

# US 24 West Environmental Assessment and Section 4(f) Evaluation

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**US Highway 24 West Environmental Assessment and Section 4(f) Evaluation**  
**El Paso County, Colorado**

Submitted Pursuant to:  
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by the  
U.S. Department of Transportation  
Federal Highway Administration  
and the  
Colorado Department of Transportation

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## Environmental Assessment Availability

Copies of the Environmental Assessment are available in hard copy format for public review at the following locations and/or by request from CDOT Region 2.

Pikes Peak Library District – Old Colorado City Branch 2418 West Pikes Peak Avenue Colorado Springs, CO 80904 (719) 634-1698	CDOT Headquarters (Public Relations Office) 4201 East Arkansas Avenue Denver, CO 80222 (303) 757-9228
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Rampart Library District – Woodland Park Branch 218 East Midland Avenue Woodland Park, CO 80866 (719) 687-9281	City of Colorado Springs (City Clerk Office) 30 South Nevada Ave # 101 Colorado Springs, CO 80903-1802 (719) 385-5901
Manitou Springs Public Library 701 Manitou Avenue Manitou Springs, CO 80829 (719) 685 – 5206	Pikes Peak Area Council of Governments 15 South Seventh Street Colorado Springs, CO 80905 (719) 471-7080

Electronic copies will be available at: <http://www.coloradodot.info/projects/us24west>

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# Acronyms and Abbreviations

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AASHTO	American Association of State Highway and Transportation Officials
ADT	average daily traffic
AIRS	Aerometric Information Retrieval System
APE	Area of Potential Effect
AST	aboveground storage tank
BMP	best management practice
CDOT	Colorado Department of Transportation
CDOW	Colorado Department of Wildlife
CDPHE	Colorado Department of Public Health and Environment
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CESQG	conditionally exempt small quantity generators
CFR	Code of Federal Regulations
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CSS	Context Sensitive Solutions
DBH	diameter at breast height
EA	Environmental Assessment
ELT	Executive Leadership Team
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FINDS	Facility Index System
GHG	greenhouse gas
HUD	Department of Housing and Urban Development
I-25	Interstate 25
LOS	Level of Service

LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act of 1918
MOA	Memorandum of Agreement
mph	miles per hour
MS4	municipal separate storm sewer system
MSAT	mobile source air toxics
NAAQS	National Ambient Air Quality Standards
NCHRP	National Cooperative Highway Research Program
NDRD	New Development Redevelopment Program
NEPA	National Environmental Policy Act of 1969
NFRAP	No Further Remedial Action Planned
NO <sub>2</sub>	nitrogen dioxide
Non-Gen	site not generating hazardous waste
OPS	Division of Oil and Public Safety (Colorado Department of Labor and Employment)
PEC	Potential Environmental Concern
PM <sub>10</sub>	particulate matter less than 10 micrometers in aerodynamic diameter
PPACG	Pikes Peak Area Council of Governments
RCEA	Regional Cumulative Effects Analysis
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
ROW	right-of-way
RTP	Regional Transportation Plan
SCIP	Springs Community Improvement Program
Section 4(f)	Section 4(f) of the Department of Transportation Act of 1966, as amended
SHPO	State Historic Preservation Officer
SO <sub>2</sub>	sulfur dioxide
SPDI	single-point diamond interchange
STIP	Statewide Transportation Improvement Program
TCE	trichloroethylene
TDM	Transportation Demand Management

TIP	Transportation Improvement Program
TLT	Technical Leadership Team
TNM	Traffic Noise Model (Federal Highway Administration)
TOPS	City of Colorado Springs' Trails, Open Space & Parks program
ULSD	ultra-low sulfur diesel
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended
US 24	United States Highway 24
USACE	United States Army Corps of Engineers
U.S.C.	United States Code
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
VCP	Voluntary Cleanup Program
VMT	vehicle miles traveled
VOC	volatile organic compound

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# Executive Summary

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1 This Environmental Assessment (EA) analyzes the impacts of the Colorado Department of  
2 Transportation's (CDOT) proposal for improvements to a 4-mile segment of United States Highway  
3 24 (US 24) in western El Paso County, Colorado.

4 The National Environmental Policy Act of 1969 (NEPA) requires that the environmental effects of  
5 federally funded or federally permitted projects be considered before deciding on a course of action.  
6 The process provides an opportunity for the Federal Highway Administration (FHWA) and CDOT  
7 to develop project alternatives that meet transportation needs while minimizing social,  
8 environmental, and community impacts. A No Action Alternative is evaluated concurrent to the  
9 action alternatives to serve as a baseline for comparison. This EA complies with NEPA and  
10 documents CDOT's and FHWA's decision-making process.

11 **Chapter 1, Purpose and Need** of this document describes the purpose and need for the action.  
12 **Chapter 2, Alternatives** describes the alternatives that were developed and evaluated to determine  
13 which would best meet the purpose and need, and describes the Proposed Action. **Chapter 3,**  
14 **Affected Environment and Environmental Consequences** presents the No Action Alternative  
15 and the consequences of the Proposed Action upon the social, environmental, and community  
16 resources. **Chapter 4, Section 4(f) Evaluation** includes an evaluation of transportation uses for  
17 historic properties and park and recreation resources protected under Section 4(f) of the United  
18 States Department of Transportation Act of 1966. **Chapter 5, Agency Coordination and Public**  
19 **Involvement** describes coordination with the residents, business owners, and resource management  
20 agencies during the course of the EA. **Chapter 6, References** contains a list of references used in  
21 the preparation of this EA. Supporting materials can be found in the appendices.

## 22 Where is the project located?

23 The proposed US 24 project is in southwestern Colorado Springs, as shown in **Exhibit ES-1** and  
24 **Exhibit ES-2**. The project's limits encompass a 4-mile segment along US 24 from the Interstate 25  
25 (I-25) interchange (milepost 303.8) west to the Manitou Avenue interchange (milepost 299.1). The  
26 study area includes US 24, existing interchanges at the east and west ends, and several north-south  
27 city streets that intersect US 24. The north-south limits of the study area are approximately  
28 1,000 feet north and 1,000 feet south from the US 24 centerline.

29 US 24 connects downtown Colorado Springs with the City of Manitou Springs. East of I-25, US 24  
30 has the local street name of Cimarron Street. From I-25 west to 31st Street US 24 parallels Colorado  
31 Avenue, which has the additional designation of Business US 24. West of 31st Street, Colorado  
32 Avenue is renamed to Manitou Avenue and US 24 remains parallel with Manitou Avenue.

33 EXHIBIT ES-1  
34 The Study Area is on US 24 in Colorado Springs



Not to scale  
Study Area - Milepost 300 (Manitou Springs) to Milepost 304 (I-25)

35 EXHIBIT ES-2  
36 US 24 Study Area



## 37 Why is this project needed?

38 As illustrated in **Exhibit ES-1**, US 24 is the only highway route into the Rocky Mountains  
 39 for nearly 50 miles north and south of Colorado Springs. Few substantial changes have been  
 40 made to US 24 in this area since it was built in 1964, and today's transportation planning  
 41 looks to forecasted travel needs in the year 2035.

42 Today, US 24 serves local and regional travelers in almost equal numbers. US 24 is the only  
 43 route for regional weekday commuters who travel between mountain communities (such as  
 44 Woodland Park) and the Colorado Springs metropolitan area. The lack of gateway routes  
 45 into the mountains results in regional weekend traffic to destinations such as national  
 46 forests, ski resorts, and gaming communities with travelers funneling through US 24. These  
 47 regional users travel on US 24 predominantly during the busiest weekday and weekend travel  
 48 times, exacerbating congested conditions during peak travel periods.

49 US 24 is heavily used by local travelers because it provides connections to local destinations,  
 50 such as neighborhood grocery stores, and it connects to I-25 for north-south regional  
 51 destinations. Local cross streets, used to access neighborhoods and commercial areas,  
 52 intersect US 24 and add traffic volumes, which  
 53 slow speeds. The intersections on US 24 are  
 54 spaced at approximately one-half-mile intervals.  
 55 For signalized intersections, the current traffic  
 56 volumes exceed the available capacity and result  
 57 in queues from one intersection backing into the  
 58 adjacent intersection. Driveways and streets  
 59 connecting to the north-south streets are so  
 60 close to US 24 that turns into these driveways or  
 61 streets cause queues that back up onto US 24.  
 62 Just north of US 24 on 21st Street, Naegle Road  
 63 is an example of this problem. Further, at  
 64 unsignalized intersections, such as US 24 and  
 65 Ridge Road, unacceptable delays to traffic crossing or entering US 24 result as drivers wait  
 66 for adequate gaps in the US 24 traffic.



*US 24 and 8th street during the morning commute*

67 El Paso County has been among the fastest-growing counties in the nation for the last three  
 68 decades. The El Paso County and Teller County population totaled 146,000 when US 24 was  
 69 built nearly a half century ago. By 2009, the population had reached 626,000 and is  
 70 forecasted to reach 956,000 by 2035 (State of Colorado, 2010). This regional growth,  
 71 combined with drivers traveling more miles than in past years, has overloaded US 24 in the  
 72 study area to the point it no longer has adequate capacity for current and future travelers.



## 73 How was this plan developed?

74 US 24 is an important transportation corridor for the Pikes Peak Area Council of  
75 Governments (PPACG). It is part of PPACG's Congestion Management System, and is  
76 identified for widening in its *Fiscally Constrained Long-Range Transportation Plan* for 2035. US 24  
77 improvements were first incorporated into the *Transportation Improvement Program (TIP)* and  
78 *Statewide Transportation Improvement Program (STIP)* in 2003. In addition, as of August 2011, the  
79 STIP and TIP identified funding to acquire select right-of-way under protective buying, as  
80 described in 23 Code of Federal Regulations (CFR) Section 710.503. This process of  
81 protective buying prevents imminent development and increased costs of the identified  
82 parcel.

83 With input from area residents, businesses, and commuters, CDOT, FHWA, PPACG, El  
84 Paso County, the City of Colorado Springs, and the City of Manitou Springs have developed  
85 numerous plans for US 24 in and near the study area over the past three decades. Nearly all  
86 of these plans recommend some combination of improvements to address the  
87 transportation issues on US 24. These plans provided a starting point for this EA to begin  
88 development of a solution for current conditions and those foreseeable by 2035.

89 CDOT began this EA in 2004, working with FHWA, PPACG, local municipalities,  
90 residents, and business owners to evaluate issues and concerns and to develop conceptual  
91 alternatives intended to address those issues and concerns. CDOT afforded these  
92 stakeholders opportunities to help develop and comment on the project alternatives. In  
93 response to community input and to minimize environmental impacts, CDOT made  
94 numerous changes to the conceptual design for this EA. **Chapter 5, Agency Coordination  
95 and Public Involvement** describes the agency coordination and public involvement  
96 conducted during the plan development.

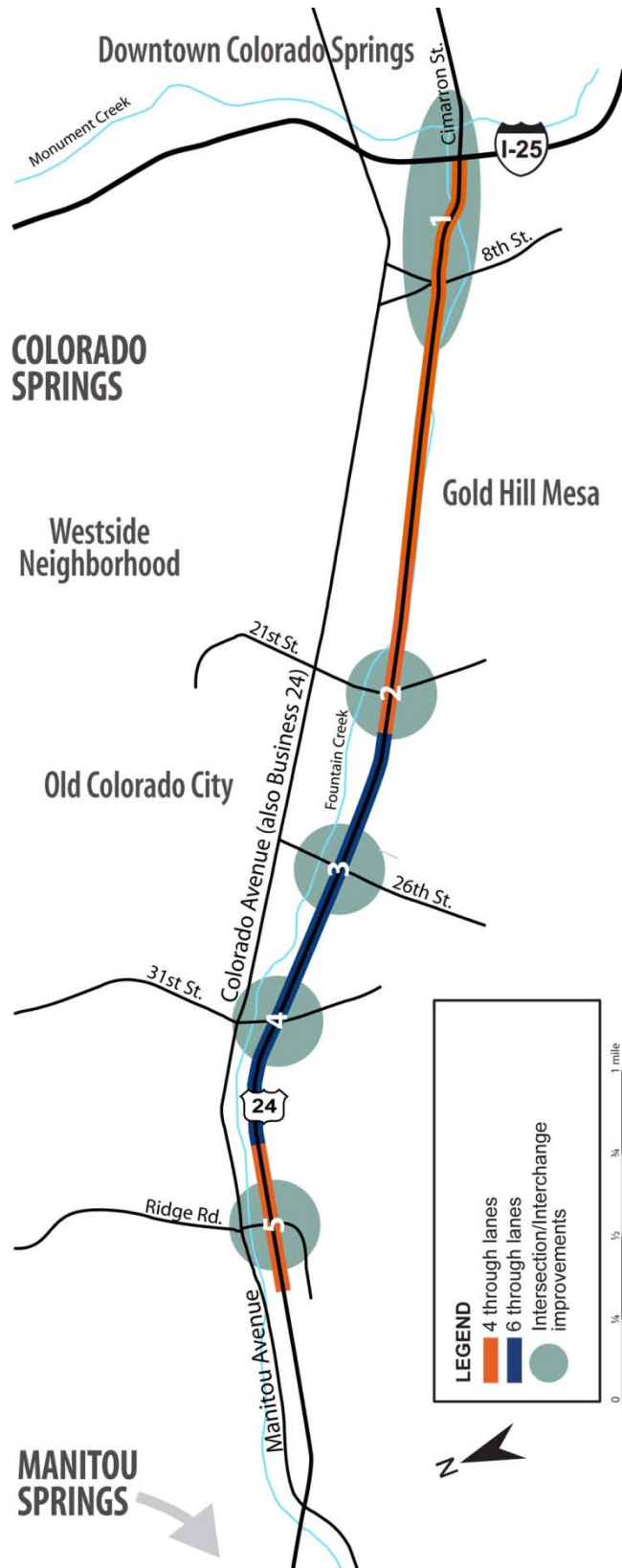
97 After three levels of alternatives screening and evaluation, a Preferred Alternative was  
98 identified that meets the purpose and need for the project while balancing the transportation  
99 needs of local and regional travelers with socioeconomic, environmental, and community  
100 impacts. The Preferred Alternative is the Proposed Action in this EA.

## 101 What is the Proposed Action?

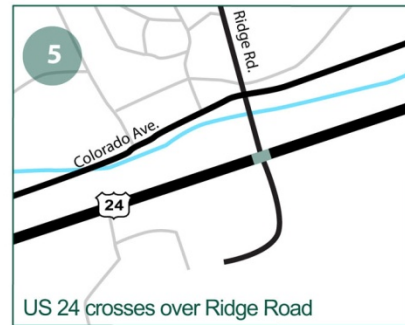
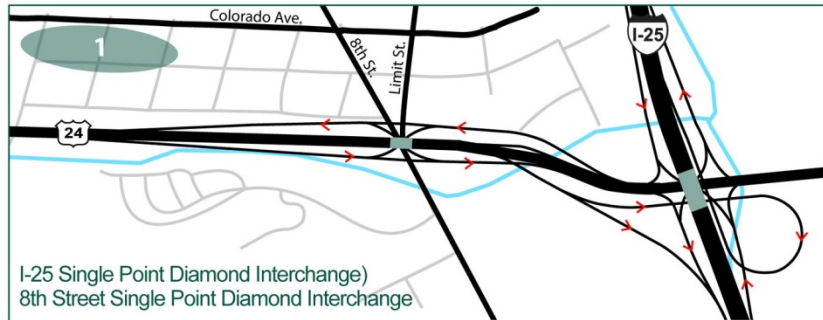
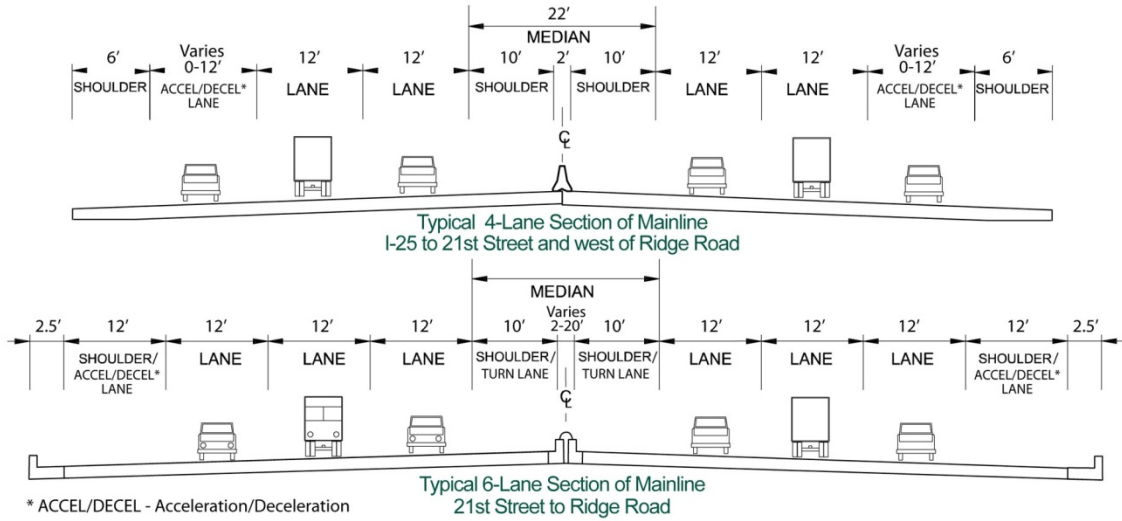
102 Under the Proposed Action, US 24 through-lanes would be designed for a travel speed of  
103 50 miles per hour and meet or exceed American Association of State Highway and  
104 Transportation Officials standards. The Proposed Action is shown in **Appendix A** and  
105 illustrated in **Exhibit ES-3** and **Exhibit ES-4**. The Proposed Action on the US 24 corridor  
106 includes the following elements:

- 107 • **Maintain four through-lanes** (two in each direction) **between I-25 and 21st Street**.
- 108 • **Add two through-lanes, between 21st Street and just west of Ridge Road**, for a  
109 total of six through-lanes (three in each direction).
- 110 • **Replace nine bridges on US 24 and cross streets** to accommodate the profile changes  
111 to US 24. Over Fountain Creek, these bridges would be built to comply with current  
112 state and local standards to reduce flooding hazards in the study area.

113 EXHIBIT ES-3  
114 Proposed Action – US 24 Corridor Overview



115 EXHIBIT ES-4  
 116 Proposed Action – Typical Section, Design Details – NOT TO SCALE



- 117 • **Due to replacement of the nine bridges, realign and widen Fountain Creek at**  
118 bridge crossings and locations where the roadway overlaps the existing channel to  
119 provide an armored low-flow channel and a widened stabilized area to accommodate the  
120 100-year flood.
- 121 • **Build single-point diamond interchange (SPDI) with a loop ramp for eastbound-**  
122 **to-northbound travel at US 24 and I-25.** This interchange design replaces the tight  
123 diamond interchange identified in the *I-25 Improvements through the Colorado Springs*  
124 *Urbanized Area EA* (CDOT, 2004a). Since that EA was approved, traffic forecasts and  
125 future traffic operations have been revised by PPACG, making an SPDI design more  
126 efficient operationally.
- 127 • **Naegle Road from 21st Street to 25th Street would be closed because the**  
128 **intersection of 21st Street and Naegle Road is too close to the US 24 and 21st**  
129 **Street interchange.** There is inadequate room to provide a turn lane for vehicles at  
130 Naegle Road.
- 131 **The existing 25th Street bridge over Fountain Creek would be removed because it**  
132 **would no longer connect to Naegle Road and, therefore, provide no function.** The  
133 existing 25th Street would be ended north of the Fountain Creek.
- 134 • **Replace the existing at-grade intersections with interchanges at 8th Street and at**  
135 **21st Street,** which also includes directional interchange ramps and  
136 acceleration/deceleration lanes.
- 137 • **Upgrade the US 24 and 26th Street at-grade intersection,** which also includes left  
138 and right turn lanes.
- 139 • **Widen the intersection of US 24 and 31st Street. Widen the 31st Street and**  
140 **Colorado Avenue intersection.** South of US 24, 31st Street would be rebuilt to better  
141 align with the highway intersection.
- 142 • **Replace the existing at-grade intersection with an overpass that carries US 24**  
143 **over Ridge Road.** Ridge Road would be widened between High Street and Colorado  
144 Avenue and improvements would be made to the Ridge Road and Colorado Avenue  
145 intersection.
- 146 • **All improvements tie into the unimproved, existing US 24 approximately 1,800**  
147 **feet west of Ridge Road.** Because neither existing nor future congestion is a problem  
148 between Ridge Road and Manitou Avenue, no changes to US 24 are proposed west of  
149 Ridge Road.
- 150 • **Build sidewalks on the north-south cross streets** at all intersections and as a part of  
151 all interchanges.
- 152 • **Connect the Midland Trail from 21st to 25th Street,** with north-south trail  
153 connections at each of the interchanges and intersections along the US 24 corridor. The  
154 trail would be built to meet the City of Colorado Spring's trail design standards and to  
155 allow clearance under the bridges for bicycle, pedestrian, and equestrian crossings.  
156 Completing this east-west bicycle and pedestrian trail system was an opportunity  
157 resulting from the required roadway right-of-way acquisitions and the channel re-grading  
158 required by the bridge replacements. The trail would improve pedestrian and bicycle  
159 mobility in the study area and is consistent with community planning.

- 160 • **Incorporate Transportation System Management** elements such as signal timing,  
161 turn lanes, and consideration for transit stops.

162 The Proposed Action also includes various environmental mitigation measures such as  
163 enhancements to park and recreation resources, noise barriers, and permanent water quality  
164 features such as stormwater detention/treatment ponds. These are discussed in more detail  
165 in **Chapter 3, Affected Environment and Environmental Consequences**.

166 A detailed illustration of the Proposed Action is included in **Appendix A**.

## 167 **What are the benefits of the Proposed Action?**

168 The Proposed Action reduces congestion and improves mobility and safety for local and  
169 regional travelers. Increased capacity on US 24 and improved traffic flow on its major cross  
170 streets would reduce neighborhood cut-through traffic, eliminate queues extending from one  
171 intersection to the adjacent intersection, and improve air quality locally around intersections.

172 Channel and structure modifications made as part of the Proposed Action would markedly  
173 reduce flooding hazards within the study area by reducing the size of the Fountain Creek  
174 floodplain. As a result, 68 properties with residential or commercial structures and another  
175 55 housing units at the A-1 Mobile Village trailer park would no longer be in the 100-year  
176 floodplain. Prior to entering Fountain Creek, stormwater would be treated through  
177 permanent water quality features that would be implemented as part of the project (such as  
178 grassed swales and ponds), thus improving water quality in the creek. Noise barriers included  
179 at three locations would reduce noise levels at numerous residences near US 24.

180 As part of the Proposed Action, completing the segment of the Midland Trail between  
181 21st Street and 25th Street would improve pedestrian and bicycle mobility in the study area  
182 and is consistent with community planning. The safety and convenience of travel for  
183 bicyclists and pedestrians would be improved with increased trail connections between parks  
184 and recreation facilities.

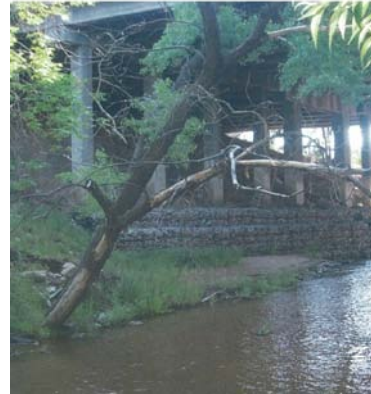
## 185 **What environmental resources were evaluated?**

186 The US 24 EA and Section 4(f) Evaluation evaluates the potential environmental impacts of  
187 implementing the Proposed Action and compares them to the No Action Alternative.  
188 CDOT reviewed a broad spectrum of social, environmental, and community resources for  
189 their presence in the study area and assessed them for potential impacts. Resources evaluated  
190 in detail include transportation, floodplains, right-of-way, historic resources, parks and  
191 recreation resources, traffic noise, social resources, environmental justice, land use,  
192 hazardous materials, water quality, and wetlands. Cumulative impacts also are described; that  
193 is, impacts that could result from individually minor but collectively significant actions over  
194 time, including consideration of other projects in the area.

## 195 How would the project affect Fountain Creek?

196 Fountain Creek runs adjacent to US 24 through the entire study area. East of 31st Street,  
197 95 percent of US 24 is within the 100-year floodplain, as are hundreds of homes and  
198 businesses. Fountain Creek's 100-year floodplain and water quality would be improved  
199 under the Proposed Action.

200 As a result of the Proposed Action's improvements to  
201 US 24 and the required changes on the north-south  
202 connecting streets, the nine bridges over Fountain Creek  
203 must be rebuilt. None of these bridges currently convey the  
204 floodwaters of a 100-year storm. 23 CFR, Part 650 –  
205 Bridges, Structures, and Hydraulics prescribes the policies  
206 and procedures that the FHWA is directed to implement in  
207 the "location and hydraulic design of highway  
208 encroachments on floodplains." The Proposed Action  
209 would reconstruct these bridges in a manner that would  
210 reduce flooding hazards within the study area. To  
211 accommodate the new bridge improvements, the Fountain  
212 Creek channel would be widened and/or deepened at each  
213 bridge to convey larger volumes of stormwater runoff,  
214 thereby removing US 24 from Fountain Creek's floodplain. The Proposed Action would  
215 reduce the area of the floodplain in the study area from 378 acres to 228 acres. This would  
216 reduce the risk of flooding for 68 properties with residential or commercial structures within  
217 the floodplain, along with another 55 housing units at the A-1 Mobile Village trailer park.  
218 The Proposed Action also includes several water quality features and best management  
219 practices (BMPs) to improve water quality in Fountain Creek. Stormwater runoff from the  
220 roadway will be collected and treated in detention ponds and swales before being released  
221 into Fountain Creek. Drop structures and other bank stabilization measures will be  
222 implemented to reduce channel erosion and sedimentation.



*Fountain Creek Parallels US 24*

223 The Proposed Action provides an opportunity to restore and enhance the ecological  
224 condition of Fountain Creek and complements other restoration actions taking place  
225 upstream and downstream. Work in the Fountain Creek floodplain would temporarily  
226 disturb 0.02-acre of wetlands and up to 5.17 acres of waters of the United States, primarily at  
227 bridge crossings. This would disrupt the creek bed and banks, and increase the potential for  
228 erosion during construction. The temporary construction impacts will be mitigated through  
229 implementation of BMPs as described in **Chapter 3, Affected Environment and**  
230 **Environmental Consequences.**

## 231 How much additional right-of-way is needed for the highway?

232 Approximately 78 acres of land would need to be acquired through acquisition of all or part  
233 of 109 parcels. This includes 81 commercial, 3 mixed-use, 14 public, and 11 residential  
234 parcels. Property acquisitions would range from small slivers to entire parcels. A total of  
235 24 residences would be displaced, 20 of which are on properties zoned for residential and 4  
236 that are in mined-use zoning. The Proposed Action would relocate 67 businesses, and  
237 acquire 10 vacant commercial properties. All acquisitions and relocations will comply fully

238 with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970,  
239 as amended (Uniform Act).

240 CDOT is committed to maintaining open communication with property owners and  
241 stakeholders affected by the Proposed Action. Team members have contacted all owners of  
242 potentially affected properties and have met with many of these owners to explain the  
243 Proposed Action and to describe how it affects their properties. During these meetings,  
244 CDOT also explained the right-of-way acquisition process and the rights that owners and  
245 tenants have under the Uniform Act. CDOT continues to respond to owners and  
246 stakeholders who contact the project team with questions or comments, with the intent of  
247 maintaining open communication and providing as much information as is known at the  
248 time.

249 During final design, CDOT will examine opportunities where design refinement can  
250 minimize impacts of right-of-way requirements and will coordinate with property owners in  
251 accordance with the Uniform Act.

## 252 **How would the project affect historic properties?**

253 Twenty-four historic properties and one historic district are present within the project's Area  
254 of Potential Effect, predominantly consisting of single-family residences dating from the late  
255 1800s to early 1900s, a segment of the Colorado Midland Railroad, and the Westside  
256 Historic District (a large, residential historic district). Two historic properties were assumed  
257 eligible for the purpose of Section 106 of the National Historic Preservation Act evaluation  
258 because eligibility could not be determined due to restricted access.

259 Due to extensive effort during planning and preliminary design, the project team was able to  
260 avoid impacts to the Midland Terminal Railroad Roundhouse at 21st Street, which is listed in  
261 the National Register of Historic Places. However, CDOT was not able to avoid adverse  
262 effects to all of the historic properties that have been identified. Four of the evaluated  
263 individual properties would be acquired in the Proposed Action. Two historic commercial  
264 buildings and two historic homes located near proposed interchanges would need to be  
265 acquired. In addition, 14 percent of one hotel/motel property would be acquired but it is not  
266 expected to be an adverse effect. Despite a broad evaluation of interchange design options,  
267 CDOT determined that avoiding these impacts would not be possible. CDOT, FHWA, the  
268 Colorado State Historic Preservation Officer (SHPO), and local preservation groups have  
269 reached an agreement on how to mitigate the impacts to these historic properties. Mitigation  
270 being considered includes, but is not limited to, interpretive signing, architectural salvage  
271 from historic buildings, and investigation into the reuse of the Chief Petroleum sign. These  
272 and other agreements have been documented in a Memorandum of Agreement located in  
273 **Appendix H.**

## 274 How would the project affect neighborhoods?

275 The route that US 24 follows today has been a transportation route for more than 100 years,  
 276 beginning with the Midland Trail, the Colorado Midland Railroad, and now as a highway  
 277 corridor. As a result, neighborhoods in the study area have grown up around the trail, rail,  
 278 and highway corridor. The Proposed Action reduces congestion for through-trips on US 24  
 279 and, thus, reduces cut-through traffic from neighborhood streets. The Proposed Action  
 280 would improve travel conditions and connectivity for bicyclists and pedestrians, providing  
 281 opportunities to connect to parks and trails. The project would improve the Fountain Creek  
 282 channel and reduce flooding hazards. Noise barriers located between 11th Street and  
 283 14th Street on the north side of US 24, near the A-1 Mobile Homes and residences on the  
 284 south side of US 24 on Red Canyon Place, would reduce highway noise.

## 285 What happens if the Proposed 286 Action is not built?

287 This EA provides an analysis of the consequences of  
 288 doing nothing: the No Action Alternative. Without a  
 289 significant investment in roadway improvements, traffic  
 290 congestion would increase (particularly in the morning  
 291 and evening peak hours) and traffic operations at  
 292 several locations would fail to meet acceptable levels of  
 293 service.

294 Under the No Action Alternative, flooding during large storm events would continue and  
 295 pollutants from stormwater runoff would continue to flow directly into Fountain Creek.  
 296 High-traffic noise levels would persist for residences adjacent to the highway.

297 The No Action Alternative would not require any property acquisition and it would not  
 298 affect historic properties.

## 299 Has the public participated in this project?

300 Members of the public have been involved from the start of the project and have helped  
 301 shape the project outcomes. Since 2004, the project team has held nine public meetings to  
 302 present the progress and preliminary findings of the study. CDOT right-of-way staff  
 303 conducted one-on-one meetings with numerous property and business owners, and  
 304 participated in dozens of meetings with small groups, neighborhood organizations, and  
 305 business groups (including organizations such as City of Colorado Springs' Trails, Open  
 306 Space and Parks program and the Organization of Westside Neighborhoods). Individuals  
 307 have contributed through several working groups and committees that are described in  
 308 **Chapter 5, Agency Coordination and Public Involvement.**

309 In addition to meetings, various communication practices have been employed as this EA  
 310 was conducted, including newsletters and postcards, an active website, a project hotline, and  
 311 an email address where individuals can ask questions or request information.



*Two open house participants comment on the US 24 corridor elements*



## 312 Where can I get more information?

313 Information can be obtained in several ways. The project website at  
314 [www.coloradodot.info/projects/us24west](http://www.coloradodot.info/projects/us24west) has information regarding the project, the NEPA  
315 process, and related activities. Copies of the EA can be reviewed at the locations listed in  
316 **Chapter 5, Agency Coordination and Public Involvement**. In addition, individuals can  
317 attend the Public Hearing (details are listed below) to learn more or provide comments  
318 about the EA study and its recommendations and conclusions.

319 The project team can be contacted by calling the project hotline at (719) 477-4970 or by  
320 emailing the project team at [us24winfo@wilsonco.com](mailto:us24winfo@wilsonco.com). Written comments by be mailed to  
321 US 24 EA Comments c/o Wilson & Company 5755 Mark Dabling Boulevard, Suite 220,  
322 Colorado Springs, Colorado 80919-2200.

## 323 What is the next step?

324 FHWA and CDOT will provide the US 24 West EA and the Section 4(f) Evaluation for  
325 agency and public comment. A 45-day comment period will begin with the publishing of the  
326 EA. Within the comment period, CDOT will conduct a Public Hearing. Invitations  
327 announcing the Public Hearing will be sent to all individuals on the mailing list. The Public  
328 Hearing will be advertised in newspapers, websites, neighborhood newsletters, and flyers  
329 distributed throughout the study area. Interested individuals can attend the Public Hearing to  
330 provide comments or learn more about the EA and the Section 4(f) Evaluation. Written  
331 comments can be provided in person at the public hearing or on the project website at  
332 [www.coloradodot.info/projects/us24west](http://www.coloradodot.info/projects/us24west).

333 After considering public comments, FHWA may prepare a Decision Document that may  
334 determine a recommendation for Section 4(f) and determine whether to issue a Finding of  
335 No Significant Impact (FONSI), revise the EA, or prepare an Environmental Impact  
336 Statement to further analyze environmental consequences. If it is determined that a FONSI  
337 is appropriate and a FONSI has been approved, CDOT could proceed with final design,  
338 depending on funding and regional priorities. As noted previously, as of August 2011, the  
339 STIP and TIP identified funding to acquire select right-of-way under protective buying, as  
340 described in 23 CFR Section 710.503. The process of protective buying prevents imminent  
341 development and increased costs of the identified parcel. Future right-of-way acquisition and  
342 construction are dependent on funding availability and would begin when sufficient funds  
343 are secured.

344 **Chapter 3, Affected Environment and Environmental Consequences**, provides  
345 descriptions of the existing environment in the study area and describes how the project  
346 could potentially affect natural and man-made resources if constructed. A summary of the  
347 impacts and mitigations that have been identified in **Chapter 3, Affected Environment**  
348 **and Environmental Consequences** is provided in **Exhibit ES-5**.

