRCOG. Sound mitigation with the one project being funded separate from the other.

All design for sound mitigation is key to neighborhood buy in.

**Response to M-18.** Comment noted.

**M-19. Anonymous**

Recommended alternative is so much better for those of us living in Walnut Hills – less impact than an underpass! Improvements look good and should help ease congestion.

But I do hope some thought is given to the design of the noise abatement walls (not just concrete slabs), and since we're losing some landscaping, I hope as much green (landscaping) as possible will be used to make things prettier. We live here. How about ivy on walls?

**Response to M-19.** Comments noted. Noise mitigation barriers are proposed for Walnut Hills in conjunction with the planned improvements. Specific wall heights, materials and aesthetic treatment will be determined with public input during final design. All structures identified for the project, including noise walls, will be evaluated for safety in

final design per state and federal design and construction guidelines. The design will also consider existing landscaping that can be maintained or replaced.

**M-20. Andrea Suhaka**

I'm excited to see the 2(!) Walnut Hills sound walls on paper. That said, I realize a sound wall just bounces sound farther back into the neighborhood and we'll just start hearing another round of complaints.

I'm not happy to see a dedicated right turn lane from eastbound Arapahoe onto southbound Yosemite go away. It's good when those folks can go ahead and turn right.

No good solution for bikes and pedestrians getting north across Arapahoe.

**Response to M-20.** The prospective noise barriers are intended to reduce traffic noise entering the Walnut Hills neighborhood and will not push traffic noise farther into the neighborhood. Many barrier materials are available and some absorb sound while others reflect sound. The decision on barrier materials will be made during final design for the project.

Extending and converting the existing eastbound right turn lane at Yosemite Street to a shared through/right lane was determined to better accommodate the heavy eastbound through traffic volume. Adding another exclusive right turn lane would substantially impact the business on the southwest corner.

Appropriate pavement markings and signage for pedestrian crosswalks of Arapahoe Road at Yosemite Street and at Uinta Street/Greenwood Plaza Boulevard will be addressed during final design. Sufficient pedestrian signal time will be provided for pedestrians to cross Arapahoe Road at the signalized arterial street intersections within the interchange complex.

**M-21. Anonymous, relayed to open house staff member**

Need better signage for eastbound Arapahoe to Northbound I-25 ramp, and for westbound Arapahoe to through Arapahoe Road (for traffic continuing on Arapahoe).

**Response to M-21.** The Preferred Alternative includes revised signage to direct motorists through the improved interchange and to the I-25 ramps.

**M-22. Anonymous, relayed to open house staff member**

There is a sanitary sewer line along fence line on Yosemite Street.

**Response to M-22.** During final design, the specific location and depth of the sanitary sewer line will be determined and necessary adjustments made to allow for construction of the noise abatement wall along Yosemite Street.

## L-1. Ilsa Gregg

To: Maria S. Thomas for Mr. Victor M. Mendez

October 5, 2012

Victor M. Mendez, Administrator  
US Department of Transportation  
Federal Highway Administration

Dear Mr. Mendez,

I am writing to express my concerns regarding the lobbying of Federal Highway Funding of the I-25/Arapahoe Interchange project. This project has been ongoing and has completed an environmental assessment as of October 5, 2012.

The final design for the project includes widening Arapahoe Road by one lane in each direction. I have included a link to a Google map so that you can see my proximity to the project.

I live at

Arapahoe Road is approximately 7 to 9 lanes across currently in the project area, which would be increased to 9-11 lanes after the project.

To mitigate the noise from widening the road, the project has proposed a sound wall to my neighborhood of Walnut Hills to reduce noise by 6 decibels.

However, the sidewalk along the project would be narrowed and is north facing. The cities involved mandate that snow and ice are not allowed to be removed from this sidewalk.

My neighborhood of Walnut Hills has been ticketed by Greenwood Village Police during attempts to do so in the past.

In addition, there are no pedestrian islands or anything else pertaining to pedestrian safety in this project.

The local governments involved have 3 separate projects currently being studied within my immediate vicinity to widen roads. These include studies to widen C-470, Belleview, and Arapahoe Road. None of these projects have intergovernmental agreements for funding of any kind.

The local governments in my area appear to have developed an "economy" of performing "studies" for projects for which there is no funding.

No consideration has been given to the impact on the people who live in the area, the quality of the air, the noise, or the lack of pedestrian safety.

Two Light Rail Stations are within the study area, but suggestions to improve access to these to reduce traffic have been ignored.

The I-25/Arapahoe Coalition has lobbied and also hired Miller/Wenhold Capital Strategies, Inc to lobby for Federal Funding of the Project.

Please do not fund this project. The Light Rail Stations are underutilized and I am not convinced widening the roads will solve more problems than it creates.

Thank you for your consideration,

Ilsa Gregg

**Response to L-1.**

## STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Region 6  
Planning & Environmental  
2000 South Holly Street  
Denver, CO 80222  
303-757-9372; FAX: 303-757-9907



January 8, 2013

Ms. Ilsa Gregg

**SUBJECT:** I-25/Arapahoe Interchange - Finding of No Significant Impact  
Response to Comment

Dear Ms. Gregg:

Representatives of the Federal Highway Administration (FHWA) passed along a letter you sent to Victor Mendez, FHWA Administrator, on October 5, 2012, outlining your concerns regarding the I-25/Arapahoe Interchange Environmental Assessment recommendations and your opposition to the funding of improvements identified in the Environmental Assessment. I want to take this opportunity to address your concerns on behalf of the Colorado Department of Transportation (CDOT) as joint lead agency for this project with FHWA.

As mentioned in your letter to FHWA, noise abatement barriers are proposed in conjunction with the planned improvements, with details to be completed during final design. The noise barriers may contribute to wintertime shading on the sidewalk south of Arapahoe Road, but will likely be similar to the shading that currently exists from the privacy fences. The City of Greenwood Village does regulate snow removal from sidewalks, and snow and ice cannot be deposited in roadways. However, pedestrian safety is a concern and a noise abatement wall maintenance agreement will be established during final design that will also address routine maintenance of the adjacent sidewalk for pedestrian access/safety. Potential parties to the agreement include the cities of Centennial and Greenwood Village and the General Improvement District.

The project proposes to improve sidewalks to the greatest extent possible without taking adjacent residential property, which was determined to be a critical issue during alternatives development and conceptual design. A 5-foot sidewalk section is proposed only along the south side of Arapahoe Road adjacent to homes in Walnut Hills due to the Right-Of-Way (ROW) constraints. Providing a minimum 8-foot sidewalk width within the available ROW will be considered during final design.

Your letter also discusses a concern for general pedestrian safety in the overall design of the proposed improvements. Please note that various forms of pedestrian safety improvements were considered throughout the development of this Environmental Assessment. A pedestrian refuge in the median of Arapahoe Road was considered but would require a substantially wider median for pedestrian safety between the 40 mph traffic flows on Arapahoe Road. The wider median on

the west side of Interstate 25 would also require acquisition of residential property due to the increase in overall roadway footprint.

A grade-separated pedestrian crossing of Arapahoe Road was also considered, but is not included in the recommended alternative. Given the low expected usage from current land uses, limited reduction in vehicular delay, ROW acquisition requirements, and substantial funding investment, a pedestrian/bicycle grade separation was not recommended at this time. (See the "Arapahoe Road Pedestrian/Bicycle Grade Separation Evaluation, March 2012", which can be found on the project website's Reports page, in the Technical Design Documentation). The technical and executive committees established for this project recommended that a pedestrian grade separation should be re-evaluated as part of future redevelopment of the Arapahoe Road corridor area. Redevelopment of the southwest quadrant of the interchange was addressed in the City of Centennial's Arapahoe Urban Center Sub-Area Plan, indicating the potential for future substantial increase in development density, which could increase pedestrian demand. Once specific redevelopment plans are confirmed, future pedestrian and bicyclist demand could be estimated from the changes in adjacent land use, along with potential city plans for pedestrian/bicycle routes through the area. In lieu of an overpass, a pedestrian/bicycle underpass could be considered in the future if redevelopment allowed for re-contouring of adjacent properties to enhance visibility and usage of the grade-separated crossing.

Regarding your concerns for improved access to the existing light rail transit (LRT) stations in the project area, the proposed improvements outlined in the Environmental Assessment would improve travel times through the corridor for all vehicles including bus transit. This would result in improved timeliness of bus service at stops along the corridor and at the Arapahoe at Village Center LRT station, facilitating timely transfers between buses and LRT.

Thank you for submitting comments. We hope this letter addresses your concerns regarding the I-25/Arapahoe Interchange Environmental Assessment recommendations.

Sincerely,



Jon Chesser  
CDOT – Region 6  
Environmental Program Manager

Cc: Dahir Egal, FHWA  
Bryan Weimer, Arapahoe County

### 3.2.1 Noise Wall Survey Comments

In the EA, traffic noise impacts to 16 residences in Walnut Hills along Arapahoe Road and Yosemite Street were documented. Noise abatement measures were assessed for the impacted receptors for the EA. Two noise barriers were preliminarily found to be feasible and reasonable and recommended for construction in the EA. However, one of the reasonableness criteria (CDOT 2011) concerns the opinions of the benefitting receptors (residents) regarding the proposed abatement—more than 50 percent of the benefitting receptors must support the proposed abatement action for the action to be considered reasonable. It was decided for this project to survey these opinions during the NEPA public comment period—after the EA had been published and the public had an opportunity to review the findings—so a formal finding on this CDOT criterion was deferred until after the public comment period. The opinion survey has now been completed and the results are provided below.

Sixteen homes along Arapahoe Road and Yosemite Street were identified in the EA as being impacted by traffic noise. It was calculated that 18 homes (including all 16 impacted homes) would receive 5 decibels or more of noise reduction from the prospective traffic noise abatement action and thereby “benefit” from the noise abatement. According to CDOT’s guidelines (CDOT 2011), the owners and the occupants of each benefitting property are each entitled to one vote in the survey.

A noise abatement survey form and a special invitation to the EA public meeting were mailed to each of the registered owners and occupants of the 18 affected properties requesting their participation in the opinion survey. The recipients were encouraged to reply by mailing in a completed survey form, corresponding with the project team via email through the project website or attending the public meeting. An information station on project noise was staffed during the EA public meeting to answer questions.

A total of 17 eligible votes were received by way of completed survey forms (N-1 to N-9), one website comment (W-6) and one public meeting comment sheet (M-23). The votes received represented 10 of the 18 receptors and all of them were in support of noise abatement barriers. Several comments were provided by the respondents, such as concern about barrier aesthetics and requesting that the barriers provide vehicle crash protection, which will be addressed during final design for the project.

More than 50 percent of the responding benefitting receptors were found to support the prospective traffic noise abatement action. Therefore, each of the CDOT feasibility and reasonableness criteria (CDOT 2011) has been met and the prospective traffic noise abatement barriers are formally recommended for inclusion in the project. An updated CDOT 1209 form documenting this finding is presented in **Appendix C**. This outcome is consistent with the preliminary recommendation described in the EA and represents no change from the mitigation actions described in the EA.

#### **N-1. Scott Lukes**

Owner of property adjacent to the proposed noise wall ( ). Yes, I support the recommended noise walls.

**Response to N-1.** Comments noted.

**N-2. Russel Quan**

Owner of property adjacent to the proposed noise wall ( ). Yes, I support the recommended noise walls.

**Response to N-2.** Comment noted.

**N-3. Robert A. Ferree, Jr.**

Owner of property adjacent to the proposed noise wall ( ). Yes, I support the recommended noise walls.

**Response to N-3.** Comment noted.

**N-4. John W. Husk**

Owner of property adjacent to the proposed noise wall ( ). Yes, I support the recommended noise walls.

I am one of the property owners of a house on E. Briarwood Avenue which backs up to E. Arapahoe Road and will be affected by the sound fence. I am in favor of the fence as long as it is positioned where the current fence is located with no encroachment into the yard and on the west end wraps down S. Uinta Street as the current perimeter fence does.

My wife and I have owned the property for 35 years and have seen traffic, noise, dirt and pollution increase over the years as E. Arapahoe Road has expanded as well as the increased traffic.

Back in the mid 1980's we were involved in the attempted rezoning of E. Briarwood Avenue. Prior to and after the rezoning we looked into a sound fence which was offered by the developers in exchange for support of Arapahoe Marketplace on the north side of E. Arapahoe Road and the development on the SW corner of Arapahoe and Yosemite. Of course, the promised fence never materialized. At that time a decibel meter was in my back yard for a while and we discussed types of fence with a sound consultant. He said that unless the wrap on South Uinta Street and South Yosemite Street was included, sound would funnel behind the fence and the backs of the houses increasing the noise for the first 3-4 houses on each end. That is the reason for my support of the fence if it is wrapped.

Presently we are living elsewhere and will be for the next two years. Currently, my daughter, son-in-law and family reside at \_\_\_\_\_ and will be sending the Noise Wall Survey to you showing their support for the wall.

**Response to N-4.** Noise mitigation barriers are proposed for Walnut Hills in conjunction with the planned improvements. Specific wall heights, lengths, materials and aesthetic treatment will be determined with public input during final design. All structures identified for the project, including noise walls, will be evaluated for safety in final design per state and federal design and construction guidelines. The design will also consider existing landscaping that can be maintained or replaced.

**N-5. Jason and Erin Griffiths**

Tenant of property adjacent to the proposed noise wall ( ). Yes, I support the recommended noise walls.

**Response to N-5.** Comment noted.

**N-6. Laura and Dennis Larson**

Owner of property adjacent to the proposed noise wall ( ). Yes, I support the recommended noise walls.

1) Will need to know the impact on trees on property line. 2) Will need to know impact on current perimeter fence. 3) Terms of IGA? How long will noise wall be covered by agreement? What will be covered? 4) Can noise wall installation be moved to early in the schedule of construction? Installation of the noise wall early in the project would help to eliminate construction issues along Arapahoe for residents. 5) When and by whom will the decision be made for design, location and timing of wall construction? Will residents have a say in construction? 6) Who is the contact for issues with the wall (company)?

**Response to N-6.** The final decision on the noise abatement barriers will be made during final design with additional public input. Specific wall heights, materials and aesthetic treatment will be determined during final design. All structures identified for the project, including noise walls, will be evaluated for safety in final design per state and federal design and construction guidelines. The design will also consider the current perimeter fence and existing landscaping that can be maintained or replaced.

Noise abatement walls are planned to be built in conjunction with adjacent roadway widening. CDOT will make the decision about timing of noise wall construction.

Existing maintenance of the perimeter fence, landscaping and sidewalk is provided by the Walnut Hills General Improvement District. A maintenance agreement regarding the noise abatement walls will be established during final design, addressing access for maintenance activities, long-term wall maintenance/repair, and routine maintenance of the sidewalk in the Arapahoe Road public ROW. Potential parties to the agreement include the cities of Centennial and Greenwood Village and the General Improvement District.

Arapahoe County and CDOT are establishing an agreement on the lead agency for design and construction of the phased improvements. The contacts are Bryan Weimer, Arapahoe County Transportation Division Manager ([bweimer@co.arapahoe.co.us](mailto:bweimer@co.arapahoe.co.us), 720-874-6500) and John Hall, CDOT Region 6 Resident Engineer ([john.hall@state.co.us](mailto:john.hall@state.co.us), 303-512-5402).

**N-7. Cary and Adrienne Jones**

New owner of property adjacent to the proposed noise wall ( ). Yes, I support the recommended noise walls.

**Response to N-7.** Comment noted.

**N-8. Randy and Jana Lutton**

Owner of property adjacent to the proposed noise wall ( ). Yes, I support the recommended noise walls.

**Response to N-8.** Comment noted.

**N-9. Marianne Afman**

Owner of property adjacent to the proposed noise wall ( ). Yes, I support the recommended noise walls.

Please give us the wall. Why wouldn't we get one?! It will determine the outcome of our family's future. Please.

**Response to N-9.** Comments noted.

**W-5. Michael Perilli**

I am a property owner directly adjacent to the proposed noise wall. Please consider this a vote for the noise wall. I strongly support it.

**Response to W-5.** Comment noted.

**M-23. Jack Defez**

I approve of the noise abatement wall.

**Response to M-23.** Comment noted.

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## Chapter 4: Selection of the Preferred Alternative

This chapter selects the Preferred Alternative for interchange improvements.

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Based on the *I-25/Arapahoe Interchange Environmental Assessment*, the public meeting summary and the summary of comments received during the public review period, FHWA, in coordination with CDOT, has determined that the alternative described in Section 1.3 of this document is the Preferred Alternative.

The Preferred Alternative best meets the project purpose and need and design objectives, and will improve traffic operations and safety for the traveling public within the interchange complex. By minimization and avoidance of impacts to environmental resources, residences and businesses, the Preferred Alternative is sensitive to and preserves the residential and business community character of the area.

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## Chapter 5: Finding of No Significant Impact

This chapter confirms the determination by FHWA that the Preferred Alternative will have no significant impacts.

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The *I-25/Arapahoe Interchange Environmental Assessment* has been prepared in compliance with all applicable environmental laws and Executive Orders.

FHWA has determined that the Preferred Alternative described in Section 1.3 of this document will have no significant impact on the human or natural environment. This FONSI is based on the EA and the proposed mitigation which has been independently evaluated by FHWA and determined to adequately and accurately discuss the need, environmental issues, and impact of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. FHWA takes full responsibility for the accuracy, scope and content of the EA.

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## **Appendix A.**

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# **Colorado Department of Transportation Mitigation Commitment Monitoring and Reporting**



# Colorado Department of Transportation Mitigation Commitment Monitoring and Reporting

## Project Information

<b>Project Name: I-25/Arapahoe Road Interchange NEPA Study</b>
<b>Environmental Project Manager:</b>
<b>Project Number:</b>
<b>Document Type and Date of Approval:</b>
<b>Project Phase:</b>

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document Use Exact Wording from Table in Source Document	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed
<b>1</b>	Transportation	The Action Alternative would have a short-term negative direct impact to traffic operations during construction through the I-25/Arapahoe Road interchange complex and throughout the study area. Both regional and local traffic traveling through the interchange and along Mainline I-25 would experience some delays during construction. Constructing the project in phases would help minimize impacts due to lane closures, detours, and increased congestion. However, residents and businesses in the area would be inconvenienced as some delays would occur throughout the study area during construction along with temporary closures of business access to/from Arapahoe Road. Increased congestion could also cause delays to transit operations east and west of the interchange and affect timely bus and light rail transfers at the Arapahoe at Village Center LRT station.	<p>The reconstruction of the I-25/Arapahoe interchange will follow the CDOT Region 6 Lane Closure Strategy (CDOT 2010), which only allows for closures on I-25 during non-peak periods, generally between 8:00 PM and 5:30 AM. Therefore all lanes of traffic on I-25 and Arapahoe Road will be maintained during peak periods.</p> <p>The typical detour section is assumed to include 11-foot travel lanes, 2-foot shoulders, and, where possible, a 5-foot buffer between any barrier and the construction zone edge. A minimum of two through lanes will be maintained in each direction along Arapahoe Road during construction, with the addition of turn lanes at various locations. Temporary business access wayfinding signage will be utilized to help mitigate impacts during times of construction when business access would be limited.</p>	Project Engineer	Pre-construction and during construction
<b>2</b>	Socioeconomics	Construction activities may temporarily impede local access.	In order to comply with the Lane Closure Strategy, construction phasing for replacing the I-25 bridge will occur in a minimum of three phases to minimize impeded access. The reconstructed I-25 bridge width will be increased during construction to allow continual movement. Temporary business access wayfinding signage will be utilized to help mitigate impacts during times of construction when business access would be limited. The construction contractor will coordinate with emergency service providers during construction.	Project Engineer	Pre-construction and during construction
<b>3</b>	Right-of-Way	<p>One business would be displaced, resulting in a full acquisition of one commercial property northeast of the interchange. Partial acquisition of three other commercial properties in this shopping center would be required. There would be partial acquisition of commercial parcels located northeast of the interchange, along the northern perimeter of Arapahoe Road between Greenwood Plaza Boulevard and South Yosemite Street and between Clinton Street and Clinton Court, and along the western edge of South Yosemite south of Arapahoe Road. A portion of a commercial property could be acquired for a water quality pond, although selection of this site would not be determined until final design.</p> <p>No residences would be displaced. There would be no partial or full acquisition of any residential property. Temporary construction impacts would occur to adjoining commercial and residential property from road construction activities.</p>	Acquisition: For any person(s) whose real property interests may be impacted by this project, the acquisition of those property interests will comply fully with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, (Uniform Act). The Uniform Act is a federally mandated program that applies to all acquisitions of real property or displacements of persons resulting from Federal or federally assisted programs or projects. It was created to provide for and insure the fair and equitable treatment of all such persons. To further ensure that the provisions contained within this act are applied "uniformly", CDOT requires Uniform Act compliance on any project for which it has oversight responsibility regardless of the funding source. Additionally, the Fifth Amendment of the United States Constitution provides that private property may not be taken for a public use without payment of "just compensation."	Project Engineer	Pre-construction

# Colorado Department of Transportation Mitigation Commitment Monitoring and Reporting

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<b>Project Phase:</b>

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			<p>All impacted owners will be provided notification of the acquiring agency's intent to acquire an interest in their property including a written offer letter of just compensation specifically describing those property interests. A Right of Way Specialist will be assigned to each property owner to assist them with this process.</p> <p>Relocation: In certain situations, it may also be necessary to acquire improvements that are located within a proposed acquisition parcel. In those instances where the improvements are occupied, it becomes necessary to "relocate" those individuals from the subject property to a replacement site. The Uniform Act provides for numerous benefits to these individuals to assist them both financially and with advisory services related to relocating their residence or business operation. Although the benefits available under the Uniform Act are far too numerous and complex to discuss in detail in this document, they are available to both owner occupants and tenants of business properties. In some situations, only personal property must be moved from the real property and this is also covered under the relocation program.</p> <p>As soon as feasible, any person scheduled to be displaced shall be furnished with a general written description of the displacing Agency's relocation program which provides at a minimum, detailed information related to eligibility requirements, advisory services and assistance, payments, and the appeal process. It shall also provide notification that the displaced person(s) will not be required to move without at least 90 days advance written notice. For residential relocatees, this notice cannot be provided until a written offer to acquire the subject property has been presented, and at least one comparable replacement dwelling has been made available . Relocation benefits will be provided to all eligible persons regardless of race, color, religion, sex or national origin.</p> <p>Benefits under the Act, to which each eligible owner or tenant may be entitled, will be determined on an individual basis and explained to them in detail by an assigned Right of Way Specialist.</p>		

# Colorado Department of Transportation Mitigation Commitment Monitoring and Reporting

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<b>Project Phase:</b>

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document Use Exact Wording from Table in Source Document	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed
<b>4</b>	Utilities	Several utilities, including above ground electric lines, cable television lines, natural gas valves, manholes and sewer lines, fire hydrants and water lines, and fiber optic lines would need to be relocated.	During final design, utilities would be avoided through design modifications or, where conflicts cannot be avoided, utilities will be relocated. Utility relocations will be coordinated with the local jurisdictions/CDOT and private utility providers prior to construction.	Project Engineer	Pre-construction and during construction
<b>5</b>	Noise	Direct impacts to 16 residential properties and two commercial properties would occur from traffic noise. Temporary impacts would occur to adjoining properties from road construction activities.	<p>A barrier along Arapahoe Road approximately 8 feet high by 1,060 feet long and a barrier along Yosemite Street approximately 8-11 feet high by 500 feet long are being recommended preliminarily for the Action Alternative.</p> <p>A pre-construction survey of the impacted residents will be conducted to garner input on abatement actions. The final decision on the noise barriers will be made during final design through the public involvement process.</p> <p>Mitigation for noise from temporary construction impacts includes: use of temporary noise barriers when feasible, limiting work to certain hours of the day when feasible, limiting nighttime construction near residential areas, re-routing construction-related traffic away from roads adjacent to residential areas and requiring the contractor to use well-maintained equipment, particularly with respect to mufflers. Noise producing activities can be subject of local ordinances, although most ordinances have only "nuisance noise" ordinances in place. The City of Centennial has enacted an ordinance in its municipal code (2007-0-16) that prohibits excessive noise but does not specifically address construction noise.</p>	Project Engineer	Pre-construction and during construction
<b>6</b>	Energy	Construction would cause traffic delays and create stop-and-start traffic conditions, resulting in increased fuel usage. Fuel would also be used by construction equipment such as graders, cranes, and trucks, as well as by workers traveling to and from the construction site. Therefore, energy use would increase temporarily during construction.	The construction contractor will conduct activities when feasible during periods of reduced traffic volumes to reduce idling vehicles. The contractor will keep equipment well-maintained and will use cleaner fuels, such as low-sulfur diesel, when possible and encourage carpooling to and from the site. Staging areas will be located as close to the project area as possible.	Project Engineer	Pre-construction and during construction