## EXHIBIT ES-5

## Summary of Impacts and Mitigation, US 24 EA

Resource	Impacts of the No Action Alternative	Impacts of the Proposed Action	Mitigation Measures for the Proposed Action
Transportation	<ul style="list-style-type: none"> <li>▪ Traffic conditions would continue to deteriorate in the study area with most locations operating at Level of Service (LOS) E or F in the evening peak travel hour.</li> <li>▪ Increasing congestion would cause longer travel times through the study area.</li> <li>▪ Congestion would result in more cut-through traffic through the neighborhoods.</li> <li>▪ Continued congestion at US 24 intersections could affect the timeliness of bus service and could affect timely transfers between bus routes.</li> <li>▪ As funding becomes available, some improvements would be constructed including the connection of new trail segments, which would be constructed by the City of Colorado Springs Parks Department.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Traffic operations would be improved.</li> <li>▪ The single-point diamond interchange (SPUI) proposed at the I-25 interchange would eliminate the tight curve and low speeds on the southbound off-ramp.</li> <li>▪ The interchange ramps between 8th Street and I-25 would be connected to allow continuous flow of traffic between the two interchanges.</li> <li>▪ Flyover ramps at the I-25 interchange would allow access without stopping at either the 8th Street or I-25 interchanges.</li> <li>▪ Traffic operations to the intersection on 8th Street would be improved.</li> <li>▪ The existing right-in/right-out at the 14th Street intersection would be removed.</li> <li>▪ Naegle Road from 21st Street to 25th Street would be closed.</li> <li>▪ The existing 25th Street bridge over Fountain Creek would be removed.</li> <li>▪ Express bus service on US 24 would be accommodated.</li> <li>▪ Bus operations on Colorado Avenue and surrounding roads would be improved.</li> <li>▪ Construction could temporarily impact bus stops for transit routes that cross US 24.</li> <li>▪ Sidewalks would be added on each of the cross streets along US 24.</li> <li>▪ A segment of the Foothills Trail would be temporarily impacted by construction.</li> <li>▪ The Midland Trail system would improve local pedestrian and bike mobility.</li> <li>▪ During construction congestion in and surrounding the construction area would increase during times of lane closures and detours would temporarily increase traffic volumes on adjacent neighborhood streets.</li> </ul>	<ul style="list-style-type: none"> <li>▪ CDOT will construct a cul-de-sac on 25th Street south of Vermijo Avenue.</li> <li>▪ CDOT will construct an on-street trail on Ridge Road from Colorado Avenue south to Red Rock Canyon Open Space.</li> <li>▪ CDOT will work with Mountain Metro Transit to ensure access is maintained to bus stops on 26th Street during construction.</li> <li>▪ Bridges over Fountain Creek will be built to meet the City of Colorado Springs trail design standards.</li> <li>▪ CDOT will relocate Midland Trail at each grade crossing during construction, until the permanent trail can be constructed as part of each bridge improvement.</li> <li>▪ CDOT will place signs along the Midland Trail notifying users that the trail may flood.</li> <li>▪ CDOT will reconstruct and slightly realign the Midland Trail between 8th Street and 11th Street.</li> <li>▪ CDOT will reconstruct the on-street trail of the Foothills Trail on 31st Street in its current location.</li> <li>▪ CDOT will collaborate with the City of Colorado Springs Parks, Recreation &amp; Cultural Services Department (or Trails, Open Space &amp; Parks program [TOPS], as appropriate) on the alignment and design of trails to be constructed.</li> <li>▪ A traffic control plan will be developed to minimize traffic disruption during construction.</li> <li>▪ Construction phasing and other activities will be planned to minimize the impact to the traveling public and emergency service providers.</li> <li>▪ CDOT will develop a Public Information Plan during construction which will provide coordination with all stakeholders.</li> </ul>

## EXHIBIT ES-5

## Summary of Impacts and Mitigation, US 24 EA

Resource	Impacts of the No Action Alternative	Impacts of the Proposed Action	Mitigation Measures for the Proposed Action
Floodplains	<ul style="list-style-type: none"> <li>▪ US 24 and much of the adjoining land, including hundreds of residential and commercial properties, would remain in the 100-year floodplain of Fountain Creek and its tributaries.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Construction would cause delays for the traveling public and in cars or those on public transit and may cause out-of-direction travel.</li> <li>▪ The bridges crossing Fountain Creek at 8th Street, 21st Street, 26th Street, 31st Street, Ridge Road, and two US 24 bridges would be rebuilt in accordance with current state and local design standards. This includes re-grading Fountain Creek upstream and downstream of each bridge.</li> <li>▪ The size of the floodplain of Fountain Creek would be reduced from approximately 378 acres to 228 acres.</li> <li>▪ US 24 and bridges on the mainline and side streets would be removed from the floodplain.</li> <li>▪ Roadway embankments encroach into the Fountain Creek floodplain at three locations: on the north bank from 8th Street to 15th Street, on the south bank between 25th Street and 31st Streets, and on the south bank from 31st Street and Ridge Road.</li> <li>▪ The design would strive to maintain the low-flow channel in its current location whenever possible to protect existing large trees and stream-side vegetation</li> <li>▪ Minor changes are anticipated at the confluences of each tributary creek to Fountain Creek.</li> <li>▪ US 24 and its intersections would no longer be overtopped during the 100-year flood.</li> <li>▪ An estimated 68 properties with residential or commercial structures in the floodplain would no longer be in the floodplain.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Any lane closures during construction will comply with CDOT's Lane Closure Strategy.</li> <li>▪ Advance notice will be provided for extended lane closures.</li> <li>▪ Detours for vehicles, bicycles, and pedestrians will be identified with adequate signing to minimize out-of-direction travel.</li> <li>▪ CDOT will coordinate with the USACE to re-grade the Fountain Creek channel from I-25 to Ridge Road to accommodate the 100-year flood, stabilize the newly constructed slopes, and minimize erosion during construction.</li> <li>▪ Bridges will be sized to accommodate the 100-year flood.</li> <li>▪ The design will utilize retaining walls to provide adequate channel width and depth in confined areas.</li> <li>▪ Disturbed areas will be stabilized and re-vegetated with native species.</li> <li>▪ CDOT will place signs along Midland Trail notifying users that portions of the trail are within the 100-year floodplain.</li> <li>▪ During the final design, CDOT will coordinate with the appropriate local and federal agencies to conduct hydraulic analysis, confirm limits of improved floodplain, and provide a Conditional Letter of Map Revision.</li> </ul>

EXHIBIT ES-5  
Summary of Impacts and Mitigation, US 24 EA

Resource	Impacts of the No Action Alternative	Impacts of the Proposed Action	Mitigation Measures for the Proposed Action
Right-of-Way	<ul style="list-style-type: none"> <li>Improvements included in the No Action Alternative are likely to require the acquisition of additional ROW. The amount of ROW acquisition and whether residential or business relocations would be required is not yet known.</li> </ul>	<p>However, the Midland Trail system from I-25 to 31st Street would remain within the floodplain along with 55 units of manufactured housing at A-1 Mobile Village.</p> <ul style="list-style-type: none"> <li>Acquisition of approximately 78 acres of ROW from 109 properties (81 commercial, 3 mixed-use, 14 public, and 11 residential), affecting 75 ownerships. Of the 109 impacted properties, 87 would be acquired in total and the remaining 22 would require partial acquisition.</li> <li>There would be relocation for each residential unit and each business including a total of 24 households or residential units and 77 businesses would require relocation.</li> </ul>	<ul style="list-style-type: none"> <li>For any person(s) whose real property interests may be impacted by this project, the acquisition of those property interests will fully comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act).</li> <li>All property acquisition and relocation shall comply fully with federal and state requirements, including Uniform Act defined previously. 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 residential or commercial properties will be provided notification of CDOT's intent to acquire an interest in their property, including a written offer letter of just compensation specifically describing those property interests. A ROW specialist will be assigned to each property owner to assist them with this process.</li> </ul>
Historic Properties	<ul style="list-style-type: none"> <li>Improvements are not expected to result in impacts to historic properties.</li> </ul>	<ul style="list-style-type: none"> <li>14 No Historic Properties Affected, 6 No Adverse Effects, and 5 Adverse Effects. The historic district received an Adverse Effect determination because of the acquisition and demolition of two contributing properties.</li> <li>Adverse effects to two historic commercial properties (5EP5335 and 5EP5336), two historic residences (5EP5285 and 5EP 5288), and the Westside Historic District (5EP5364).</li> </ul>	<ul style="list-style-type: none"> <li>CDOT, the Colorado State Historic Preservation Officer (SHPO), and local preservation groups have reached an agreement on how to mitigate the impacts to these historic properties. Mitigation will include, but is not limited to, interpretive signing, architectural salvage from historic buildings, and investigation into the reuse of the Chief Petroleum sign. These and other agreements have been documented in a Memorandum of Agreement which can be found in <b>Appendix H</b>.</li> </ul>

## EXHIBIT ES-5

## Summary of Impacts and Mitigation, US 24 EA

Resource	Impacts of the No Action Alternative	Impacts of the Proposed Action	Mitigation Measures for the Proposed Action
Parks and Recreation Resources	<ul style="list-style-type: none"> <li>▪ Improvements to the 8th Street intersection would involve widening 8th Street north of US 24.</li> <li>▪ Would have the potential to impact the Midland Trail at 8th Street.</li> <li>▪ Connect the Midland Trail between 21st Street and 26th Street and into Manitou Springs on properties currently under lease and with new license agreements or would be constructed on-street. This would add to the trail system and improve pedestrian and bike access to Manitou Springs.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Would affect Foothills Trail, Vermijo Park, 21st Street pocket park, and Midland Trail.</li> <li>▪ Acquisition of commercial structures between Blunt Park and US 24 could result in a change to the visual environment.</li> <li>▪ Require realignment of Midland Trail between 8th Street and 11th Street, a distance of approximately 1,584 feet (0.3 mile).</li> <li>▪ Midland Trail would be connected between 21st Street and 26th Street.</li> <li>▪ Trail Crossings at 21st, 26th, 31st Streets, and Ridge Road would have to be temporarily detoured while the grade separated crossing was constructed.</li> <li>▪ The full acquisition of the 21st Street pocket park.</li> <li>▪ Approximately 2.2 acres of Vermijo Park would have temporary impacts for the grading of Fountain Creek.</li> <li>▪ Less than 0.1 acres of Vermijo park would be used for new sidewalk along the eastern edge of the park.</li> <li>▪ A retaining wall would be constructed between Vermijo Park and the Fountain Creek channel, which could alter views toward US 24.</li> <li>▪ Approximately 780 linear feet (0.15 mile) of Foothills Trail would be reconstructed in its current on-street location.</li> <li>▪ Vehicular access to Red Rock Canyon would be changed from the at-grade intersection at Ridge Road to 31st Street or Manitou Avenue via US 24.</li> <li>▪ Temporary detours and an increase in construction-related traffic, noise and dust would be expected throughout construction.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The Midland Trail will be realigned between 8th Street and 11th Street.</li> <li>▪ CDOT will provide advance notice to the community prior to the relocation of the Prospector Sculpture at the 21st Street pocket park.</li> <li>▪ CDOT will provide \$50,000 to the City of Colorado Springs to prepare a park plan for Vermijo Park.</li> <li>▪ The Foothills Trail will be reconstructed in place along 31st Street with new streetscape.</li> <li>▪ CDOT will provide advanced notice to users regarding temporary trail relocations during construction.</li> <li>▪ CDOT will seek community input and will coordinate with the City of Colorado Springs Parks, Recreation &amp; Cultural Services Department (or Trails, Open Space &amp; Parks program [TOPS], as appropriate) with regard to the design and aesthetics of these trails.</li> <li>▪ CDOT will relocate Midland Trail at each grade crossing during construction, until the permanent trail can be constructed as part of each bridge improvement.</li> <li>▪ All trees greater than 2 inches in diameter at breast height (DBH) will be mitigated at a 1 to 1 basis. Non-native trees will be replaced with native trees.</li> <li>▪ A letter from CDOT to the City of Colorado Springs explaining the proposed mitigation for Parks and Trails was signed by the City, indicating their agreement, and is included in <b>Appendix I</b>.</li> <li>▪ Mitigation for temporary construction related impacts such as detours, out-of-direction travel, and air emissions are addressed in <b>Section 3.1, Transportation Resources</b> and <b>3.13.4, Air Quality</b>.</li> </ul>

## EXHIBIT ES-5

## Summary of Impacts and Mitigation, US 24 EA

Resource	Impacts of the No Action Alternative	Impacts of the Proposed Action	Mitigation Measures for the Proposed Action
Traffic Noise	<ul style="list-style-type: none"> <li>▪ Growth in traffic would increase noise along US 24 in the study area between 1-3 decibels.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Traffic noise would affect 29 residences and one child-development center.</li> <li>▪ Short-term noise impacts would occur as the direct result of construction activities.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Noise walls ranging from 15 to 18 feet in height and 870 to 1,490 in length will be constructed at three locations:               <ol style="list-style-type: none"> <li>1. North side of US 24 from 11th Street to 14th Street</li> <li>2. The A-1 mobile home park on the south side of US 24</li> <li>3. The residences on the south side of US 24 on Red Canyon Place</li> </ol> </li> <li>▪ During final design of the project, all mitigation recommendations will undergo an abatement evaluation to refine barrier dimensions and siting, and assure that conditions and homeowners/residents desires for noise abatement have remained consistent with conditions evaluated in this document.</li> <li>▪ Area residents will have the opportunity to provide input on design elements related to noise mitigation, including design, grading and landscaping, and color and material of noise barriers, with the goal of constructing an aesthetically pleasing and economically viable project.</li> <li>▪ Construction noise impacts will be mitigated by limiting work to daytime hours when possible, as described by CDOT and City of Colorado Springs requirements.</li> <li>▪ Require the contractor to use well-maintained equipment, particularly with respect to mufflers.</li> </ul>

## EXHIBIT ES-5

## Summary of Impacts and Mitigation, US 24 EA

Resource	Impacts of the No Action Alternative	Impacts of the Proposed Action	Mitigation Measures for the Proposed Action
Social Resources	<ul style="list-style-type: none"> <li>▪ Would not address congestion on US 24. Adverse effects on socioeconomic conditions would include longer travel times, neighborhood cut-through traffic, deteriorating safety conditions, an increase in localized air pollution and noise, and lengthened emergency response times.</li> <li>▪ Would not support planned development/re-development in the study area. Access to Gold Hill Mesa would become increasingly difficult, which could make residential and commercial units less desirable.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Would benefit local residents, businesses, and regional commuters by reducing congestion, and improving mobility and connectivity along US 24.</li> <li>▪ The US 24 overpass of Ridge Road improves safety for motorized and non-motorized travelers to the Red Rock Canyon Open Space and to the neighborhood south of US 24.</li> <li>▪ Sidewalks would be provided to safely accommodate pedestrians.</li> <li>▪ Access to US 24 at 14th Street would be removed.</li> <li>▪ Acquisition and relocation of residential and commercial properties.</li> <li>▪ Employees of the relocated businesses would have to travel to a new location.</li> <li>▪ Improved traffic operations would increase the geographic market area of the businesses.</li> <li>▪ Shoulders would provide access to emergency service providers.</li> <li>▪ During construction, temporary detours, out-of-direction travel, and construction related noise would affect local residents, businesses, and regional commuters.</li> </ul>	<ul style="list-style-type: none"> <li>▪ CDOT will provide advance notice to emergency service providers, local schools, homeowners associations, and local businesses of upcoming construction activities.</li> <li>▪ The acquisition of those property interests will fully comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act).</li> </ul>

## EXHIBIT ES-5

## Summary of Impacts and Mitigation, US 24 EA

Resource	Impacts of the No Action Alternative	Impacts of the Proposed Action	Mitigation Measures for the Proposed Action
Environmental Justice	<ul style="list-style-type: none"> <li>▪ May require additional ROW and may result in the relocation of minority or low-income residents. The projects included in the No Action Alternative were not designed when this analysis was conducted, and the ways in which impacts would be distributed are not yet known.</li> <li>▪ Adverse effects to minority and low-income populations include those that are typically caused by traffic congestion and impaired mobility (e.g., longer travel times, neighborhood cut-through traffic, deteriorating safety conditions, an increase in localized air pollution and noise, and lengthened emergency response times).</li> <li>▪ Worsening congestion on local streets as drivers seek alternatives to US 24, could affect the timeliness of transit routes serving the area.</li> <li>▪ Properties adjacent to US 24 would continue to be subject to 100-year flooding from Fountain Creek.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The majority of residential acquisitions are located in census blocks with higher-than-average percentages of low-income households. These impacts would be predominately borne by low-income populations.</li> <li>▪ Increased dust, dirt, noise, traffic, and access disruptions during construction.</li> </ul>	<ul style="list-style-type: none"> <li>▪ CDOT will follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.</li> <li>▪ CDOT will make a public information plan available throughout construction.</li> </ul>
Land Use	<ul style="list-style-type: none"> <li>▪ Would only partially support the relevant goals and objectives presented in adopted land use plans.</li> <li>▪ Would improve intersection geometry at both 8th Street and 21st Street and complete the Midland Trail which might require ROW acquisition and the conversion of existing land to transportation uses.</li> <li>▪ Would not fully address transportation needs within the US 24 study area and would be unable to accommodate the additional traffic associated with anticipated growth and redevelopment. Unaddressed transportation needs could hinder redevelopment within the study area.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consistent with planned land uses.</li> <li>▪ Supports the goals and objectives of adopted land use plans and policies.</li> <li>▪ Conversion of residential, commercial, and public land to a transportation use.</li> </ul>	<ul style="list-style-type: none"> <li>▪ No land use specific mitigation measures are necessary.</li> <li>▪ Local planning jurisdictions have the authority to make land use decisions and approve land use change and development.</li> </ul>



## EXHIBIT ES-5

## Summary of Impacts and Mitigation, US 24 EA

Resource	Impacts of the No Action Alternative	Impacts of the Proposed Action	Mitigation Measures for the Proposed Action
Hazardous Materials	<ul style="list-style-type: none"> <li>▪ Potential to encounter contaminated structures, soils or groundwater.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The following three existing recognized environmental conditions (REC's) are impacted:               <ul style="list-style-type: none"> <li>○ Leaking Underground Storage Tank Site - Acorn Food Store</li> <li>○ Voluntary Cleanup Program Site - Pikes Peak Humane Society</li> <li>○ Historical Landfill - Martin Drake Power Plant</li> </ul> </li> <li>▪ Some highway bridge structures are known to have been painted with lead-based paint.</li> <li>▪ If a portion of Gold Hill Mesa property is acquired for ROW, research should be conducted with El Paso County to determine if there are institutional or engineering controls on the property that require special handling of the soil if it is excavated.</li> <li>▪ The acquisition of approximately 78 acres of land and the displacement of 24 residences and 77 businesses. All such acquisitions involve some risk of encountering various common hazardous materials, such as asbestos or lead-based paint, that would not normally be listed on any database of hazardous material sites.</li> </ul>	<ul style="list-style-type: none"> <li>▪ CDOT will inspect and test for asbestos, lead-based paint, and hazardous material on any bridges, buildings, and other structures.</li> <li>▪ Prior to acquisition of any site a site specific Initial Site Assessment Phase 1 ESA will be conducted.</li> <li>▪ For leaking underground storage tank (305 South 8th Street) and the underground chemical plume (633 South 8th Street), CDOT will undertake file review at Colorado's Division of Oil and Public Safety and/or Department of Public Health and Environment and further inquiries with the property owners.</li> <li>▪ Regarding the historic landfill associated with the power plant, CDOT will initiate further discussion with Colorado Springs Utilities to determine if soils or groundwater have been impacted or would be impacted.</li> <li>▪ CDOT will conduct a Phase II Environmental Site Assessment for 305 South 8th Street, 633 South 8th Street, and 700 South Conejos Street.</li> <li>▪ CDOT will prepare a Materials Handling Plan in accordance with CDOT Standard Specification 250.</li> </ul>
Water Quality	<ul style="list-style-type: none"> <li>▪ Stormwater from roadways that contain contaminants would continue to discharge into Fountain Creek and its tributaries.</li> <li>▪ Increasing congestion would increase pollutant concentrations in stormwater runoff, resulting in further degradation in surrounding water bodies.</li> <li>▪ New impervious areas would be added, however, these projects have not been designed so it would not be possible to estimate the new impervious area.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Add 42 acres of impervious surface area.</li> <li>▪ Channel realignments would be necessary in three locations.</li> <li>▪ During construction, soil-disturbing activities and the placement of new fill would expose surfaces subject to erosion.</li> <li>▪ Wider drainage areas provide opportunity for wetlands to re-establish.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Permanent water quality treatment features to filter roadway runoff and improve water quality.</li> <li>▪ During construction, silt fences, diversion berms, vehicle tracking control, inlet and outlet protection, street sweeping, and concrete washout locations will be established.</li> <li>▪ Temporary stream crossings and diversion will be designed to minimize water quality and habitat impacts. Native vegetation will be installed and implemented in the affected areas.</li> </ul>

EXHIBIT ES-5  
Summary of Impacts and Mitigation, US 24 EA

Resource	Impacts of the No Action Alternative	Impacts of the Proposed Action	Mitigation Measures for the Proposed Action
Wetlands and Waters of the US	<ul style="list-style-type: none"> <li>▪ No wetlands or waters of the United States would be impacted permanently.</li> <li>▪ Drainage conditions in Fountain Creek and its tributaries would be unchanged, and erosion and sedimentation would continue to result in marginal riparian conditions.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Impact Wetland 1, which is 0.02 acre.</li> <li>▪ Impact to waters of the US estimated as the area of Fountain Creek below the ordinary high water mark.</li> <li>▪ Temporarily impact a total of 5.17 acres of waters of the US.</li> <li>▪ Temporary impacts to Monument Creek at the confluence with Fountain Creek may occur.</li> <li>▪ While these areas would be disturbed during construction, the acreage of waters of the US would be permanently enlarged.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The requirements under the CDPS MS4 permit and the New Development Redevelopment Program (NDRD) will be followed during design and construction.</li> <li>▪ CDOT requirements under the “Consent Decree” (January, 2009) with the CDPHE will be implemented.</li> <li>▪ CDOT will obtain a Colorado Discharge Permit System (CDPS) General Permit for Stormwater Discharges Associated with Construction Activities from the Water Quality Control Division of CDPHE.</li> <li>▪ A Construction Dewatering Permit will be required.</li> <li>▪ A Stormwater Management Plan will be developed.</li> <li>▪ Erosion and sediment BMPs will be implemented.</li> <li>▪ Impacted wetlands will be mitigated at a 1:1 ratio, adjacent to existing wetlands. The mitigation will be the use of the Limon Mitigation Bank because the project area is in the service area for this bank.</li> <li>▪ Realignment of Fountain Creek represents improved stream function, flood conveyance, bank stability, and riparian habitat potential.</li> <li>▪ CDOT will obtain a Section 404 permit from the USACE.</li> </ul>
Archaeological Resources	<ul style="list-style-type: none"> <li>▪ No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>▪ All recorded sites (5EP2161, 5EP2165, 5EP365) lie outside of the anticipated limits of construction and would not be impacted by construction.</li> </ul>	<ul style="list-style-type: none"> <li>▪ In the unlikely event that cultural deposits are discovered during construction, CDOT would follow its standard practice of ceasing work, consulting with the CDOT archaeologist, and evaluating materials in consultation with the Colorado SHPO to determine if mitigation is required.</li> </ul>

## EXHIBIT ES-5

## Summary of Impacts and Mitigation, US 24 EA

Resource	Impacts of the No Action Alternative	Impacts of the Proposed Action	Mitigation Measures for the Proposed Action
Paleontological Resources	<ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>No fossils were observed within the study area and no records of fossils from within the study area were found.</li> </ul>	<ul style="list-style-type: none"> <li>If any sub-surface bones or other potential fossils are found anywhere within the study area during ground disturbance, the CDOT Staff Paleontologist will be notified immediately to assess their significance and make further recommendations.</li> </ul>
Native American Consultation	<ul style="list-style-type: none"> <li>No Impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>Consulting tribes are offered the opportunity to identify concerns about cultural resources and comment on how the project might affect them</li> </ul>	<ul style="list-style-type: none"> <li>If it is found that the project would impact properties that are eligible for inclusion in the National Register and are of religious or cultural significance to one or more consulting tribes, their role in the consultation process may also include participation in resolving how best to avoid, minimize, or mitigate those impacts</li> </ul>
Air Quality	<ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>Proposed Action is not expected to exceed NAAQS for pollutants.</li> </ul>	<ul style="list-style-type: none"> <li>No mitigation necessary.</li> </ul>
Visual Resources	<ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>Improve visual consistency and quality within the US 24 corridor.</li> <li>Accentuate existing views of Pikes Peak and Cheyenne Mountain.</li> <li>New infrastructure components, such as retaining walls, noise walls, and jersey barriers that would obstruct views to and from the project area.</li> <li>Improve short-range views along the north and south side of US 24.</li> </ul>	<ul style="list-style-type: none"> <li>Coordinated architectural aesthetic treatments of new structural elements in accordance with the <i>US 24 I-25 to Ridge Road Aesthetic Guidelines</i> (THK, 2009).</li> </ul>
Fish and Wildlife	<ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>Grade-separated crossing of US 24 at Ridge Road would improve wildlife crossing opportunities from north to south of US 24.</li> <li>Minor habitat loss as a result of vegetation removal during construction.</li> </ul>	<ul style="list-style-type: none"> <li>Construction activities would be carried out in accordance with CDOT's standard BMPs and re-vegetation requirements.</li> <li>Active nesting survey will be conducted within the study area prior to the start of any construction activities to ensure compliance with Migratory Bird Treaty Act of 1918 (MBTA).</li> <li>CDOT may be required to obtain a Senate Bill 40 Wildlife Certification permit from CDOW.</li> </ul>

## EXHIBIT ES-5

## Summary of Impacts and Mitigation, US 24 EA

Resource	Impacts of the No Action Alternative	Impacts of the Proposed Action	Mitigation Measures for the Proposed Action
Threatened and Endangered Species	<ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>Federal or state-listed threatened and endangered species and state species of special concern are either not present or are unlikely to occur in the study area.</li> </ul>	<ul style="list-style-type: none"> <li>No mitigation necessary.</li> </ul>
Vegetation and Noxious Weeds	<ul style="list-style-type: none"> <li>Construction of the 8th Street and the 21st Street improvements could disturb vegetation and noxious weeds.</li> </ul>	<ul style="list-style-type: none"> <li>Natural vegetation and noxious weeds would be disturbed during construction.</li> </ul>	<ul style="list-style-type: none"> <li>Areas disturbed during construction will be re-vegetated with native species.</li> <li>All trees greater than 2 inch diameter breast height (DBH) will be mitigated at a 1:1 basis.</li> <li>Non-native trees will be replaced with native trees.</li> <li>Noxious weeds survey will be conducted.</li> <li>An Integrated Noxious Weed Management Plan will be developed and implemented during construction.</li> </ul>
Utilities	<ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>Major utility lines are in the study area and may result in conflicts.</li> </ul>	<ul style="list-style-type: none"> <li>Utilities will be avoided through design modification, or where conflicts cannot be avoided, utilities will be relocated.</li> <li>Buried utilities may be protected with encasements.</li> </ul>
Farmlands	<ul style="list-style-type: none"> <li>No farmlands are present in the study area.</li> </ul>	<ul style="list-style-type: none"> <li>No farmlands are present in the study area.</li> </ul>	<ul style="list-style-type: none"> <li>No mitigation necessary.</li> </ul>
Cumulative Impacts	<ul style="list-style-type: none"> <li>CDOT would not take any action under the No Action Alternative and would not create cumulative impacts.</li> </ul>	<ul style="list-style-type: none"> <li>Beneficial cumulative impacts to landscape patterns, water quality, air quality, transportation patterns, and visual resources.</li> <li>The level of traffic noise would increase with traffic volumes, except in five areas of the US 24 corridor where noise barriers would be constructed as mitigation, as described above.</li> </ul>	<ul style="list-style-type: none"> <li>No mitigation necessary.</li> </ul>
Section 4(f) Resource: 21st Street Pocket Park	<ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>Full acquisition</li> </ul>	<ul style="list-style-type: none"> <li>The Prospector Sculpture will be relocated to a location along US 24.</li> </ul>
Section 4(f) Resource: Vermijo Park	<ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>Partial acquisition of 0.01 acres.</li> <li>Removal of the existing baseball field.</li> </ul>	<ul style="list-style-type: none"> <li>CDOT will provide \$50,000 to plan Vermijo Park.<sup>1</sup></li> </ul>

## EXHIBIT ES-5

## Summary of Impacts and Mitigation, US 24 EA

Resource	Impacts of the No Action Alternative	Impacts of the Proposed Action	Mitigation Measures for the Proposed Action
Section 4(f) Resource: Midland Trail	<ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>Partial acquisition of 0.3 miles</li> </ul>	<ul style="list-style-type: none"> <li>Realign the Midland Trail between 8th Street and 11th Street to ensure a connection with the full trail.</li> </ul>
Section 4(f) Resource: 5EP5285 1815 Sheldon Avenue	<ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>Full acquisition</li> </ul>	<ul style="list-style-type: none"> <li>Details are included in the signed MOA.<sup>2</sup></li> </ul>
Section 4(f) Resource: 5EP5288 1803 Sheldon Avenue	<ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>Full acquisition</li> </ul>	<ul style="list-style-type: none"> <li>Details are included in the signed MOA.<sup>2</sup></li> </ul>
Section 4(f) Resource: 5EP5335 CITGO Lubricants 302 South 10th Street	<ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>Full acquisition</li> </ul>	<ul style="list-style-type: none"> <li>Details are included in the signed MOA.<sup>2</sup></li> </ul>
Section 4(f) Resource: 5EP5336 Chief Petroleum Company 301 South 10th Street	<ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>Full acquisition</li> </ul>	<ul style="list-style-type: none"> <li>Details are included in the signed MOA.<sup>2</sup></li> </ul>
Section 4(f) Resource: 5EP5218 Timber Lodge 3627 West Colorado Avenue	<ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>Partial acquisition of 0.43 acres</li> </ul>	<ul style="list-style-type: none"> <li>CDOT will replace the existing vegetation and trees to maintain the visual screen and wooded setting of the property. All trees greater than 2 inches in diameter at breast height (DBH) will be mitigated at a 1 to 1 basis. Non-native trees will be replaced with native trees.</li> <li>Details are included in the signed MOA.<sup>2</sup></li> </ul>

**EXHIBIT ES-5**  
 Summary of Impacts and Mitigation, US 24 EA

Resource	Impacts of the No Action Alternative	Impacts of the Proposed Action	Mitigation Measures for the Proposed Action
Section 4(f) Resource: 5EP5364 Westside Historic District	<ul style="list-style-type: none"> <li>▪ No impacts expected.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Full acquisition of 2 contributing properties</li> </ul>	<ul style="list-style-type: none"> <li>▪ Details are included in the signed MOA.<sup>2</sup></li> </ul>

<sup>1</sup> The City of Colorado Springs owns and maintains this park. CDOT consulted with the City of Colorado Springs Parks, Recreation & Cultural Services Department to determine these mitigation measures. See the letter from the City of Colorado Springs Parks, Recreation & Cultural Services Department in **Appendix I**.

<sup>2</sup> The MOA is included in **Appendix H** and mitigation considered includes, but is not limited to: interpretive signing, architectural salvage from historic buildings, and investigation of the reuse of the Chief Petroleum sign.



# 1 Chapter 1 – Purpose and Need

2 The route of United States Highway 24 (US 24) west of Colorado Springs has long provided a vital  
 3 link for travel between the mountains and the plains in southern Colorado as shown in **Exhibit 1-1**.  
 4 Regional population growth and changes in travel patterns have resulted in traffic congestion in  
 5 some areas between Manitou Springs and Interstate 25 (I-25) in Colorado Springs, and the Pikes  
 6 Peak Area Council of Governments (PPACG) forecasts more congestion by 2035.

7 The Colorado Department of Transportation (CDOT), in cooperation with the Federal Highway  
 8 Administration (FHWA) and other stakeholders, has prepared this Environmental Assessment (EA)  
 9 to comply with the National Environmental Policy Act of 1969 (NEPA) to identify and assess  
 10 potential environmental effects of improvements to US 24 in El Paso County, Colorado.

EXHIBIT 1-1  
The Study Area is on US 24 in Colorado Springs



Not to scale  
 Study Area - Milepost 300 (Manitou Springs) to Milepost 304 (I-25)



11 CDOT and FHWA propose to make changes to US 24 between I-25 and Manitou Springs to reduce  
 12 traffic congestion in the study area, which is illustrated in **Exhibit 1-2**. Few substantial changes have  
 13 been made to US 24 in this area since it was built in 1964. Today, US 24 serves several purposes in  
 14 the Pikes Peak region:

- 15 • US 24 is the only route for regional commuters who travel between western El Paso County,  
 16 Teller County, and the Colorado Springs metropolitan area. Commuters travel on US 24  
 17 predominantly during the busiest daily travel times, from 7 a.m. until 9 a.m. (morning peak) and  
 18 4 p.m. until 6 p.m. (evening peak), adding to congested conditions during these peak periods.
- 19 • US 24 is heavily used by local travelers because it connects to I-25 and allows faster travel into  
 20 downtown than Colorado Avenue, which is also known as Business 24. This results in local  
 21 traffic using side streets that intersect US 24 to get in and out of neighborhoods and commercial  
 22 areas, adding to high volumes of turning vehicles and slow travel conditions on US 24.
- 23 • US 24 is the only major route into the mountains for nearly 50 miles north and south of  
 24 Colorado Springs. The lack of gateway routes into the mountains results in the funneling of  
 25 trucks destined for mountain communities and regional recreational traffic headed to national  
 26 forests, ski resorts, and gaming communities west of Colorado Springs. Because this traffic  
 27 includes trucks, cars, campers, and recreational vehicles driven by visitors to the region, slow  
 28 travel conditions occur year-round, most noticeably in summer.

29 As shown in **Appendix A**, US 24 is a four-lane urban principal arterial with two through-lanes in  
 30 each direction and auxiliary lanes for most turns. There are six at-grade intersections between I-25  
 31 on the east and Manitou Avenue on the west; four of the intersections are signalized, one is  
 32 uncontrolled, and one is a right-in/right-out access only. This 4-mile stretch of road has congested  
 33 peak periods and an increasing number of crashes within the congested areas. US 24 has a posted  
 34 speed limit of 35 miles per hour (mph) from I-25 to 8th Street, increasing to 45 mph from 8th Street  
 35 to Ridge Road, and increasing again to 50 mph west toward Manitou Avenue.

36 US 24 is not an existing transit route for local  
 37 service and no bus stops currently exist on US 24.  
 38 However, several transit routes circulate through  
 39 the study area, using Colorado Avenue,  
 40 31st Street, 21st Street, and 8th Street.

41 US 24 is used for an express bus service for  
 42 commuters between downtown Colorado Springs  
 43 and Manitou Springs, with service further west to  
 44 mountain communities.

45 Providing transit stops and possible transfer  
 46 stations within the study area are a part of the  
 47 Mountain Metro Transit's future plans.



*Scenic view to the west from US 24 and 21st Street*

48 EXHIBIT 1-2  
49 US 24 Study Area



50 Many local recreational destinations (particularly the Red Rock Canyon Open Space) draw  
 51 pedestrians and bicyclists to the study area. Connectivity of trails, adequate parking areas, and  
 52 grade-separated crossings for pedestrians and bicyclists are the City of Colorado Springs' goals  
 53 within the study area.

54 US 24 in the study area is a challenging environment in which to implement major transportation  
 55 improvements. Surrounding land uses reflect a mature, suburban community with intermixed  
 56 commercial businesses and residential neighborhoods that attract local drivers. US 24 also serves as  
 57 a travel corridor for freight, regional commuters, and regional recreational travelers. This mix results  
 58 in travelers having different purposes for driving in the study area. Traffic is nearly equally balanced  
 59 between local travelers who begin and end their trips within the study area and regional travelers  
 60 who begin or end their trips outside the study area.

61 These issues and challenges were discussed with the stakeholders and their input helped develop the  
 62 purpose and need. Stakeholder input is discussed further in **Section 2.1.1, Step One: Identify**  
 63 **Transportation Problems and Ideas.**

## 64 1.1 Purpose of the Proposed Action

65 The purpose of the project is to: 1) reduce congestion problems for travelers today and through the  
 66 year 2035; 2) improve mobility for local trips within the US 24 corridor and regional trips through the  
 67 US 24 corridor; and 3) improve connectivity to the multiple destinations accessible from the US 24  
 68 corridor.