# Colorado Department of Transportation Mitigation Commitment Monitoring and Reporting

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<b>Project Phase:</b>

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<b>7</b>	Air Quality	Indirect impacts from construction activities may be sources of temporary air quality impacts from fugitive dust or equipment emissions. Properties adjoining the construction activities in the study area could be exposed to construction-related emissions at the time the proposed project is built. Excavation, grading, and fill activities could increase local fugitive dust emissions during construction. Because of the particle size, this fugitive dust typically settles within 30 feet of the source. Smaller particles could travel as much as several hundred feet depending on wind speed.	The construction contractor will prepare and implement a fugitive dust control plan that includes wetting of disturbed areas. The contractor will plan to minimize idling and maintain equipment. Particular attention will be given to minimizing total emissions near sensitive areas such as homes. The contractor will keep its maintenance equipment well-maintained and will use cleaner fuels, such as low-sulfur diesel, when possible. Staging areas will be located as close to the project area as possible.	Project Engineer	Pre-construction and during construction
<b>8</b>	Hazardous Materials	Nine sites with potential or recognized environmental conditions may be affected directly through property acquisition or indirectly by construction activities.	<p>For properties that are to be acquired by the project, further investigation and/or coordination may be necessary to confirm the presence or absence of contamination and to determine the extent and severity, appropriate methodology and preliminary costs of corrective or preventive action. The following mitigation measures will be implemented to ensure proper management of contaminated material, if encountered:</p> <p>Protective measures (including development of a Materials Management Plan or Safety Plan, if required) will be taken before, during, and after construction to minimize the risk of encountering hazardous materials. Either a Materials Management Plan or Health and Safety Plan may be required per Section 250.03 of the CDOT Standard Specifications for Road and Bridge Construction (CDOT 2011c), when stated as such in the contract with the Engineer's approval. Section 250 of CDOT Standard Specifications for Road and Bridge Construction (CDOT 2011c) will be followed for any work that involves the transportation, handling, monitoring, and disposal of hazardous materials encountered during construction.</p>	Project Engineer	Pre-construction, post construction, and during construction

# Colorado Department of Transportation Mitigation Commitment Monitoring and Reporting

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			<p>If structure demolition is expected, asbestos-containing materials, lead-based paint, and miscellaneous hazardous materials surveys will be conducted at each site, where applicable, prior to demolition. If construction debris is encountered during excavation, the material will be inspected, and if found to contain asbestos, the material will be handled and disposed of in accordance with the procedures and policies described in Appendix A of the I-25/Arapahoe Interchange Environmental Assessment (2012).</p> <p>Lead-based paint may need to be removed prior to demolition if the lead is leachable at concentrations greater than regulatory levels. Where lead-based painted surfaces would be removed via torching, additional health and safety monitoring requirements are applicable.</p>		
<b>9</b>	Water Resources and Water Quality	Direct, temporary, and construction impacts would occur from ground disturbance and an increase in impervious surfaces. The minor drainage basin would have a slightly higher percent of imperviousness, and peak flows would increase. Added paved surfaces would not measurably alter the water table or groundwater quality.	Mitigation will include Best Management Practices (BMPs) during construction and permanent water quality treatment facilities. A detailed erosion control plan will be required, which will identify placement and types of BMPs (silt fence, inlet protection, gravel bags, stabilized construction entrances, concrete washouts, and other structures). MS4 permits require stormwater evaluations and installation of permanent water quality facilities to treat the runoff; potential locations include Holly Dam at Arapahoe Road and Holly Street, existing I-25/Arapahoe Road infields, the southeast corner of East Southtech Drive and the I-25 Frontage Road, the existing detention pond located along the south side of Southtech Drive immediately north of the motel, or other new facility locations near or within the study area. A detailed analysis of and mitigation for the existing drainage system will be required. Dewatering permits may be required if necessary.	Project Engineer	During construction and post construction

# Colorado Department of Transportation Mitigation Commitment Monitoring and Reporting

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<b>10</b>	Biological Resources	A number of migratory bird species that are adapted to urban landscapes are likely to use the landscaped vegetation and structures such as bridges as habitat within the project study area.	If construction is to occur during the breeding season, an additional nest survey will be conducted no more than 7 days prior to construction. To avoid impacts to nesting birds, any existing nests will be removed prior to the nesting season, (April 1st) before birds reuse them. Construction cannot begin until unoccupied nests have been removed. In addition, new nesting material will be removed while work is on-going. No construction work can occur that would impact the nests, if occupied nests are observed during construction.	Project Engineer	Pre-construction and during construction
<b>11</b>	Cultural, Historic, and Archaeological	No direct or indirect impacts are anticipated. However, ground-disturbing construction activities may result in unexpected discovery of cultural remains that could have historic significance or be important to Native American tribes. Also, some structures may have become 50 years or older.	CDOT's Standard Specifications Section 107.23 for Road and Bridge Construction will be followed regarding procedures for emergency (unanticipated) discoveries during construction.  At the time of final design/construction, any structures that have recently become 50 years or older will need to be assessed under Section 106. A Section 106 consultation will need to occur if there will be any permanent or temporary easements or full or partial property acquisitions.	Project Engineer	Pre-construction and during construction
<b>12</b>	Paleontological Resources	The geologic formations that comprise the surface of the study area have the potential to contain scientifically significant fossils. Subsurface excavation from construction activities associated with the Preferred Alternative may potentially cause direct impacts (damage or destruction) to scientifically important paleontological resources.	To ensure that important paleontological remains are not destroyed during construction, a qualified, state-permitted paleontologist will examine the final design plans to estimate the scope of construction monitoring work, if any, that is required. If any subsurface bones or other potential fossils are found anywhere within the study area during construction, all ground disturbances in the area will cease and a qualified, state-permitted paleontologist will be notified immediately to assess their significance and make further recommendations.	Project Engineer	Pre-construction and during construction
<b>13</b>	Soils and Geology	No known direct or indirect impacts. Soils would be disturbed during construction but detailed geotechnical analysis of the surrounding subsurface will be required during the preliminary/final design.	Swelling soils exist in the study area; if necessary, techniques would be applied to improve soil or ground suitability for roadway construction during project design. A detailed geotechnical analysis of the surrounding subsurface will be required during the preliminary/final design process to determine the structural stability and load-bearing capacity of the soils where project structures will be built. The results of the geotechnical analysis will be used to establish the design of the roadway and structures and to establish erosion control procedures.	Project Engineer	Pre-construction and during construction

# Colorado Department of Transportation Mitigation Commitment Monitoring and Reporting

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<b>14</b>	Permits	Permits, approvals, and certifications may be required for construction of the project to minimize and mitigate impacts to community and natural resources analyzed within the study area.	<p>The following permits may be required for construction of the project:</p> <ul style="list-style-type: none"> <li>- Colorado Discharge Permit System (CDPS)</li> <li>- Stormwater Construction Permit</li> <li>- CDPS Construction Dewatering Industrial Wastewater Discharge Application</li> <li>- Dewatering Well Permit</li> <li>- Air Pollution Emission Notice</li> <li>- Demolition Permit</li> <li>- Form 137 Access Permit</li> <li>- 1041 Permit</li> </ul> <p>Additional permits may be identified during final design. Once permits that are necessary for the project have been identified, the permits will be added as individual commitments in this Mitigation Commitment Tracking Form. Other Local Permits or Approvals may be required for noise abatement walls, utility relocations, land survey, local roadway access, temporary construction detours, retaining walls, erosion control, and grading.</p> <p>A maintenance agreement will need to be established during final design for the sidewalk along the south side of Arapahoe Road from Uinta Street to Yosemite Street. Potential parties to the agreement include the cities of Centennial and Greenwood Village and the General Improvement District.</p>	Project Engineer	Pre-construction



## **Appendix B.**

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# **Final Public Meeting Notices & Agency and Public Comments**





**FOR IMMEDIATE RELEASE:**

Contact info:  
Joe Hart or Leah Langerman,  
David Evans and Associates, Inc.  
720-946-0969  
[jhart@deainc.com](mailto:jhart@deainc.com)  
[llangerman@deainc.com](mailto:llangerman@deainc.com)

## **I-25/Arapahoe Road Interchange Environmental Assessment Available**

Arapahoe County, CO — An Environmental Assessment (EA) has been prepared for a proposed transportation project to reduce congestion and improve traffic operations and safety for the traveling public within the I-25 and Arapahoe Road (SH 88) interchange complex. The EA identifies an Action Alternative (Improved Partial Cloverleaf without Costilla Crossing) and a No Action (do nothing) Alternative and their associated transportation, social and economic, and environmental impacts.

The EA will be available for public review and comment beginning September 5, 2012 at the following locations: online at [www.I25ArapahoeRoadEA.com](http://www.I25ArapahoeRoadEA.com); Castlewood Library, 6739 South Uinta Street Centennial, CO 80012; CDOT Region 6 office, 2000 S. Holly Street, Denver, CO 80222; FHWA Division office, 12300 West Dakota Avenue, Suite 180, Lakewood, Colorado 80228; Arapahoe County Public Works office, 6924 South Lima, Centennial, Colorado 80112; City of Centennial City Hall, 13133 East Arapahoe Road, Centennial, Colorado 80112; and City of Greenwood Village City Hall, 6060 S. Quebec Street, Greenwood Village, Colorado 80111.

Written comments on the alternatives and impacts must be received by October 5, 2012 to be considered. Comments can be submitted on the project website (address above) or mailed to David Evans and Associates, Inc., c/o Leah Langerman, 1331 17th Street, Suite 900, Denver, CO 80202.

A public meeting for the Environmental Assessment will be held on September 20, 2012 at the Good Shepherd Episcopal Church, 8545 E. Dry Creek Road, Centennial, CO, between 4:30 p.m. and 7:00 p.m.

The meeting will be held in an open house format, and exhibits will be shown to present the findings of the environmental analysis and outline next steps.

“The public’s continued participation and input is important to us,” said Joe Hart, David Evans and Associates project manager. All comments received during the comment period will be considered prior to issuance of a final decision document by FHWA.

More information can be found on the project website: [www.I25ArapahoeRoadEA.com](http://www.I25ArapahoeRoadEA.com).

###

# The Denver Newspaper Agency

## PUBLISHER'S AFFIDAVIT

City and County of Denver )  
State of Colorado )  
)

The undersigned Jean Birch  
being first duly sworn under oath, states  
and affirms as follows:

1. He/she is the legal Advertising Reviewer of the Denver Newspaper Agency, publisher of *The Denver Post* and *Your Hub*.
2. *The Denver Post* and *Your Hub* are newspapers of general circulation that have been published continuously and without interruption for at least fifty-two weeks in Denver County and meet the legal requisites for a legal newspaper under Colo. Rev. Stat. 24-70-103.
3. The notice that is attached hereto is a true copy, published in *The Denver Post* on the following date(s):

September 1, 2012

Jean Birch  
Signature

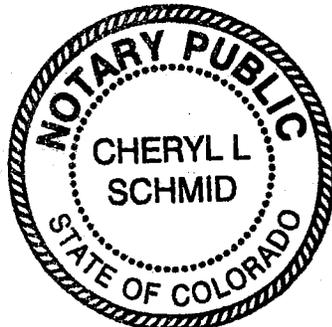
Subscribed and sworn to before me this 4  
day of September, 2012.

Cheyl L Schmid

Notary Public

My commission expires September 14, 2013

(SEAL)



In compliance with the National Environmental Policy Act of 1969, the Federal Highway Administration (FHWA) in cooperation with the Colorado Department of Transportation (CDOT) has prepared an Environmental Assessment (EA) for a proposed transportation project to reduce congestion and improve traffic operations and safety on the I-225 interchange complex located in Arapahoe County, Colorado. The EA identifies an Action Alternative and a No Action Alternative and their associated transportation, social and economic, and environmental impacts. Interested citizens are invited to review the EA and submit comments.

The EA will be available for public review and comment beginning September 5, 2012 at the following locations: [www.colorado.gov](http://www.colorado.gov), [www.cdota.com](http://www.cdota.com), Castlewood Library, 5700 South 11th Street, Centennial, CO 80112, 9:00 a.m. - 5:00 p.m.; Holly Street, Denver, CO 80202; FHWA Division Office, 1200 West Dakota Avenue, Suite 100, Lakewood, Colorado 80226; Arapahoe County Public Works Office, 1924 South Lima, Centennial, Colorado 80119; City of Centennial, 6000 East 112th Avenue, Centennial, Colorado 80112; and City of Greenwood Village City Hall, 400 S. Quebec Street, Greenwood Village, Colorado 80111.