## 69 1.2 Need for the Proposed Action

70 El Paso County has been among the fastest growing counties in the nation for the last three decades.  
 71 El Paso and Teller Counties added more than 480,000 new residents to Colorado's booming Front  
 72 Range between 1960 and 2009. Congested travel is expected to increase further in the study area by  
 73 2035 (the planning horizon for this EA) based on several  
 74 conditions, including:

- 75 • When US 24 was built in 1964, the populations of El Paso  
 76 County and Teller County totaled 146,000. In 2009, the  
 77 populations of these two counties totaled approximately  
 78 626,000, a figure forecasted to grow by 330,000 to 956,000  
 79 by 2035 (State of Colorado, 2010). This growth means more  
 80 drivers will be on the roads.
- 81 • The typical Coloradoan drives more miles today than drivers  
 82 in the past, resulting in more heavily used roads. The  
 83 average annual number of miles traveled by motorized  
 84 vehicles more than doubled between 1982 and 2007  
 85 (Casper, 2008).

86 These two factors—substantially more people traveling  
 87 substantially more miles—overload US 24 in the study area to  
 88 the point it no longer has adequate capacity for current and  
 89 future travelers.

*Roadway "capacity" is the number of vehicles that should be able to travel through a specific segment or intersection in a given period of time, under normal roadway and traffic conditions.*

*Capacity is based on the number of lanes on a roadway and related features such as traffic control, merge lanes, cross-street traffic, and vehicle mix – such as commuters, tourists, trucks, and buses.*

*Too many vehicles trying to use a roadway and its intersections during the same time period results in congestion problems.*

90 The needs of the project are to accommodate  
 91 existing and future traffic volumes, improve traffic  
 92 operations at intersections with US 24, and  
 93 provide for transportation circulation for local  
 94 travelers and predictable travel times for regional  
 95 travelers while providing access to the multiple  
 96 local and regional destinations accessed from the  
 97 US 24 corridor.



*Congested roadways along US 24*

98 Congestion in the study area is caused by the high  
 99 volume of traffic and the interruption of traffic  
 100 flow on mainline US 24 at signalized intersections,  
 101 as described in the *Traffic Impact Analysis Technical*  
 102 *Memorandum* (CH2M HILL, 2008a) in **Appendix C**. Daily and peak hour traffic volumes have been  
 103 increasing steadily over time, a trend that PPACG transportation planners predict will continue. The  
 104 peak hour traffic exhibits a directional split in traffic, with peak hour volumes 40 to 60 percent  
 105 greater eastbound in the morning and westbound in the afternoon. These problems will persist if the  
 106 capacity of US 24 and its intersections are not improved to handle more vehicles.

107 Congestion results in increased travel time, as heavy traffic volume slows movement through the  
 108 US 24 corridor and causes delays. Safety can be affected because the likelihood of crashes increases  
 109 from more vehicles traveling on crowded roadways. Drivers seek alternate routes on surrounding  
 110 street networks, resulting in cut-through traffic in residential neighborhoods. These factors combine  
 111 to heighten driver stress, a social cost arising from interference between vehicles on congested  
 112 roadways.

113 Additional information on traffic conditions in the study area is provided in the *Traffic Impact Analysis*  
 114 *Technical Memorandum*, (CH2M HILL, 2008a) in **Appendix C**.

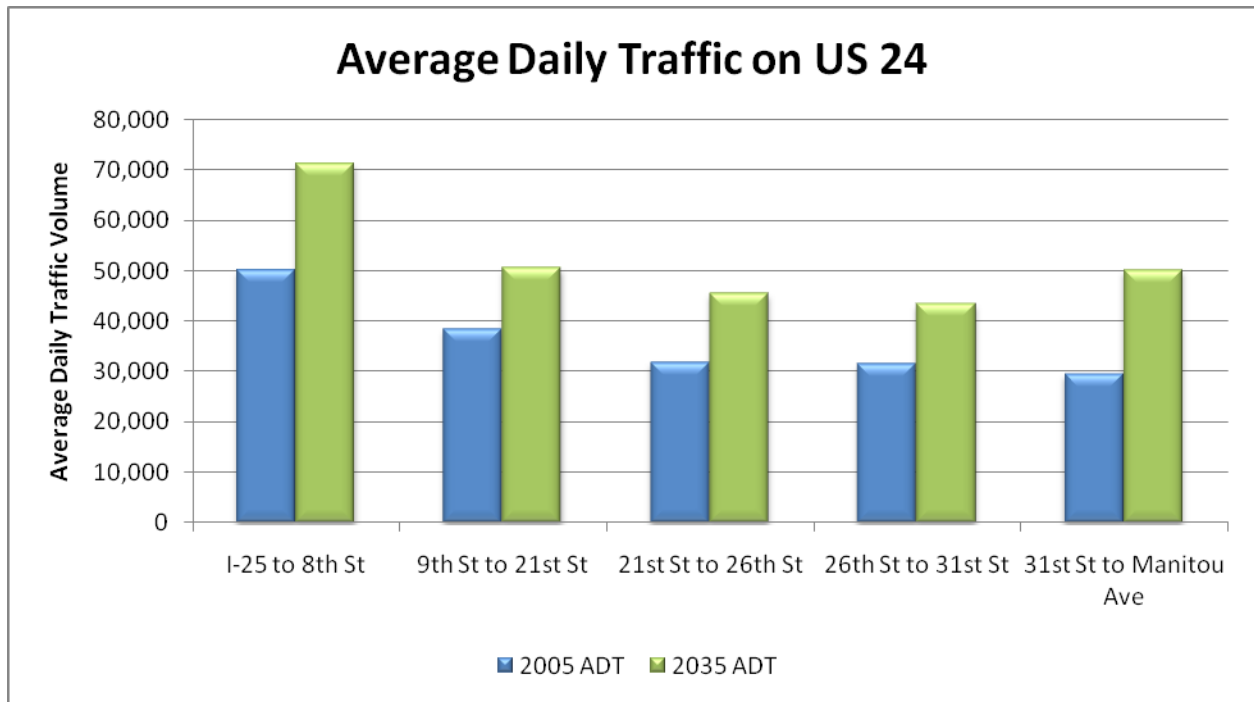
## 115 1.2.1 Traffic Volumes

116 US 24 carried up to 50,000 vehicles daily in 2005 (measured in traffic counts), as shown in  
 117 **Exhibit 1-3**. Existing average daily traffic (ADT) on US 24 is highest between I-25 and 8th Street,  
 118 with approximately 50,300 vehicles. As shown in **Exhibit 1-3**, the existing ADT continues to  
 119 decrease moving west toward the Manitou Avenue interchange, where the ADT is approximately  
 120 30,000 vehicles. By 2035, ADT is forecasted to rise to more than 71,000 ADT between I-25 and  
 121 8th Street, and to more than 50,000 ADT at the Manitou Avenue interchange. Within the study area,  
 122 ADT is forecasted to increase an average of 45 percent between 2005 and 2035. Travel during peak  
 123 periods of the day are expected to increase accordingly by 2035. In 2005, in the evening peak hour  
 124 (measured between 4 p.m. and 6 p.m.), the traffic volume between I-25 and 8th Street was  
 125 3,720 vehicles. The forecast for 2035 is 5,420 vehicles in this segment, an increase of 45 percent.  
 126 Across the study area, the average increase in evening peak period volume from 2005 to 2035 is  
 127 55 percent. Additional information on traffic volumes in the study area is provided in the *Traffic*  
 128 *Impact Analysis Technical Memorandum*, (CH2M HILL, 2008a) in **Appendix C**.

EXHIBIT 1-3  
Average Daily Traffic on US 24 in the Study Area

Segment (East to West)	Segment Capacity	2005	Forecasted 2035
I-25 to 8th Street	40,000 to 45,000	50,300	71,300
8th Street to 21st Street	40,000 to 45,000	38,500	50,600
21st Street to 26th Street	40,000 to 45,000	31,900	45,600
26th Street to 31st Street	40,000 to 45,000	31,500	43,500
31st Street to Manitou Avenue	40,000 to 45,000	29,600	50,300

Source: CH2M HILL, 2008a



129 **1.2.2 Traffic Operations and Congestion**

130 Roadways are designed to accommodate a given number  
 131 of vehicles based on the number of lanes and their width,  
 132 access, traffic signals, and other features. Level of Service  
 133 (LOS) is a measure used to indicate how efficiently a  
 134 roadway or intersection operates, based on a rating system  
 135 of A through F. On this scale, LOS A is least congested  
 136 and LOS F is most congested.

137 According to the *Highway Capacity Manual* (Transportation  
 138 Research Board, 2000) LOS for signalized intersections is  
 139 defined in terms of delay, which measures “driver  
 140 discomfort, frustration, fuel consumption and increased  
 141 travel time.” LOS A allows extremely favorable traffic  
 142 movement: most vehicles arrive during a traffic signal’s  
 143 green phase, and many vehicles do not stop at all. LOS D  
 144 reflects more congestion: many vehicles stop at the  
 145 intersection, and failure to clear the intersection in a single  
 146 signal phase is noticeable. LOS F is considered a failure in  
 147 operations: drivers may wait through several signal cycles  
 148 because the number of vehicles arriving exceeds the  
 149 capacity of the intersection.

150 CDOT and the City of Colorado Springs have established  
 151 LOS D as the minimum acceptable LOS for urban areas  
 152 during weekday peak periods.

153 To measure the operating efficiency of the existing  
 154 intersections along US 24 in the study area and to evaluate  
 155 potential solutions, the project team collected existing  
 156 traffic counts and obtained PPACG traffic volume forecasts for 2035. The existing LOS and the  
 157 estimated future LOS for intersections in the study area during the evening peak hour are shown in  
 158 **Exhibit 1-4**. By 2035, if changes are not made to US 24 and its intersections, all but two  
 159 intersections in the study area would operate at unacceptable levels and LOS would continue to  
 160 deteriorate at several locations in the study area.

**Signalized Intersection Level of Service**

*At LOS A, there is a very good progression through the intersection. Most vehicles arrive during the green phase; most do not have to stop. Vehicle delay is 10 seconds per vehicle or less.*

*At LOS B, more vehicles stop than in LOS A, but generally there is still good progression. Delay ranges from 10 to 20 seconds per vehicle.*

*At LOS C, the number of vehicles stopping is significant, although many still pass through the intersection. Delay ranges from 20 to 35 seconds per vehicle.*

*At LOS D, the influence of congestion becomes more noticeable. Many vehicles stop and the proportion of vehicles that do not stop declines. Some vehicles do not make it through the intersection in one cycle length. The range for delay is 35 to 55 seconds per vehicle, which is considered to be the limit of acceptable delay.*

*At LOS E, there are longer delays of 55 to 80 seconds per vehicle, poor vehicle movement between signalized intersections, and individual cycle failures.*

*At LOS F, vehicle arrival rates exceed the capacity of the intersection. This condition is considered unacceptable to most drivers. Delay is greater than 80 seconds per vehicle.*

Source: Transportation Research Board, 2000.

**EXHIBIT 1-4**  
 Levels of Service on US 24 during the Evening Peak Hour in the Study Area

Location	2005	Forecasted 2035
I-25 Interchange – South-/Northbound	C/D	C/E
8th Street	E	E
21st Street	D	E
26th Street	B	C
31st Street	C	F
Ridge Road <sup>1</sup>	F	F
Manitou Avenue Interchange – East-/Westbound	A/A	A/B

Source: CH2M HILL, 2008a

<sup>1</sup> Because this is an unsignalized intersection, LOS reflects traffic on Ridge Road approaching US 24.

161 When traffic volume exceeds capacity, drivers wait at intersections through more than one traffic  
 162 signal cycle, which currently occurs frequently at 8th Street and 21st Street during morning and  
 163 evening peak travel periods, and throughout the day during the summer tourist season. While  
 164 most of the ADT is due to through-trips, the LOS at these intersections is dictated mostly by  
 165 the turning movements. At congested intersections, vehicles at turn lanes sometimes  
 166 form lines that back up into the mainline of traffic, which is experienced today on US 24 at  
 167 8th Street, 21st Street, and 31st Street. Congestion at the exit ramps from I-25 onto  
 168 US 24 presently causes northbound and southbound traffic to back up onto the mainline  
 169 of I-25. These backups are a safety concern; the differences in speed on I-25 can potentially lead  
 170 to high severity rear-end accidents. To avoid congested routes, some drivers cut through  
 171 neighborhoods, which happens currently when 31st Street and 21st Street are used as a “back  
 172 door” to Garden of the Gods Road, I-25, and other destinations on the City of Colorado  
 173 Springs’ northwest side, as shown in **Exhibit 1-5**.

**EXHIBIT 1-5**  
 Cut-Through Routes (red) from US 24 in Study Area



184 **1.2.3 Improving Travel in the Corridor**

185 Local governments have recognized the need to improve travel conditions in the study area and on  
 186 US 24 for 30 years. Several previous studies were conducted between 1979 and 1996 that identified  
 187 congestion as a problem on US 24 west of I-25 as part of other community and transportation  
 188 planning needs. In 1980, the Colorado Springs City Council adopted *The Westside Plan* (City of  
 189 Colorado Springs, 1980) to prioritize revitalization of the neighborhood. Among the transportation  
 190 goals were to “eliminate bottleneck congestion problems” and construct “grade separated  
 191 interchanges on Midland Expressway [as US 24 was called] beginning with 8th Street.”

192 The most recent of these studies, *U.S. 24 Corridor Study, Colorado Springs to Woodland Park*  
 193 (PPACG, 1996), prioritized proposed projects on US 24 west of I-25. The study’s recommendations  
 194 included widening US 24 to six lanes between 8th Street and 21st Street, and constructing an  
 195 interchange at 8th Street. In addition to the projects west of I-25, an improved interchange at US 24  
 196 and I-25 was identified in the *I-25 Improvements through the Colorado Springs Urbanized Area EA* (CDOT,  
 197 2004). However, no funding was appropriated to build any of these major projects. As a result,  
 198 capital improvements to US 24 in the study area have been limited to minor projects such as  
 199 shoulder work, intersection changes, and acceleration and deceleration lanes.

200 PPACG’s *2035 Fiscally Constrained Regional Transportation Plan* (PPACG, 2008a) includes adding  
 201 interchanges to various locations from I-25 to Manitou Springs and widening US 24 to six lanes  
 202 from I-25 to Manitou Avenue.

203 The following chapter describes alternatives the project team considered to meet the needs of these  
 204 different travelers.





# 1 Chapter 2 – Alternatives

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2 This chapter summarizes how the Colorado Department of Transportation (CDOT) project  
3 team (which consisted of representatives from the Federal Highway Administration [FHWA]  
4 and CDOT along with a consultant team of professionals in a variety of disciplines) developed  
5 and evaluated alternative solutions to meet the purpose and need described in **Chapter 1,**  
6 **Purpose and Need.** This chapter describes the development and evaluation process and  
7 identifies the Proposed Action.

8 The alternatives development process followed a  
9 Context Sensitive Solutions (CSS) approach as  
10 described in the National Cooperative Highway  
11 Research Program (NCHRP) Report 480, *A Guide to*  
12 *Best Practices for Achieving Context Sensitive Solutions*  
13 (NCHRP, 2002) for studying improvements on  
14 United States Highway 24 (US 24). Alternatives  
15 were developed using an approach of working with  
16 multi-disciplinary teams of transportation and  
17 highway design professionals, environmental  
18 experts, and a wide range of stakeholders with an  
19 interest in the outcome.

20 Guided by the principles of CSS, the project team  
21 recognized that successful solutions to meeting the  
22 purpose and need would require a thorough  
23 understanding of the characteristics of the highway,  
24 the needs of regional and local travelers, the causes  
25 for congestion, and the relationship between the  
26 highway and the surrounding community.

27 To understand this context, the team enlisted the  
28 help of many partners: regional commuters and  
29 local travelers; residents of nearby neighborhoods; the local business community; representatives  
30 of local, state, and federal agencies; and planners, engineers, and other technical experts. In  
31 public open houses held in 2004, 2005, and 2006, these partners identified numerous issues they  
32 saw or experienced with US 24, contributed ideas and suggestions for improvements to US 24,  
33 and raised issues and concerns about the possible effects of rebuilding US 24. The project also  
34 included an Executive Leadership Team (ELT) that represented local jurisdictions and provided  
35 policy-level recommendations on issues such as funding, maintenance, and ownership  
36 responsibilities. In addition, a Technical Leadership Team (TLT) guided decisions involving data  
37 gathering and analysis, provided review of technical documentation, provided support and  
38 insight with respect to agency issues and regulations, assisted with the development and  
39 screening of alternatives, and facilitated coordination. Additional information about the ELT  
40 and TLT, including the list of participants, is provided in **Chapter 5, Agency Coordination**  
41 **and Public Involvement.**

*“Context Sensitive Solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist. CSS principles include the employment of early, continuous and meaningful involvement of the public and all stakeholders throughout the project development process.”*

**Federal Highway Administration  
“What is CSS”**

<http://www.fhwa.dot.gov/context/what.cfm>

42 The result of this collaborative, interdisciplinary process – using the CSS approach described in  
 43 the text box above – was a range of actions or alternatives that could address the purpose and  
 44 need while minimizing negative effects to the community and the environment. Each of these  
 45 actions or alternatives was evaluated using criteria that the partners helped develop to ensure the  
 46 purpose and need were met. In the end, a Proposed Action was identified.

47 The purpose and need statement in this Environmental Assessment (EA) is important because it  
 48 lays out why the Proposed Action is being pursued and serves as the basis for developing a  
 49 reasonable range of alternatives. Ongoing participation in the US 24 EA process by the FHWA,  
 50 ELT, and TLT ensured collaboration throughout the study process.

## 51 2.1 How Alternatives were Developed

52 The alternatives were developed using a rigorous three-step  
 53 approach based on the principles of CSS, as illustrated in  
 54 **Exhibit 2-1**. Each step involved public input, brain-  
 55 storming, analysis, and technical evaluation using screening  
 56 criteria developed in collaboration with the public and the  
 57 TLT. At each step in the process, the screening criteria  
 58 became more focused and more measurable, and the  
 59 scrutiny grew more rigorous as ideas progressed to  
 60 potential solutions, and potential solutions progressed to  
 61 the Proposed Action. The alternatives development  
 62 process, the criteria used to screen the alternatives, and the  
 63 results of each screening step are explained in more detail  
 64 in **Appendix B**.

### 65 2.1.1 Step One: Identify Transportation Problems 66 and Ideas

67 At the beginning of the project, consistent with the CSS  
 68 principle of outreach, stakeholders, community residents,  
 69 business owners, highway users, and other partners were  
 70 asked what transportation issues they perceived in the  
 71 study area. This effort first identified nine Critical Issues;  
 72 from the Critical Issues, a Community Vision was  
 73 developed and categories of criteria for evaluation and  
 74 screening of alternatives were established, as shown in  
 75 **Exhibit 2-2**.

76 Both the Community Vision and the Criteria categories,  
 77 shown in **Exhibit 2-3**, provided the context for developing the purpose and need, the  
 78 alternatives, and ultimately the Proposed Action. A complete list of all stakeholder concerns is  
 79 included in **Appendix B**. The community and all other stakeholders were then asked for their  
 80 ideas for addressing the issues. A complete list of the stakeholder ideas is included in  
 81 **Appendix B**. These ideas were then screened for fatal flaws using qualitative criteria that  
 82 address safety, accessibility, mobility, environmental considerations, and community values.  
 83 Some ideas that were outside the scope of this project were forwarded to appropriate agencies.

84 The results of this screening step were presented to the public at a workshop in January 2005,  
 85 and the comments received were used to help develop potential solutions.

EXHIBIT 2-1  
 Alternatives Development Process

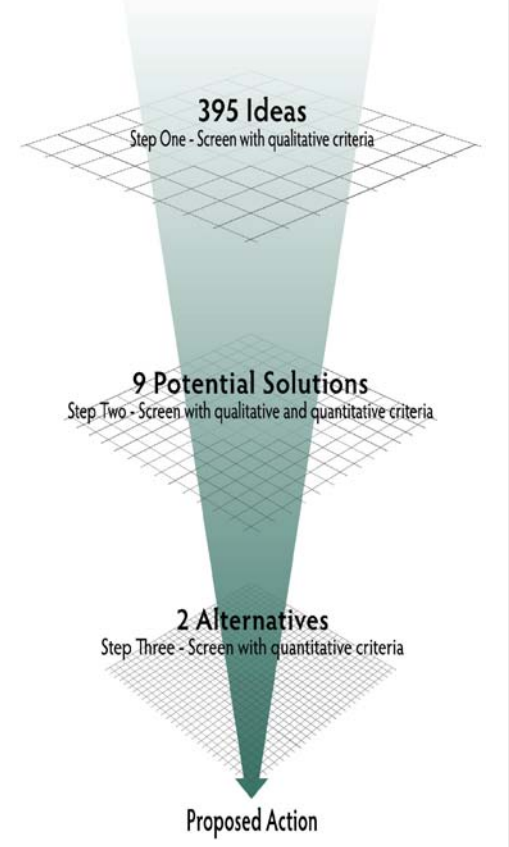


EXHIBIT 2-2  
Critical Issue Identification Resulted in Community Vision and Criteria Categories

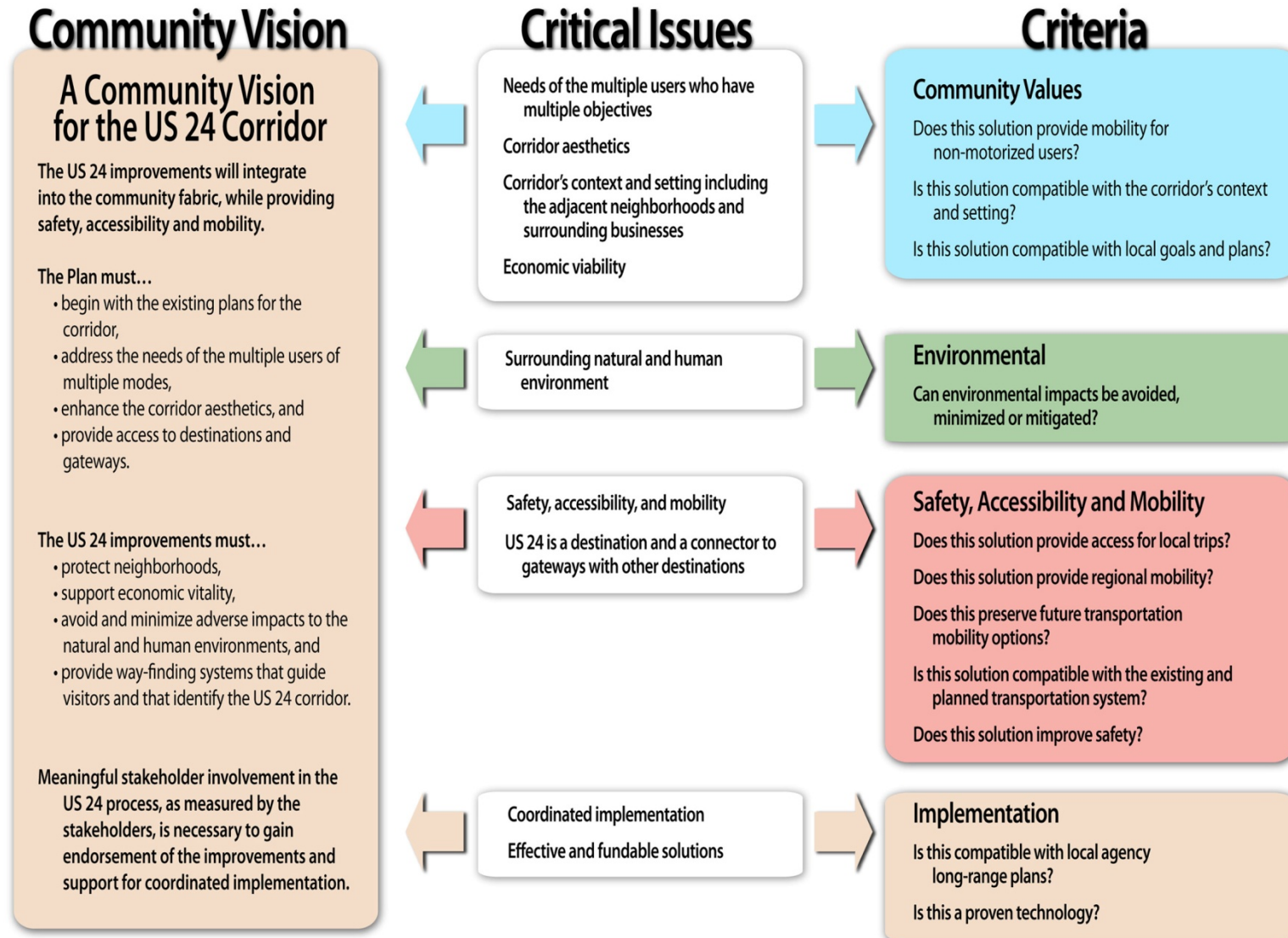


EXHIBIT 2-3  
Screening Criteria

	Community Values			Safety, Accessibility, and Mobility			Environmental	Implementation		
<b>STEP 1 SCREEN WITH QUALITATIVE CRITERIA</b>	Is this idea compatible with non-motorized mobility?	Is this idea compatible with the corridor's context and setting?	Is this idea compatible with local goals and plans?	Does this idea provide access for local trips or does it provide regional mobility or does it preserve future transportation mobility options?	Is this idea compatible with the existing and planned transportation system?	Can this idea improve safety?	Can adverse environmental impacts be avoided, minimized, or mitigated?	Is this compatible with implementation of local agency plans?	Is this a proven technology?	
<b>STEP 2 SCREEN WITH QUALITATIVE AND QUANTITATIVE CRITERIA</b>	<ol style="list-style-type: none"> <li>Number of vehicles moved to other modes of travel.</li> <li>What is the level of community support for this potential solution?</li> <li>Change in number of grade-separated crossings of US 24.</li> <li>Miles of new trails.</li> <li>Does this solution support existing plans?</li> <li>The number of views that are altered.</li> </ol>			<ol style="list-style-type: none"> <li>Change in number of access points on US 24.</li> <li>Change in number of signalized intersections.</li> <li>Change in capacity.</li> <li>Number of new or improved cross streets.</li> <li>Number of new or improved parallel facilities.</li> <li>Improvement in travel time.</li> <li>Change in number of inter-modal connections.</li> <li>Number of potential riders.</li> <li>What is the right-of-way width needed for this solution?</li> <li>Number of corridor accident locations improved.</li> </ol>			<ol style="list-style-type: none"> <li>Acres of new paved surface.</li> <li>Number of residences within 500 feet (approximately 1 block) of the edge of pavement.</li> <li>Number of new stream crossings.</li> <li>Number of recorded historic sites within 500 feet (approximately 1 block) of the edge of pavement.</li> <li>Number of locations where parks, trails, and recreation resources are affected.</li> <li>Acres of new right-of-way.</li> </ol>		<ol style="list-style-type: none"> <li>Ability of this solution to be phased and provide incremental benefits.</li> <li>Construction impact on existing traffic.</li> <li>Ease and speed of construction.</li> <li>Ability of this solution be funded.</li> <li>Does this solution support the Regional Congestion Management Plan?</li> </ol>	
<b>STEP 3 SCREEN WITH QUANTITATIVE CRITERIA</b>	<ol style="list-style-type: none"> <li>Miles of new non-motorized facilities.</li> <li>Number of improved crossings of US 24 for non-motorized travelers.</li> <li>Alternative's visual compatibility with the corridor's context and setting.</li> <li>Level of support from community.</li> <li>Economic viability.</li> <li>Compatibility with existing plans.</li> </ol>			<ol style="list-style-type: none"> <li>Number of direct access points.</li> <li>Percent change in 2030 travel time on US 24 between the I-25 and Manitou Avenue interchanges.</li> <li>Percent change in 2030 travel time on Colorado Avenue between the I-25 and Manitou Avenue interchanges.</li> <li>Percent change in 2030 travel time from 2 blocks south of US 24 to Colorado Avenue by vehicles on 8th Street, 21st Street, 26th Street, and 31st Street.</li> <li>Change in number of inter-modal connections.</li> <li>Operational characteristics of transit system associated with the alternative.</li> <li>Level of Service at each intersection/interchange.</li> <li>Total hours of delay during the peak hour.</li> <li>Change in regional vehicle miles traveled during the average day.</li> <li>Crash expectancy for alternative.</li> </ol>			<ol style="list-style-type: none"> <li>Acres of new impervious surface.</li> <li>Residences within 500 feet.</li> <li>Recorded historic sites within 500 feet.</li> <li>Acres of parks and recreation resources within 500 feet.</li> <li>Acres of new preliminary right-of-way.</li> <li>Total number of relocations (residential and business) required.</li> <li>Acres of aquatic ecosystem within preliminary right-of-way.</li> <li>Impacts to 100-year floodplain.</li> </ol>		<ol style="list-style-type: none"> <li>Construction impact on existing traffic.</li> <li>Range of conceptual costs for corridor improvements.</li> <li>Level of support from local government agencies (high, medium, low).</li> </ol>	

## 88 2.1.2 Step Two: Transform Ideas into Potential Solutions

89 Being guided by the CSS principle of developing solutions that reflect the community, all of the  
90 ideas that remained after the Step One of screening were sorted and then combined into a total  
91 of nine potential solutions composed of similar ideas.

92 Many ideas suggested improvements to non-infrastructure elements, which were combined into  
93 the following five potential solutions.

- 94 • **Non-Motorized Technologies** – Ideas that proposed upgrading bicycle facilities, sidewalks  
95 and trails, or pedestrian overpasses.
- 96 • **Transportation System Management** – Ideas that included variable message signs, park  
97 and ride facilities, and signal timing.
- 98 • **Transportation Demand Management** – Ideas such as express lanes, carpooling, flexible  
99 work hours, and related approaches.
- 100 • **Flexible Transit Systems** – Ideas that proposed flexible transit systems, such as buses, that  
101 could have changing routes based on demand.
- 102 • **Fixed Transit Systems** – Ideas that proposed fixed transit systems involving light rail,  
103 trolleys, or other similar technology.

104 Other ideas suggested rebuilding other roadways to relieve congestion on US 24 and these ideas  
105 were combined to form the following two potential solutions.

- 106 • **Reconstruct Local Streets** – Ideas such as removing some on-street parking from  
107 Colorado Avenue and increasing the speed limit.
- 108 • **Other Regional Routes** – Including rebuilding Rampart Range Road or Mount Herman  
109 Road to provide an alternative to traveling on US 24.

110 Additional ideas suggested ways to improve travel on US 24. These ideas were combined to  
111 form the following two potential solutions.

- 112 • **US 24 Freeway** – Increases highway capacity in the study area and uses primarily  
113 interchanges to connect US 24 with the cross streets.
- 114 • **Midland Expressway** – Increases highway capacity in the study area but uses a mixture of  
115 interchanges and intersections to connect US 24 with the cross streets.

116 Using both qualitative and quantitative criteria, as shown in **Exhibit 2-3**, these nine potential  
117 solutions were evaluated to determine if they could meet the purpose and need. The results of  
118 this screening are shown in **Exhibit 2-4**.

EXHIBIT 2-4  
Potential Solutions<sup>1</sup>

Potential Solutions	Screening Result
<b>Non-Motorized Technologies</b> <i>Maximize bicycle/pedestrian facilities and upgrade sidewalks and trail connections</i>	<input checked="" type="checkbox"/> <b>Eliminated as Stand-Alone Solution</b> <ul style="list-style-type: none"> <li>Does not meet the purpose and need as a stand-alone alternative because this solution provides only minor reduction of traffic congestion on US 24</li> </ul>
<b>Transportation System Management</b> <i>Variable message signs, park and ride facilities, and signal timing</i> <b>Transportation Demand Management</b> <i>Express lanes, carpooling, and flexible work hours</i>	<input checked="" type="checkbox"/> <b>Eliminated as Stand-Alone Solutions</b> <ul style="list-style-type: none"> <li>Does not meet the purpose and need as a stand-alone alternative because these solutions provide only minor reduction of traffic congestion on US 24</li> </ul>
<b>Flexible Transit Systems</b> <i>Express buses in general-purpose lanes on US 24, and bus rapid transit in dedicated lanes on US 24</i> <b>Fixed Transit Systems</b> <i>Light rail on US 24 and historic trolley on Colorado Avenue</i>	<input checked="" type="checkbox"/> <b>Eliminated as Stand-Alone Solutions</b> <ul style="list-style-type: none"> <li>Does not meet the purpose and need as a stand-alone alternative because these solutions provide only minor reduction of traffic congestion on US 24</li> </ul>
<b>Reconstruct Local Streets</b> <i>Upgrade local or parallel streets and provide traffic-calming features on local streets</i> <b>Improving Other Regional Routes</b> <i>Rebuild Rampart Range Road, Mount Herman Road, others</i>	<input checked="" type="checkbox"/> <b>Eliminated as stand-alone solutions</b> <ul style="list-style-type: none"> <li>Does not meet the purpose and need as a stand-alone alternative because these solutions provide only minimal reduction of traffic congestion on US 24 by rerouting only a few vehicle trips</li> </ul>
<b>US 24 Freeway</b> <i>High-capacity, free-flowing roadway with interchanges or overpasses at cross streets; two general-purpose lanes each direction; 55 miles per hour (mph).</i>	<input checked="" type="checkbox"/> <b>Carried Forward</b> <ul style="list-style-type: none"> <li>Meets the purpose and need by providing a substantial reduction in traffic congestion through adding capacity to highway, which accommodates forecasted future travel demand in the US 24 corridor</li> </ul>
<b>Midland Expressway</b> <i>Lower-speed roadway with one additional through-lane in each direction, and intersections, interchanges, or overpass at cross streets; three lanes each direction; 50 mph</i>	<input checked="" type="checkbox"/> <b>Carried Forward</b> <ul style="list-style-type: none"> <li>Meets the purpose and need by providing a substantial reduction in traffic congestion through adding capacity to highway which accommodates forecasted future travel demand in the US 24 corridor</li> </ul>

<sup>1</sup> A description of the criteria used to screen these potential solutions can be found in **Appendix B** and are summarized in **Exhibit 2-3**.

119 Most of the problems and ideas posed by the public centered on US 24, and the public preferred  
 120 solutions that focused on improving US 24. Few supported the solution of Reconstruct Local  
 121 Streets or Improving Other Regional Routes. Although some of the solutions, such as  
 122 Non-Motorized Technologies and Transportation Demand Management, could not resolve the  
 123 capacity problem on US 24 by themselves, combining elements of these solutions with either the  
 124 US 24 Freeway or the Midland Expressway solution was recommended.

125 The analysis determined that, by themselves, the following solutions failed to provide enough  
 126 additional capacity in the study area to ensure acceptable travel conditions in the future:  
 127 Non-Motorized Technologies, Transportation System Management, Transportation Demand  
 128 Management, Flexible Transit Systems, Fixed Transit Systems, Reconstruct Local Streets, and  
 129 Other Regional Routes. Therefore, each of these solutions as a stand-alone alternative would not  
 130 meet the purpose and need for the project and all were eliminated from further consideration as  
 131 alternatives.

132 **2.1.3 Step Three: Refine Potential Solutions to Become Alternatives**

133 The US 24 Freeway and the Midland Expressway solutions were found to reflect community  
 134 values, were sensitive to environmental and community resources, and met the purpose and  
 135 need for the project. **Exhibit 2-5** summarizes these findings.

EXHIBIT 2-5  
 Alternatives<sup>1</sup>

Alternatives	Screening Result
<p><b>Midland Expressway Alternative</b></p> <ul style="list-style-type: none"> <li>- Four and six through-lanes, two or three in each direction, on US 24, acceleration/deceleration lanes for ramps and turn lanes at intersections, and remove direct access to US 24 at 14th Street</li> <li>- Cross section width varies 72 to 141 feet</li> <li>- Interchanges at I-25, 8th Street, 21st Street, and Manitou Avenue</li> <li>- Intersections at 26th Street and 31st Street</li> <li>- Overpass at Ridge Road</li> <li>- Posted speed 50 mph</li> </ul>	<p><input checked="" type="checkbox"/> <b>Advanced as Proposed Action</b></p> <ul style="list-style-type: none"> <li>• Balances local travelers' needs and the needs of regional commuters with improved peak hour operations while still providing the connectivity needed by local travelers to destinations along US 24</li> <li>• Is consistent with neighborhood context for an urban arterial</li> <li>• Maintains existing intersection at 26th Street, considered the gateway to Old Colorado City</li> <li>• Is preferred by the community</li> </ul>
<p><b>US 24 Freeway Alternative</b></p> <ul style="list-style-type: none"> <li>- Four through-lanes, two in each direction, on US 24, acceleration/deceleration lanes at each interchange, and remove direct access to US 24 at 14th Street</li> <li>- Cross section width varies from 72 to 96 feet</li> <li>- Interchanges at I-25, 8th Street, 21st Street, 31st Street, and Manitou Avenue</li> <li>- Overpasses at 26th Street and Ridge Road</li> <li>- Posted speed 55 mph</li> </ul>	<p><input type="checkbox"/> <b>Not Advanced</b></p> <ul style="list-style-type: none"> <li>• Does not provide the connectivity needed by local travelers to destinations along US 24</li> <li>• Emphasizes regional mobility between Colorado Springs and the mountains with all grade-separated interchanges</li> <li>• Is not consistent with neighborhood context because it introduces continuous flow for regional trips and requires local travelers to reroute their trips to interchanges instead of intersections</li> <li>• Removes intersections at 26th Street, considered the gateway to Old Colorado City</li> <li>• Lacks community support</li> </ul>

<sup>1</sup> A description of the criteria used to screen these potential solutions can be found in **Appendix B** and are summarized in **Exhibit 2-3**.

136 Transportation planners and traffic and roadway engineers evaluated all of the potential  
 137 solutions to determine which ones, either individually or in combination, could meet the  
 138 purpose and need. The two potential solutions carried forward from step two were scrutinized in  
 139 step three by the project team and the TLT.

140 The most frequently mentioned problems and ideas offered by the community centered on  
 141 US 24. However, reflecting the near-even balance between regional and local travelers  
 142 mentioned in **Chapter 1, Purpose and Need**, perceptions varied widely about the nature of the  
 143 problems and how to fix them. These differences between travelers were evaluated by the  
 144 project team and taken into account as the US 24 Freeway and the Midland Expressway  
 145 solutions were formed into two distinct stand-alone alternatives.

146 Regional travelers typically prefer a highway that allows for  
 147 continuous travel at a constant, higher speed and has  
 148 grade-separated interchanges rather than intersections. The  
 149 US 24 Freeway Alternative was developed to reflect  
 150 preferences of regional travelers.

*Interchanges have a higher capacity than intersections, and are needed to efficiently handle large volumes of turn movements.*

*Interchanges remove traffic signals from the mainline of the highway, so the vehicle-carrying capacity for through trips is about 50 percent higher than signalized intersections.*

151 In contrast, local drivers prefer frequent access to  
 152 commercial and residential areas. Local drivers typically  
 153 prefer slower speeds to ease entering and exiting the  
 154 highway and signalized intersections rather than  
 155 interchanges as a way to connect to their destinations. The  
 156 Midland Expressway Alternative was developed to reflect preferences of local travelers.

### 157 **US 24 Freeway Alternative**

158 The US 24 Freeway Alternative would provide a high-capacity, free-flowing highway with an  
 159 urban look and feel. The posted speed limit would be 55 mph.

160 The US 24 Freeway Alternative would include four through-lanes, two in each direction, with  
 161 acceleration/deceleration lanes at each interchange. Intersections at 8th Street, 21st Street, and  
 162 31st Street would be rebuilt as interchanges, and access to and from US 24 between I-25 and  
 163 Manitou Avenue would be only at these interchanges. The existing at-grade access to US 24 at  
 164 26th Street and Ridge Road would be removed and replaced with overpasses. The existing  
 165 at-grade access to US 24 at 14th Street could be replaced with an overpass in the future, but is  
 166 not part of the US 24 Freeway Alternative.

167 Two elements of other potential solutions that were eliminated as stand-alone alternatives were  
 168 incorporated into the US 24 Freeway Alternative to enhance the alternative. First, it would  
 169 complete the Midland Trail between 21st Street and 25th Street. Second, it would continue to  
 170 accommodate the express bus service, currently called the Ute Express, operated by Mountain  
 171 Metro Transit.

### 172 **Midland Expressway Alternative**

173 The Midland Expressway Alternative would provide a lower-speed highway with increased  
 174 at-grade access for local travelers with a look and feel that is more like a local road than the  
 175 US 24 Freeway Alternative. The posted speed limit would be 50 mph.

176 The Midland Expressway Alternative would include four through-lanes, two in each direction,  
 177 along with directional interchange ramps and acceleration/deceleration lanes from I-25 west to  
 178 21st Street. West of 21st Street, US 24 would include six through-lanes, three in each direction,  
 179 with turn lanes. The additional through-lanes are needed to maintain adequate Level of Service  
 180 (LOS) for the at-grade intersections. The intersections at 8th Street and 21st Street would be  
 181 replaced with grade-separated interchanges, and the intersection at Ridge Road would be  
 182 replaced with US 24 going over Ridge Road. Signalized intersections would remain at 26th Street  
 183 and 31st Street. Community residents favored intersection upgrades over a new interchange at  
 184 31st Street to minimize cut-through traffic in adjacent neighborhoods. Direct access to US 24 at  
 185 14th Street and Ridge Road would be removed. The existing at-grade access to US 24 at 14th  
 186 Street could be replaced with an overpass in the future, but is not part of the Midland  
 187 Expressway Alternative.



188 Two elements of other potential solutions that were eliminated as stand-alone alternatives were  
 189 incorporated into the Midland Expressway Alternative to enhance the alternative. First, it would  
 190 complete the Midland Trail between 21st Street and 25th Street. Second, it would continue to  
 191 accommodate the existing express bus service on US 24 for commuters operated by Mountain  
 192 Metro Transit.

### 193 Results of Step Three Refinement

194 The criteria used to screen these alternatives are described in **Appendix B** and are shown in  
 195 **Exhibit 2-3**.

196 After thorough evaluation of traffic operations and potential community effects, and based on  
 197 public and agency comments, it was determined that the US 24 Freeway Alternative would be  
 198 inconsistent with local connectivity needs. It was seen by local agencies and community residents  
 199 as too urban for the area’s context and too focused on the needs of commuters and regional  
 200 travelers. It would not provide the mobility and connectivity needed for all users, and would  
 201 impair some characteristics that make the community unique. The US 24 Freeway Alternative  
 202 would be more visually intrusive than the US 24 Expressway Alternative and would change the  
 203 use and feel of the entryway access into Manitou Springs, the Old Colorado City Historic  
 204 District, and the neighborhoods that surround US 24. Although a freeway would improve travel  
 205 time for commuters and regional travelers, as well as relieve US 24 congestion, the US 24  
 206 Freeway Alternative would not have sufficient benefits to outweigh the potential negative  
 207 consequences. Therefore, this alternative was not advanced for further analysis in the EA.

208 The Midland Expressway Alternative best balances the needs of both local and regional travelers  
 209 and meets the purpose and need by reducing congestion, improving mobility for local and  
 210 regional trips, and maintaining connectivity to the multiple destinations along US 24. Therefore,  
 211 the Midland Expressway Alternative was identified as the Proposed Action, and advanced for  
 212 analysis in this EA.

## 213 2.2 Description of the No Action Alternative

214 In accordance with the National Environmental Policy Act of 1969 (NEPA), a No Action  
 215 Alternative is included as a potential solution to provide a basis for comparison with any action  
 216 alternative(s). For this reason, the No Action Alternative is advanced for analysis in an EA even  
 217 though it does not meet the purpose and need.

218 The No Action Alternative, as shown in **Appendix A**, consists of existing transportation  
 219 facilities and transportation projects committed to be built. These would be built by others, not  
 220 by CDOT. The No Action Alternative would not make any changes to the existing US 24  
 221 beyond the projects listed below. These projects are shown in existing adopted transportation  
 222 plans and are not federally funded.

- 223 • **8th Street Intersection** – Lengthen turn lanes and acceleration and deceleration lanes on  
 224 US 24 and widen 8th Street north and south of US 24. The bridge over Fountain Creek on  
 225 8th Street would not be replaced.
- 226 • **21st Street Roadway** – Widen 21st Street south of US 24 to four through-lanes with  
 227 dedicated turn lanes and extend acceleration lane. Some upgrades to the US 24 and  
 228 21st Street intersection also would be built. The bridge over Fountain Creek on 21st Street  
 229 would not be replaced.

- 230 • **Midland Trail** – Complete Midland Trail between 21st Street and 25th Street to unite the  
 231 disconnected portions of the existing Midland Trail.

232 With the No Action Alternative, improvements to elements such as variable message signs  
 233 would be implemented as part of the region’s existing congestion management program. Bus  
 234 routes and service would continue as they are today, and bike and pedestrian facilities would be  
 235 extended or upgraded as local funds and grants allow. CDOT would continue regular operations  
 236 and maintenance along the US 24 corridor, with activities such as snow plowing, striping, and  
 237 sign replacement.

### 238 2.3 How the Community Helped Shape the Proposed Action

239 Community residents and other partners played an important role in shaping the Proposed  
 240 Action, including:

- 241 • Members of the community provided observations about their community’s context that  
 242 they wanted considered during project implementation. These included unique features such  
 243 as Fountain Creek and sensitive resources like the historic Midland Terminal Railroad  
 244 Roundhouse.
- 245 • Business owners emphasized the importance of maintaining 26th Street, the gateway to Old  
 246 Colorado City.
- 247 • Agency staff on the TLT provided suggestions on technical elements related to congestion  
 248 relief.

249 A few specific examples of how the community helped shape the project are summarized in  
 250 **Exhibit 2-6**. A complete description of the public involvement process is provided in  
 251 **Chapter 5, Agency Coordination and Public Involvement**.

EXHIBIT 2-6  
 How Community Ideas Shaped the Proposed Action

Ideas from the Community <sup>1</sup>	Element or Feature in Proposed Action
Improve major intersections to make them operate better and improve the ability for neighborhood traffic and pedestrians to cross US 24.	All intersections would be rebuilt to improve traffic operations for US 24 as well as the cross streets. Signalized intersections would provide adequate turn lanes and acceleration/deceleration lanes, and signals would be timed to provide uniform traffic progression for US 24. New interchanges at 8th Street and 21st Street would improve traffic flow for all movements at these locations. All intersections and interchanges would accommodate bicycles and pedestrians.
Do not destroy Fountain Creek.	A greenway master plan for this segment of Fountain Creek was developed in cooperation with the neighborhoods and various state and local partners that includes the construction and reconstruction of trails, habitat improvements, and other amenities (CDOT, 2007). CDOT would implement some improvements under the Proposed Action, while other entities would provide improvements that are within their authority as funds become available.
Do not touch the historic Midland Terminal Railroad Roundhouse.	The proposed interchange at 21st Street would avoid the Midland Terminal Railroad Roundhouse.

EXHIBIT 2-6

How Community Ideas Shaped the Proposed Action

Ideas from the Community <sup>1</sup>	Element or Feature in Proposed Action
Do not overload Colorado Avenue by moving traffic off US 24.	By improving traffic flow on US 24, commuters and regional travelers would be less likely to divert to Colorado Avenue as an alternate route around congested intersections.
Add a park-and-ride lot that could be used for both transit and off-site parking for neighborhood events.	Although not an element of the Proposed Action, a park and ride could be accommodated on CDOT right-of-way and may be built by others on the northeast corner of US 24 and 31st Street.
Elevate US 24 to go over Ridge Road to make it safer for trail users and wildlife to enter the Red Rock Canyon Open Space and provide a trail connection from Midland Trail to the Open Space.	US 24 would be elevated to go over Ridge Road, which would remain at ground level for easier access to the Open Space by non-motorized travelers and wildlife; Ridge Road would be reconstructed and would accommodate a connection from the Open Space to the Midland Trail.
Make bridges over Fountain Creek friendly for pedestrians, bikes, and horses.	Bridges and trails would be designed to accommodate these users.
Leave underpass at I-25 into America the Beautiful Park open to bikes and pedestrians.	Midland Trail underpass of I-25 would remain open and not be impacted by the Proposed Action.
Avoid encroaching into Fountain Creek near Safeway.	US 24 west of 31st Street would be shifted south to avoid impacting Fountain Creek south of Safeway.

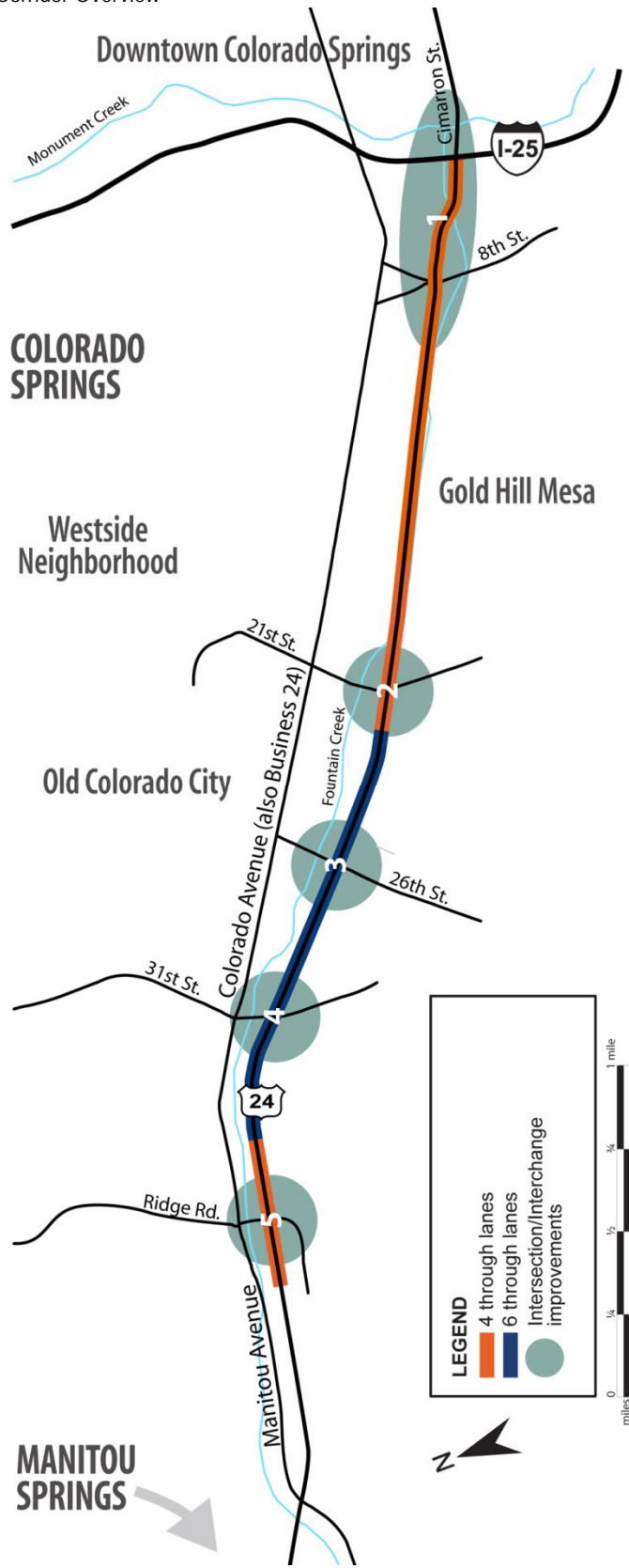
<sup>1</sup> Ideas from participants at Open House #3 on April 14, 2005; TLT meetings; project website; and telephone hotline.

252 **2.4 Description of the Proposed Action**

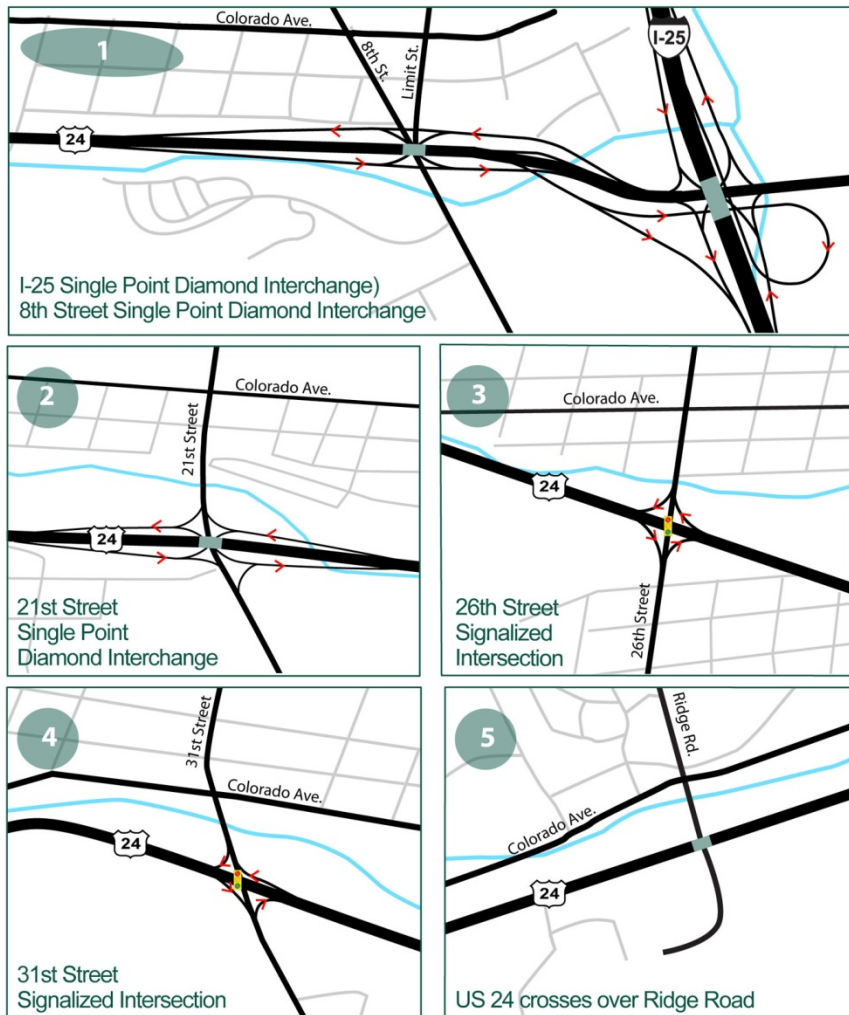
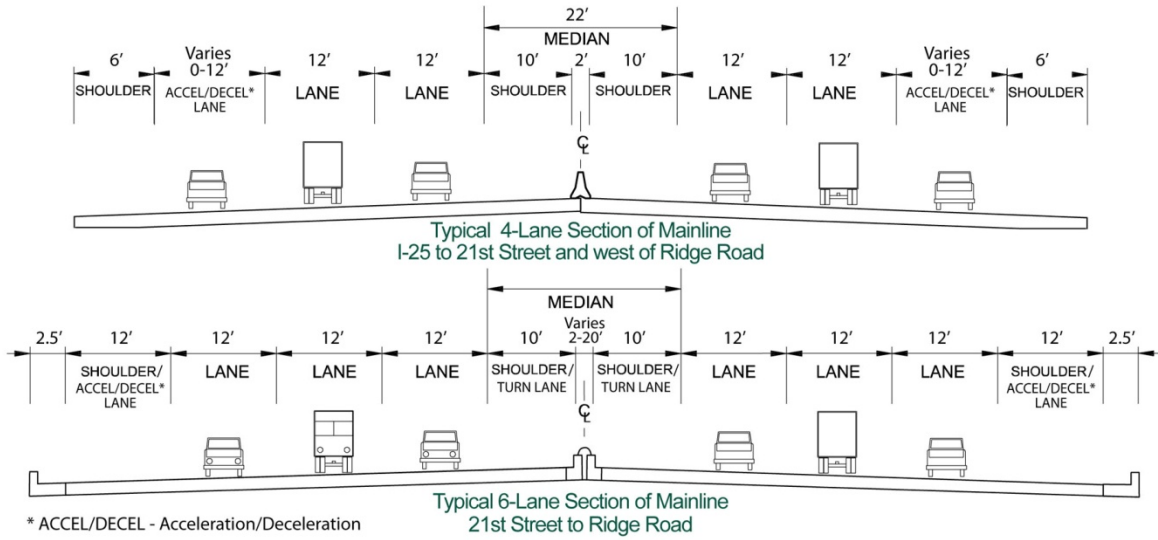
253 All features of the US 24 Proposed Action would be designed for 50 mph and meet or exceed  
 254 American Association of State Highway and Transportation Officials (AASHTO) standards. The  
 255 Proposed Action is shown in **Appendix A** and illustrated in **Exhibit 2-7** and **Exhibit 2-8**. The  
 256 Proposed Action on the US 24 corridor includes the following elements:

- 257 • **Maintain four through-lanes** (two in each direction) **between I-25 and 21st Street**.
- 258 • **Add two through-lanes, between 21st Street and just west of Ridge Road**, for a total of  
 259 six through-lanes (three in each direction).
- 260 • **Replace nine bridges on US 24 and cross streets** to accommodate the profile changes to  
 261 US 24. Over Fountain Creek, these bridges would be built to comply with current state and  
 262 local standards to reduce flooding hazards in the study area.
- 263 • **Due to replacement of the nine bridges, realign and widen Fountain Creek** at bridge  
 264 crossings and locations where the roadway overlaps the existing channel to provide an  
 265 armored low-flow channel and a widened stabilized area to accommodate the 100-year flood.

266 EXHIBIT 2-7  
267 Proposed Action – US 24 Corridor Overview



268 EXHIBIT 2-8  
 269 Proposed Action – Typical Section, Design Details – NOT TO SCALE



- 270 • **Build single-point diamond interchange (SPDI) with a loop ramp for eastbound-to-**  
 271 **northbound travel at US 24 and I-25.** This interchange design replaces the tight diamond  
 272 interchange identified in the *I-25 Improvements through the Colorado Springs Urbanized Area EA*  
 273 (CDOT, 2004a). Since that EA was approved, traffic forecasts and future traffic operations  
 274 have been revised by the Pikes Peak Area Council of Governments (PPACG), making an  
 275 SPDI design more efficient operationally.
- 276 • **Naegle Road from 21st Street to 25th Street would be closed because the intersection**  
 277 **of 21st Street and Naegle Road is too close to the US 24 and 21st Street interchange.**  
 278 There is inadequate room to provide a turn lane for vehicles at Naegle Road.
- 279 • **The existing 25th Street bridge over Fountain Creek would be removed because it**  
 280 **would no longer connect to Naegle Road and, therefore, provide no function.** The  
 281 existing 25th Street would be ended north of the Fountain Creek.
- 282 • **Replace the existing at-grade intersections with interchanges at 8th Street and at 21st**  
 283 **Street,** which also includes directional interchange ramps and acceleration/deceleration  
 284 lanes.
- 285 • **Upgrade the US 24 and 26th Street at-grade intersection,** which also includes left and  
 286 right turn lanes.
- 287 • **Widen the intersection of US 24 and 31st Street. Widen the 31st Street and Colorado**  
 288 **Avenue intersection.** South of US 24, 31st Street would be rebuilt to better align with the  
 289 highway intersection.
- 290 • **Replace the existing at-grade intersection with an overpass that carries US 24 over**  
 291 **Ridge Road.** Ridge Road would be widened between High Street and Colorado Avenue and  
 292 improvements would be made to the Ridge Road and Colorado Avenue intersection.
- 293 • **All improvements tie into the unimproved, existing US 24 approximately 1,800 feet**  
 294 **west of Ridge Road.** Because neither existing nor future congestion is a problem between  
 295 Ridge Road and Manitou Avenue, no changes to US 24 are proposed west of Ridge Road.
- 296 • **Build sidewalks on the north-south cross streets** at all intersections and as a part of all  
 297 interchanges.
- 298 • **Connect the Midland Trail from 21st to 25th Street,** with north-south trail connections at  
 299 each of the interchanges and intersections along the US 24 corridor. The trail would be built  
 300 to meet the City of Colorado Spring’s trail design standards and to allow clearance under the  
 301 bridges for bicycle, pedestrian, and equestrian crossings. Completing this east-west bicycle  
 302 and pedestrian trail system was an opportunity resulting from the required roadway right-of-  
 303 way acquisitions and the channel re-grading required by the bridge replacements. The trail  
 304 would improve pedestrian and bicycle mobility in the study area and is consistent with  
 305 community planning.
- 306 • **Incorporate Transportation System Management** elements such as signal timing, turn  
 307 lanes, and consideration for transit stops.

308 The Proposed Action also includes various environmental mitigation measures such as  
 309 enhancements to park and recreation resources, noise barriers, and permanent water quality  
 310 features such as stormwater detention/treatment ponds. These are discussed in more detail in  
 311 **Chapter 3, Affected Environment and Environmental Consequences.**

312 A detailed illustration of the Proposed Action is included in **Appendix A.**

## 313 2.5 Project Implementation

314 During the planning of the US 24 corridor, the original scope was for US 24 to connect to I-25  
 315 as developed in the *I-25 Improvements through the Colorado Springs Urbanized Area EA*  
 316 (CDOT, 2004a). With input from stakeholders, the US 24 project revisited the interchange type  
 317 at I-25, and is proposing a change in interchange type. Because the original planning for the I-25  
 318 interchange was completed separately, funding for I-25 was identified separately from the  
 319 funding for US 24.

320 The estimated cost of the Proposed Action is currently included in the adopted, fiscally  
 321 constrained PPACG *Moving Forward – 2035 Regional Transportation Plan (RTP)* (PPACG, 2008a).  
 322 Included in the RTP is \$460 million identified in inflated, years-of-expenditure dollars for the  
 323 US 24 corridor from 8th Street west to Manitou Avenue.

324 The US 24/I-25 interchange is included separately in the RTP. In years-of-expenditure dollars,  
 325 \$125 million has been identified for its completion.

326 The RTP assumes that the Proposed Action would not be built all at once, but in several  
 327 segments over several years, as funding becomes available. Funding is currently identified in the  
 328 PPACG *Transportation Improvement Program (TIP)* (PPACG, 2008b), a plan for expenditures over  
 329 the next 5 years, to begin final design activities for the 8th Street and US 24/I-25 interchanges,  
 330 as soon as FHWA finalizes their decision on this EA. Funding in the TIP is listed as \$3 million  
 331 for fiscal year 2013, \$10 million for fiscal year 2016, and \$3 million for fiscal year 2017.

332 For purposes of comparing US 24 alternatives, estimated costs were developed in 2011 dollars.  
 333 The total estimated cost of the Midland Expressway Alternative (not including the I-25  
 334 interchange) is \$230 million for construction and \$50 million for right-of-way. The total  
 335 estimated cost of the US 24/I-25 Interchange is \$87 million for construction and \$8 million for  
 336 right-of-way.

337 To facilitate implementation of the entire project, the US 24 corridor has been broken into  
 338 construction packages that can be built independently and, upon completion, provide immediate  
 339 benefits to the community. These packages are shown in **Exhibit 2-9**.

340 Future funding would be the major determining factor in deciding when each of the  
 341 construction packages would be implemented. However, the 8th Street and US 24/I-25  
 342 interchanges are the highest priority on the US 24 corridor because this complex serves both  
 343 local and regional motorists, and currently experiences the most congestion.

344 The Proposed Action has been designed to a planning level of detail, allowing engineers and  
 345 planners to investigate the environmental impacts and the costs. The future design and  
 346 construction of any package could be delivered as a traditional design-bid-build package,  
 347 design-build contract, or any other alternative delivery option.

## 348 2.6 Options not Precluded by the Proposed Action

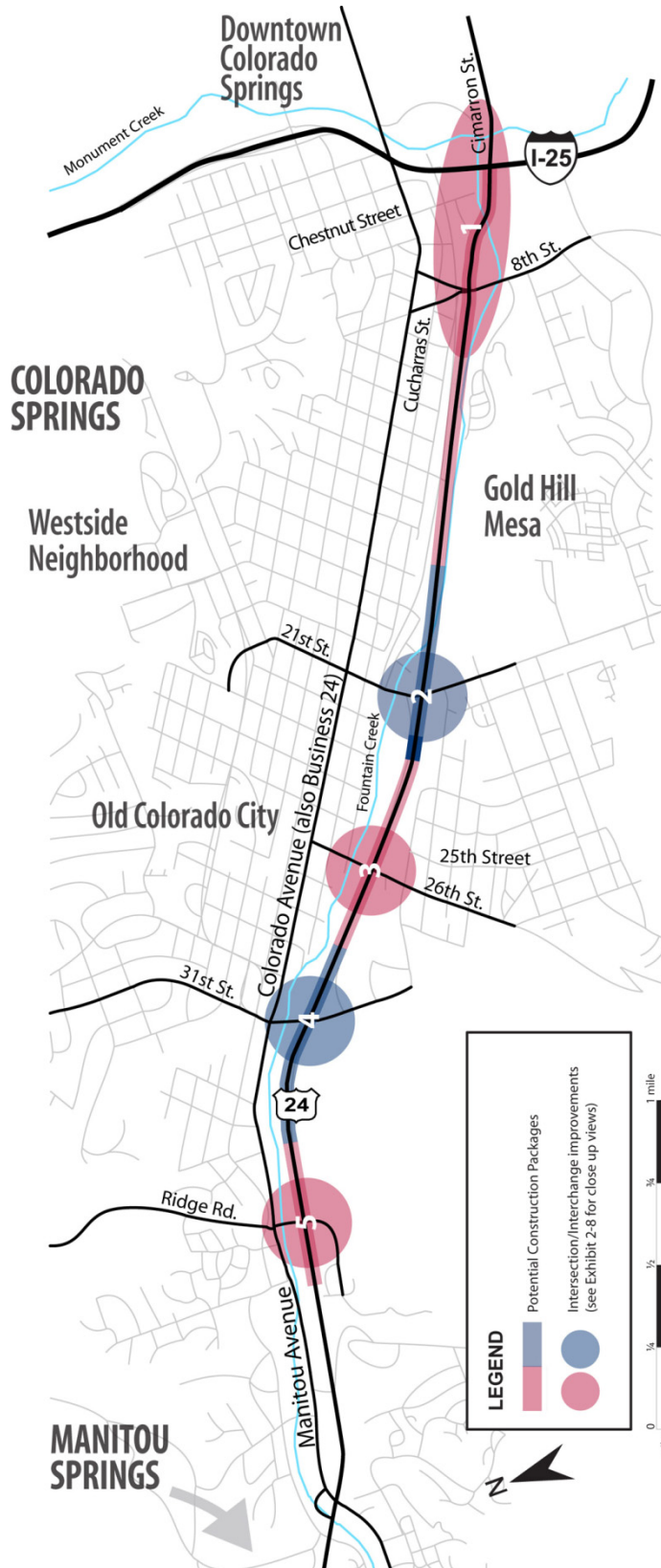
349 The following features were considered but are not included as a part of the Proposed Action.  
 350 They may be built by others in the future and are not precluded by the Proposed Action. These  
 351 features are not presently in an approved long-range plan.

- 352 • **At 15th Street**, an overpass is proposed to carry 15th Street over US 24 and Fountain Creek,  
 353 and connect to the local street networks of Old Colorado City and Gold Hill Mesa. This

- 354 overpass would include ramps on the east side to connect to 8th Street at its interchange  
355 with US 24.
- 356 • **At Ridge Road**, ramps providing direct access to US 24 are proposed to convert the  
357 overpass included in the Proposed Action to an interchange. The ramps would be built by  
358 the local municipalities on right-of-way owned by CDOT.
  - 359 • **At 31st Street**, a park and ride facility is proposed in the northeast quadrant of the  
360 intersection, with access from Colorado Avenue. The facility would be built by Mountain  
361 Metro Transit on right-of-way to be acquired by CDOT under the Proposed Action for  
362 roadway improvements.
  - 363 • **South of US 24**, a trail is proposed along Fountain Creek between 8th Street and 21st Street.  
364 The facility would also serve as maintenance access to the creek on right-of-way owned or in  
365 easements held by CDOT and the local municipalities.
  - 366 • **Additional work to Fountain Creek**, such as constructing retaining walls or flood walls,  
367 could be completed in the future, reducing the risk of flooding to any residential and  
368 commercial properties still remaining within the floodplain boundary. Another future option  
369 would be to purchase property remaining within the floodplain; Pre-Disaster Mitigation  
370 funds for programs of this type are available annually from the Colorado Division of  
371 Emergency Management. These funds do not require a disaster declaration and could be  
372 requested by the City of Colorado Springs or El Paso County.



373 EXHIBIT 2-9  
374 Construction Packages





# 1 Chapter 3 – Affected Environment and 2 Environmental Consequences

3 The United States Highway 24 (US 24) West Environmental Assessment (EA) follows the intent  
4 of the National Environmental Policy Act of 1969 (NEPA) by concentrating on the issues that  
5 are truly relevant to the Proposed Action, rather than “amassing needless detail” (Title 40 of the  
6 Code of Federal Regulations [CFR] Part 1500.1[b]). For each environmental resource typically  
7 included in a Colorado Department of Transportation (CDOT) NEPA study, the project team  
8 collected and evaluated environmental data, determined the presence/absence of each resource,  
9 its distribution, and the relative importance of the resource in the study area. The assessment of  
10 environmental issues consisted of a team of resource specialists conducting field reconnaissance  
11 site visits; evaluating published reports, plans, and studies; discussing the study with  
12 knowledgeable individuals; and/or reviewing secondary data such as United States Census  
13 Bureau data. These findings were discussed with agency staff and the Technical Leadership  
14 Team (TLT), and presented at public meetings to determine if any issues important to the public  
15 or resource agencies had been omitted or overlooked.

16 Documentation of the assessment of each  
17 resource is provided in detailed technical  
18 memoranda that have been summarized in this  
19 chapter. See **Appendix C** for detailed graphics  
20 and information. The analysis presented in this  
21 chapter is organized to focus on important  
22 issues identified through the evaluation process.  
23 Transportation resources are analyzed first, and  
24 then resources are discussed in descending  
25 order of expected degree of environmental  
26 effect. Each section evaluates the potential  
27 effects to environmental resources. Mitigation  
28 and permitting for each resource are also  
29 discussed.

30 A discussion of potential cumulative impacts  
31 from the Proposed Action, and other past,  
32 present, and future projects, follows the  
33 resource-specific sections. Cumulative impacts  
34 can result from individually minor but  
35 collectively significant actions taking place over time.

36 This chapter concludes with a summary of impacts of both the No Action Alternative and  
37 Proposed Action, and mitigation that would be implemented under the Proposed Action.