Written comments on the alternatives and impacts must be received by October 5, 2012 to be considered. Comments can be submitted on the project website (address above) or mailed to David Evans and Associates, Inc., 200 Leish, Anderson, 1331 17th Street, Suite 900, Denver, CO 80202. All comments received during the comment period will be considered prior to issuance of a final decision document by FHWA.

A public meeting for the Environmental Assessment will be held on September 26, 2012 at the Good Shepherd Episcopal Church, 1445 E. Dry Creek Road, Centennial, CO, between 4:00 p.m. and 7:00 p.m.



## Public Meeting #3 of 3

**September 20, 2012**

**Open House 4:30 - 7:00 PM**

### Good Shepherd Episcopal Church

8545 E. Dry Creek Rd. (just west of Yosemite)

Can't make the meeting? The information presented at the meeting will be made available on the project website approximately one week later:

[www.I25ArapahoeRoadEA.com](http://www.I25ArapahoeRoadEA.com)

The Environmental Assessment is currently available on the Reports page of the site for your review and comment.

## I-25/Arapahoe Interchange EA Available for Public Review

An Environmental Assessment (EA) has been prepared for a proposed transportation project to reduce congestion and improve traffic operations and safety for the traveling public within the I-25 and Arapahoe Road (SH 88) interchange complex. The EA identifies an Action Alternative (Improved Partial Cloverleaf without Costilla Crossing) and a No Action (do nothing) Alternative and their associated transportation, social and economic, and environmental impacts.

The EA will be available for public review and comment beginning September 5, 2012 (locations listed on reverse). Written comments on the alternatives and impacts must be received by October 5, 2012 to be considered. Comments can be submitted on the project website, at the public meeting, or mailed (see reverse). All comments received during the comment period will be considered prior to issuance of a final decision document by Federal Highway Administration.

## Submit Your Comments

David Evans and Associates, Inc.  
c/o Leah Langerman  
1331 17th Street, Suite 900, Denver, CO 80202  
720-225-4651 phone, [llangerman@deainc.com](mailto:llangerman@deainc.com)  
[www.I25ArapahoeRoadEA.com/comments.html](http://www.I25ArapahoeRoadEA.com/comments.html)



DAVID EVANS  
AND ASSOCIATES INC.

1331 17th Street  
Suite 900  
Denver, CO 80202

### EA Public Review Locations

- Castlewood Library, 6739 South Uinta Street Centennial
- Arapahoe County Public Works, 6924 South Lima, Centennial
- City of Centennial City Hall, 13133 East Arapahoe Road, Centennial
- City of Greenwood Village City Hall, 6060 S. Quebec Street, Greenwood Village
- CDOT Region 6, 2000 S. Holly Street, Denver
- FHWA Division Office, 12300 West Dakota Avenue, Suite 180, Lakewood
- [www.I25ArapahoeRoadEA.com/reports.html](http://www.I25ArapahoeRoadEA.com/reports.html)

Reasonable accommodations will be provided upon request for people with disabilities. If you require a specific accommodation to participate, contact Leah Langerman at [llangerman@deainc.com](mailto:llangerman@deainc.com) or 720-225-4651.



## I-25/Arapahoe Road Interchange Environmental Assessment Available for Public Review

An Environmental Assessment (EA) has been prepared for a proposed transportation project to reduce congestion and improve traffic operations and safety for the traveling public within the I-25 and Arapahoe Road (SH 88) interchange complex. The EA identifies an Action Alternative (Improved Partial Cloverleaf) and a No Action (do nothing) Alternative and their associated transportation, social and economic, and environmental impacts.

The EA was made available for public review and comment beginning September 5, 2012 (locations listed below). Written comments on the alternatives and impacts must be received by October 5, 2012 to be considered. Comments can be submitted on the project website, at the public meeting, or mailed (see reverse). All comments received during the comment period will be considered prior to issuance of a final decision document by Federal Highway Administration.

### EA Public Review Locations

- [www.I25ArapahoeRoadEA.com/reports.html](http://www.I25ArapahoeRoadEA.com/reports.html)
- Castlewood Library, 6739 South Uinta Street Centennial
- Arapahoe County Public Works, 6924 South Lima, Centennial
- City of Centennial City Hall, 13133 East Arapahoe Road, Centennial
- City of Greenwood Village City Hall, 6060 S. Quebec Street, Greenwood Village
- CDOT Region 6, 2000 S. Holly Street, Denver
- FHWA Division Office, 12300 West Dakota Avenue, Suite 180, Lakewood

### Public Meeting #3 of 3

**September 20, 2012**

**Open House 4:30 - 7:00 PM**

**Good Shepherd Episcopal Church**

8545 E. Dry Creek Rd. (just west of Yosemite)

*Reasonable accommodations will be provided upon request for people with disabilities. If you require a specific accommodation to participate, contact Leah Langerman at [llangerman@deainc.com](mailto:llangerman@deainc.com) or 720-225-4651.*

Can't make the meeting? The information presented at the meeting will be made available on the project website approximately one week later:

[www.I25ArapahoeRoadEA.com](http://www.I25ArapahoeRoadEA.com)

### Simulation of Improved Interchange



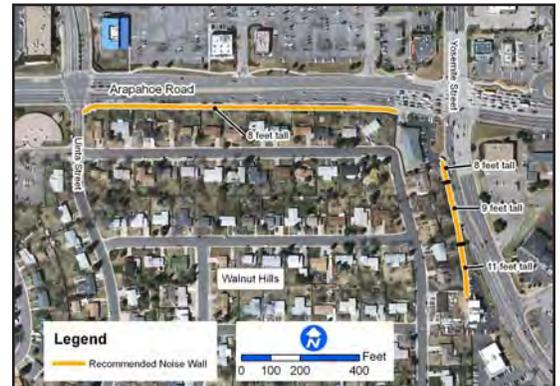
## Recommended Noise Abatement Walls

Earlier in the project, residents expressed concern over the level of traffic noise in the project area. Traffic noise was analyzed, which resulted in recommendations for noise abatement actions to mitigate anticipated noise impacts. Two noise walls adjacent to the Walnut Hills neighborhood, one along Arapahoe Road and one along Yosemite Street, are being recommended in the Environmental Assessment Action Alternative.

The wall along Arapahoe Road would be approximately 8 feet tall from the ground level of the homes. The wall along Yosemite Street would range from approximately 8 feet tall at the north end to 11 feet tall at the south end from the ground level of the nearby homes. Based on design work performed to date, no private property would be acquired for these walls—the walls would be built in the public right-of-way. However, there is not much space, so the walls may need to be at or near the property lines. This means that for the walls to be built, the adjacent property owners will need to agree to a temporary construction easement and a long-term maintenance access easement.

This is a preliminary recommendation. **A final decision regarding the noise abatement walls cannot be made until final design of the project. Therefore, aesthetics of the walls including type, color and materials will be determined during final design using input from the public.** Final design is expected to take place in 2013-2014.

The project team is soliciting feedback from the affected property owners and residents about the proposed noise abatement walls. Please feel free to let us know your suggestions, comments, or concerns. The comment period ends on October 5, 2012.



## Funding for Yosemite Street Improvements Obtained

Federal funding was recently granted by the Denver Regional Council of Governments (DRCOG) for Yosemite Street at Arapahoe Road improvements. The proposed improvements are estimated to cost \$5.0M, with \$3.0M funded federally and \$2.0M from local agencies.

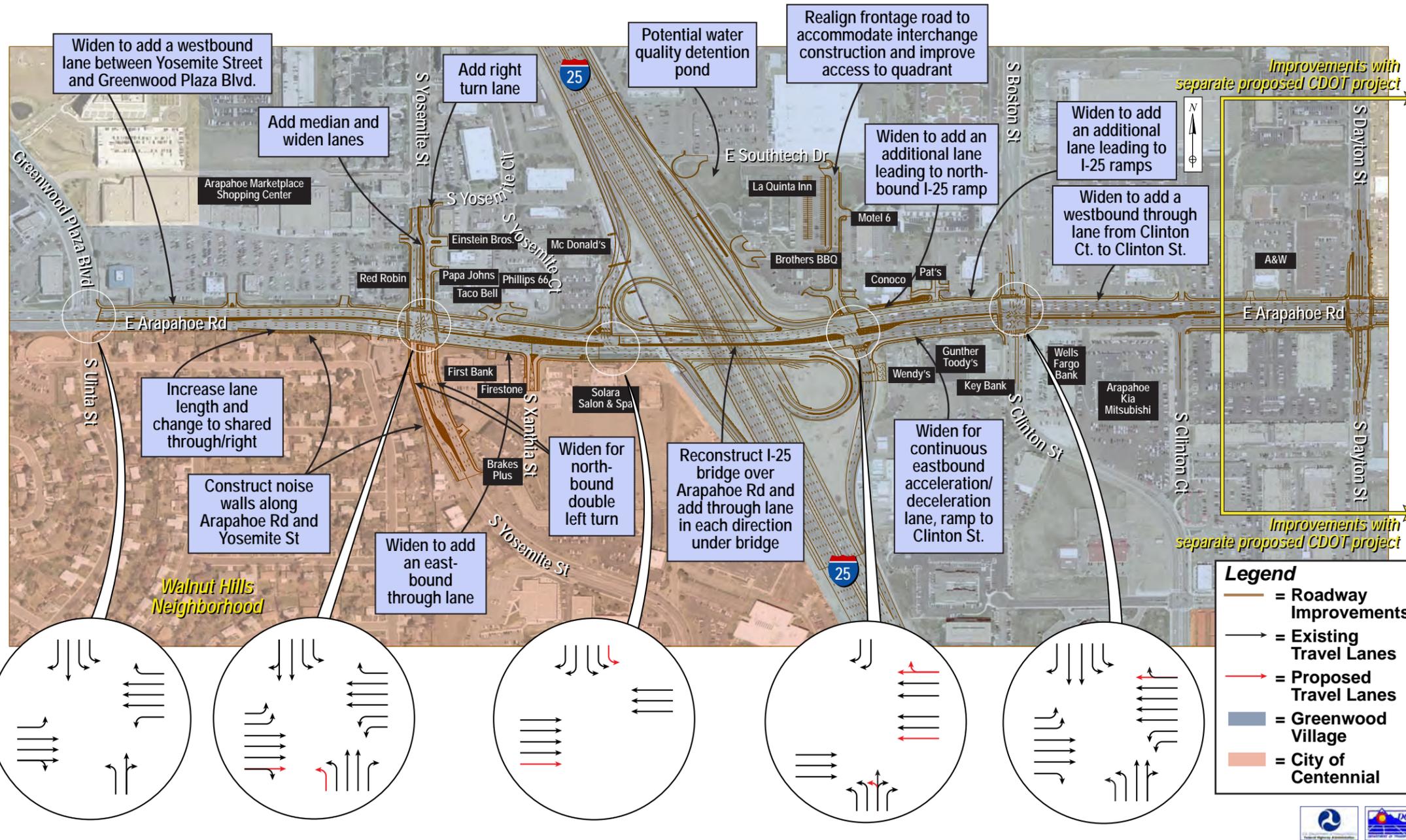
Improvements to Yosemite Street are an important component of the recommended Improved Partial Cloverleaf Interchange improvements at I-25 and Arapahoe Road, and will benefit overall operations of the interchange complex. Additional turn lane capacity on Yosemite Street can allow for greater green signal time for Arapahoe Road. Due to the proximity of Yosemite Street to I-25, improved traffic operations at Yosemite Street will also benefit operations at the I-25 ramp intersections.

While these improvements to Yosemite Street can be considered the first phase of the Improved Partial Cloverleaf interchange improvements, this project can provide stand-alone benefit regardless of the ultimate interchange improvements.

### ***Funded Yosemite Street Improvements Include:***

- A second northbound left turn lane on Yosemite Street at Arapahoe Road.
- Widening of the north and south legs of Yosemite Street at Arapahoe Road for lane alignment.
- A northbound right turn lane on Yosemite Street at the Yosemite Court signalized intersection to better accommodate truck access to businesses in the northwest quadrant of the interchange.
- Raised median with curb and gutter on Yosemite Street for approximately 500 feet north and south of Arapahoe Road.
- Noise barrier along the west side of Yosemite Street south of Arapahoe Road. The noise barrier would be located along the back property line of residences, extending approximately 500 feet south of the corner business, and be approximately 8' to 11' in height.