3.1	<i>Transportation Resources</i>
3.2	<i>Floodplains</i>
3.3	<i>Right-of-Way</i>
3.4	<i>Historic Properties</i>
3.5	<i>Parks, Trails and Recreation Resources</i>
3.6	<i>Traffic Noise</i>
3.7	<i>Social Resources</i>
3.8	<i>Environmental Justice</i>
3.9	<i>Land Use</i>
3.10	<i>Hazardous Materials</i>
3.11	<i>Water Quality</i>
3.12	<i>Wetlands and Waters of the US</i>
3.13	<i>Other Resources</i>
3.14	<i>Cumulative Impacts</i>
3.15	<i>Summary of Project Impacts</i>

## 3.1 Transportation Resources

### 3.1.1 Traffic Conditions

US 24 is an urban principal arterial from Interstate 25 (I-25) west to Manitou Avenue. East of 8th Street, US 24 provides three through-lanes in each direction with ramps connecting to I-25. West of 8th Street, US 24 has two through-lanes in each direction with auxiliary acceleration and deceleration lanes for all right turns. Six intersections provide access to local streets between the interchanges – 8th Street, 14th Street (right-in, right-out for westbound traffic), 21st Street, 26th Street, 31st Street, and Ridge Road. Each intersection provides single right and left turn lanes, with the exception of a double left turn at 8th Street for the westbound-to-southbound and northbound-to-westbound movements. Additionally, there are no right turn lanes for northbound-to-eastbound turns at 26th Street and 31st Street. Beyond Manitou Springs, west of the study area, US 24 remains a four-lane highway.

Although the peak hours vary slightly by segment, traffic counts collected for the study indicate that the morning peak hour is between 7 a.m. and 8 a.m., and the evening peak occurs between 4 p.m. and 5 p.m. These times are consistent with typical peak hours in urban areas. Fairly high noon peak traffic was also observed, presumably due to the surrounding commercial development. However, this noon peak hour was not analyzed.

The highest peak hour volumes in the study area are experienced between the I-25 interchange and 8th Street. At the I-25 interchange, more vehicles from the study area access southbound I-25 than northbound I-25. The substantial turn volumes to southbound 8th Street are consistent with the destinations south of US 24, which include retail and housing. Midway along the study area, 21st Street is a major access point to the south. At the west end of the study area, 31st Street is an important access point from the north.

Just north of US 24 on 21st Street is an intersection with Naegle Road. This intersection is too close to the US 24 and 21st Street intersection, resulting in turning vehicles at both intersections overlapping and interfering with the operations of the other intersection.

On US 24, the heaviest existing traffic volumes are eastbound in the morning peak hour and westbound in the evening peak hour. Much of the US 24 traffic enters and exits the study area west of the Manitou Avenue interchange and remains on US 24, suggesting that US 24 carries a large number of regional trips. Through the US 24 corridor, during the peak period in the peak direction, heavy trucks represent from 0.5 percent to 3.1 percent of the traffic.

As described in **Chapter 1, Purpose and Need**, this segment of US 24 cannot handle current traffic volumes, and the resulting congestion is unacceptable today and is forecasted to get worse in the future. Level of Service (LOS) D is the standard of acceptable performance for City of Colorado Springs and CDOT, and was adopted as the standard for this study by the TLT. In the morning peak hour, the US 24 intersections with 8th Street and 21st Street operate at an unacceptable LOS F. In the evening peak hour, both intersections operate at an unacceptable LOS E. At the Ridge Road intersection, the overall intersection operates at LOS A because vehicles on US 24 do not stop here. However, the trips on Ridge Road generated from the Red Rock Canyon Open Space and the neighborhood south of US 24 operate at LOS F in the existing peak hours.

79 Currently, at most major intersections along the US 24 corridor, the excessive traffic delay  
80 results in significant queuing. Queues form at the US 24 and northbound I-25 ramp intersection  
81 in both the morning and evening peak hours. Often, these lengthy queues extend well up the  
82 off-ramp onto mainline I-25. At 8th Street, the excessive eastbound delay results in queuing in  
83 both the morning and evening peak hours with the morning peak hours being worse than the  
84 evening peak hours. Also, queues at both the southbound left turn lane and northbound right  
85 turn lane exceed available storage capacity. This causes turning vehicles to queue into the  
86 through-lanes and results in congestion for the non-turning vehicles. The intersection of US 24  
87 and 21st Street has significant queuing on all approaches, which is exacerbated by the close  
88 proximity to the Naegle Road intersection on the north leg of 21st Street. Consistent with the  
89 peak hour traffic volumes, the worst queuing occurs eastbound in the morning and westbound  
90 in the evening. Both the eastbound through-movement and southbound left turn movement at  
91 the intersection of US 24 and 26th Street experience lengthy queues. At 31st Street, both the  
92 eastbound and westbound through-movements have significant queues and the eastbound left  
93 turn queues often exceed available storage, spilling into the eastbound through-lanes. As queues  
94 and resulting delays increase, drivers are more likely to reroute onto neighborhood streets  
95 looking for a shorter route.

96 Detailed discussion of transportation conditions and local and regional traffic analyses are  
97 documented in the *Traffic Impact Analysis Technical Memorandum* (CH2M HILL, 2008a) in  
98 **Appendix C.**

### 99 3.1.2 Transit Operations

100 Bus service is operated by Mountain Metro Transit, a division of the City of Colorado Springs.  
101 This service operates in the study area along Colorado Avenue, 8th Street, 21st Street, and other  
102 city streets. Four Mountain Metro Transit routes currently operate in the US 24 corridor and  
103 these routes change occasionally:

- 104 • **Route 3** – Travels along Colorado Avenue to connect Manitou Springs with downtown  
105 Colorado Springs. Route 3 carries among the highest number of riders in the Mountain  
106 Metro Transit system.
- 107 • **Route 4** – Travels along 8th Street to connect the Broadmoor Resort with downtown  
108 Colorado Springs.
- 109 • **Route 14** – Travels the far-east end of Colorado Avenue to connect areas north of the study  
110 area with downtown Colorado Springs.
- 111 • **Route 16** – Travels along Colorado Avenue, 21st Street, and 26th Street to connect  
112 neighborhoods north of the study area with downtown Colorado Springs.

113 Ute Pass Express provides regional bus service between downtown Colorado Springs and  
114 mountain communities west of Manitou Springs, and does not have stops on US 24. Ute Pass  
115 Express is a public transit service introduced to improve mobility options and reduce traffic  
116 congestion along US 24. This service is funded by a federal Congestion Mitigation and Air  
117 Quality demonstration grant, and 2011 is the last year in a 3-year grant. Private bus service in the  
118 study area is provided by casinos to their Cripple Creek businesses.

### 119 3.1.3 Bicycle and Pedestrian Facilities

120 Sidewalks exist along most city streets in the study area, although they are inconsistent in size,  
 121 quality, and condition. Pedestrian movement across US 24 is facilitated by pedestrian signals and  
 122 crosswalks. Anecdotal evidence indicates some pedestrians cross US 24 at locations between  
 123 intersections. Trails within the study area are used by commuters going into downtown  
 124 Colorado Springs and recreational users accessing America the Beautiful Park, Red Rock Canyon  
 125 Open Space, and other local parks. Several trails intersect the study area and are shown in  
 126 **Exhibit 3-1:**

- 127 • **Midland Trail** – Runs east-west on the north side of US 24 from east of I-25 to 21st Street.  
 128 At this point, there is a 4-block gap and the Midland Trail begins again at 25th Street,  
 129 continuing west to Ridge Road. A short segment has been constructed on the north side of  
 130 Colorado Avenue between Columbia Road and Mustang Field. On the east, the Midland  
 131 Trail connects to the Pikes Peak Greenway via an underpass of I-25 south of Colorado  
 132 Avenue.
- 133 • **Bear Creek Trail** – Runs east-west south of the study area and connects to the Pikes Peak  
 134 Greenway via an underpass of I-25 south of the US 24 and I-25 interchange.
- 135 • **Pikes Peak Greenway** – Runs north-south along Monument Creek and Fountain Creek  
 136 east of I-25.
- 137 • **Foothills Trail** – Runs north-south on 31st Street.

### 138 3.1.4 Impacts of the No Action Alternative

#### 139 Traffic Conditions

140 The existing configuration of US 24 and its cross streets cannot accommodate existing traffic  
 141 volumes. By 2035, traffic volumes in the study area are forecasted to increase on average  
 142 45 percent over 2005 conditions (CH2M HILL, 2008a). As a result of increased traffic volumes,  
 143 LOS would deteriorate further, with most locations in the study area operating at LOS E or  
 144 LOS F in the evening peak travel hour, as shown in **Exhibit 3-2**.

145 Heavy traffic on US 24 would cause most cross-street intersections to operate at unacceptable  
 146 LOS during peak hours. Due to the congestion on US 24 and operational inefficiencies of the  
 147 I-25 interchange, the northbound ramps would operate at unacceptable LOS and cause traffic to  
 148 back up onto the interstate during peak periods.

149 Increasing congestion would cause longer travel times through the study area and result in more  
 150 cut-through traffic as drivers seek to escape the overcrowded roadways.

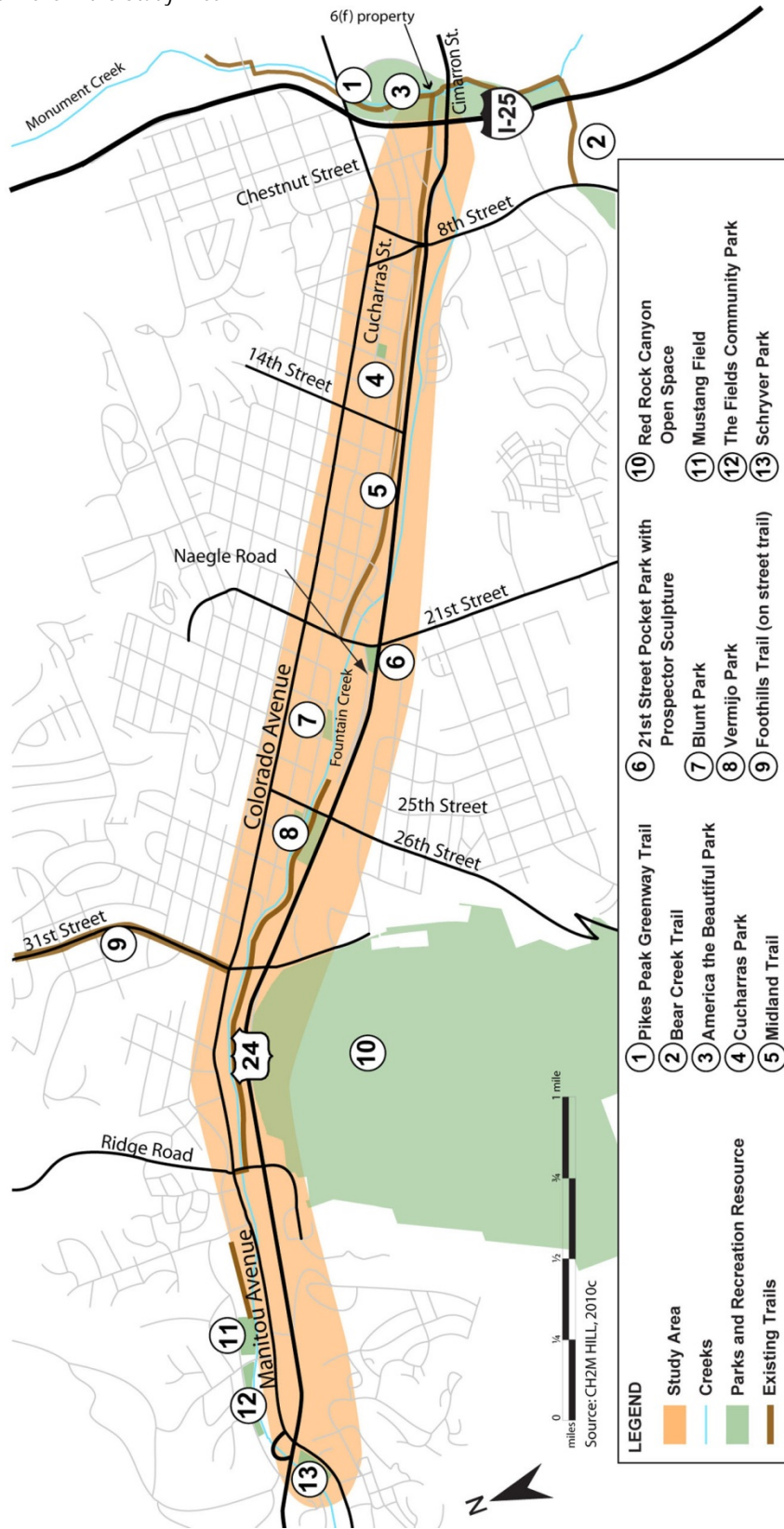
#### 151 Transit Operations

152 Connections to bus service in the study area may remain unchanged or may be altered according  
 153 to Mountain Metro Transit plans and funding. Continued congestion at US 24 intersections  
 154 could affect the timeliness of bus service and could affect timely transfers between bus routes.

#### 155 Bicycle and Pedestrian Facilities

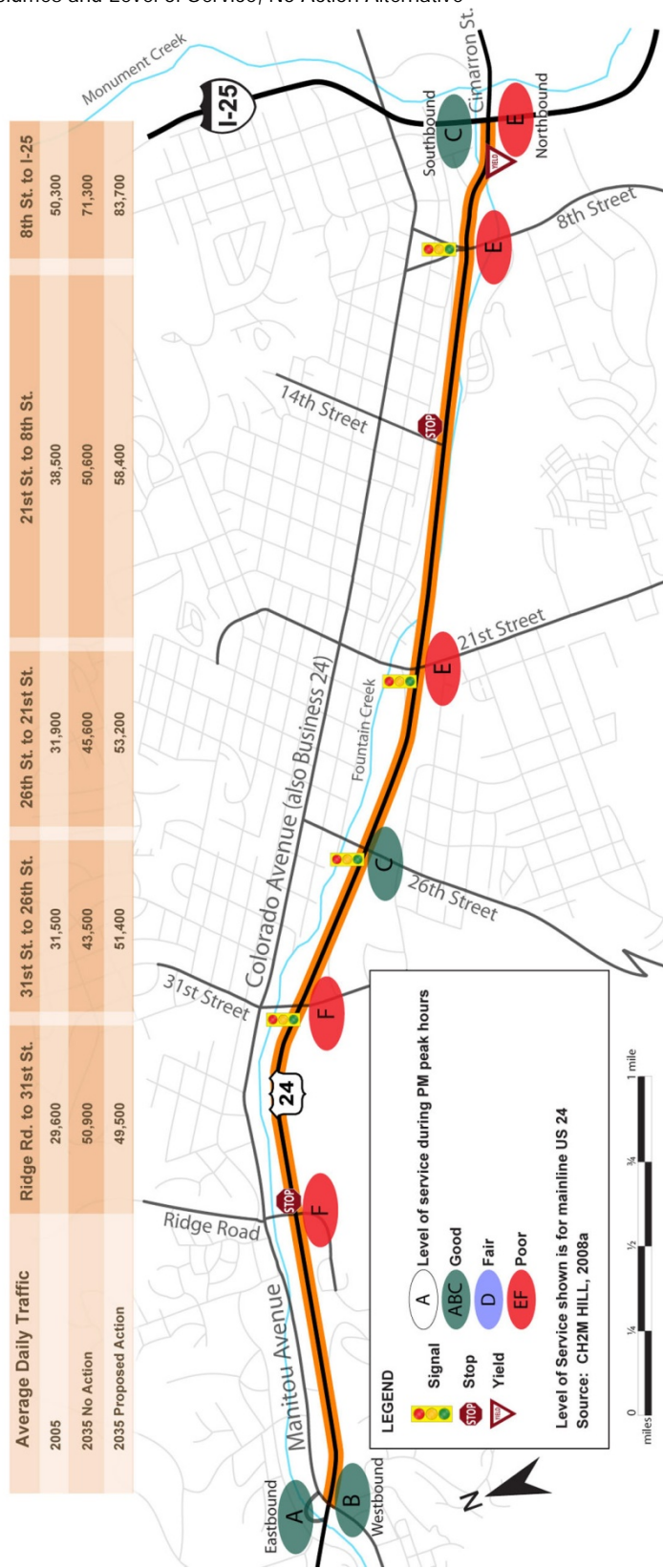
156 Local sponsors plan improvements to trails as funding becomes available. Connecting the  
 157 Midland Trail between 21st Street and 25th Street along Fountain Creek is one planned trail  
 158 improvement. Completing this east-west trail system would increase mobility for bicyclists and  
 159 pedestrians, and would improve connectivity to other local and regional trails.

160 EXHIBIT 3-1  
 161 Existing Parks and Trails in the Study Area



162  
163

EXHIBIT 3-2  
Forecasted 2035 Traffic Volumes and Level of Service, No Action Alternative





### 164 3.1.5 Impacts of the Proposed Action

#### 165 Traffic Conditions

166 By 2035, traffic volumes in the study area with the  
 167 Proposed Action are forecasted to increase on average  
 168 65 percent over 2005 conditions (CH2M HILL, 2008a).  
 169 The Proposed Action would increase volumes above the  
 170 No Action Alternative as a result of latent demand. Latent  
 171 demand represents travel that is desired but rerouted  
 172 because of constraints. Drivers desiring to travel on US 24,  
 173 but currently traveling on adjacent routes such as Colorado  
 174 Avenue or 31st Street, would shift back to traveling along  
 175 US 24 under the Proposed Action because of its increased  
 176 capacity and improved traveling conditions.

177 Under the Proposed Action, traffic operations would be  
 178 improved over No Action Alternative conditions for  
 179 nearly all of the study area. Forecasted average daily traffic  
 180 volumes and LOS during the evening peak hour are shown  
 181 in **Exhibit 3-3**.

182 The single-point diamond interchange (SPDI) proposed at  
 183 the I-25 interchange would eliminate the tight curve and  
 184 low speeds of the existing interchange design. Ramp acceleration and deceleration lengths would  
 185 be increased to meet current design standards, reducing the potential for slowdowns in through-  
 186 lanes on US 24. The interchange ramps between 8th Street and I-25 would be connected to  
 187 allow continuous flow of traffic between the two interchanges, improving traffic operations in  
 188 these areas. Flyover ramps at the I-25 interchange would allow travelers eastbound on US 24 to  
 189 access I-25 without stopping at either the 8th Street or I-25 interchanges. Removing this regional  
 190 traffic provides substantial improvement to traffic operations to the intersection on 8th Street.

191 The existing right-in/right-out at 14th Street intersection would be removed because this access  
 192 point would interfere with the interchange ramp movements at both 21st Street and 8th Street.

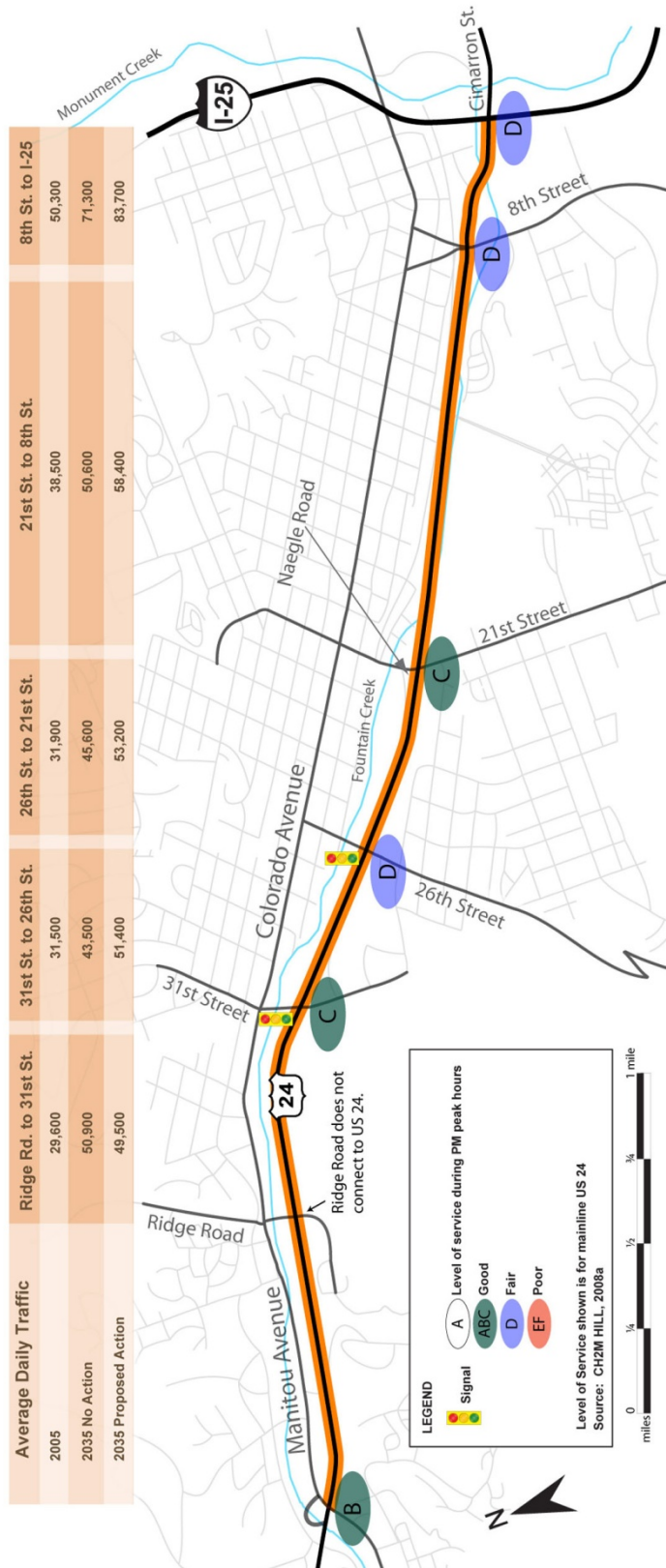
193 Naegle Road from 21st Street to 25th Street would be closed because the intersection of  
 194 21st Street and Naegle Road is too close to the US 24 and 21st Street interchange. There is  
 195 inadequate room to provide a turn lane for vehicles at Naegle Road.

196 The existing 25th Street bridge over Fountain Creek would be removed because it would no  
 197 longer connect to Naegle Road and, therefore, would provide no function. The existing  
 198 25th Street would be ended north of the Fountain Creek.

*Traffic conditions in the year 2035 were forecasted using the PPACG regional travel demand model. This regional model is a robust database of future land use characteristics, expected future roadway network improvements, planned transit operations, and travel behavior.*

*The model considers anticipated land use changes and takes into account travel patterns likely to result from planned activities in the study area, such as development of Gold Hill Mesa and other infill development.*

199 EXHIBIT 3-3  
 200 Forecasted 2035 Traffic Volumes and Level of Service, Proposed Action



201 Traffic accessing the Red Rock Canyon Open Space or leaving the neighborhood on the south  
202 side of US 24 would be rerouted, accessing Ridge Road from Colorado Avenue because Ridge  
203 Road would be removed as an at-grade intersection and replaced with US 24 going over Ridge  
204 Road with no direct access from US 24.

205 Traffic modeling suggests that congestion is not a problem at the Manitou Avenue interchange  
206 in 2035; therefore, no highway capacity improvements are recommended west of Ridge Road.

### 207 **Transit Operations**

208 The Proposed Action would continue to accommodate express bus service on US 24 for  
209 regional travelers and existing bus service on city streets for local travelers. The Proposed Action  
210 would enhance transit operations in the study area by providing land for a new park and ride,  
211 which would be built by others, at the northeast corner of US 24 and 31st Street.

212 Increased capacity on US 24 would improve bus operations on Colorado Avenue and  
213 surrounding roads, and help maintain the timeliness of bus service and transfers between bus  
214 routes.

215 Construction could temporarily impact bus stops for transit routes that cross US 24, if detours  
216 or lane closures are required.

### 217 **Bicycle and Pedestrian Facilities**

218 Sidewalks would be constructed along each of the US 24 cross streets, including Ridge Road,  
219 31st Street, 26th Street, 21st Street, and 8th Street, connecting pedestrians to the north and  
220 south of US 24.

221 The segment of the Midland Trail that crosses under I-25 north of the US 24/I-25 interchange  
222 would not be impacted by the Proposed Action. The Midland Trail from 8th Street to  
223 approximately 11th Street would require realignment to accommodate the US 24 road  
224 improvements. The Proposed Action would reconstruct the affected portion of the trail and no  
225 permanent change in the function or continuity of the trail would occur. At the US 24 cross  
226 streets of 21st Street, 26th Street, 31st Street, and Ridge Road, the bridges would be replaced,  
227 causing a temporary construction impact to the trail in the vicinity of each bridge. No long-term  
228 impacts at these four locations are expected and trail continuity would be maintained during  
229 construction.

230 A segment of the Foothills Trail, an on-street trail along 31st Street, would be temporarily  
231 impacted by roadway construction.

232 The grade separation at Ridge Road and US 24 would change the pedestrian and bicycle access  
233 to the Red Rock Canyon Open Space. With US 24 being raised over Ridge Road, bicycles and  
234 pedestrians would no longer be able to access the Red Rock Canyon Open Space from US 24.

235 Completing this east-west trail system would increase mobility for bicyclists and pedestrians, and  
236 would improve connectivity to other local and regional trails by expanding the trail network.

### 237 **Construction**

238 Construction phasing has not yet been developed in detail. If lanes are closed on US 24 and/or  
239 major side streets during construction, congestion in and surrounding the construction area  
240 would increase during times of lane closures. This increased congestion could temporarily  
241 increase traffic volumes on other roadways (such as Colorado Avenue or 31st Street) as drivers  
242 find other travel routes to avoid construction congestion.

243 If road closures are required on any facilities, detours would be implemented that would  
244 temporarily increase traffic volumes on adjacent neighborhood streets and parallel facilities.

245 Lane closures, detours, and increased congestion during construction would cause delays for the  
246 traveling public and inconvenience to residents in the area. Increased congestion in the study  
247 area could also delay buses and affect timely transfers between bus routes.

248 During construction, closure, or rerouting of existing sidewalks/trails may cause out-of-direction  
249 pedestrian and bicycle travel.

### 250 **3.1.6 Mitigation**

251 CDOT will construct a cul-de-sac on 25th Street south of Vermijo Avenue.

252 CDOT will construct an on-street trail on Ridge Road from Colorado Avenue south to Red  
253 Rock Canyon Open Space.

254 CDOT will work with Mountain Metro Transit to ensure access is maintained to bus stops on  
255 26th Street during construction.

256 CDOT will realign and reconstruct the Midland Trail between 8th Street and 11th Street.

257 CDOT will maintain the safety of the Midland Trail users by temporarily relocating the trail at  
258 21st Street, 26th Street, 31st Street, and Ridge Road during construction of the bridges over  
259 Fountain Creek. New permanent trail will be constructed as part of each bridge improvement.  
260 The new segments will go under each bridge in the vicinity of where they are currently located.

261 CDOT will place signs along the Midland Trail notifying users that the trail is in the 100-year  
262 floodplain.

263 CDOT will reconstruct the on-street trail of the Foothills Trail on 31st Street in its current  
264 location.

265 CDOT will collaborate with City of Colorado Springs Parks, Recreation & Cultural Services  
266 Department (or Trails, Open Space & Parks program [TOPS], as appropriate) on the alignment  
267 and design of trails to be constructed, and build all trails to comply with adopted City of  
268 Colorado Springs Parks, Recreation & Cultural Services Department plans.

269 CDOT will develop a traffic control plan during final design that details strategies to minimize  
270 traffic disruption from construction activities.

271 Construction phasing and other activities will be planned to minimize the impact to the traveling  
272 public, area residents, businesses, and emergency service providers. CDOT will develop a Public  
273 Information Plan during construction that will provide coordination with stakeholders, including  
274 the community, Colorado State Patrol, Colorado Springs Police, Manitou Springs Police, and  
275 Colorado Motor Carriers Association. Any lane closures during construction will comply with  
276 CDOT's Lane Closure Strategy. Advance notice will be provided for extended lane closures.  
277 Detours for vehicles, bicycles, and pedestrians will be identified with adequate signage to  
278 minimize out-of-direction travel.

## 279 3.2 Floodplains

280 Executive Order 11988, “Floodplain Management,” requires federal agencies to avoid impacts to  
 281 floodplains whenever possible. Federal Highway Administration (FHWA) requirements for  
 282 compliance with this Executive Order are outlined in 23 CFR 650, Subpart A.

283 Floodplains are the lands beside a stream or river that are inundated when the capacity of the  
 284 stream channel is exceeded. A 100-year floodplain is the area that would be flooded by a storm  
 285 estimated to occur once in 100 years. Changes in the floodplain, such as adding fill material,  
 286 constructing buildings or bridges, or constricting the stream  
 287 channel, can reduce the capacity of a floodplain and cause the  
 288 water surface elevation to rise. Any change greater than a  
 289 1-foot increase over the Base Flood Elevation would be  
 290 considered an impact to the floodplain, and mitigation would  
 291 be necessary.

Nearly all of US 24 east of  
 31st Street is in the 100-year  
 floodplain of Fountain Creek  
 and its tributaries.

292 More than two-thirds of US 24 in the study area is in the Fountain Creek 100-year floodplain  
 293 designated by the Federal Emergency Management Agency (FEMA). The Pikes Peak Regional  
 294 Building Department's Floodplain Management Office provides floodplain management services  
 295 for Colorado Springs, Manitou Springs, and unincorporated El Paso County.

296 Regulatory requirements and design criteria guided the development of the Proposed Action; if  
 297 conflicts or contradictions occurred, the most conservative or restrictive standard was applied.  
 298 Specific design criteria are summarized below.

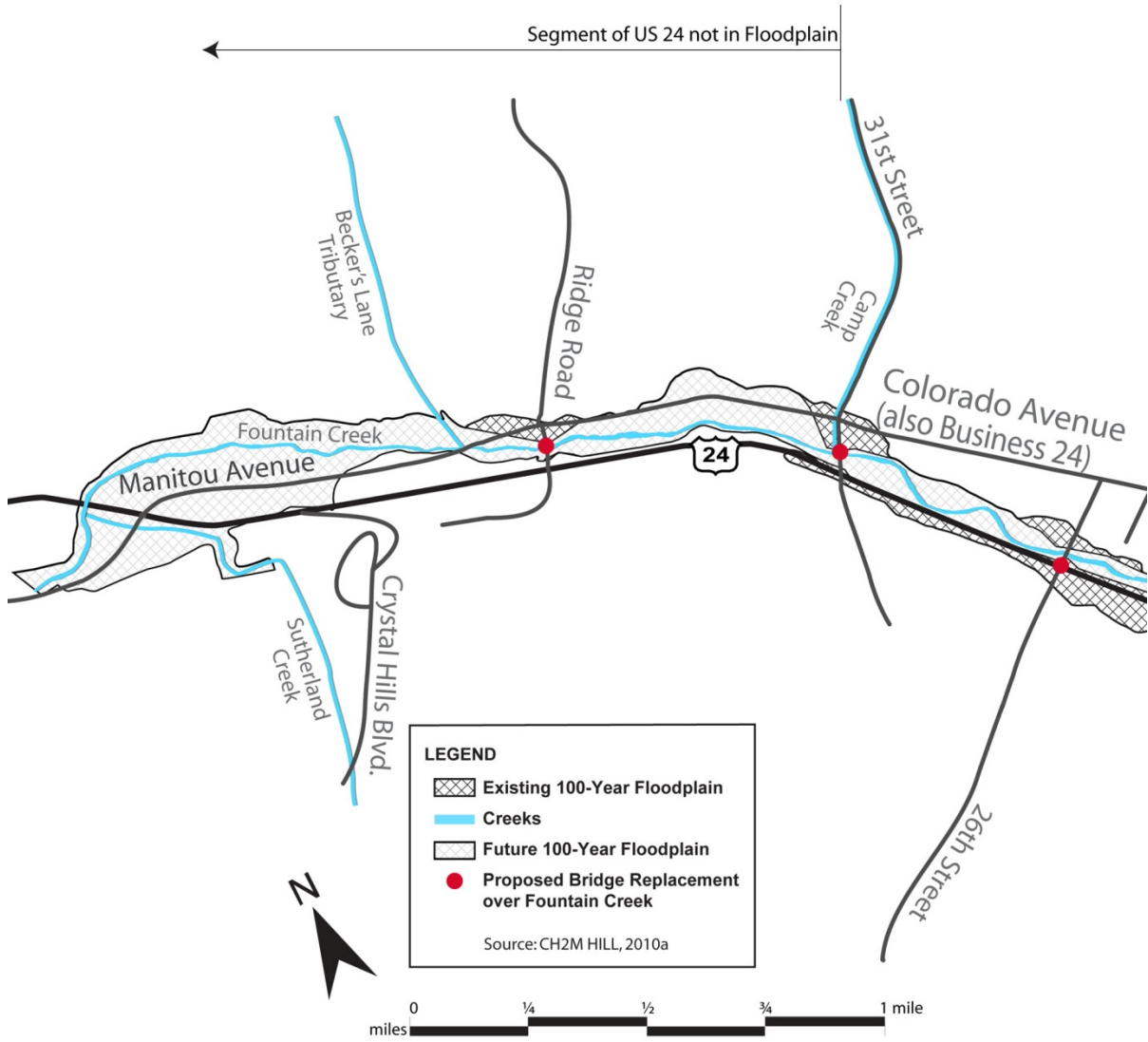
- 299 • **CDOT** – Bridges must comply with the department’s *Drainage Design Manual*  
 300 (CDOT, 2004b). The current minimum requirement is that during a 100-year flood, the  
 301 water surface would be no less than 4 feet below the bottom of the bridge girders.
- 302 • **El Paso County** – The floodplain administrator recommends that projects not increase the  
 303 100-year floodplain water surface elevation.
- 304 • **City of Colorado Springs** – The current standard is that during a 100-year flood, the water  
 305 surface would be no less than 2 feet below the bottom of the bridge girders.

306 Fountain Creek has been the subject of several recent floodplains studies. Muller Engineering  
 307 (1994) estimated peak flow rates; FEMA (1999) developed computer models of water surface  
 308 elevations; and URS (2005) revised estimated peak flow rates in a study for United States Army  
 309 Corps of Engineers (USACE) based on new hydrology. The URS model (2006) is the most  
 310 current accepted model for Fountain Creek in the study area, and was the basis for this analysis.

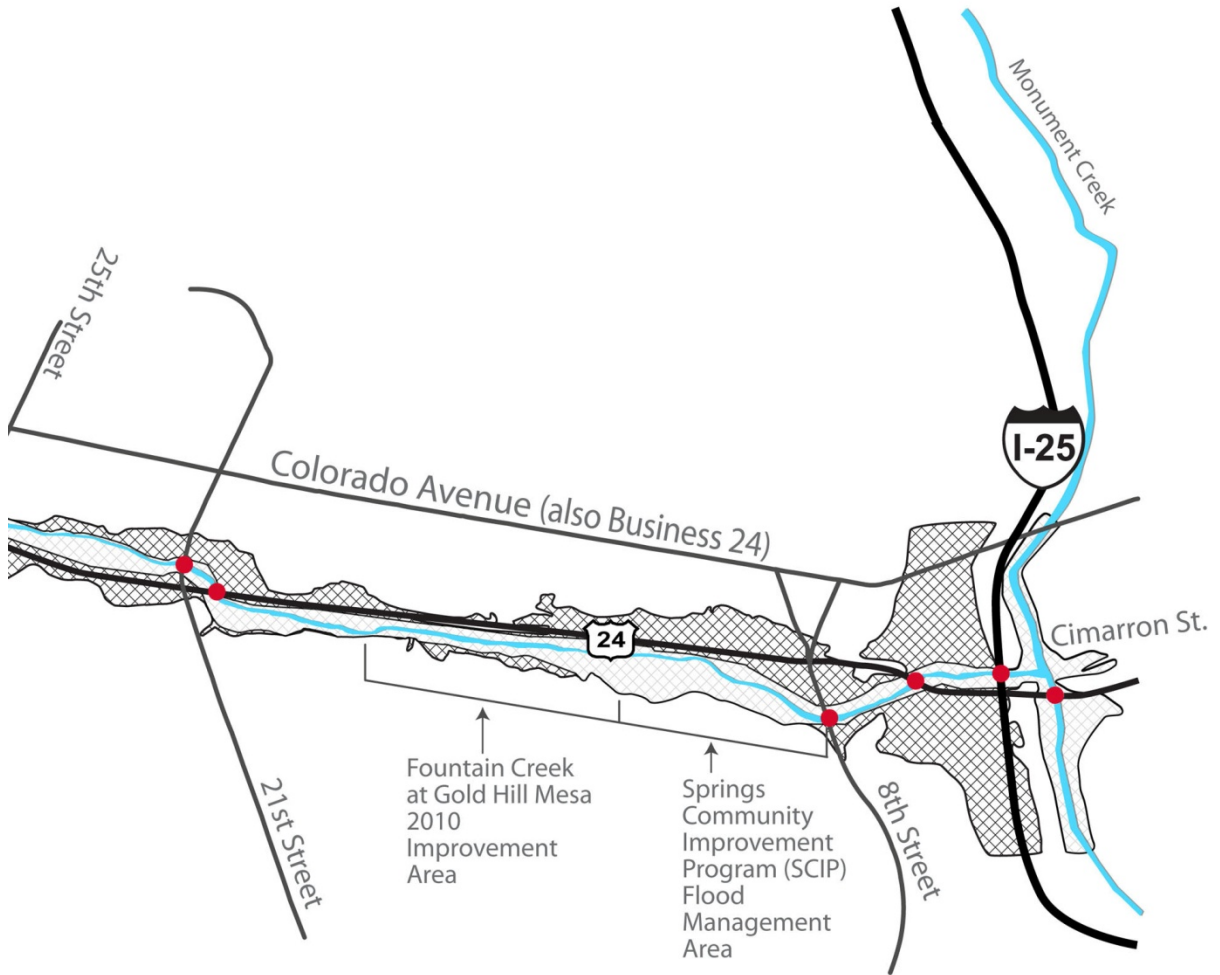
311 Regulated floodplains are associated with five streams in the study area: Fountain Creek,  
 312 Monument Creek, Camp Creek, Becker’s Lane Tributary, and Sutherland Creek. These features  
 313 and the current floodplains are shown in **Exhibit 3-4**. To show detail, the graphic is presented  
 314 on two pages.

315 Fountain Creek parallels US 24 from I-25 to Manitou Springs, with US 24 crossing over  
 316 Fountain Creek in two locations. Within the study area, every north-south street intersection  
 317 with US 24 has a bridge over Fountain Creek. The bridges crossing Fountain Creek at 8th Street,  
 318 21st Street, 25th Street, 26th Street, 31st Street, and Ridge Road do not currently accommodate  
 319 the 100-year flood volume.

320 EXHIBIT 3-4  
 321 Existing and Proposed Future 100-Year Floodplains



322 EXHIBIT 3-4 (CONTINUED)  
323 Existing and Proposed Future 100-Year Floodplains



324 US 24 is not within the floodplain between  
 325 Crystal Hills Boulevard and 31st Street. West of  
 326 Crystal Hills Boulevard, US 24 is well above the  
 327 creek, rising above the high water elevation of the  
 328 100-year flood in this area. During high flows,  
 329 Sutherland Creek crosses under US 24 by flowing  
 330 down Crystal Hills Boulevard.

331 East of 31st Street, 95 percent of US 24 is in the  
 332 100-year floodplain. The bridge east of 21st Street  
 333 was nearly washed out during an estimated  
 334 20-year storm event in 1999, requiring substantial  
 335 construction and a lengthy detour of highway  
 336 traffic.



*The US 24 bridge east of 21st Street was heavily damaged by flooding from a storm in 1999*

337 Subsequently, from 8th Street west to 13th  
 338 Street, the Fountain Creek floodplain was improved by the City of Colorado Springs to reduce  
 339 the impact of flooding.

340 From about 8th Street west to 13th Street, the channel of Fountain Creek was reconstructed in  
 341 2010 by CDOT, the City of Colorado Springs' Stormwater Enterprise, and the developer of  
 342 Gold Hill Mesa in order to comply with the Colorado Department of Public Health and  
 343 Environment (CDPHE) requirements. CDOT right-of-way (ROW) included the southern bank  
 344 of the creek and portions of the low-flow channel.

345 CDOT consulted with the appropriate regulatory agencies, and CDPHE provided oversight of  
 346 the project. Ultimately, the preferred plan for the restoration project was agreed upon and  
 347 CDOT, the City of Colorado Springs, and Gold Hill Mesa together implemented the plan. The  
 348 purpose of the project was to remove and stabilize contaminated soils from former mining  
 349 operations on Gold Hill Mesa. The outer bank of the low-flow channel, constructed as part of  
 350 the channel improvement, is armored with large rock and several drop structures were built. A  
 351 small number of mature trees were removed and hundreds of smaller trees and shrubs were  
 352 planted. Areas were re-seeded and erosion control blankets were installed to stabilize slopes.  
 353 Following this reconstruction, the channel accommodates the 50-year flood event, and would  
 354 accommodate the 100-year flood event after the Proposed Action is constructed.

355 The floodplain expands north across US 24 as the creek approaches its confluence with  
 356 Monument Creek. The 100-year floodplain extends north across Colorado Avenue and south of  
 357 the I-25 interchange. The elevated portion of I-25 is out of the floodplain but all of the US 24  
 358 mainline and connecting ramps would be inundated in a 100-year flood. Additional information  
 359 about the floodplains analysis is included in the *Floodplains Technical Memorandum* (CH2M HILL,  
 360 2010a) in **Appendix C**.

### 361 **3.2.1 Impacts of the No Action Alternative**

362 Throughout the study area, most of existing US 24 and much of the adjoining land (including  
 363 hundreds of residential and commercial properties) are subject to 100-year flooding from  
 364 Fountain Creek and its tributaries. Because no new bridges would be built with the No Action  
 365 Alternative, US 24 and adjoining properties would remain within the 100-year floodplain, and  
 366 bridges would overtop and create backflow areas during storms.



### 3.2.2 Impacts of the Proposed Action

Because the existing bridges have to be reconstructed to tie into the new US 24 highway, the Proposed Action must rebuild the bridges crossing Fountain Creek in accordance with current state and local design standards, the Proposed Action would reduce the size of the floodplain of Fountain Creek from approximately 378 acres to 228 acres. The Proposed Action would also remove US 24 and bridges on the mainline and side streets from the floodplain.

At each bridge, the Fountain Creek channel would need to be realigned and widened to accommodate the 100-year flood. The reduced floodplain is illustrated in **Exhibit 3-4**. Channel improvements are needed to provide transitions between the current streambanks and the replacement bridges, and to avoid new US 24 encroachments. General channel modifications require grading a transition from creek banks upstream and downstream at each new bridge.

The Proposed Action roadway embankments encroach into the Fountain Creek floodplain at three locations: on the north bank from 8th to 15th Street, on the south bank between 25th and 31st Streets, and on the south bank from 31st Street and Ridge Road. Some embankment encroachments extend into the floodplain and others encroach directly into the low-flow channel. A low-flow channel is a smaller channel within a larger drainage way that carries normal flows. Only minor impacts are anticipated at the confluences of each tributary creek to Fountain Creek. Further hydraulic analysis would be completed during final design to confirm actual limits of hydraulic impacts and bridge sizing.

Analyses conducted for this EA indicate that the floodplain limits and the water surface elevation would not rise at any locations after the Proposed Action is implemented, and the water surface elevation would be lowered at all bridge crossings and most segments of Fountain Creek. US 24 and its intersections would no longer be overtopped during the 100-year flood. An estimated 68 properties with residential or commercial structures in the floodplain would no longer be in the floodplain (this is the number of properties or lots, some of which contain more than one building), as would another 55 units of manufactured housing at A-1 Mobile Village.

Parts of the Midland Trail bicycle and pedestrian trail system from 26th Street to approximately Ridge Road would be within the floodplain.

During the development of the Proposed Action, coordination with the USACE and FEMA was ongoing. The existing conditions, the impacts of the alternatives, and possible mitigation were discussed. General agreement was reached that the Fountain Creek floodplain would be improved as a result of the Proposed Action.

### 3.2.3 Mitigation

New bridges crossing Fountain Creek at I-25, 8th Street, 21st Street, 26th Street, 31st Street, and Ridge Road, as well as three US 24 bridges, will be designed to state and local standards that require accommodating the 100-year flood, which will require re-grading Fountain Creek upstream and downstream of each bridge.

CDOT will re-grade the Fountain Creek channel from I-25 to Ridge Road, providing an armored low-flow channel and a widened stabilized area to accommodate the 100-year flood. The design will strive to maintain the low-flow channel in its current location whenever possible to protect existing large trees and stream-side vegetation. This will stabilize the newly constructed slopes and minimize erosion during construction. The design will utilize retaining walls to provide adequate channel width and depth in confined areas. Disturbed areas will be

410 stabilized and re-vegetated with native species. CDOT will complete this re-grading in  
411 coordination with the USACE and FEMA.

412 CDOT will place signs along the trail notifying users that some segments of the Midland Trail  
413 are within the 100-year floodplain.

414 During the final design, CDOT will coordinate with the appropriate local and federal agencies to  
415 conduct hydraulic analysis, confirm limits of improved floodplain, and provide a Conditional  
416 Letter of Map Revision.

### 417 3.3 Right-of-Way

418 Right-of-way (ROW) is the land owned by CDOT used for transportation facilities and their  
419 maintenance. This section describes the potential ROW acquisitions and relocations that would  
420 be necessary for the Proposed Action. Existing ROW and potential property impacts were  
421 analyzed using current parcel mapping obtained from El Paso County and the construction  
422 limits for the Proposed Action developed during conceptual design. These data were  
423 supplemented with field visits and review of aerial photography. Additional information about  
424 ROW is included in the *Right-of-Way Technical Memorandum and Acquisition Atlas*  
425 (CH2M HILL, 2010b) in **Appendix C**.

426 Private property and land owned by public entities such as City of Colorado Springs surround  
427 the state-owned ROW along US 24. Width of ROW varies, but essentially follows the roadway  
428 corridor, leaving little room for expansion between 8th Street and Ridge Road without acquiring  
429 ROW.

#### 430 3.3.1 Impacts of the No Action Alternative

431 Under the No Action Alternative, local agencies would widen and improve intersections at both  
432 8th Street and 21st Street, and extend the Midland Trail between 21st Street and Manitou  
433 Avenue. While these improvements may require additional ROW, they were not designed when  
434 this EA was conducted and specific impacts are not yet known. For more information on the  
435 projects included in the No Action Alternative, refer to **Chapter 2, Alternatives**.

#### 436 3.3.2 Impacts of the Proposed Action

437 Implementation of the Proposed Action would require the acquisition of approximately 78 acres  
438 of ROW from 109 properties (81 commercial, 3 mixed-use, 14 public, and 11 residential),  
439 affecting 75 ownerships. Of the 109 impacted properties, 87 would be acquired in total and the  
440 remaining 22 would require partial acquisition. Estimated ROW acquisition by ownership type is  
441 provided in **Exhibit 3-5** and shown by location in **Exhibit 3-6**.

442 Beyond acquisition of property, the Proposed Action would result in relocation for each  
443 residential unit and each business. On this corridor, a single property may accommodate more  
444 than one business, more than one residential unit and, in one case, a single property has two  
445 single-family dwellings. A total of 24 households or residential units are displaced, 20 of which  
446 are on properties zoned residential and four are in mixed-use zoning. There are 77 businesses on  
447 60 commercial properties. At the time this EA was published, there were 77 structures that  
448 accommodate businesses. Although some structures were found to be vacant at one time during  
449 this study, some of these were later found to be occupied. Therefore, for purposes of this EA, it  
450 is assumed that 77 businesses would require relocation.

EXHIBIT 3-5  
Property Acquisitions by Land Use Category

Type	Ownership Type				Total
	Residential	Commercial	Public	Mixed-Use	
Total Acquisitions	9 (3 acres)	67 (51 acres)	8 (6 acres)	3 (1 acre)	87 (61 acres)
Partial Acquisitions	2 (<1 acre)	14 (9 acres)	6 (8 acres)	None (0 acres)	22 (17 acres)
Number of Owners	10	60	2	3	75

Source: CH2M HILL, 2010b

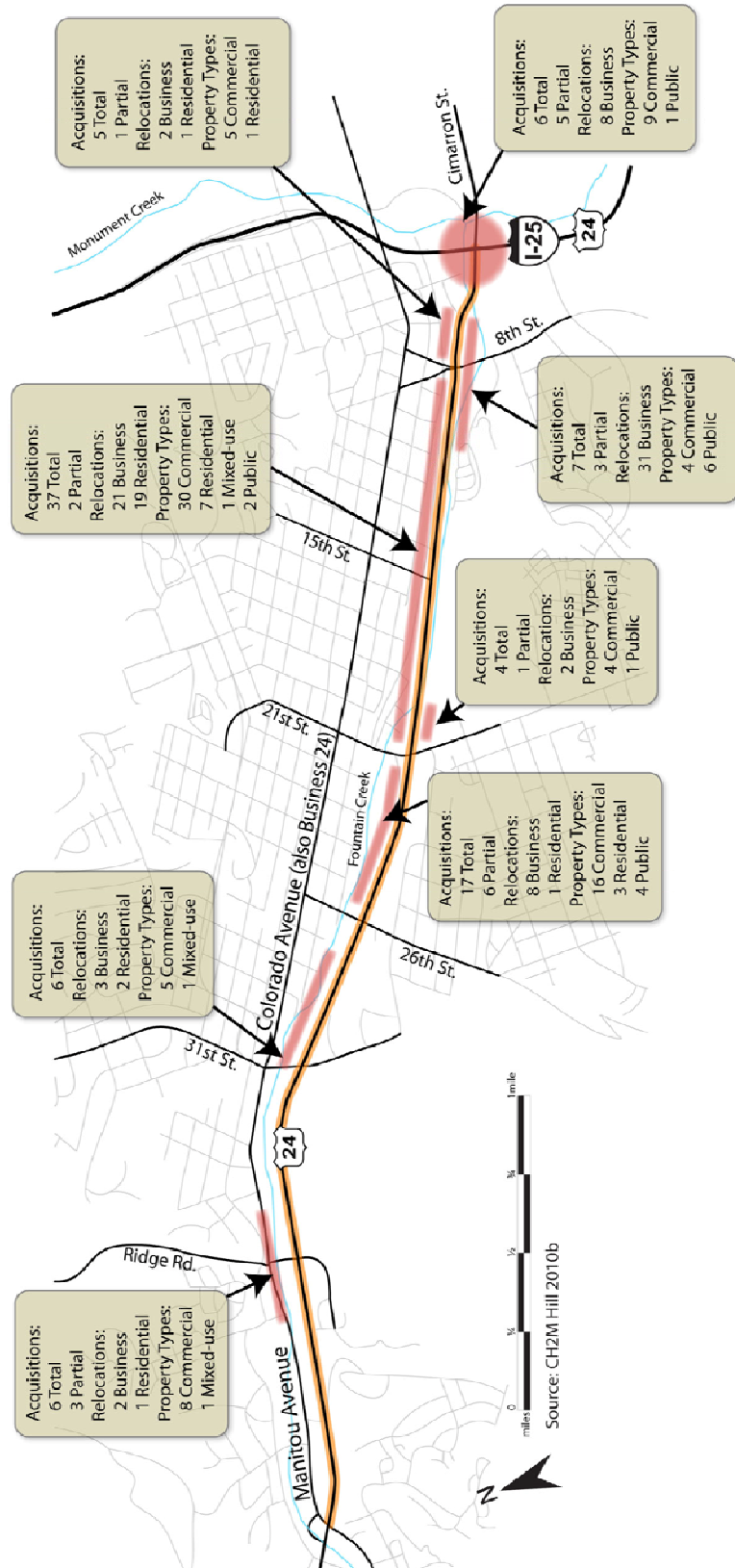
451 All property acquisitions are required for improvements to the transportation facilities. For  
452 example, the Proposed Action would permanently close Naegle Road and eliminate access to  
453 several properties. These properties are included in the acquisitions counted above because  
454 access to the properties cannot be restored. Also included in the acquisition numbers are  
455 properties impacted by the construction of the bridges and the re-grading of the channel at each  
456 bridge.

457 Several design refinements are included in the Proposed Action that minimize the number of  
458 acquisitions needed and avoid properties of importance to the community. Businesses, such as  
459 Safeway, that are of great importance to the community and that would have a difficult time  
460 relocating within the study area, were avoided.

461 A unique commercial site acquired for the Proposed Action is the Fountain Creek Recreational  
462 Vehicle Park. The Proposed Action would require the total acquisition of all three parcels  
463 associated with this vehicle park because of the reconstruction of the 31st Street bridge and the  
464 necessary channel re-grading associated with the bridge. The vehicle park is open year round and  
465 provides short- and long-term services to campers. Due to the transitory nature of the  
466 occupancy at this site, final relocation impacts would be determined prior to construction in  
467 accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act  
468 of 1970, as amended (Uniform Act).

469 In December 2008, the project team evaluated comparable housing and commercial properties  
470 currently available within 10 miles of the study area. For commercial property, 13 comparable  
471 listings were available in the immediate study area and an additional 18 were available within a  
472 10-mile radius. These available listings represent properties that would allow the relocation of  
473 several businesses on one property. The project would likely be completed in individual  
474 packages due to funding constraints as described in **Chapter 2, Alternatives**. The purchase of  
475 properties would occur over multiple years based on these packages, and would allow additional  
476 time for comparable housing to be located. Therefore, all 77 businesses that have to be relocated  
477 due to the project are expected to be able to relocate within a 10-mile radius of the study area.  
478 For residential properties, one comparable listing was found in the immediate study area and 82  
479 were found within a 10-mile radius. There is a potential for all 24 acquired residences to be  
480 relocated within the 10-mile radius of the study area.

481 EXHIBIT 3-6  
 482 Right-of-Way Acquisitions



483 As described in **Section 2.4, Description of the Proposed Action**, improvements to the I-25  
484 interchange included in the Proposed Action differ slightly from what was approved in the *I-25*  
485 *Improvements through the Colorado Springs Urbanized Area EA* (I-25 EA) (CDOT, 2004). The SPDI  
486 design changes the amount of ROW needed from five properties. These changes are included in  
487 the numbers given above for commercial and public properties. Additional information about  
488 these properties is included in the *Right-of-Way Technical Memorandum and Acquisition Atlas*  
489 (CH2M HILL, 2010b) in **Appendix C**.

### 490 3.3.3 Mitigation

491 Measures to avoid and minimize impacts to public and private property were considered by the  
492 project team. The Proposed Action represents the efforts to minimize impacts to property and  
493 meet the purpose and need for the project. For example, the Proposed Action was designed to  
494 avoid Safeway.

495 All property acquisition and relocation shall comply fully with federal and state requirements,  
496 including Uniform Act defined previously. CDOT requires Uniform Act compliance on any  
497 project for which it has oversight responsibility, regardless of the funding source. Additionally,  
498 the Fifth Amendment of the United States Constitution provides that private property may not  
499 be taken for a public use without payment of “just compensation.” All impacted residential or  
500 commercial properties will be provided notification of CDOT’s intent to acquire an interest in  
501 their property, including a written offer letter of just compensation specifically describing those  
502 property interests. A ROW specialist will be assigned to each property owner to assist them with  
503 this process.

504 In certain situations, it may be necessary to acquire improvements that are located within a  
505 proposed acquisition parcel. In those instances where the improvements are occupied, it would  
506 become necessary to “relocate” those individuals from the subject property (residential or  
507 business) to a replacement site. The Uniform Act provides for numerous benefits to these  
508 individuals to assist them both financially and with advisory services related to relocating their  
509 residence or business operations.

510 The benefits under the Uniform Act are available to both occupants and tenants of either  
511 residential or business properties. In some situations, only personal property must be moved  
512 from the real property, and this is also covered under the relocation program. As soon as  
513 feasible, any person scheduled to be displaced shall be furnished with a general written  
514 description of the displacing Agency's relocation program, which provides, at a minimum,  
515 detailed information related to eligibility requirements, advisory services and assistance,  
516 payments, and the appeal process. It shall also provide notification that the displaced person(s)  
517 will not be required to move without at least 90 days advance written notice. For residential  
518 relocations, this notice cannot be provided until a written offer to acquire the subject property  
519 has been presented and at least one comparable replacement dwelling has been made available.  
520 Relocation benefits will be provided to all eligible persons regardless of race, color, religion, sex,  
521 or national origin. Benefits under the Uniform Act, to which each eligible owner or tenant may  
522 be entitled, will be determined on an individual basis and explained to them in detail by an  
523 assigned ROW Specialist.

## 524 3.4 Historic Properties

525 Historic properties are defined as any prehistoric or historic district, site, building, structure, or  
526 object included in, or eligible for inclusion in, the National Register of Historic Places (National  
527 Register). A property is eligible for the National Register if it possesses historic integrity, such as  
528 maintaining original materials and design, and meets one or more of the following four criteria:

- 529 • **Criterion A** – Associated with important historical events or patterns,
- 530 • **Criterion B** – Associated with lives of persons significant in our past,
- 531 • **Criterion C** – Embodies distinctive characteristics of an architectural type, period, or  
532 method of construction, or
- 533 • **Criterion D** – Has yielded or is likely to yield information important in prehistory or history.

534 Historic properties also include those resources that are of significant local importance as  
535 defined by local consulting parties.

536 Section 106 of the National Historic Preservation Act of  
537 1966, as amended, requires federal agencies to evaluate the  
538 effects of their undertakings on historic properties.

539 Throughout the Section 106 process, agencies must consult  
540 with the Colorado State Historic Preservation Officer  
541 (SHPO) and other interested or consulting parties. In  
542 addition to the Colorado SHPO, the City of Colorado  
543 Springs and El Paso County participated as consulting  
544 parties in Section 106 consultations. CDOT invited several  
545 other entities to be consulting parties, including the City of  
546 Manitou Springs, Colorado Springs Pioneers Museum, Old  
547 Colorado City Historical Society, Organization of Westside  
548 Neighbors, Colorado Preservation, Inc., and the National  
549 Trust for Historic Preservation. None of these groups  
550 chose to participate as consulting partners. Correspondence  
551 with the Colorado SHPO and consulting parties is included  
552 in **Appendix H**.

### **Section 106 of the National Historic Preservation Act Compliance Steps**

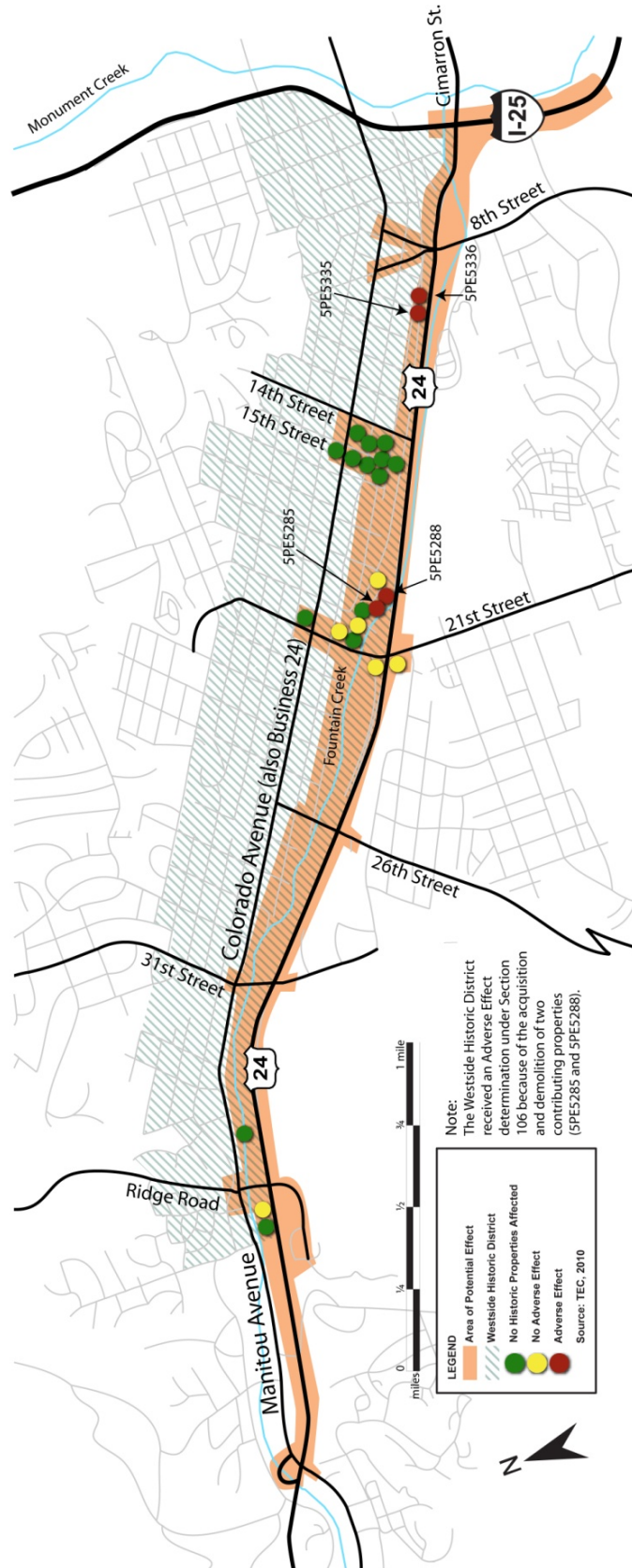
*The Section 106 process is a series of sequential steps requiring agencies to:*

1. *Determine the Area of Potential Effect (APE) for historic properties.*
2. *Identify historic properties within the APE.*
3. *Determine effects on historic properties from the Proposed Action (and Alternatives).*
4. *Resolve adverse effects (i.e., agree upon mitigation measures) with consulting parties.*

553 The Area of Potential Effect (APE) for this EA extends along US 24 from I-25 west to just past  
554 the Manitou Avenue interchange, as shown in **Exhibit 3-7**. The APE was developed in  
555 consultation with the Colorado SHPO based on the proposed improvements throughout the  
556 US 24 corridor. Accordingly, the APE widens near intersections and along cross streets where  
557 improvements are planned. The APE narrows to CDOT ROW just west of Ridge Road.

558 Twenty-two historic properties, determined to be eligible, are present within the APE. These  
559 include 20 historic architectural resources (predominantly single-family residential dwellings  
560 dating from the late 1800s to early 1900s), a railroad roundhouse, and a large, residential historic  
561 district. In addition to the 22 historic properties, 2 other resources for which National Register  
562 eligibility could not be determined (due to restricted access to the properties) are being treated  
563 conservatively as historic properties for the purpose of effect determinations. A segment of the  
564 Colorado Midland Railroad is also located within the APE, but has been found to not be eligible  
565 for listing in the National Register. A survey was conducted for archaeological resources, and  
566 none was identified (refer to **Section 3.13.1, Archaeological Resources**). The Colorado SHPO  
567 concurred with National Register eligibility findings in a letter dated December 27, 2010.  
568 **Exhibit 3-7** shows the locations of these resources.

569 EXHIBIT 3-7  
 570 Historic Properties and Effects from the Proposed Action



571 Detailed documentation of historic properties, bases for their eligibility, effects from the  
572 Proposed Action, alternatives considered to avoid impacts, and other information is  
573 documented in the *Historic Resources Survey and Effect Determination* (TEC, 2010) in **Appendix C**.

### 574 **3.4.1 Impacts of the No Action Alternative**

575 As described in **Chapter 2, Alternatives**, the No Action Alternative includes several locally  
576 funded projects. While these projects may require acquisition of ROW, they are unlikely to affect  
577 historic properties because historic properties are either not present or not close enough to  
578 proposed improvements to be affected.

### 579 **3.4.2 Impacts of the Proposed Action**

580 Under Section 106, effect determinations consist of one of the following:

- 581 • **No Historic Properties Affected** – Historic properties are either not present or are  
582 present, but not affected by the action,
- 583 • **No Adverse Effect** – A historic property is affected but the characteristics that qualify the  
584 property for inclusion in the National Register are not affected, or
- 585 • **Adverse Effect** – An action directly or indirectly alters the characteristics of a historic  
586 property that qualify it for inclusion in the National Register.

587 Of the 24 properties and one historic district assessed, the Proposed Action was determined to  
588 have the following effects: 14 No Historic Properties Affected, 6 No Adverse Effects, and  
589 5 Adverse Effects (including the historic district). The historic district received an Adverse  
590 Effect determination because of the acquisition and demolition of two contributing properties.  
591 A brief description of each historic property and the effect determinations are presented in  
592 **Exhibit 3-8**. The first five historic resources shown in **Exhibit 3-8** have a determination of  
593 Adverse Effect. The properties are listed based on the effect finding and then ordered by the site  
594 number. The list does not reflect any priorities.



EXHIBIT 3-8

Effect Determinations for Historic Properties








Site Number	Description / Location	National Register Status (Criteria)	Summary of Effects	
5EP5285	One-story, Hipped-Roof-Box style, single-family residence built in 1899, located at 1815 Sheldon Avenue	Eligible for the National Register under Criterion C as a good example of a Hipped-Roof-Box style of residence.	Adverse Effect. Acquisition and demolition of property. CDOT also considered options to leave the building in place but found that Adverse Effects would occur under Criteria (iv) ("change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance") and (v) ("introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features").	
5EP5288	Two-story, Queen Anne style, single-family residence built in 1897, located at 1803 Sheldon Avenue	Eligible for the National Register under Criterion C for architectural merit because it displays characteristics of a Queen Anne style residence.	Adverse Effect. Acquisition and demolition of property.	
5EP5335	Commercial (Brick: Folk Victorian) built in 1959, located at 302 S. 10th Street	Eligible for the National Register under Criterion C as an example of the Folk Victorian style of architecture.	Adverse Effect. Acquisition and demolition of property.	
5EP5336	Two-story, Twentieth Century Commercial type building built in 1950, located at 301 S. 10th Street	Eligible for the National Register under Criterion C for architectural merit as a good representative example of the Twentieth Century Commercial type.	Adverse Effect. Acquisition and demolition of property.	

EXHIBIT 3-8

Effect Determinations for Historic Properties

Site Number	Description / Location	National Register Status (Criteria)	Summary of Effects	
Westside Historic District	Historic district with residential/mixed use buildings, constructed between late 1800s and early 1900s, located north of US 24, approximately between I-25 to the east and Columbia Road to the west	Potentially eligible for the National Register under Criterion A for its role in the development of Colorado Springs and Criterion C for possessing a significant concentration, linkage, and continuity of sites, buildings, and structures, united historically and aesthetically by plan and physical development.	Adverse Effect. Acquisition of two contributing properties (5EP5285 and 5EP5288) at fringe of a large district comprised of 60 subdivisions and thousands of properties; upgrade and reconstruction of several roads within existing roadway network.	
5EP194	Former Midland Terminal Railroad Roundhouse, constructed in 1887, located at 600 S. 21st Street	Listed on the National Register under Criterion A and C for historic associations and architectural merit.	No Adverse Effect. No physical change to property. Minor change to visual setting from elevated US 24 bridge.	
5EP384.2	Former segment of the Colorado Midland Railroad constructed in 1886, located at approximately US 24 and 21st Street	Deemed not eligible in 2002 and 2004. This segment lacks integrity but the overall railroad is considered eligible for the National Register.	No Adverse Effect. Acquisition and demolition of property. 5EP384.2 has been abandoned and rail materials have been removed and converted to a paved trail. There would be No Adverse Effect to the overall railroad resource (5EP384) because this segment has no integrity and does not contribute to the eligibility of the overall resource.	NO PHOTO AVAILABLE
5EP5218	A hotel/motor lodge complex constructed in 1885, located at 3627 W. Colorado Avenue	Eligible for the National Register under Criterion A for its association with the growth of the motor lodge industry.	No Adverse Effect. Acquisition of small vacant portion of property at eastern end for drainage improvements; no change in setting; no acquisition of buildings; no change in use of property. Visual effect of overpass limited due to distance, vegetative screening, and property orientation (toward Colorado Avenue).	

## EXHIBIT 3-8

## Effect Determinations for Historic Properties





Site Number	Description / Location	National Register Status (Criteria)	Summary of Effects	
5EP5263	One-story apartment building complex with elements of the Minimal Traditional style built in 1955, located at 2032 W. Cucharras Street	Eligible for the National Register under Criterion C for architectural merit because it is a good representative example of the Minimal Traditional style as applied to multi-family dwellings in Colorado Springs.	No Adverse Effect. Sidewalk added in front of property within existing roadway ROW; no physical impact to property and no change in setting.	
5EP5278	One-story, Hipped-Roof-Box style residence built in 1904, located at 1904 Sheldon Avenue	Eligible for the National Register under Criterion C for architectural merit as a good example of the Hipped-Roof-Box style.	No Adverse Effect. No physical changes to historic property; removal of several houses on opposite side of road (east of property) has minor effect on residential setting.	
5EP5290	One-story, single-family residence built in 1890, located at 319 S. 18th Street	Eligible for the National Register under Criterion C for architectural merit as a good representative example of the colonial revival style.	No Adverse Effect. Minor change in visual setting from closer proximity of highway to side of property; acquisition of industrial property to the east (same property owner) that is not within historic property boundary.	
5EP235.15	Residence (Late Victorian) constructed in 1889, located at 1508 W. Colorado Avenue	Eligible for the National Register under Criterion C for architectural merit as a good example of Late Victorian style.	No Historic Properties Affected. No proposed or planned roadway improvements in immediate area of property. No change in setting.	NO PHOTO AVAILABLE
5EP235.31	Two-Story, stucco clad, Mission style church built from 1920 to 1929, located at 15 S. 21st Street	Eligible for the National Register under Criterion C for architectural merit as a good example of the Mission style in a non-residential setting.	No Historic Properties Affected. Roadway improvements along 21st Street end south of property. No change in setting.	

EXHIBIT 3-8

Effect Determinations for Historic Properties

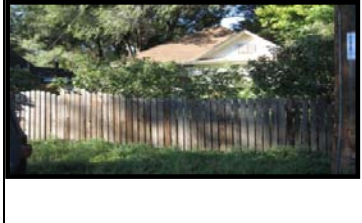










Site Number	Description / Location	National Register Status (Criteria)	Summary of Effects	
5EP5264	One-story residential building constructed in 1901, located at 2027 W. Cucharras Street	Due to limited access, this property is treated as National Register eligible for the purposes of Section 106 consultation.	No Historic Properties Affected. No proposed or planned roadway improvements in immediate area of property. No change in setting.	
5EP5276	One-story Victorian residence constructed in 1949, located at 1913 Sheldon Avenue	Due to limited access, this property is treated as National Register eligible for the purposes of Section 106 consultation.	No Historic Properties Affected. No proposed or planned roadway improvements in immediate area of property. No change in setting.	
5EP5223	One-story, Craftsman Bungalow style, single-family residence constructed in 1900, located at 3441 W. Colorado Avenue	Eligible for the National Register under Criterion C for architectural merit as a good representative example of a Craftsman Bungalow style.	No Historic Properties Affected. Roadway improvements within CDOT ROW on back side of property; no physical impact and no change in setting. New overpass at Ridge Road screened from property by distance and vegetation.	
5EP5216	Art Modern style commercial lodge with a detached two-story hotel and three one-story blocks of guest rooms at the side and rear of the lot constructed in 1948, located at 3709 W. Colorado Avenue	Eligible for the National Register under Criterion C for its historical associations and architectural merit.	No Historic Properties Affected. Roadway improvements within CDOT ROW on back side of property; overpass of Ridge Road (approximately 900 feet away) screened by distance and vegetation; no physical impact and no change in setting.	
5EP5302	One-and-one-half story Late Victorian residence constructed in 1899, located at 1508 W. Cucharras Street	Eligible for the National Register under Criterion C for architectural merit as a good representative example of the Late Victorian style residence.	No Historic Properties Affected. No proposed or planned roadway improvements in immediate area of property. No change in setting.	