**Improved Partial Cloverleaf Action Alternative**



**Where Do We Go From Here?**

Public input on the recommendations is still being considered. The success of the NEPA process depends on citizen involvement at this stage. We encourage you to review the Environmental Assessment (EA) recommendations and provide us with focused feedback. CDOT and FHWA will consider all technical data and public and agency comments received when making the final decision regarding project recommendations.

Remaining steps in the process include:

- Public Meeting #3 - September 20th
- Gather public comments during 30 day EA review period (Sept. 5 - Oct. 5, 2012)
- Incorporate and respond to comments in decision document
- Submit decision document to FHWA and CDOT for review and approval
- FHWA and CDOT signature needed on decision document to signify approval of EA recommendations and eligibility of project to receive federal funding
- Final design of recommended alternative - includes additional public involvement
- Formal survey of property owners/tenants adjacent to proposed noise walls
- If noise walls are approved by property owners/tenants, aesthetic details of the walls including type, color and materials will be determined using public input
- Improvements constructed in phases as funding is identified

**Contact Us**

Bryan Weimer  
Arapahoe County Project Manager  
720-874-6500 phone  
bweimer@co.arapahoe.co.us

Joe Hart  
Consultant Project Manager  
720-946-0969 phone  
jhart@deainc.com

Leah Langerman  
Community Outreach Coordinator  
720-946-0969 phone  
llangerman@deainc.com

[www.I25ArapahoeRoadEA.com](http://www.I25ArapahoeRoadEA.com)



USACE comment on EA 120919.txt

From: McKee, Terry A NWO  
Sent: Wednesday, September 19, 2012 9:44 AM  
To: Leah Langerman  
Subject: RE: I-25/Arapahoe EA - Project Newsletter & Public Meeting Sept. 20th  
(UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Leah,

If any work requires the discharge of dredged or fill material, and any excavation associated with a dredged or fill project, either temporary or permanent in an aquatic site, which may include ephemeral and perennial streams, wetlands, lakes, ponds, drainage ditches and irrigation ditches, this office should be notified by a proponent of the project for Department of the Army permits, changes in permit requirements or jurisdictional determinations pursuant to Section 404 of the Clean Water Act.

Identify what the project is. Also, the work in an aquatic site should be identified by the proponent of the project and be shown on a map identifying the Quarter Section, Township, Range and County or Latitude and Longitude, Decimal Degrees (example 40.55555; -104.55555) and the dimensions of work in each aquatic site. Any loss of an aquatic site may require mitigation. Mitigation requirements will be determined during the Department of the Army permitting review.

Terry,

Any questions call:

Mr. Terry McKee  
U. S. Army Corps of Engineers  
Denver Regulatory Office

Classification: UNCLASSIFIED  
Caveats: NONE

EPA comment transmittal email 121005.txt

From: Robin Coursen  
Sent: Thursday, October 04, 2012 1:43 PM  
To: Egal, Dahir (FHWA)  
Cc: Tim Russ; Philip Strobel; Judy Roos  
Subject: I-25 and Arapahoe Rd. Comments

Dahir, Per our telephone conversation: It is EPA's statutory authority to review and comment on EISs under Section 309 of the Clean Air Act. However, the EPA also performs a high level review on all EAs coming into the region. We have reviewed the I-25 Arapahoe Rd. EA and focus our attention on a few comments regarding Air Quality analysis, impacts, and disclosure. Please find these comments attached and feel free to call me if you have any questions. Thank you for the opportunity to comment. (See attached file: I-25-Arapahoe-Interchange-EA-Air-Quality-Comments-TJR PS-10-2-12.docx).

Robin Coursen  
Office of Ecosystem Protection and Remediation  
NEPA Compliance and Review Program

**I-25 Arapahoe Interchange EA, Dated August, 2012****Air Quality Comments (from Tim Russ, 8P-AR; 10/2/12)**

Page 6, Appendix A, section 2.2, “National Air Quality Standards Overview”, last paragraph: Although this Appendix was prepared in March of 2012, the public would also benefit in knowing that the Metro-Denver/NFR area was also designated as nonattainment for the 2008 8-hour (75 ppb) Ozone NAAQS as of July 20, 2012 (see: 77 FR 30088, May 21, 2012; effective July 20, 2012).

Page 9, Appendix A, section 2.3 “NAAQS Monitoring Data Overview”: The information noted for carbon monoxide (CO), particulate matter, nitrogen dioxide, and ozone only contain values though 2008. As of May, 2012, the Colorado Department of Public Health and Environment (CDPHE) had uploaded quality-assured ambient air quality data up through 2011. There is Air Quality data available for the period from 08-11 that reflect more recent conditions. Please consider whether the recent data would change any analyses or conclusions in the EA. To assist the public in locating relevant AQ data, it may help to refer to the names of the air quality monitoring stations as used by CDPHE (see: [http://apcd.state.co.us/air\\_quality.aspx](http://apcd.state.co.us/air_quality.aspx) ) rather than selected adjacent street names as used in Appendix A.

Page 10, Appendix A, section 2.4 “Transportation and Circulation System”, Table 2: The intersection level of service (LOS) information provided in this table for the 2035 action alternative does not appear to match the 2035 action alternative LOS information provided in Table 10 (page 3-9) in the EA. We recommend correcting or explaining any inconsistencies.

Pages 14 and 15, Appendix A, section 3.3 “Carbon Monoxide Results” and Table 3: In reviewing the EA we found no mention of which EPA-approved mobile sources emissions estimation model was used to prepare the emissions used in the CAL3QHC intersection modeling. It would be helpful to identify in the EA ...The EPA emission factor model that was selected (i.e., MOBILE6.2 or MOVES2010), the basis for the decision to use that model, and an overview of the model input data that were used.

Pages 18, 19, and 20, Appendix A, section 3.6 “Toxic Air Pollutants”: This section appears to lack the most up-to-date information. This section discusses the acknowledged limitations of EPA’s MOBILE6.2 model with predicting accurate emissions of MSATs. For future projects please note, EPA’s MOVES2010 model offers improved accuracy, and enhanced ability to estimate both criteria and MSAT emissions. EPA’s current version of the MOVES model, MOVES2010b, was released on April 23, 2012 and not only calculates the six priority MSATs noted in this section, but includes 63 other MSATs. For more information, Please review the MOVES2010b “Q” and “A” document found at the following weblink: <http://www.epa.gov/otaq/models/moves/documents/420f12014.pdf> .

Pages 21 and 22, Appendix A, section 3.8 “Mitigation”: In addition to the construction mitigation measures mentioned in this section and the requirements from CDPHE, EPA recommends consideration of the following mitigation measures to reduce construction air

quality impacts (and their potential health effects) caused by diesel and other particulate emissions in the proximity of residential and business areas nearby this project.

- Requiring heavy construction equipment to use the cleanest available engines or to be retrofitted with diesel particulate control.
- Using alternatives for diesel engines and/or diesel fuels such as: biodiesel, LNG or CNG, fuel cells, and electric engines.
- Installing engine pre-heater devices to eliminate unnecessary idling during winter time construction.
- Prohibiting the tampering of equipment to increase horsepower or to defeat emission control device's effectiveness.
- Using construction vehicles and equipment with the minimum practical engine size for the intended job.
- Scheduling work outside of normal hours for sensitive receptors; this should be necessary only in extreme circumstances, such as construction immediately adjacent to a health care facility, church, outdoor playground, or school.



Doerr question 120917.txt

From: Don Doerr  
Sent: Monday, September 17, 2012 10:36 AM  
To: Leah Langerman  
Subject: RE: I-25/Arapahoe EA - Project Newsletter & Public Meeting Sept. 20th

I have seen this and it all looks good. At meeting #2 they said there would be an additional lane between Dayton Street West to I-25. This does not show in this presentation, does that mean it will not be done?

Attachment: Newsletter #3

Puci ani questi on 120920. txt

From: Pulci ani Dustin  
Sent: Wednesday, September 05, 2012 12:50 PM  
To: Leah Langerman  
Subject: RE: I-25/Arapahoe Road Interchange Environmental Assessment Available & Public Meeting Sept. 20th

Leah,

I thought CDOT agreed early this year that No Action was the direction?

Has CDOT now re-opened its thinking to potentially closing off access points along Arapahoe Rd. ?

Dustin Pulci ani | Lead Property Manager | Rocky Mountain Region & West  
Division  
US Restaurant Development | McDonald's USA |



DAVID EVANS  
AND ASSOCIATES INC.

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## TELEPHONE CONVERSATION RECORD

**DATE:** 10/10/2012  
**PARTICIPANTS:** Barbara Calder,  
Leah Langerman  
**SUBJECT:** **Arapahoe Road Sidewalk Maintenance**  
**PROJECT:** I-25/Arapahoe Interchange EA  
**COPIES:** File

---

Barbara was calling in response to the recent Walnut Hills Newsletter. An article states that when people removed snow from the sidewalk in the past they were ticked by Greenwood Village Police. The sidewalk along Arapahoe Road belongs to Walnut Hills. Barbara has talked to Faith Bolen with Greenwood Village, and asked if people were ticketed because they illegally put snow onto Arapahoe Road. Snow should be put on the landscaped area. The article did not tell the whole story. Barbara would like to know the plans for removing snow from the sidewalk. According to ADA, sidewalks need to be accessible and there needs to be a plan to remove the snow. Barbara understands that Centennial doesn't have an ordinance that requires shoveling.

WEBSITE COMMENTS RECEIVED BETWEEN 9-20-11 and 10-11-12

	Contact	Interest	Use of I/C	Comment	Rate site	Date Submitted
W-1	Don Doerr	I travel the Yosemite/Arapahoe intersection daily and the Clinton/Arapahoe intersection very often.	Resident, Errands, Daily	I believe that there was talk of an additional lane from Boston to I-25. I believe this lane to be useful and necessary but I see nothing in the plan. I will not be able to attend the meeting on the 20th but would like an update on this additional lane.	Excellent	9/15/2012
W-2	John W. Husk	I own the property at 8229 E. Briarwood Avenue, Centennial CO 80112-1306 which backs up to Arapahoe Road between South Uinta Street and S. Yosemite Street. We are temporarily out of the house and it is occupied by my daughter and son-in-law and family for the next two years.	Resident, Errands, Frequently	As an owner and resident of _____ for 35 years have seen the significant increase in traffic behind the house on Arapahoe Road. I am very much in favor of the sound/noise wall. Having been involved in looking into a sound fence for that section from S. Uinta to S. Yosemite back in the mid 1980's a sound consultant told us that the fence needs to be wrapped on each end to prevent sound from entering and increasing noise for the first three houses near the end of the fence. Therefore the sound fence should wrap down S. Uinta Street in the same position as the current perimeter fence.	Needs more info	9/18/2012
W-3	Roger Wiggin	The conjestion on Arapahoe during peak hours appears to extend well beyond the I-25 interchange.	Resident, Errands, Frequently	As shown in the Executive Summary expanded fixed route services may include a Yosemite to Costilla connection over I-25 to avoiding the Arapahoe interchange - as in the Yosemite overpass. That looks quite impactful to businesses and doesn't necessarily address Arapahoe conjestion to the year 2030. What happened to the Peakview overpass option - with opportunities to expand to just west of the S. Revere Pkwy/Arapahoe intersection (an E Euclid Dr exit to merge to E Peakview) to west of I-25 fully to S Quebec St?	Excellent	9/20/2012
W-4	Brian Bern	It impacts my daily travel.	Resident, Errands, Frequently	In looking at the alternatives and a couple of typical sections please make every effort to provide better pedestrian accommodations through the interchange area. The typical sections as they stand are less than ideal. I am especially concerned with the areas that are only receiving 5' sidewalks. It appears that there will be areas that will have a 5' sidewalk immediately adjacent to Arapahoe Road with a retaining wall and/or sound wall at the edge of sidewalk. With cars traveling 40-50 mph on Arapahoe the 2' of sidewalk closest to the road is in essence unusable and with the wall immediately adjacent it's impossible to walk within 1.5' of the wall without chopping off an arm and shoulder so the project has in essence designed a 1' foot path of usable sidewalk. There are also cyclist that use this sidewalk to get to their destinations. Arapahoe Road is less than ideal for a cyclist but many times it is the most direct route.	Good	9/21/2012

WEBSITE COMMENTS RECEIVED BETWEEN 9-20-11 and 10-11-12

W-5

Contact	Interest	Use of I/C	Comment	Rate site	Date Submitted
Randy and Jana Lutton	We own and reside in directly impacted residential property	Resident, Errands, Frequently	Many patrons of the businesses on the southwest corner of Arapahoe Rd and Yosemite St enter the parking lot via the Yosemite St entrance/exit. Many of the people using that entrance/exit do so after making a left turn from westbound Arapahoe Rd onto southbound Yosemite St. The EA drawings indicate that left turns from Arapahoe Rd onto southbound Yosemite St will be guided onto the center and easternmost lanes. Those who make the turn onto the center lane and wish to enter the parking lot must make an immediate and unsafe lane change onto the westernmost lane. This situation also increases the potential for those making a right turn from Arapahoe Rd onto southbound Yosemite St to compete for that westernmost lane. This situation along with the high speed of those making a left onto southbound Yosemite St creates an additional safety concern for our residential property located immediately south of the parking lot entrance/exit. We strongly believe that the strength of the sound wall at Yosemite needs to be considered.	Good	10/2/2012



What comments do you have regarding the Environmental Assessment alternatives and impacts?

\* We need to stop thinking "Noise" walls and think "safety" walls. This is really important for the folks who back up to Arapahoe Road.

\*\* I also think it is important to consider Re-imbursing the Walnut Hills neighborhood for the landscaping on Arapahoe. The neighborhood had to fund a general improvement district on its own and should be reimbursed for the removed landscaping.

\*\*\* There is no doubt the Roadway & Interchange need improvement. There is also much discussion about the development around I-25 and improvement of access to light rail. Lots of folks would walk to shopping North of Arapahoe to the Arapahoe light rail if there was a pedestrian underpass/overpass across Arapahoe at Say Vista. You literally take your life in your hands walking across Arapahoe. Why not improve pedestrian access with this project.

9/20/12

**Are you in favor of the Walnut Hills noise abatement walls? What are your comments regarding the recommended noise mitigation?**

Again → There should be safety walls not just sound walls.

You need to protect the Walnut Hills community not invade it! We need the support of OUR city & government.

**How did you hear about this meeting?**

- |                                     |                              |                          |                        |
|-------------------------------------|------------------------------|--------------------------|------------------------|
| <input checked="" type="checkbox"/> | Email from project team      | <input type="checkbox"/> | News story             |
| <input checked="" type="checkbox"/> | Received postcard mailer     | <input type="checkbox"/> | Friend/Forwarded email |
| <input type="checkbox"/>            | Picked up project newsletter | <input type="checkbox"/> | Other _____            |

NAME: Barb Kuwitzky

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE #: \_\_\_\_\_

EMAIL: \_\_\_\_\_

**Return To:** Leah Langerman  
 Community Outreach Coordinator  
 David Evans and Associates, Inc.  
 1331 17<sup>th</sup> Street, Suite 900  
 Denver, CO 80202

(720) 225-4651 phone  
 (720) 946-0973 fax  
[llangerman@deainc.com](mailto:llangerman@deainc.com)  
[www.I25ArapahoeRoadEA.com](http://www.I25ArapahoeRoadEA.com)

9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

1<sup>st</sup> concern - Detours of traffic down (south) on Boston to go <sup>to</sup> on ~~Boston~~ Caley to access Orchard Rd + I25. Our neighborhood will not be able to exit our neighborhood from Caley all traffic backing up from ~~East~~ to East - it happens now with accidents + snow storms. There are 157 units (157 + cars) that exit from our neighborhood from the Enclave condos who have only Caley + Boston as their only entrance + egress. There is an alternative entrance available for them but it was ordered "closed" @ the request of Greenwood Village + Lindome Valley. (2 C.V. Council members live in this neighborhood.) This should be opened

2<sup>nd</sup> - because of the stoplight @ Caley + Boston there are continuous circumstances in our neighborhood of people not wanting to wait for light or too much traffic. They fly



What comments do you have regarding the Environmental Assessment alternatives and impacts?

Through the intersections, quickly <sup>turn</sup>  
disrupt signs & make a U turned  
into Coley to beat the traffic. It  
is dangerous & 2 families with children  
have already moved due to  
the danger. This will only become  
worse!

They have damaged all grass,  
sprinklers, driveway & sidewalk  
from all the incidents

I request that Dayton be a  
detour and "Local Traffic Only"  
from Home Depot North to Coley

also, there are many near misses  
from the through lanes N. & S. on  
Arapahoe & confused drivers make  
quick moves to change lanes.  
Barriers currently there should stay  
in place.



9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

## Noise Wall

- impact on trees on property line?
- Impact ~~of~~ <sup>on</sup> current perimeter fence (connects to most other side fences)  
 Will residents be compensated (our taxes paid for current fence)

- I was told fence construction & maintenance would be through an IGA - is this with CDOT/centennial/Arapahoe?  
 Who would administer the IGA? How long would the agreement be in place?  
 Would this agreement transfer to new owners (property owners)?  
 What will be covered in the IGA?

- Schedule <sup>installation</sup>

Can noise wall be moved to early in the construction process? Who makes this decision? Can property owners influence this decision?

- Personally, I think the I-25/Arap road solution will be a short term fix and I am against the project. I do not think that the benefit is worth the cost of this project.

Laura Larson

9/20/12

**Are you in favor of the Walnut Hills noise abatement walls? What are your comments regarding the recommended noise mitigation?**

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**How did you hear about this meeting?**

- |   |   |
|---|---|
| <input type="checkbox"/> Email from project team      | <input type="checkbox"/> News story             |
| <input type="checkbox"/> Received postcard mailer     | <input type="checkbox"/> Friend/Forwarded email |
| <input type="checkbox"/> Picked up project newsletter | <input type="checkbox"/> Other _____            |

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE #: \_\_\_\_\_

EMAIL: \_\_\_\_\_

**Return To:** Leah Langerman  
Community Outreach Coordinator  
David Evans and Associates, Inc.  
1331 17<sup>th</sup> Street, Suite 900  
Denver, CO 80202

(720) 225-4651 phone  
(720) 946-0973 fax  
[llangerman@deainc.com](mailto:llangerman@deainc.com)

[www.I25ArapahoeRoadEA.com](http://www.I25ArapahoeRoadEA.com)

9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

I HAVE NOT SEEN SPECIFICATIONS ON  
THE SAFETY / NOISE WALLS - CONCRETE  
BLOCK IN COUNTY LINE ROAD IS UNACCEPTABLE

~~THE~~ PAINTED SURFACES TO LOOK LIKE MASONRY  
IS NOT ACCEPTABLE



**Are you in favor of the Walnut Hills noise abatement walls? What are your comments regarding the recommended noise mitigation?**

YES - MORE THAN NOISE THE SAFETY OF THE  
OCCUPANTS OF HOMES ALONG THE  
STREETS NEEDS TO BE ADDRESSED.  
WITHIN 2 YEARS AUTO HAVE CRASHED THRU  
THE WOODEN FENCES ALONG YOSEMITE  
& HIT THE HOMES

HOW CAN I SEE WHAT THE SPECIFICATIONS  
ARE YOUR THE WALL - PAINT ON PRECAST  
CONCRETE IS UNACCEPTABLE

**How did you hear about this meeting?**

- Email from project team
- Received postcard mailer
- Picked up project newsletter
- News story
- Friend/Forwarded email
- Other \_\_\_\_\_

NAME: GERRY McNALLY

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE #: \_\_\_\_\_

EMAIL: \_\_\_\_\_

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**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

I AM NOT A TRAFFIC ENGINEER SO I HAVE TO ASSUME THE TEAM HAS DONE THEIR HOMEWORK AND PRESENTING THE BEST OPTION.

THAT SAID, I AM NOT OVERLY IMPRESSED. I DONT SEE THE GAIN FROM THIS OPTION. APPEARS TO BE A MODIFIED BAND AID TO WHAT WE ALREADY HAVE. I THINK A LARGER PROJECT THAT RESULTS IN AN INTERCHANGE LIKE I-25 AND UNIVERSITY WOULD WORK BETTER. MORE BUILDINGS ALONG THE INTERCHANGE WOULD BE LOST BUT THEY NEVER SHOULD HAVE BEEN ALLOWED THAT CLOSE TO I-25 OR ARAPAHOE IN THE FIRST PLACE.

I ASSUME COST WAS A FACTOR. WE WILL JUST HAVE TO FIX THIS SOLUTION IN 25-35 YEARS.





**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

At Motel Co, consider a sloping drive just north of Conoco as opposed to the driveway near the swimming pool for more direct access.

Consider a shared drive with Hampton Inn to South Tech Drive and incorporate truck parking

Requesting City of Greenwood Village to approve reconstruction of the building that Pat's is currently in.

Prefer the new ROW line be north of the driveway to Conoco.



9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

I am amazed at what has been accomplished with so little ROW takings.

I am impressed.

Thanks for taking out the barriers under I-25.

Keep up the good work.

9/20/12

**Are you in favor of the Walnut Hills noise abatement walls? What are your comments regarding the recommended noise mitigation?**

*good job + design*

**How did you hear about this meeting?**

- Email from project team
- Received postcard mailer
- Picked up project newsletter
- News story
- Friend/Forwarded email
- Other \_\_\_\_\_

NAME: *Holly Page*

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE #: \_\_\_\_\_

EMAIL: \_\_\_\_\_

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9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

- I'm not a fan of the proposed interchange under I-25 going to 4 lanes without the wall currently in place. I foresee many accidents of people trying to merge to I-25.
- Coming off of I-25 Southbound on concert days @ Comfort Dental - traffic backs up 2 lanes up to Belleview. Why can't COOT place signs ~~on~~ on freeway in advance to give notice about multiple exits - Orchard, Arapahoe, & Dry Creek.
- The traffic signals from Yosemite East up to Dayton need to be studied. The timing of lights is off - sometimes there is no one at a North-South bound light and traffic backs up on Arapahoe in both directions.



**Are you in favor of the Walnut Hills noise abatement walls? What are your comments regarding the recommended noise mitigation?**

I'm in favor but only if the walls are built of brick or stone. Something that will last a long time.

**How did you hear about this meeting?**

- Email from project team
- Received postcard mailer
- Picked up project newsletter
- News story
- Friend/Forwarded email
- Other \_\_\_\_\_

NAME: Myra Garcia

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE #: \_\_\_\_\_

EMAIL: \_\_\_\_\_

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**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

I am sick to death of this tearing up Arapahoe Rd. every time you decide to make a change. Why wasn't this in your brilliant Study when you tore up Arap. Rd. and I-25 when Kiewit ~~to~~ made improvements?

This has not been that long ago. I thought you had planning Committees. Why don't you tear up Orchard Rd. or Belleview?

You have bottled up I 25 & Arapahoe since the very beginning - we have lived here for 42 yrs. and seen Arap. Rd. torn up more times than necessary. If you can't plan better than this, get someone who can. You've already done enough damage to businesses and residents.

Maybe you'd just like to call this a blighted area and come in and take everyone's property. Personally, I think this what the long-term plan is. We don't provide enough money for you and you don't know how to stop spending.

9/20/12

**Are you in favor of the Walnut Hills noise abatement walls? What are your comments regarding the recommended noise mitigation?**

*Does it really matter what I think?  
There is already so much noise coming from Arapahoe Rd., one can't keep a window open. I'll be surprised if you do this; this kind of thing has been promised before and you didn't honor it. Surprise!*

**How did you hear about this meeting?**

- |  |   |
|--|---|
| <input type="checkbox"/> Email from project team             | <input type="checkbox"/> News story             |
| <input checked="" type="checkbox"/> Received postcard mailer | <input type="checkbox"/> Friend/Forwarded email |
| <input type="checkbox"/> Picked up project newsletter        | <input type="checkbox"/> Other _____            |

NAME: Sherry Hoover

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE #: \_\_\_\_\_

EMAIL: \_\_\_\_\_

**Return To:** Leah Langerman  
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9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

\*Noise abatement wall seems short to decrease the decibels the houses receive. The height from the backyard level might need to be <sup>of the wall</sup> closer to 7'8".

The plants along Arapahoe Rd on the South side probably helps absorb/abate the noise. Whereas the wall might not improve the decibels.

The sound studies should continue after the project is constructed to confirm what the proposal probably considers sufficient based on sound studies & wall textures & wall heights & wall materials.





What comments do you have regarding the Environmental Assessment alternatives and impacts?