EXHIBIT 3-8

Effect Determinations for Historic Properties

Site Number	Description / Location	National Register Status (Criteria)	Summary of Effects	
5EP5303	One-and-one half story Late Victorian residence constructed in 1895, located at 1504 W. Cucharras Street	Eligible for the National Register under Criterion C for architectural merit as a good representative example of the Late Victorian style residence.	No Historic Properties Affected. Repair/ replacement of sidewalk on east side of property within roadway ROW. No physical impact to property and no change in setting.	
5EP5306	Two-story Nineteenth Century Commercial style building constructed in 1901, located at 1501 W. Colorado Avenue	Eligible for the National Register under Criterion C for architectural merit as a good representative example of the Nineteenth Century Commercial style building.	No Historic Properties Affected. Minor roadway improvements within roadway ROW on east side of property (property faces north) and at intersection of 15th Street and Colorado Avenue; no physical impact and no change in setting.	
5EP5310	Two-story Late Victorian style residence constructed in 1884, located at 1419 W. Colorado Avenue	Eligible for the National Register under Criterion C for architectural merit as a good representative example of the Late Victorian style.	No Historic Properties Affected. No proposed or planned roadway improvements in immediate area of property. No change in setting.	
5EP5319	One-and-one half story, Late Victorian Cottage style residence constructed in 1890, located at 1423 W. Cucharras Street	Eligible for the National Register under Criterion C for architectural merit as a good representative example of the Late Victorian style residence.	No Historic Properties Affected. No proposed or planned roadway improvements in immediate area of property. No change in setting.	
5EP5320	One-story single-family Victorian residence constructed in 1889, located at 1429 W. Cucharras Street	Eligible for the National Register under Criterion C for architectural merit as a good representative example of the Late Victorian style residence.	No Historic Properties Affected. No proposed or planned roadway improvements in immediate area of property. No change in setting.	

## EXHIBIT 3-8

## Effect Determinations for Historic Properties

Site Number	Description / Location	National Register Status (Criteria)	Summary of Effects	
5EP5322	One-story, single-family Craftsman style residence constructed in 1909, located at 1422 W. Vermijo Avenue	Eligible for the National Register under Criterion C for architectural merit as a good representative example of the Craftsman style residence.	No Historic Properties Affected. No proposed or planned roadway improvements in immediate area of property. No change in setting.	
5EP5323	One-story, single-family Hipped-Roof-Box residence constructed in 1889, located at 219 S. 15th Street	Eligible for the National Register under Criterion C for architectural merit as a good representative example of the Hipped-Roof-Box style residence.	No Historic Properties Affected. Repair/replacement of sidewalk on east side of property within roadway ROW. No physical impact to property and no change in setting.	

595 Determination of effects to historic properties was undertaken in consultation with the  
596 Colorado SHPO and other consulting parties. The Colorado SHPO concurred with all effect  
597 determinations in a letter dated December 27, 2010. The City of Colorado Springs Historic  
598 Preservation Board provided comments on the eligibility and effects determinations. No  
599 comments were received from El Paso County.

600 The Proposed Action would result in adverse effects to two historic commercial properties  
601 (5EP5335 and 5EP5336), two historic residences (5EP5285 and 5EP5288), and the Westside  
602 Historic District (5EP5364). CDOT considered numerous options to minimize effects to these  
603 properties but ultimately had no other option that met safety, traffic, and community needs  
604 without demolishing historic properties 5EP5335, 5EP5336, 5EP5285, and 5EP5288. Please  
605 see **Appendix C: Historic Resources Survey and Determination of Effect US 24 West, Colorado**  
606 **Spring, Colorado (TEC, 2010)** and **Appendix H** for more information about the eligibility and  
607 effect determinations for these properties.

### 608 3.4.3 Mitigation

609 Mitigation for impacts to historic properties will be developed under consultation with the  
610 Colorado SHPO and other consulting parties. These will be documented in a Memorandum of  
611 Agreement (MOA). See **Appendix H** for the full MOA document. (Details of the MOA will be  
612 added here once it has been signed by all parties.)

### 613 3.5 Parks, Trails, and Recreation Resources

614 Development of the Proposed Action occurred over several years and was guided by a TLT that  
615 included representation from the City of Colorado Springs’ Parks, Recreation & Cultural  
616 Services Department. The project team conducted additional outreach to local stakeholders,  
617 including the City of Colorado Springs Parks, Recreation & Cultural Services Department (or  
618 TOPS Working Committee), City of Manitou Springs Open Space Advisory Committee, Trails  
619 and Open Space Coalition, Friends of Red Rock Canyon, and Pikes Peak Area Bikeways  
620 Coalition.

621 The City of Colorado Springs has a well-developed park system with more than 14,000 acres of  
622 park and recreation resources that include 15 community and regional parks, over 100  
623 neighborhood parks, 5 sports complexes, 47 open space areas, and more than 250 miles of  
624 urban and park trails. As shown in **Exhibit 3-9**, 10 of these features are located within the  
625 Colorado Springs portion of the study area and three parks are located in the western portion of  
626 the US 24 study area in Manitou Springs. **Exhibit 3-10** provides details regarding location,  
627 size/length, and amenities for each of these resources.

628 According to the *Colorado Springs Parks, Recreation and Trails 2000-2010 Master Plan* (City of  
629 Colorado Springs, 2000), no additional parks are proposed in the study area. The plan does,  
630 however, include the connection of the Midland Trail from 21st Street to 25th Street and west of  
631 Ridge Road to the City of Manitou Springs, increasing the length of the trail to a total of  
632 3.52 miles.

633 CDOT, the City of Colorado Springs’ Stormwater Enterprise, and Gold Hill Mesa restored a  
634 segment of Fountain Creek east of 21st Street in 2010. The restoration removed and stabilized  
635 contaminated soil, enhanced water quality, reduced erosion, and reestablished native riparian  
636 vegetation. The developer of Gold Hill Mesa also plans to build a trail along the creek that  
637 would serve residents of the area and connect to the Midland Trail.

638 EXHIBIT 3-9  
 639 Existing Parks and Recreation Resources in the Study Area

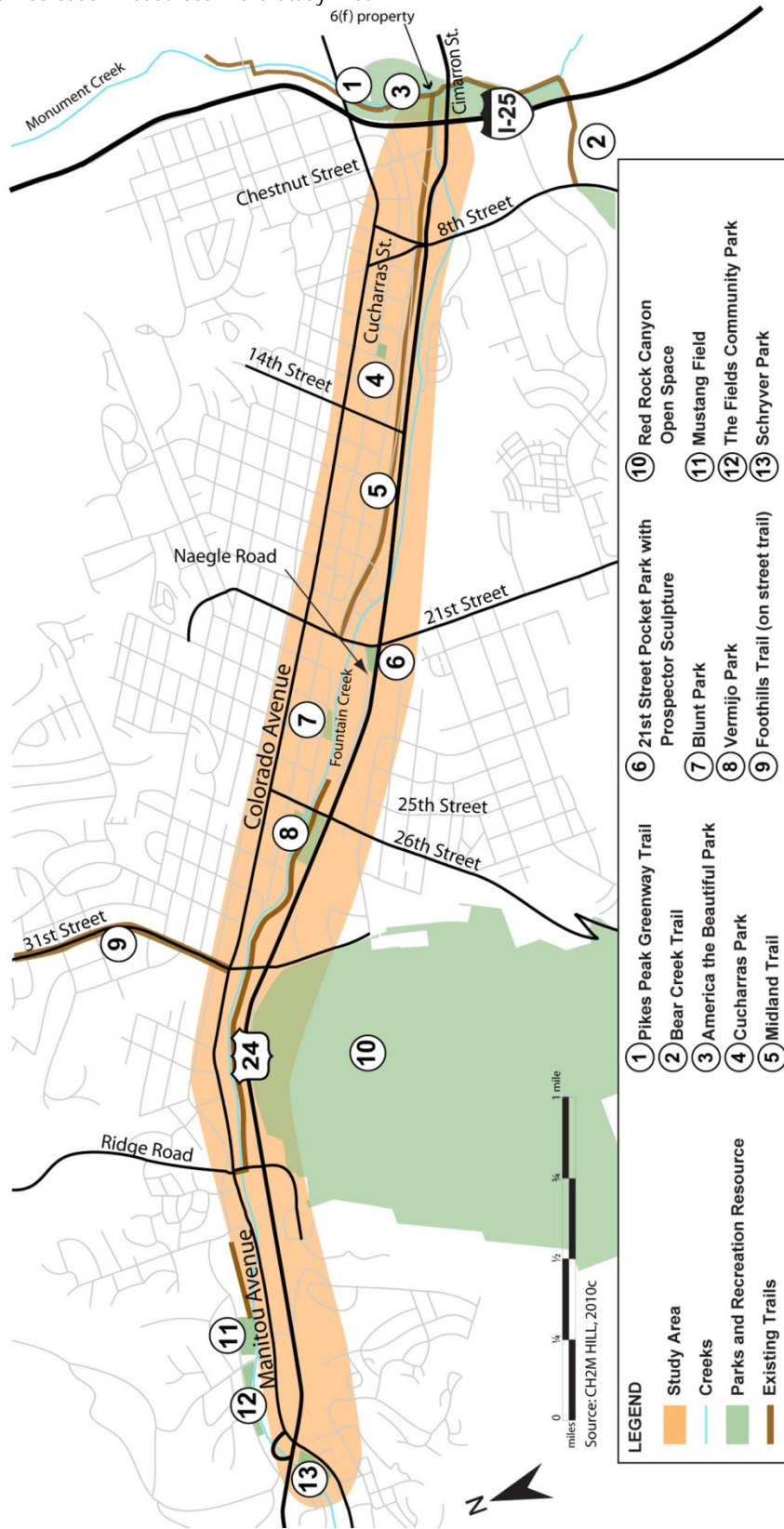




EXHIBIT 3-10  
Existing Parks and Recreation Resources in the Study Area

Map <sup>1</sup> ID	Name	Jurisdiction	Size/Length	Amenities
1	Pikes Peak Greenway	City of Colorado Springs	14 miles	Concrete, asphalt, and gravel surface; connects several regional trails. Includes Section 6(f) property.
2	Bear Creek Trail	City of Colorado Springs	0.4 mile	Concrete and asphalt trail; links Bear Creek Regional County Park to Pikes Peak Greenway
3	America the Beautiful Park	City of Colorado Springs	16.8 acres	Picnic pavilions, playground, pathways, fountain, Midland Trail and Pikes Peak Greenway Trail access, venue for outdoor concerts and movies
4	Cucharras Park	City of Colorado Springs	0.7 acre	Basketball court, multi-play court, picnic area, and playground
5	Midland Trail	City of Colorado Springs	2.9 miles	Concrete surface; provides access to America the Beautiful Park and west to Ridge Road
6	21st Street pocket park with Prospector Sculpture	City of Colorado Springs	1.5 acres	Parking, pathway, picnic table, shelter, and sculpture
7	Blunt Park	City of Colorado Springs	3.3 acres	Athletic fields, picnic areas, playground, and pathways
8	Vermijo Park	City of Colorado Springs	4.6 acres	Baseball field, basketball court, playground, and walking paths
9	Foothills Trail	City of Colorado Springs	6.5 miles	Concrete, asphalt, and gravel surface trail; on-street in study area
10	Red Rock Canyon Open Space	City of Colorado Springs	789 acres	Open space, trails, picnic areas, and educational programs
11	Mustang Field	City of Manitou Springs	7.1 acres	Baseball field, bleachers, and restrooms
12	The Fields Community Park	City of Manitou Springs	4.7 acres	Skateboard park, pavilion, restrooms, and tennis court
13	Schryver Park	City of Manitou Springs	9.7 acres	Pool, fitness center, trail, picnic area, restrooms, pond, two playgrounds, and basketball court

Source: CH2M HILL, 2010c

<sup>1</sup> Map ID numbers correspond to parks and recreation resources shown in Exhibit 3-9.

640 A detailed discussion of parks and recreation resources is provided in the *Parks and*  
641 *Recreational Resources Technical Memorandum* (CH2M HILL, 2010c) and *Supplement to the*  
642 *Parks and Recreation Resources Technical Memorandum* (CH2M HILL, 2011) in **Appendix C**.

### 643 3.5.1 Impacts of the No Action Alternative

644 Improvements to the 8th Street intersection would involve widening 8th Street north of US 24.  
645 If this occurs, the No Action Alternative would have the potential to impact the Midland Trail at  
646 8th Street. This improvement would be built by others and plans have not been developed to  
647 understand if impacts would occur and to what extent.

648 The City of Colorado Springs plans to construct the connection of the Midland Trail west  
649 between 21st Street and 25th Street and into Manitou Springs in stages. The completion of the  
650 Midland Trail would add to the trail system and improve pedestrian and bike access to Manitou  
651 Springs.

### 652 3.5.2 Impacts of the Proposed Action

653 Of the 13 parks and recreation resources in the study area (as listed in **Exhibit 3-10**), the  
654 Proposed Action would affect four, as shown in **Exhibit 3-11**: Foothills Trail, Vermijo Park,  
655 21st Street pocket park, and the Midland Trail. Although the wider roadway cross-section and  
656 interchange reconstruction would constitute a change to the visual environment for the Pikes  
657 Peak Greenway and Bear Creek Trails, impacts would be similar to those for the existing  
658 highway and interchange structures. Acquisition of commercial structures between Blunt Park  
659 and US 24 could result in a change to the visual environment.

660 Additional protection is provided for outdoor recreational lands under the Section 6(f)  
661 legislation (16 United States Code [U.S.C.] 4601-8(f)(3)) where Land and Water Conservation  
662 Funds were used for the planning, acquisition, or development of the property. One Section 6(f)  
663 property was identified within the study area: the east end of the Midland Trail and the  
664 pedestrian bridge over Monument Creek (see **Exhibit 3-10** for location). These features are not  
665 affected by the Proposed Action.

666 Widening US 24 to the north would require realignment of Midland Trail between 8th Street and  
667 11th Street, a distance of approximately 1,584 feet (0.3 mile), as shown in **Exhibit 3-11**. The  
668 undercrossing of the Midland Trail at the I-25 interchange would remain open.

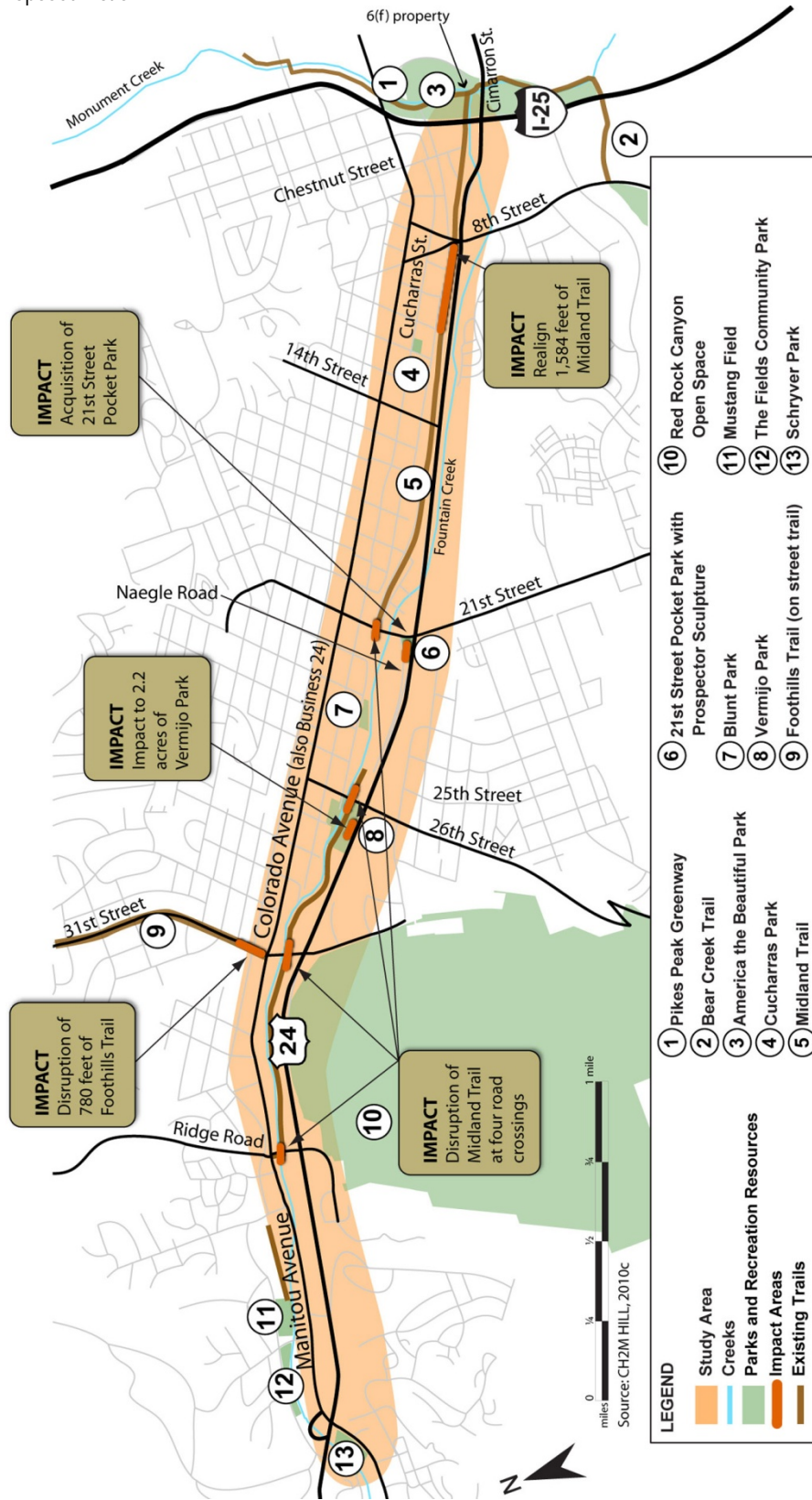
669 The missing connection of the Midland Trail from 21st Street to 25th Street would be  
670 constructed on ROW acquired for the improvements included in the Proposed Action, creating  
671 a continuous off-street trail from I-25 to Ridge Road. This trail would improve connectivity with  
672 all of the trails throughout the US 24 corridor.

673 At the cross streets of 21st Street, 26th Street, 31st Street, and Ridge Road, the bridges crossing  
674 the Midland Trail would be replaced, causing a temporary construction impact to the trail in the  
675 vicinity of each bridge. Once construction is completed, users would be able to cross under each  
676 bridge at these locations on newly constructed trail. No long-term impacts at these four trail  
677 locations are expected and the continuity of the trail during construction would be maintained.  
678 These four temporary impact areas total approximately 0.2 mile of the trail.

679 The Proposed Action would require the full acquisition of the 21st Street pocket park, a small  
680 park comprising 1.5 acres in a high-traffic area adjacent to the US 24 and 21st Street intersection.  
681 The park is not programmed for any organized recreation activities by the City of Colorado  
682 Springs. The public has expressed a desire to preserve the Prospector Sculpture that is located  
683 within this park.

684 Vermijo Park is an isolated and underutilized park, hidden from US 24 by dense trees lining the  
685 border of Fountain Creek. As a result, the public has expressed some concern over personal  
686 safety in the park due to its poor visibility. The park has a baseball field, but no activities or  
687 events are scheduled in this park by the City of Colorado Springs. Less than 0.1 acre of the park,  
688 including part of the baseball field, would need to be acquired to accommodate a new bridge on  
689 26th Street and the accompanying sidewalk along the eastern edge of the park. In addition,  
690 2.2 acres of the park, including a portion of the baseball field, would be temporarily impacted  
691 due to the Fountain Creek channel modifications. The reduction in parkland and partial loss of  
692 the baseball field would reduce some of the park's functions.

693 EXHIBIT 3-11  
 694 Impacts of the Proposed Action



695 A retaining wall would be constructed between Vermijo Park and the Fountain Creek channel,  
696 which could alter views toward US 24. US 24 would be approximately 5 feet higher near Vermijo  
697 Park, however, the predicted noise levels do not warrant a noise wall in this location. (Refer to  
698 **Section 3.6, Traffic Noise** for additional discussion).

699 To accommodate improvements included in the Proposed Action, approximately 780 linear feet  
700 (0.15 mile) of Foothills Trail would be reconstructed in its current on-street location. Therefore,  
701 no long-term impacts are anticipated.

702 The Proposed Action would not require ROW from Red Rock Canyon Open Space. Roadway  
703 widening would require cutting into the bluff. This cut, within CDOT ROW along the northern  
704 edge of the property, would not be visible from within Red Rock Canyon Open Space.

705 Throughout public workshops to address the aesthetics of the US 24 corridor, the community  
706 has not identified this as an area of concern. Access to Red Rock Canyon from US 24 would be  
707 relocated from the at-grade intersection of US 24 and Ridge Road to 31st Street or Manitou  
708 Avenue via Colorado Avenue. Red Rock Canyon Open Space is accessible by local traffic from  
709 Colorado Avenue on the Ridge Road overpass. Due to the very high visitation level of this open  
710 space, the Colorado Springs Parks, Recreation & Cultural Services Department is supportive of  
711 this access revision as it limits direct highway access to the park. The grade separation of Ridge  
712 Road would improve safety for non-motorized travelers. The overpass structure would be  
713 approximately 25 feet high and 135 feet wide and would be visible from portions of the park.  
714 This would constitute a change in the visual environment, but would be consistent with the  
715 existing highway corridor. Noise levels could increase as a result of the wider roadway footprint  
716 and elevated structure but would not reach impact levels. Temporary detours and an increase in  
717 construction-related traffic, noise, and dust would be expected throughout construction.

718 The Proposed Action would not result in any land use or access changes that would affect the  
719 planned trails in the study area. The project team has coordinated with the Colorado Springs  
720 Parks, Recreation & Cultural Services Department and Gold Hill Mesa developers throughout  
721 the development of the Proposed Action and has incorporated their input into the project's  
722 design.

723 During planning for this project, CDOT funded a master plan for the Midland Greenway  
724 (CDOT, 2007). The *Midland Greenway Plan* recognizes the incredible opportunity for a dynamic  
725 community amenity. The multi-faceted plan includes trails, natural water quality treatments,  
726 fountains, places to play, and areas to discover. The Midland Greenway also serves as an  
727 important watershed feature designed to carry a 100-year flood. Further, the *Midland Greenway*  
728 *Plan* discusses links among the trails and parks. The *Midland Greenway Plan* highlights Fountain  
729 Creek as a focal point and an asset to the Westside neighborhoods. The plan was developed by  
730 the Midland Greenway Advisory Committee, which included representatives from CDOT,  
731 El Paso County, the City of Colorado Springs, City of Manitou Springs, Colorado Springs  
732 Utilities, Pikes Peak Area Council of Governments (PPACG), Old Colorado City Historical  
733 Society, Friends of Red Rock Canyon, the Trails and Open Space Coalition, and Gold Hill Mesa.  
734 This planning was initiated in response to the proposed future acquisition of ROW needed for  
735 the highway improvements. Elements of the Proposed Action such as the reconstruction of the  
736 bridges to allow clearance for pedestrian trails, channel modifications to carry the 100-year floor,  
737 and constructing the trail from I-25 to 31st Street along Fountain Creek are consistent with the  
738 *Midland Greenway Plan*. Other elements, such as trail segments outside areas directly impacted by  
739 the project or enhancements such as benches or fountains, would require other sponsors.

### 740 3.5.3 Mitigation

741 Mitigation measures for the project's impacts present opportunities to enhance the City of  
742 Colorado Springs' network of parks and recreation resources. A letter from CDOT to the City  
743 of Colorado Springs explaining the proposed mitigation for the Midland Trail was signed by the  
744 City, indicating their agreement, and is included in **Appendix I. Exhibit 3-12** summarizes the  
745 impacts and mitigation strategies. The Midland Trail will be realigned between 8th Street and  
746 11th Street. For safety reasons, the 10-foot-wide trail must be offset from the highway by 12 feet  
747 to allow adequate separation (highway clear zone) between higher speed vehicles and pedestrians  
748 and bicyclists using the trail. The affected portion of the trail will be reconstructed and no  
749 permanent change in the function or continuity of the trail will occur.

750 CDOT will provide advanced notice to the community prior to the relocation of the Prospector  
751 Sculpture at the 21st Street pocket park. CDOT will coordinate with the community and the  
752 Colorado Springs Parks, Recreation & Cultural Services Department to identify a location where  
753 the sculpture will be relocated. One potential site for relocation is Vermijo Park at 26th Street.

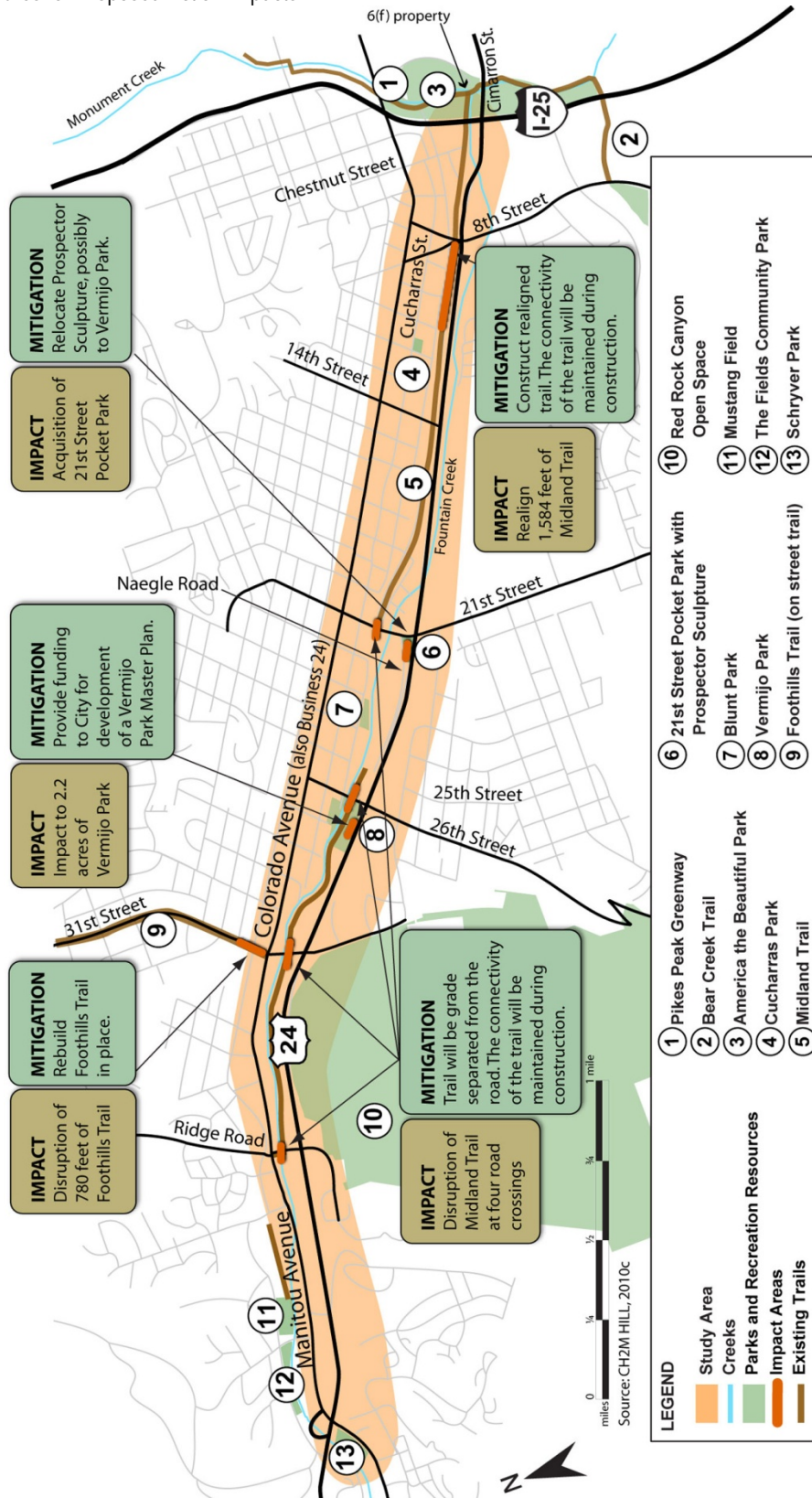
754 CDOT will contribute up to \$50,000 to the City of Colorado Springs to fund a park plan for  
755 Vermijo Park. All trees greater than 2 inches in diameter at breast height will be mitigated at a  
756 1 to 1 basis. Non-native trees will be replaced with native trees.

757 The Foothills Trail will be reconstructed in place along 31st Street with new streetscape, from  
758 just north of Colorado Avenue to Red Rock Canyon Open Space.

759 CDOT will provide advanced notice to users regarding temporary trail relocations for both the  
760 Midland Trail and Foothills Trail during construction activities and provide information on the  
761 final location of the relocated trail. For the safety of trail users, the trail would have to be  
762 temporarily relocated during the construction of the bridges over Fountain Creek and new  
763 permanent trail would be constructed as part of each bridge improvement. During final design,  
764 CDOT will seek community input and will coordinate with the Colorado Springs Park and  
765 Recreation Department with regard to the design and aesthetics of these trails.

766 Mitigation for temporary construction related impacts such as detours, out-of-direction travel,  
767 and air emissions are addressed in **Section 3.1, Transportation Resources** and **Section 3.13.4,**  
768 **Air Quality.**

769 EXHIBIT 3-12  
770 Mitigation Measures for Proposed Action Impacts



## 771 3.6 Traffic Noise

772 Traffic noise is typically a concern for residents living adjacent to heavily traveled roadways.  
 773 Traffic noise tends to be loudest when a large volume of traffic flows at high speeds. Loudest  
 774 traffic noise can be expected just before and after the peak period, when volumes are still heavy  
 775 but speed is not diminished.

776 Federal noise guidelines quantify noise levels in terms of decibels and have set limits for  
 777 determining what noise levels are considered excessive. According to the guidelines, a level of  
 778 66 decibels or more interferes with normal conversation within an outdoor area such as parks,  
 779 schools, and residences. For noise sensitive commercial uses, the threshold is higher at  
 780 71 decibels.

781 Based on modeling of future conditions, if future noise levels are forecasted to exceed  
 782 66 decibels at residences, or if future noise levels would increase by 10 or more decibels  
 783 compared with current noise levels, CDOT considers mitigation such as noise barriers and  
 784 determines whether such mitigation is reasonable and feasible.

785 As part of the US 24 EA, acoustic engineers measured noise continuously for one week at eight  
 786 locations along the US 24 corridor in 2007; the results are shown in **Exhibit 3-13**. Noise levels  
 787 at five of the eight monitoring locations already experience loudest-hour noise levels that exceed  
 788 CDOT's 66-decibel criterion for triggering consideration of noise abatement for residences.  
 789 Loudest-hour noise levels at the eight locations ranged from 61 to 73 decibels, with the loudest  
 790 levels measured at residences located just 100 feet from the pavement and having a clear line of  
 791 sight to US 24. Lower levels were measured at greater distances from the roadway and/or at  
 792 locations where local terrain or buildings obstructed the line of sight.

793 The FHWA's Traffic Noise Model (TNM) was used to model existing noise levels and predict  
 794 future (2035) noise levels along the entire US 24 corridor for both the No Action Alternative  
 795 and the Proposed Action. A summary of the modeled existing and predicted future Proposed  
 796 Action noise levels for each section of the US 24 corridor is provided in **Exhibit 3-13**. The  
 797 summary is representative of the loudest noise levels at the residences located along US 24. Also  
 798 provided in **Exhibit 3-13** is the noise level increase at these representative locations, and the  
 799 number of residences that are considered impacted by noise. Noise levels under the Proposed  
 800 Action are predicted to impact 29 residences and one child development center. Noise levels at  
 801 the Red Rock Canyon Open Space are forecasted to be below the 66 dBA criterion.

802 Additional information about the noise analysis is included in the *Noise Technical Memorandum*  
 803 (Hankard, 2011) in **Appendix C**.

EXHIBIT 3-13  
 Existing and Proposed Action Noise Levels (2035)<sup>1</sup>

Location	North or South of US 24	Existing Noise Level (1-hour $L_{eq}$ , dBA) <sup>2</sup>	Proposed Action Noise Level (1-hour $L_{eq}$ , dBA)	Increase in Noise Level (1-hour $L_{eq}$ , dBA)	
				Decibels <sup>3</sup>	Number of Impacted Residences or Parks <sup>3</sup>
I-25 to 8th Street	North	65	67	2	2
8th Street to 15th Street	North	64	67	3	3
8th Street to 15th Street	South	63	66	3	1

EXHIBIT 3-13  
Existing and Proposed Action Noise Levels (2035)<sup>1</sup>

Location	North or South of US 24	Existing Noise Level (1-hour L <sub>eq</sub> , dBA) <sup>2</sup>	Proposed Action Noise Level (1-hour L <sub>eq</sub> , dBA)	Increase in Noise Level (1-hour L <sub>eq</sub> , dBA)	Number of Impacted Residences or Parks <sup>3</sup>
				Decibels <sup>3</sup>	
15th Street to 21st Street	North	61	66	5	1
21st Street to 31st Street	North	63	66	3	2
21st Street to 31st Street	South	64	67	3	0
Ridge Road to Manitou Avenue	North	62	62	0	0
Ridge Road to Manitou Avenue	South	69	70	1	21

Source: Hankard, 2010

<sup>1</sup> All noise levels are in A-weighted decibels. A-weighting of noise levels approximates the average frequency response of the human ear. The average one-hour A-weighted decibel (dBA) is the scale used for traffic noise analyses.

<sup>2</sup> Noise levels at location within each section where loudest noise levels are expected along US24.

<sup>3</sup> Noise levels at location within each section where loudest noise levels are expected along US24.

### 804 3.6.1 Impacts of the No Action Alternative

805 With the No Action Alternative, the US 24 roadway would not be modified, but corridor-wide  
806 traffic would increase by an average of 45 percent due to regional growth. As a result, noise  
807 levels are predicted to increase by 1 to 3 dBA along the US 24 corridor. A 1 dBA increase is  
808 expected between I-25 and 21st Street, because US24 is already close to capacity in this area,  
809 thus adding more traffic eventually leads to congestion, lowering of speeds, and a drop in noise  
810 levels. A 2 to 3 dBA increase is expected west of 21st Street, as US24 has the capacity to absorb  
811 the forecast additional traffic without a significant drop in speeds. Regardless, no noise  
812 mitigation would be provided under the No Action Alternative.

### 813 3.6.2 Impacts of the Proposed Action

814 With implementation of the Proposed Action, the US 24 average daily travel is forecasted to  
815 increase to 50,000 to 84,000 in 2035, an increase of about 65 percent from 2005 trips. This  
816 includes both the growth in traffic due to population and land use changes, as well as trips that  
817 would now reroute to US 24 from neighborhood streets previously used to avoid the congestion  
818 on US 24. Noise levels would increase in some locations due to increasing traffic volumes,  
819 expanding US 24 north in some areas, building new interchange ramps closer to residences, and  
820 changing the elevation of US 24 in some locations.