NOISE ABATEMENT WALLS WOULD BE MORE EFFECTIVE IF 3' OR SO TALLER, ~~ESPECIALLY~~ PARTICULARLY ALONG ARAPAHOE.

A LOT OF MONEY PROPOSED FOR NOT A LOT OF IMPROVEMENT. (TH) AN OK TWEAK.

IT MAY BE BETTER TO LEAVE AS IS TO ENCOURAGE PEOPLE TO ADJUST THEIR BEHAVIOR (PUBLIC TRANSIT, FEWER TRIPS, STAGGERED TIMES, ALTERNATE ROUTES).

MORE WILL TELECOMMUTE REDUCING TRUCK HOUR TRAFFIC, LIKE WE HAVE SEEN ELSEWHERE IN THE SOUTH METRO AND COUNTRY.



9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

9/20/12

I feel that safety walls are a necessity in the scheme of this project. Whenever ~~the~~ construction of a road; expansion of a road etc is proposed in an existing residential area, it becomes a safety issue for the residents. Safety walls will also somewhat mitigate the devaluation of residential properties. Sound walls are also a necessity, so a combination safety/sound wall is the appropriate choice.

9/20/12

**Are you in favor of the Walnut Hills noise abatement walls? What are your comments regarding the recommended noise mitigation?**

Yes, it should go without saying. In addition it is of utmost importance that safety walls also be included. See comments on other side.

**How did you hear about this meeting?**

- Email from project team
- Received postcard mailer
- Picked up project newsletter
- News story
- Friend/Forwarded email
- Other \_\_\_\_\_

NAME: MARTIN JONES

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE #: \_\_\_\_\_

EMAIL: \_\_\_\_\_

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9/20/12

What comments do you have regarding the Environmental Assessment alternatives and impacts?

I am still concerned that the project is pedestrian hostile.

Widening the road will increase traffic, pollution, and noise. Mitigations will be outpaced.

The wall proposed will be hazardous to pedestrians because it is blocking the sun and the sidewalk is not maintained during snow. Centennial has no ordinance for snow removal. Greenwood Village ~~owns~~ owns the sidewalk and does not allow it to be shoveled after storms either.

Overall, the project is automobile friendly and human being hostile. No pedestrian concerns have been addressed.

While it may be "impossible" to retrofit the area for pedestrians, given the build in, the caliber and education of the people who have

9/20/12

**Are you in favor of the Walnut Hills noise abatement walls? What are your comments regarding the recommended noise mitigation?**

Been studying this project for years suggests that alternatives have ~~not~~ been considered because there are competing interests of businesses and city profits that supercede basic empathy and compassion.

I totally oppose this project in any version that does not address pedestrians safety.

**How did you hear about this meeting?**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Email from project team | <input type="checkbox"/> News story             |
| <input type="checkbox"/> Received postcard mailer           | <input type="checkbox"/> Friend/Forwarded email |
| <input type="checkbox"/> Picked up project newsletter       | <input type="checkbox"/> Other _____            |

NAME: ILSA Gregg

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE #: \_\_\_\_\_

EMAIL: \_\_\_\_\_

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9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

Along the border of Walnut Hills,  
The masonry wall should be  
strong enough to stop a  
car, due to the incidents involving  
cars breaking through the fence.  
The wall must be paid for  
with project funds.

9/20/12

**Are you in favor of the Walnut Hills noise abatement walls? What are your comments regarding the recommended noise mitigation?**

→ YES! The walls for Walnut Hills are very important.

Please see reverse for additional comments.

Air quality is a concern, and any efforts to reduce pollution are

**How did you hear about this meeting?**

- Email from project team
- Received postcard mailer
- Picked up project newsletter

- News story
- Friend/Forwarded email
- Other City Council

good to consider.

NAME: Rebeccz McClellan

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE #: \_\_\_\_\_

EMAIL: \_\_\_\_\_

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9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

1. I recommend a possible right turn @ Yosemite heading South and Arapahoe heading West. There is already an additional lane being added to the North side of Arapahoe @ the Red Robin corner the traffic definitely backs up from people leaving DTC not only to get onto Arapahoe to head East but also to go South on Yosemite and to turn right going West on Arapahoe, as well as the access getting out of the shopping area.
2. The double turn lane at Arapahoe and Clinton heading East to turn North needs to be extended as far as possible it is really backed up for people turning toward Home Depot / Lowes / RTD
3. The Stone texture for the sound walls @ ~~the~~ Walnut Hills needs to be the only choice that blend with the older neighborhood style.



9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

Why? OREGON RD & Bellview Av still have not been addressed as alternate roads do alleviate traffic congestion on Arapahoe Rd,

Why? Wasn't the Engineering on Arapahoe Rd and I-25 Not taken into the Traffic study at the time I-25 was widened.

Why? I cannot believe that Arapahoe Co Engineering dep for Highway along with the Federal Highway & Colo Highway Departments have not the far thought a one, 5, 10, 20, 30 yr study on what to expect.

The second thought to widen Arapahoe Rd under I-25 should have been addressed when I-25 was widened. (Engineered);

9/20/12

**Are you in favor of the Walnut Hills noise abatement walls? What are your comments regarding the recommended noise mitigation?**

yes but  
the I should have been included in the Engineering  
for I-25. The Engineering should have been done  
years ago. It is now time to build them!

Note - I have lived here in Walnut Hills since  
1969. Arapahoe Rd has been widened, dug or widened  
discussed & Cursed! Planning is the key to a  
great project and the down fall to a poor  
planned project is to ask an outside firm its time  
to ask for help. Things have changed we cant  
afford to do it over and over!

**How did you hear about this meeting?**

- |  |   |
|--|---|
| <input type="checkbox"/> Email from project team             | <input type="checkbox"/> News story             |
| <input checked="" type="checkbox"/> Received postcard mailer | <input type="checkbox"/> Friend/Forwarded email |
| <input type="checkbox"/> Picked up project newsletter        | <input type="checkbox"/> Other _____            |

NAME: Wayne Moore

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE #: \_\_\_\_\_

EMAIL: \_\_\_\_\_

**Return To:** Leah Langerman  
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9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

The best update I have seen so far. In all cases, I think something should be incorporated into the intersection improvements that would discourage cut through traffic! I don't know what that would be, and I hope there is something that you know, but it must be discouraged. Perhaps some narrowing of entry points ~~into~~ into the neighborhood would help. Just don't make turning into the neighborhood ~~at all~~ inviting and easy (for shortcuts, etc.)

9/20/12

**Are you in favor of the Walnut Hills noise abatement walls? What are your comments regarding the recommended noise mitigation?**

They are probably very necessary to those that live in the adjacent homes but PLEASE provide an option for some natural greenery - small space to root some vines or something!

**How did you hear about this meeting?**

- Email from project team
- Received postcard mailer
- Picked up project newsletter
- News story
- Friend/Forwarded email
- Other Neighborhood Newsletter

NAME: Sharon Nash

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE #: \_\_\_\_\_

EMAIL: \_\_\_\_\_

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[www.I25ArapahoeRoadEA.com](http://www.I25ArapahoeRoadEA.com)

9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

① The fence & Maintenance on Arapahoe & Yasevite are not owned by the homeowners, All Fencing is maintained & replaced by the General Improvement District.

9/20/12

**Are you in favor of the Walnut Hills noise abatement walls? What are your comments regarding the recommended noise mitigation?**

Significant impacts with two projects, Yusewite. funded by Dr. Cog. Sound mitigation with the one project being funded separate from the other.

All design for sound mitigation is key to Neighborhood buy in.  
The ~~wall~~ <sup>Fence</sup> around wall

**How did you hear about this meeting?**

- Email from project team
- Received postcard mailer
- Picked up project newsletter
- News story
- Friend/Forwarded email
- Other \_\_\_\_\_

NAME: Lonnie Gregg

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE #: \_\_\_\_\_

EMAIL: \_\_\_\_\_

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9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

Recommended alternative is so much better for those of us living in Walnut Hills - less impact than an underpass! Improvements look good & should help ease congestion.

BUT I do hope some thought is given to the design of the noise abatement walls (NOT JUST CONCRETE SLABS) & since we're losing some landscaping I hope as much green (landscaping) as possible will be used to make things prettier. We live here. How about ivy on walls?



9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

I'm excited to see the 2 (!) Walnut Hills soundwalls on paper. That said, I realize a soundwall just bounces ~~the~~ sound farther back into the neighborhood and we'll just start hearing another round of complaints.

I'm not happy to see a dedicated right turn lane from EB Arapahoe onto SB Yosemite go away. It's good when those folks can go ahead and turn right.

No good solution for bikes & peds getting N across Arapahoe.

9/20/12

**Are you in favor of the Walnut Hills noise abatement walls? What are your comments regarding the recommended noise mitigation?**

*Yes, see front.*

**How did you hear about this meeting?**

- |  |   |
|--|---|
| <input type="checkbox"/> Email from project team             | <input type="checkbox"/> News story             |
| <input checked="" type="checkbox"/> Received postcard mailer | <input type="checkbox"/> Friend/Forwarded email |
| <input type="checkbox"/> Picked up project newsletter        | <input type="checkbox"/> Other _____            |

NAME: Andrea Suhaka

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE #: \_\_\_\_\_

EMAIL: \_\_\_\_\_

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To: Maria S. Thomas for Mr. Victor M. Mendez

October 5, 2012

Victor M. Mendez, Administrator  
US Department of Transportation  
Federal Highway Administration

Dear Mr. Mendez,

I am writing to express my concerns regarding the lobbying of Federal Highway Funding of the I-25/Arapahoe Interchange project. This project has been ongoing and has completed an environmental assessment as of October 5, 2012.

The final design for the project includes widening Arapahoe Road by one lane in each direction. I have included a link to a Google map so that you can see my proximity to the project.

I live at

Arapahoe Road is approximately 7 to 9 lanes across currently in the project area, which would be increased to 9-11 lanes after the project.

To mitigate the noise from widening the road, the project has proposed a sound wall to my neighborhood of Walnut Hills to reduce noise by 6 decibels.

However, the sidewalk along the project would be narrowed and is north facing. The cities involved mandate that snow and ice are not allowed to be removed from this sidewalk.

My neighborhood of Walnut Hills has been ticketed by Greenwood Village Police during attempts to do so in the past.

In addition, there are no pedestrian islands or anything else pertaining to pedestrian safety in this project.

The local governments involved have 3 separate projects currently being studied within my immediate vicinity to widen roads. These include studies to widen C-470, Belleview, and Arapahoe Road. None of these projects have intergovernmental agreements for funding of any kind.

The local governments in my area appear to have developed an "economy" of performing "studies" for projects for which there is no funding.

No consideration has been given to the impact on the people who live in the area, the quality of the air, the noise, or the lack of pedestrian safety.

Two Light Rail Stations are within the study area, but suggestions to improve access to these to reduce traffic have been ignored.

The I-25/Arapahoe Coalition has lobbied and also hired Miller/Wenhold Capital Strategies, Inc to lobby for Federal Funding of the Project.

Please do not fund this project. The Light Rail Stations are underutilized and I am not convinced widening the roads will solve more problems than it creates.

Thank you for your consideration,

Ilsa Gregg

# I-25/Arapahoe Road Noise Wall Survey

**VOTE!**  
Express your opinion  
in the Noise Wall  
Survey



## DO YOU OWN OR RENT PROPERTY ADJACENT TO THE PROPOSED NOISE WALL?

I own or rent at a location identified to receive at least 5 decibels of noise reduction from a noise abatement wall recommended by the I-25/Arapahoe Road Interchange project.

**YES**, I support the recommended noise walls

Name: Scott Lukes

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

\*If your mailing address is different from property address above please add to reverse side of form.

Owner

Renter



**NO**, I do not want the recommended noise walls

An 8 foot tall by 1,060 foot long noise barrier is being recommended along Arapahoe Road between Uinta Street and Yosemite Street. A noise abatement wall that is 8 to 11 feet tall by 500 feet long is being recommended along Yosemite Street south of Arapahoe Road. The barriers are designed to reduce noise caused by traffic. The pictures shown above are sample representations.

One owner and one tenant per residence that would receive at least 5 decibels of noise reduction from the proposed barriers are eligible to vote on whether noise walls as described above should be built for this project. **Your opinion will help decide whether the noise barriers are built or not based on a simple majority of votes that are received by close of business on October 5, 2012.**

**NOTE: Aesthetics and design details of the walls (type, color, materials, etc.) have not been established at this time and if desired by the affected property owners/tenants will be determined during final design using public input.**

If you answered "No", is there anything you would like to see changed?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ID# \_\_\_\_\_



# I-25/Arapahoe Road Noise Wall Survey

## VOTE!

Express your opinion  
in the Noise Wall  
Survey



**YES**, I support the recommended noise walls



**NO**, I do not want the recommended noise walls

### DO YOU OWN OR RENT PROPERTY ADJACENT TO THE PROPOSED NOISE WALL?

I own or rent at a location identified to receive at least 5 decibels of noise reduction from a noise abatement wall recommended by the I-25/Arapahoe Road Interchange project.

Name: Russell Quan

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

\*If your mailing address is different from property address above please add to reverse side of form.

**Owner**

**Renter**

An 8 foot tall by 1,060 foot long noise barrier is being recommended along Arapahoe Road between Uinta Street and Yosemite Street. A noise abatement wall that is 8 to 11 feet tall by 500 feet long is being recommended along Yosemite Street south of Arapahoe Road. The barriers are designed to reduce noise caused by traffic. The pictures shown above are sample representations.

One owner and one tenant per residence that would receive at least 5 decibels of noise reduction from the proposed barriers are eligible to vote on whether noise walls as described above should be built for this project. **Your opinion will help decide whether the noise barriers are built or not based on a simple majority of votes that are received by close of business on October 5, 2012.**

**NOTE: Aesthetics and design details of the walls (type, color, materials, etc.) have not been established at this time and if desired by the affected property owners/tenants will be determined during final design using public input.**

**If you answered "No", is there anything you would like to see changed?**

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ID# \_\_\_\_\_

# I-25/Arapahoe Road Noise Wall Survey

**VOTE!**  
Express your opinion  
in the Noise Wall  
Survey



**YES**, I support the recommended noise walls



**NO**, I do not want the recommended noise walls

## DO YOU OWN OR RENT PROPERTY ADJACENT TO THE PROPOSED NOISE WALL?

I own or rent at a location identified to receive at least 5 decibels of noise reduction from a noise abatement wall recommended by the I-25/Arapahoe Road Interchange project.

Name: Robert A Ferree Jr

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

\*If your mailing address is different from property address above please add to reverse side of form.

Owner  Renter

*see other side*

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If you answered "No", is there anything you would like to see changed?

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ID# \_\_\_\_\_

# I-25/Arapahoe Road Noise Wall Survey

**VOTE!**  
Express your opinion  
in the Noise Wall  
Survey



**YES**, I support the recommended noise walls



**NO**, I do not want the recommended noise walls

## DO YOU OWN OR RENT PROPERTY ADJACENT TO THE PROPOSED NOISE WALL?

I own or rent at a location identified to receive at least 5 decibels of noise reduction from a noise abatement wall recommended by the I-25/Arapahoe Road Interchange project.

*See attached letter*

Name: John W Husk

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

\*If your mailing address is different from property address above please add to reverse side of form.

Owner

Renter

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If you answered "No", is there anything you would like to see changed?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ID# \_\_\_\_\_

September 19, 2012

RE: Proposed noise wall

From: John W. Husk ( owner of property at )

Ms. Langerman,

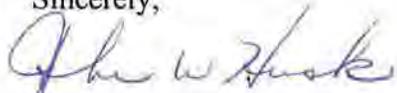
I am one of the property owners of a house on E. Briarwood Avenue which backs up to E. Arapahoe Road and will be affected by the sound fence. I am in favor of the fence as long as it is positioned where the current fence is located with no encroachment into the yard and on the west end wraps down S. Uinta Street as the current perimeter fence does.

My wife and I have owned the property for 35 years and have seen traffic, noise, dirt and pollution increase over the years as E. Arapahoe Road has expanded as well as the increased traffic.

Back in the mid 1980's we were involved in the attempted rezoning of E. Briarwood Avenue. Prior to and after the rezoning we looked into a sound fence which was offered by the developers in exchange for support of Arapahoe Marketplace on the north side of E. Arapahoe Road and the development on the SW corner of Arapahoe and Yosemite. Of course, the promised fence never materialized. At that time a decibel meter was in my back yard for a while and we discussed types of fence with a sound consultant. He said that unless the wrap on South Uinta Street and South Yosemite Street was included, sound would funnel behind the fence and the backs of the houses increasing the noise for the first 3-4 houses from each end. That is the reason for my support of the fence if it is wrapped.

Presently we are living elsewhere and will be for the next two years. Currently my daughter, son-in-law and family reside at \_\_\_\_\_ and will be sending the Noise Wall Survey to you showing their support for the wall.

Sincerely,



John W. Husk

# I-25/Arapahoe Road Noise Wall Survey

## VOTE!

Express your opinion  
in the Noise Wall  
Survey



### DO YOU OWN OR RENT PROPERTY ADJACENT TO THE PROPOSED NOISE WALL?

I own or rent at a location identified to receive at least 5 decibels of noise reduction from a noise abatement wall recommended by the I-25/Arapahoe Road Interchange project.

**YES**, I support the recommended noise walls

Name: Jason & Erin Griffiths

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

\*If your mailing address is different from property address above please add to reverse side of form.

Owner

Renter



**NO**, I do not want the recommended noise walls

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**NOTE: Aesthetics and design details of the walls (type, color, materials, etc.) have not been established at this time and if desired by the affected property owners/tenants will be determined during final design using public input.**

If you answered "No", is there anything you would like to see changed?

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ID# \_\_\_\_\_

# I-25/Arapahoe Road Noise Wall Survey

## VOTE!

Express your opinion  
in the Noise Wall  
Survey



### DO YOU OWN OR RENT PROPERTY ADJACENT TO THE PROPOSED NOISE WALL?

I own or rent at a location identified to receive at least 5 decibels of noise reduction from a noise abatement wall recommended by the I-25/Arapahoe Road Interchange project.

**YES**, I support the recommended noise walls

*see comment*

Name: Laura & Dennis Larson

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

\*If your mailing address is different from property address above please add to reverse side of form.

Owner

Renter



**NO**, I do not want the recommended noise walls

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If you answered "No", is there anything you would like to see changed?

- ① Will need to know impact on trees on property line
- ② Will need to know impact on current perimeter fence
- ③ Terms of IGA? How long will noise wall be ~~covered~~ covered by agreement? What will be covered?
- ④ Can noise wall installation be moved to early 13

ID# \_\_\_\_\_

in the schedule of construction? Installation of the noise wall early in the project would help to eliminate construction issues along Arapahoe for residents.

- ⑤ When and by whom will the decision be made for design, location and timing of wall construction? Will residents have a say in construction?
- ⑥ Who is the contact for issues with the wall? (Company)

# I-25/Arapahoe Road Noise Wall Survey

## VOTE!

Express your opinion  
in the Noise Wall  
Survey



**YES**, I support the  
recommended noise walls



**NO**, I do not want the  
recommended noise walls

### DO YOU OWN OR RENT PROPERTY ADJACENT TO THE PROPOSED NOISE WALL?

I own or rent at a location identified to receive at least 5 decibels of noise reduction from a noise abatement wall recommended by the I-25/Arapahoe Road Interchange project.

Name: Cary + Adrienne Jones

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

\*If your mailing address is different from property address above please add to reverse side of form.

*new owner*

Owner

Renter

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If you answered "No", is there anything you would like to see changed?

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ID# \_\_\_\_\_

# I-25/Arapahoe Road Noise Wall Survey

## VOTE!

Express your opinion  
in the Noise Wall  
Survey



### DO YOU OWN OR RENT PROPERTY ADJACENT TO THE PROPOSED NOISE WALL?

I own or rent at a location identified to receive at least 5 decibels of noise reduction from a noise abatement wall recommended by the I-25/Arapahoe Road Interchange project.

**YES**, I support the recommended noise walls

Name: Randy and Tanya LUTTON

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

\*If your mailing address is different from property address above please add to reverse side of form.

**Owner**

**Renter**



**NO**, I do not want the recommended noise walls

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If you answered "No", is there anything you would like to see changed?

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---

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ID# \_\_\_\_\_

**VOTE!**  
 Express your opinion  
 in the Noise Wall  
 Survey

# I-25/Arapahoe Road Noise Wall Survey



**YES**, I support the recommended noise walls



**NO**, I do not want the recommended noise walls

## DO YOU OWN OR RENT PROPERTY ADJACENT TO THE PROPOSED NOISE WALL?

I own or rent at a location identified to receive at least 5 decibels of noise reduction from a noise abatement wall recommended by the I-25/Arapahoe Road Interchange project.

Name: Marianne Afman

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

\*If your mailing address is different from property address above please add to reverse side of form.

Owner  Renter

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If you answered "No", is there anything you would like to see changed?

Please give us the wall. Why wouldn't we get one?! It will determine the outcome of my families future.

Please

ID# \_\_\_\_\_

## WEBSITE COMMENTS RECEIVED REGARDING NOISE WALL VOTE

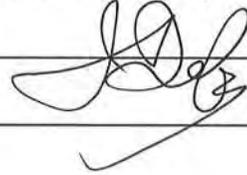
Contact	Interest	Use of I/C	Comment	Rate site	Date Submitted
Michael Perilli	I am a property owner directly adjacent to the proposed noise wall. Please consider this a vote for the noise wall. I strongly support it.	Resident, Errands, Frequently	I am a property owner directly adjacent to the proposed noise wall. Please consider this a vote for the noise wall. I strongly support it.	Good	10/2/2012

9/20/12

**What comments do you have regarding the Environmental Assessment alternatives and impacts?**

Jack Defer -

I approve of the noise abatement wall.







## **Appendix C.**

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# **Colorado Department of Transportation Noise Abatement Determination Worksheet**





# Noise Analysis and Abatement Guidelines

## COLORADO DEPARTMENT OF TRANSPORTATION NOISE ABATEMENT DETERMINATION WORKSHEET

Instructions: To complete this form refer to CDOT Noise Analysis Guidelines

STIP # SDR6745.012 Date of Analysis: 3/30/2012

Project Name & Location: I-25/Arapahoe Road EA---Walnut Hills

### A. FEASIBILITY:

1. Can a 5dBA noise reduction be achieved by constructing a noise barrier or berm?  
 YES  NO
2. Are there any fatal flaw drainage, terrain, safety, or maintenance issues involving the proposed noise barrier or berm?  
 YES  NO
3. Can a noise barrier or berm less than 20 feet tall be constructed?  
 YES  NO

### B. REASONABLENESS:

1. Has the Design goal of 7 dBA noise reduction for abatement measure been met for at least one impacted receptor?  
 YES  NO
2. Is the Cost Benefit Index below \$6800 per receptor per dBA?  
 YES  NO
3. Are more than 50% of benefited resident/owners in favor of the recommended noise abatement measure?  
 YES  NO

### C. INSULATION CONSIDERATION:

1. Are normal noise abatement measures physically infeasible or economically unreasonable?  
 YES  NO  
If the answer to 1 is YES, then:
2. a. Does this project have noise impacts to NAC Activity Category D?  
 YES  NO  
b. If yes, is it reasonable and feasible to provide insulation for these buildings?  
 YES  NO

D. ADDITIONAL CONSIDERATIONS: Two barrier segments are proposed for these impacts: one along Arapahoe and one along Yosemite. The two barriers were evaluated as a single abatement action. The barriers were: 8 ft x 1060 ft along Arapahoe; 8 ft x 70 ft plus 9 ft x 250 ft plus 11 ft x 180 ft along Yosemite. They would provide 126 dB of benefit and the cost index would be \$4700/dB. The ends of the barriers would need to be wrapped to be most effective, which may present right-of-way challenges. The barriers would have to replace existing privacy fences and be built at the property lines due to limited space.

### E. STATEMENT OF LIKELIHOOD:

1. Are noise mitigation measures feasible?  
 YES  NO
2. Are noise mitigation measures reasonable?  
 YES  NO
3. Is insulation of buildings both feasible and reasonable?  
 YES  NO
4. Shall noise abatement measures be provided?  
 YES  NO

### F. ABATEMENT DECISION DESCRIPTION AND JUSTIFICATION:

Benefitting receptor opinions were gathered during the EA public comment period and all 17 respondents supported barriers. Noise abatement was therefore found to be both feasible and reasonable and is recommended for construction by the project. It has been assumed that there will be no fatal flaws with locating the barriers at the private property lines (due to lack of right-of-way space, etc.). Such issues must be resolved during final design.

Completed by: Dale Tischmak

Date: 11/12/12