821 In addition to long-term noise impacts resulting from the configuration of the Proposed Action,  
822 short-term noise impacts would occur as the direct result of construction activities. Maximum  
823 noise levels from construction activity typically result from the loudest one or two pieces of  
824 heavy equipment that are in use at a given time.

### 825 3.6.3 Mitigation

826 Noise mitigation was considered for each of the residences, parks, and other land uses that  
827 would be impacted by traffic noise with the Proposed Action. The analysis of the feasibility and  
828 reasonableness of providing noise mitigation was carried out according to the current (2011)



829 policies of the FHWA and CDOT. For noise walls to be included in the Proposed Action, they  
 830 must be predicted to achieve certain minimum noise reductions (7 dBA), and they must meet  
 831 certain cost-benefit parameters (\$6,800 per benefited receptor per decibel of noise reduction).

832 **Exhibit 3-15** shows the locations where noise walls were found to be reasonable and feasible  
 833 along US 24 and are recommended for inclusion in the Proposed Action. These include the  
 834 north side of US 24 from 11th Street to 14th Street, the A-1 mobile home park on the south side  
 835 of US 24, and the residences on the south side of US 24 on Red Canyon Place. These walls  
 836 range from 15 to 18 feet in height and 870 to 1,490 feet in length. They are predicted to protect  
 837 110 residences, including 25 of the 29 impacted residences. Noise walls were found to be either  
 838 infeasible or unreasonable at the other areas where noise impact was predicted to occur under  
 839 the Proposed Action, therefore, noise walls are not recommended at these locations. The results  
 840 of the noise mitigation analyses are presented in **Exhibit 3-14**.

EXHIBIT 3-14  
 Results of Noise Mitigation Analyses

Area	Height	Length	Area (Sq. Ft.)	Cost per Sq. Ft.	# of Benefited Receptors	Avg. Noise Reduction at Benefited Receptors (dBA)	Cost Benefit	Meets all Feasibility and Reasonableness Criteria?
11th Street to 14th Street	18	1,490	26,820	\$45	25	7	\$6,800	Yes
A-1 Mobile Homes	15	1,430	21,450	\$45	64	7	\$2,200	Yes
East of 21st Street	18	1,220	21,960	\$45	14	7	\$10,000	No
26th Street	15	1,760	26,400	\$45	23	6	\$8,300	No
Red Canyon Place	15	870	13,050	\$45	21	10	\$2,700	Yes

Note:

dBA = A-weighted decibels

841 During final design of the project, all mitigation recommendations will undergo an abatement  
 842 re-evaluation to refine barrier dimensions and siting, and assure that conditions and  
 843 homeowners/residents desires for noise abatement have remained consistent with the  
 844 conditions evaluated in this document. Additionally, the City of Colorado Springs and area  
 845 residents will have the opportunity to provide input on design elements related to noise  
 846 mitigation, including design, grading, landscaping, and color and material of noise barriers, with  
 847 the goal of constructing an aesthetically pleasing and economically viable project.

848 Construction noise impacts will be mitigated by limiting work to daytime hours, as described by  
 849 CDOT and City of Colorado Springs requirements, when possible, and requiring the contractor  
 850 to use well-maintained equipment, particularly with respect to mufflers.

851 EXHIBIT 3-15  
 852 Traffic Noise Measurement Stations and Proposed Noise Abatement Locations



## 853 3.7 Social Resources

854 This section describes existing socioeconomic conditions and potential impacts on population,  
855 employment, neighborhoods, community facilities, and local businesses. Public input guided the  
856 evaluation of community impacts and the development of appropriate mitigations. Additional  
857 information about the socioeconomic analysis is included in the *Socioeconomic Resources Technical*  
858 *Memorandum* (CH2M HILL, 2010d) in **Appendix C**.

### 859 Population and Employment

860 Population and employment statistics for the study area and the City of Colorado Springs are  
861 presented in **Exhibit 3-16**. In 2000, approximately 28,700 persons, 8 percent of the population  
862 of Colorado Springs, lived in the census tracts adjacent to US 24. The population of Colorado  
863 Springs grew by 13 percent (46,800 persons) between 2000 and 2009. Although data are not  
864 available at the tract level for this period and the 2010 census tract data are not available, it is  
865 reasonable to assume that population growth would follow historic trends and would be lower in  
866 the study area because it is a more established land use and not subject to the higher growth seen  
867 in other areas of the City of Colorado Springs. Population is expected to increase by  
868 approximately 52 percent in El Paso County between 2009 and 2035, from 604,900 to 919,600;  
869 some of this growth is likely to be accommodated in the area surrounding the study area.

EXHIBIT 3-16  
Population and Employment Statistics: 1990, 2000, and 2009

	Census Tracts Adjacent to US 24				City of Colorado Springs			
	1990	2000	% Change 1990-2000	2009 <sup>1</sup>	1990	2000	% Change 1990-2000	2009
Population	26,082	28,734	11%	----	281,140	360,798	28%	397,913
Households	11,937	13,649	14%	----	111,002	141,757	28%	158,247
Labor Force	11,408	16,622	46%	----	150,988	195,339	29%	215,177
Employment <sup>2</sup>	10,297	15,936	57%	----	140,904	186,819	38%	200,818
Unemployment	1,111	686	-38%	----	10,084	8,520	-16%	14,359

Source: U.S. Census Bureau, 2010; State of Colorado, 2010

<sup>1</sup> Data are not available at the tract level between census years.

<sup>2</sup> Includes both civilian and military employment.

870 Between 1990 and 2000, employment increased by over 50 percent in the study area and over  
871 35 percent for the City of Colorado Springs based on City of Colorado Springs data. During the  
872 same period, unemployment decreased by more than 35 percent in the study area and 15 percent  
873 in the City of Colorado Springs. Between 2000 and 2009, data are available only from the City of  
874 Colorado Springs and show that while population grew 10 percent, employment increased by  
875 7 percent and unemployment numbers increased by more than 68 percent. The most recent data  
876 indicate higher unemployment, which is consistent with the nationwide recession.

877 The majority of census tracts adjacent to US 24 have lower median home values, median  
878 household incomes, and per capita incomes than the City of Colorado Springs overall, indicating  
879 the presence of some lower-income communities.

880 The majority of the more than 300 businesses in the study area can be found along Colorado  
881 Avenue and south of US 24 along 8th Street. Services include professional, personal, retail, and  
882 restaurants. The Colorado Place Shopping Center (304 South 8th Street) is the largest retail  
883 center within the study area. It contains 27 retail spaces that provide food and personal services.  
884 All of the businesses in the US 24 corridor are mapped and described in detail in the *Socioeconomic*  
885 *Resources Technical Memorandum* (CH2M HILL, 2010d) in **Appendix C**.

886 Gold Hill Mesa is a major urban redevelopment project southeast of US 24 between 8th Street  
887 and 21st Street. The plan for Gold Hill Mesa includes more than 140 acres of residential  
888 development and 67 acres of commercial development. Construction began in 2006.

### 889 **Neighborhoods and Community Facilities**

890 Neighborhoods directly north of US 24 include Pleasant Valley, Old Colorado City, and  
891 Westside. Neighborhoods directly south include Crystal Hills in the City of Manitou Springs,  
892 Midland, Gold Hill Mesa, Skyway, and Ivywild. US 24 also provides access to other  
893 neighborhoods north and south of the study area. The neighborhood street network is a grid  
894 system that allows for easy rerouting of trips, an undesired effect for the neighborhoods.  
895 Sidewalks are disconnected within the neighborhoods. These neighborhoods are shown by  
896 general location in **Exhibit 3-17**.

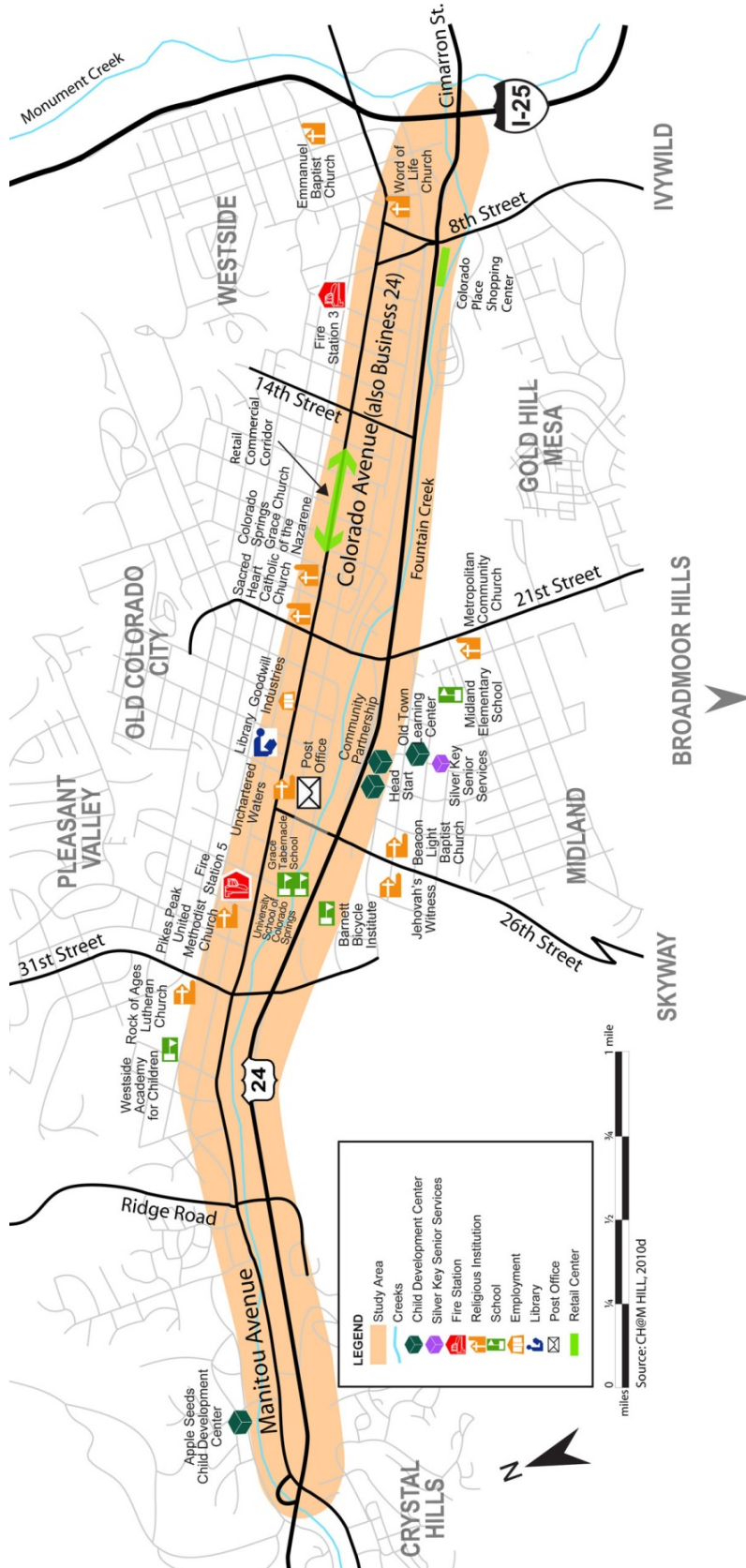
897 The Organization of Westside Neighbors is a non-profit organization that represents more than  
898 8,200 residences and 800 businesses in the Westside area of Colorado Springs. The project team  
899 has met with this organization throughout the development of the project to provide  
900 information, understand neighborhood concerns, and gather input.

901 In addition to coordination with the Organization of Westside Neighbors, other neighborhood  
902 meetings took place throughout 2006 with different organizations and homeowner's  
903 associations. Meeting topics varied from a general overview of the project to economic studies.  
904 A summary of these meetings and activities is provided in **Chapter 5, Agency Coordination**  
905 **and Public Involvement**.

906 Community facilities within 1,000 feet of US 24 include schools, child development centers,  
907 religious institutions, a library, a U.S. Post Office, senior services, and emergency services. These  
908 resources are described below and shown in **Exhibit 3-17**.

- 909 • **Schools** – There are four schools within 1,000 feet of US 24. They include Midland  
910 Elementary School; the Greats Tabernacle School for preschool-aged children; the Westside  
911 Academy for Children for pre-kindergarten and kindergarten-aged children; and the Barnett  
912 Bicycle Institute, a school that offers technical programs, business training, or technician  
913 certifications.
- 914 • **Child Development Centers** – There are four child development centers within 1,000 feet  
915 of the US 24 Corridor: Apple Seeds Child Development Center, Old Town Learning Center,  
916 Head Start of El Paso County, and the Community Partnership-Child Development Center.  
917 Serving an estimated 1,600 children, these programs offer free or affordable services to  
918 pregnant woman, children of low-income families, and children with special needs.

919 EXHIBIT 3-17  
 920 Neighborhoods and Community Facilities in the Study Area



- 921 • **Religious Institutions** – Nine religious institutions are located within 1,000 feet of US 24.  
 922 These include Metropolitan Community Church, Unchartered Waters, Jehovah’s Witnesses,  
 923 Beacon Light Baptist Church, Pikes Peak United Methodist Church, Rock of Ages Lutheran  
 924 Church, Day Spring Bible College, Colorado Springs Emmanuel Missionary Baptist Church  
 925 Corporation, and Word of Life Church.
- 926 • **Library** – There is one library located just outside of the study area north of Colorado  
 927 Avenue. This library, the Old Colorado City Public Library located at 2418 West Pikes Peak  
 928 Avenue, is a branch of the Pike’s Peak Library District and provides a variety of classes,  
 929 programs, and events.
- 930 • **U.S. Post Office** – There is one U.S. Post Office in the study area, located at 204 S.  
 931 25th Street.
- 932 • **Senior Services** – Silver Key Senior Services (2250 Bott Avenue) provides social, home  
 933 care, legal, and other support services to adults over 60 years old within the study area.
- 934 • **Emergency Services** – There are 20 fire stations located throughout the City of Colorado  
 935 Springs. Two of these are located within 1,000 feet of US 24: Fire Station 3 (922 W.  
 936 Colorado Avenue) and Fire Station 5 (2830 W. Colorado Avenue). The City of Colorado  
 937 Springs Police Department comprises four area commands with a total of 11 police facilities,  
 938 none of which is located within the study area.

939 The project team spoke with emergency responders in the early phases of the project to provide  
 940 information about the project and identify any concerns. The Colorado Springs Police  
 941 Department supports the addition of standard shoulders through the US 24 corridor and  
 942 requested CDOT consider an inside shoulder at the I-25 and US 24 ramp intersection for  
 943 emergency and police vehicles. Further coordination with emergency responders would occur  
 944 during final design.

945 No hospitals are located within 1,000 feet of the US 24 study area. Memorial Hospital and  
 946 Memorial Hospital for Children, approximately 2.5 miles from the study area, are the nearest  
 947 full-service hospitals.

### 948 3.7.1 Impacts of the No Action Alternative

949 Although the transportation projects included in the No Action Alternative would improve  
 950 mobility for local trips, they are limited in scope and would not address congestion, mobility for  
 951 regional trips, nor would they improve connectivity to destinations along US 24. Adverse effects  
 952 on socioeconomic conditions would arise as a result of this unmet transportation need. These  
 953 would include effects that are typically caused by traffic congestion and impaired mobility,  
 954 including longer travel times, neighborhood cut-through traffic, deteriorating safety conditions,  
 955 an increase in localized air pollution and noise, and lengthened emergency response times.

956 Access to Gold Hill Mesa would become increasingly difficult from US 24 with unacceptable  
 957 Level of Service at 8th Street and 21st Street.

### 958 3.7.2 Impacts of the Proposed Action

959 The Proposed Action would benefit local residents, businesses, and regional commuters by  
 960 reducing congestion and improving mobility and connectivity along US 24. The US 24 overpass  
 961 of Ridge Road improves safety for motorized and non-motorized travelers to the Red Rock  
 962 Canyon Open Space and neighborhood south of US 24. Sidewalks would be provided or

963 improved along 8th Street, 21st Street, 26th Street, 31st Street, and Ridge Road. The sidewalks  
964 would be detached from the road where space permits to more safely accommodate pedestrians.

965 US 24 acts as the existing boundary for neighborhoods in the study area, and the Proposed  
966 Action would not divide existing neighborhoods or impact neighborhood cohesion. Access to  
967 US 24 at 14th Street would be removed. No new access points to US 24 would be provided.  
968 Neighborhood cut-through traffic, caused by congestion on US 24, would be reduced.

969 The neighborhood and community facilities in the study area such as schools, child development  
970 centers, religious institutions, the library, the post office, and the senior services would not be  
971 directly impacted by the Proposed Action. These facilities would benefit by the reduced  
972 congestion, the improved mobility, and the connectivity of the area.

973 The Proposed Action would require the acquisition and relocation of residential and commercial  
974 properties, as detailed in **Section 3.3, Right-of-Way**. For example, an estimated 24 households  
975 would be displaced. This represents approximately one fifth of  
976 one percent of the 13,649 households in US 24 adjoining Census  
977 tracts, as reported in **Exhibit 3-16**. Given the small number of  
978 displacements in relation to the total amount of comparable  
979 housing stock in this area, no effect on local or regional  
980 population distribution or housing demand would be expected.

*The Proposed Action would accommodate emergency service providers with 12-foot shoulders on both sides of the highway.*

981 Employees of the estimated 77 relocated businesses would have to travel to a new location to  
982 maintain their employment or find employment elsewhere. This could affect an estimated  
983 1,859 employees, according to the *U.S. Highway 24 Alternatives Analysis (Manitou Springs to*  
984 *Interstate 25) Market and Socio-Economic Impacts* (THK Associates, Inc., 2006) with a follow-up  
985 memorandum in October 2008. That analysis indicated that much of the economic activity from  
986 these businesses was for goods and services with demand from the surrounding market area and  
987 thus most of these businesses would likely be able to relocate within the study area. Thus, the  
988 net impact to local employment would be from only those displaced businesses that do not  
989 relocate nearby.

990 Highway construction jobs have the potential to substantially offset short-term loss of  
991 employment from displaced businesses. At any given time during the multiyear duration of  
992 implementing the Proposed Action, it is reasonable to expect that there would be several  
993 hundred persons employed in various aspects of project design and construction. The estimated  
994 cost of construction in 2011 dollars is \$230 million.

995 The economic impacts study also identified short term declines of \$521,000 annually in property  
996 tax collection and an estimated \$1.2 million annually in sales tax revenues. However, these  
997 impacts would be offset in the longer term as the result of local development and redevelopment  
998 that would occur due to the increased accessibility of the study area. With the Proposed Action,  
999 the improved traffic operations would increase the geographic market area of the businesses  
1000 within the study area, resulting in a net increase of \$3.7 million in sales taxes; \$1,478,529 in  
1001 property taxes. The study projected a net increase of approximately 640 additional employees  
1002 and more than 1,000 new residents in the study area. This development and redevelopment  
1003 would be by others and therefore, are not direct benefits of the project. For more information  
1004 see **Section 3.14, Cumulative Impacts**.

1005 The economic impacts study described above showed that most of the local businesses that are  
1006 acquired for the improvements would relocate within the study area. Businesses that were of  
1007 great importance to the community and would have a difficult time relocating within the study  
1008 area, such as Safeway, were not impacted. The Proposed Action was designed to avoid these  
1009 businesses.

1010 The Proposed Action includes 12-foot shoulders on both sides of US 24 throughout most of the  
1011 US 24 corridor. The shoulders would provide access for emergency service providers during  
1012 congestion resulting from emergencies.

1013 During construction, temporary detours, out-of-direction travel, and construction-related noise  
1014 would affect local residents, businesses, and regional commuters. Impacts would be greatest for  
1015 residents and businesses adjacent to the proposed project.

### 1016 3.7.3 Mitigation

1017 CDOT will provide advance notice to emergency service providers, local schools, homeowners  
1018 associations, and local businesses of upcoming construction activities that are likely to result in  
1019 traffic disruption and rerouting.

1020 For any person(s) whose real property interests may be impacted by this project, the acquisition  
1021 of those property interests will fully comply with the Uniform Act. The Uniform Act is a  
1022 federally mandated program that applies to all acquisitions of real property or displacements of  
1023 persons resulting from federal or federally assisted programs or projects. It was created to  
1024 provide for and ensure the fair and equitable treatment of all such persons. To further ensure  
1025 that the provisions contained within this act are applied “uniformly,” CDOT requires Uniform  
1026 Act compliance on any project for which it has oversight responsibility regardless of the funding  
1027 source. Additionally, the Fifth Amendment of the United States Constitution provides that  
1028 private property may not be taken for a public use without payment of “just compensation.” All  
1029 impacted owners will be provided notification of the acquiring agency’s intent to acquire an  
1030 interest in their property including a written offer letter of just compensation specifically  
1031 describing those property interests. A ROW specialist will be assigned to each property owner to  
1032 assist them with this process (CDOT, 2008b).

1033 Mitigation for temporary construction-related impacts such as detours, out-of-direction travel,  
1034 noise, and air emissions are addressed in **Section 3.1, Transportation Resources, Section 3.6,**  
1035 **Traffic Noise, and Section 3.13.4, Air Quality.**



## 1036 3.8 Environmental Justice

1037 Environmental justice refers to social equity in bearing the burdens of adverse environmental  
1038 impacts. In the past, some racial or ethnic minorities and low-income populations have  
1039 experienced disproportionate impacts caused by construction of transportation projects. In  
1040 response to this concern, an Executive Order was issued by President Clinton in 1994. Among  
1041 other things, it directed that:

1042 “Each Federal agency shall make achieving environmental justice part of its mission by  
1043 identifying and addressing, as appropriate, disproportionately high and adverse human health or  
1044 environmental effects of its programs, policies, and activities on minority populations and  
1045 low-income populations.”

1046 -Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority*  
1047 *Populations and Low-Income Populations*, 1994.

1048 The analysis that follows documents the presence of minority and low-income populations in  
1049 the study area and evaluates the potential for impacts to these populations. Details are provided  
1050 in the *Environmental Justice Technical Memorandum* (CH2M HILL, 2010e) in **Appendix C**.

1051 While the U.S. Census Bureau is the primary source of data for the environmental justice  
1052 analysis, additional efforts were made to supplement census findings. Data searches were  
1053 conducted at the Office of Economic Development and International Trade, Minority Business  
1054 Office website to identify any minority-owned businesses in the study area (State of Colorado,  
1055 2008). The Colorado Springs Housing Authority was contacted to identify Section 8 housing in  
1056 the study area. Recent home sales data on [www.Trulia.com](http://www.Trulia.com) were used to compare median home  
1057 sale prices in the study area to the greater community. Demographic data from local schools  
1058 (e.g., race and ethnicity, eligibility for free/reduced-price lunch) were evaluated and compared to  
1059 countywide statistics. The project team also conducted field visits and met with local business  
1060 owners to identify potential issues or concerns.

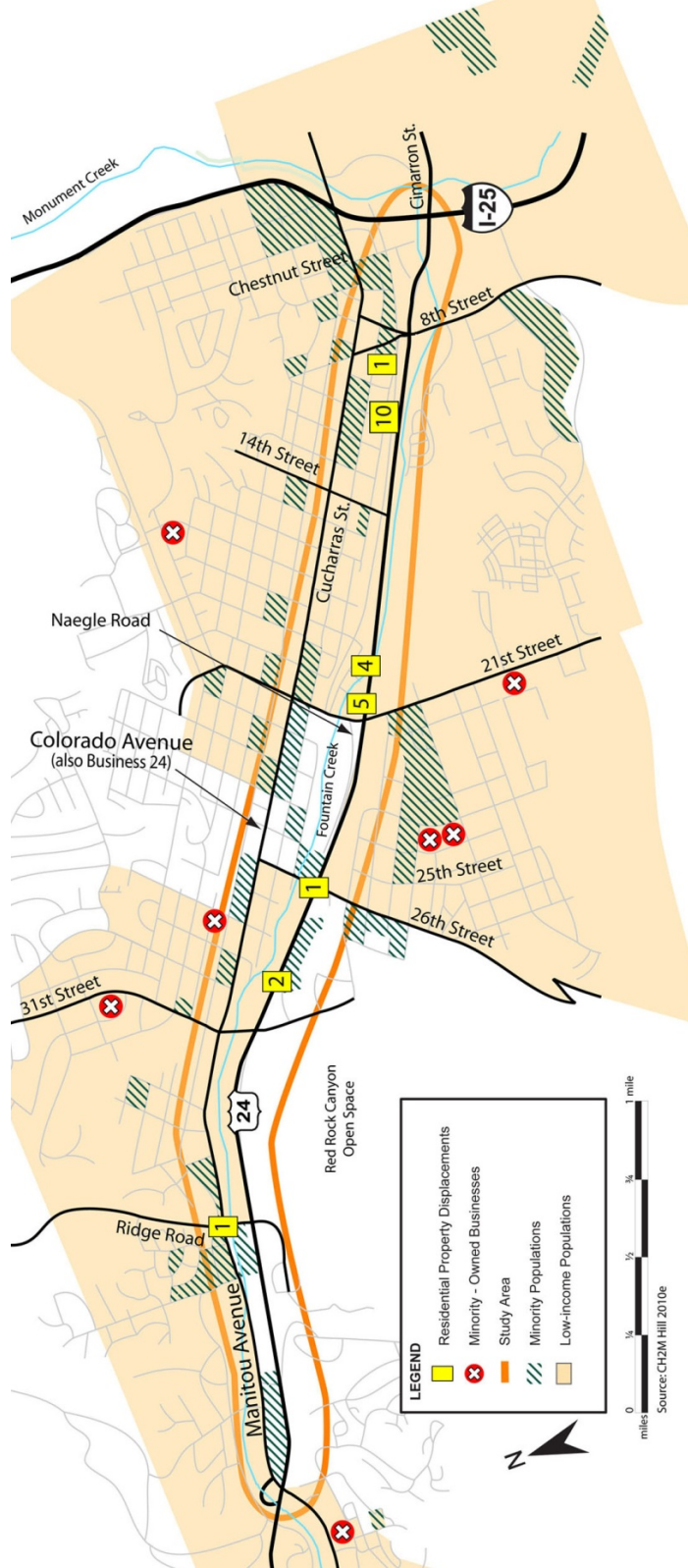
1061 Specialized outreach to minority and low-income populations was undertaken as part of the  
1062 public involvement process to solicit input and identify concerns regarding the project. The  
1063 specific efforts targeted at minority, non-English speaking, and low-income populations in the  
1064 study area are detailed in **Chapter 5, Agency Coordination and Public Involvement**.

### 1065 Minority Populations

1066 Minority populations are comprised of ethnic and/or racial  
1067 minorities. For the purposes of this analysis, a minority is a  
1068 person who is Black, Hispanic, Asian American, American  
1069 Indian, or Alaskan Native. In Colorado Springs, 25 percent of the  
1070 population is considered minority. Census and other data sources  
1071 do not indicate that the study area contains higher-than-average  
1072 concentrations of minorities when compared to the City of  
1073 Colorado Springs as a whole. Of the 343 census blocks within 0.25 mile of the proposed  
1074 improvements, 57 (17 percent) contain higher-than-average concentrations of minority  
1075 populations. Only six of these blocks are immediately adjacent to US 24. Because some blocks  
1076 extend beyond the study area boundaries, some of the minorities identified through census data  
1077 may be outside of the study area for the project. Census blocks with higher-than-average  
1078 concentrations of minorities are scattered north and south of the US 24 corridor and are shown  
1079 by location in **Exhibit 3-18**.

*The study area does not contain higher than average concentrations of minorities, when compared to the city as a whole.*

1080 EXHIBIT 3-18  
 1081 Minority and Low-Income Populations, Minority-Owned Businesses, and Residential Property Acquisitions



1082 Sources: US Census Bureau, 2000; HUD Income Limits, 2008; Office of Economic Development and  
 1083 International Trade, Minority Business Office, 2008.

1084 Midland Elementary School is located within a census block that contains 225 people, 61 of  
 1085 whom (27 percent) consider themselves minorities. The school reports that approximately  
 1086 32 percent of its student population is minority. None of the other data sources evaluated  
 1087 indicated that the study area contains higher-than-average minority populations, and there were  
 1088 no requests for translation services or specialized meetings throughout the public involvement  
 1089 process. As shown in **Exhibit 3-18**, seven businesses in the vicinity of the proposed project are  
 1090 registered with the Office of Economic Development and International Trade, Minority  
 1091 Business Office.

### 1092 **Low-Income Populations**

1093 For the purposes of this analysis, households earning less than  
 1094 \$20,000 each year are considered low-income. This threshold  
 1095 was derived from a combination of census average household  
 1096 size data and the income thresholds set annually by the  
 1097 Department of Housing and Urban Development (HUD) for  
 1098 the distribution and allocation of Community Development  
 1099 Block Grant funds, in accordance with CDOT guidance.  
 1100 In Colorado Springs, 17 percent of households fall below the \$20,000 threshold.

*The study area contains higher than average concentrations of low-income households, when compared to the city as a whole.*

1101 Census and other data sources indicate that the study area contains higher-than-average  
 1102 concentrations of low-income households when compared to the City of Colorado Springs as a  
 1103 whole. Of the 21 census block groups adjacent to US 24, 17 (81 percent) contain higher-than-  
 1104 average concentrations of low-income households. The census block groups adjacent to US 24  
 1105 are large and extend north and south more than 0.25 mile from US 24. As a result, many of the  
 1106 households identified through census data may be outside of the study area for the project.  
 1107 Census block groups with higher-than-average concentrations of low-income households are  
 1108 shown by location in **Exhibit 3-18**.

1109 The Colorado Springs Housing Authority identified more than 700 Section 8 properties within  
 1110 the City of Colorado Springs. It is reasonable to assume that a portion of these are located  
 1111 within the study area but, because of concerns relating to privacy, the Authority was unable to  
 1112 provide the exact number and location. Lower home values and demographic data for Midland  
 1113 Elementary School, where more than half of the students in attendance are eligible for free or  
 1114 reduced-price lunches, also support census findings.

### 1115 **3.8.1 Impacts of the No Action Alternative**

1116 The No Action Alternative would improve intersection geometry at both 8th Street and  
 1117 21st Street and complete the Midland Trail between 21st Street and Manitou Avenue. These  
 1118 improvements may require ROW acquisition from within minority and low-income areas.  
 1119 Because specific ROW needs for the No Action Alternative have not been identified, it is  
 1120 unknown if these actions would result in the relocation of minority or low-income residents.

1121 Adverse effects to minority and low-income populations  
 1122 could arise from the No Action Alternative. These would  
 1123 include effects that are typically caused by traffic  
 1124 congestion and impaired mobility, including longer travel  
 1125 times, neighborhood cut-through traffic, deteriorating  
 1126 safety conditions, an increase in localized air pollution and  
 1127 noise, and lengthened emergency response times. Traffic  
 1128 congestion likely would worsen on local streets as drivers

*Because the majority of the corridor is considered low-income, impacts associated with either the No Action Alternative or the Proposed Action would be predominantly borne by low-income populations.*

1129 seek alternatives to US 24, which could affect the timeliness of transit routes serving the area.  
 1130 Pedestrian and bike safety would not be improved, as sidewalks would remain disconnected and  
 1131 highway crossing opportunities limited. The No Action Alternative does not include drainage  
 1132 improvements. Properties adjacent to US 24, most in low-income areas, would continue to be  
 1133 subject to 100-year flooding from Fountain Creek. These effects would be predominantly borne  
 1134 by low-income populations due to their proximity to Fountain Creek.

### 1135 3.8.2 Impacts of the Proposed Action

1136 As shown in **Exhibit 3-18**, most residential acquisitions (22 out of 24) required for the Proposed  
 1137 Action are located in census blocks with higher-than-average percentages of low-income  
 1138 households. Because the majority of the US 24 corridor is considered low-income, these impacts  
 1139 would be predominantly borne by low-income populations.

1140 None of the business relocations are known to be owned by  
 1141 minorities or provide services or employment of special importance  
 1142 to minority or low-income persons.

*Improvements included  
 in the Proposed Action  
 would also benefit  
 minority and low-income  
 residents.*

1143 Locations where predicted noise levels equal or exceed CDOT's  
 1144 Noise Abatement Criteria (66 decibels for residences) are  
 1145 considered impacted by noise, as are locations where future noise  
 1146 levels are predicted to exceed existing noise levels by 10 decibels or more. Traffic noise impacts  
 1147 are predicted to occur at 30 residences, eight of which are located in areas with higher-than-  
 1148 average concentrations of minority residents and/or low-income households.

1149 The Proposed Action would result in temporary impacts to the community from increased dust,  
 1150 dirt, noise, traffic, and access disruptions during the construction process. Because the majority  
 1151 of the US 24 corridor is considered low income, these impacts would be predominantly borne  
 1152 by low-income populations.

1153 The Proposed Action would benefit minority and low-income residents, as well as the overall  
 1154 community by reducing congestion, improving mobility, constructing sidewalks, residents  
 1155 currently in the 100-year floodplain will be outside of the floodplain, and reducing traffic noise  
 1156 levels (after constructing noise barriers). The Proposed Action would remove through-traffic  
 1157 from local streets and facilitate timely transfer between bus routes. This, in combination with  
 1158 construction of sidewalks at intersections, would promote better multimodal connections for  
 1159 transit-dependent residents.

1160 As previously noted, ROW and temporary construction-related impacts would be predominantly  
 1161 borne by low-income populations. However, when offsetting benefits from the project and  
 1162 proposed mitigation are also considered, these impacts would not be considered  
 1163 disproportionately high and adverse. All other impacts are either distributed across the  
 1164 community (e.g., business acquisitions, temporary construction-related impacts) or would be  
 1165 mitigated so as to not disproportionately affect minority and/or low-income populations  
 1166 (e.g., acquisition of parkland, noise levels).

### 1167 3.8.3 Mitigation

1168 CDOT will follow the Uniform Act, as amended, in acquiring ROW. CDOT's programs to  
 1169 assist renters and homeowners with the inconvenience of relocation would provide monetary  
 1170 compensation for the fair market value of the property, relocation assistance, moving assistance,  
 1171 and relocation replacement housing payments or rent supplements.

1172 Noise barriers would reduce noise levels below 66 decibels at three locations in the US 24  
 1173 corridor. Specifics are addressed in **Section 3.6, Traffic Noise**. Two of the walls will be  
 1174 constructed in higher-than-average low income and/or in neighborhoods between 11th Street  
 1175 and 14th Street and on the south side of US 24 in the area of the A-1 mobile homes.

1176 Mitigation for temporary construction-related impacts such as detours, out-of-direction travel,  
 1177 and air emissions are addressed in **Section 3.1, Transportation Resources** and **Section 3.13.4,**  
 1178 **Air Quality**. Mitigation has been factored into the analysis of potential impacts to minority and  
 1179 low-income populations. Efforts will be made to notify and include minority and low-income  
 1180 populations in the public hearing for the EA. The public hearing will be advertised in *Hispania*  
 1181 and on community websites, neighborhood newsletters, and flyers. Telephone numbers for  
 1182 information and Spanish translation will be included. Translators will be available upon request  
 1183 at the public hearing for the EA.

1184 CDOT will develop and implement a public information plan throughout construction. This  
 1185 plan and any information on construction activities and detours will be provided in both English  
 1186 and Spanish.

### 1187 3.9 Land Use

1188 Relevant land use plans, land use and zoning maps, and aerial photographs were reviewed to  
 1189 characterize and evaluate land use and zoning issues in the US 24 study area.

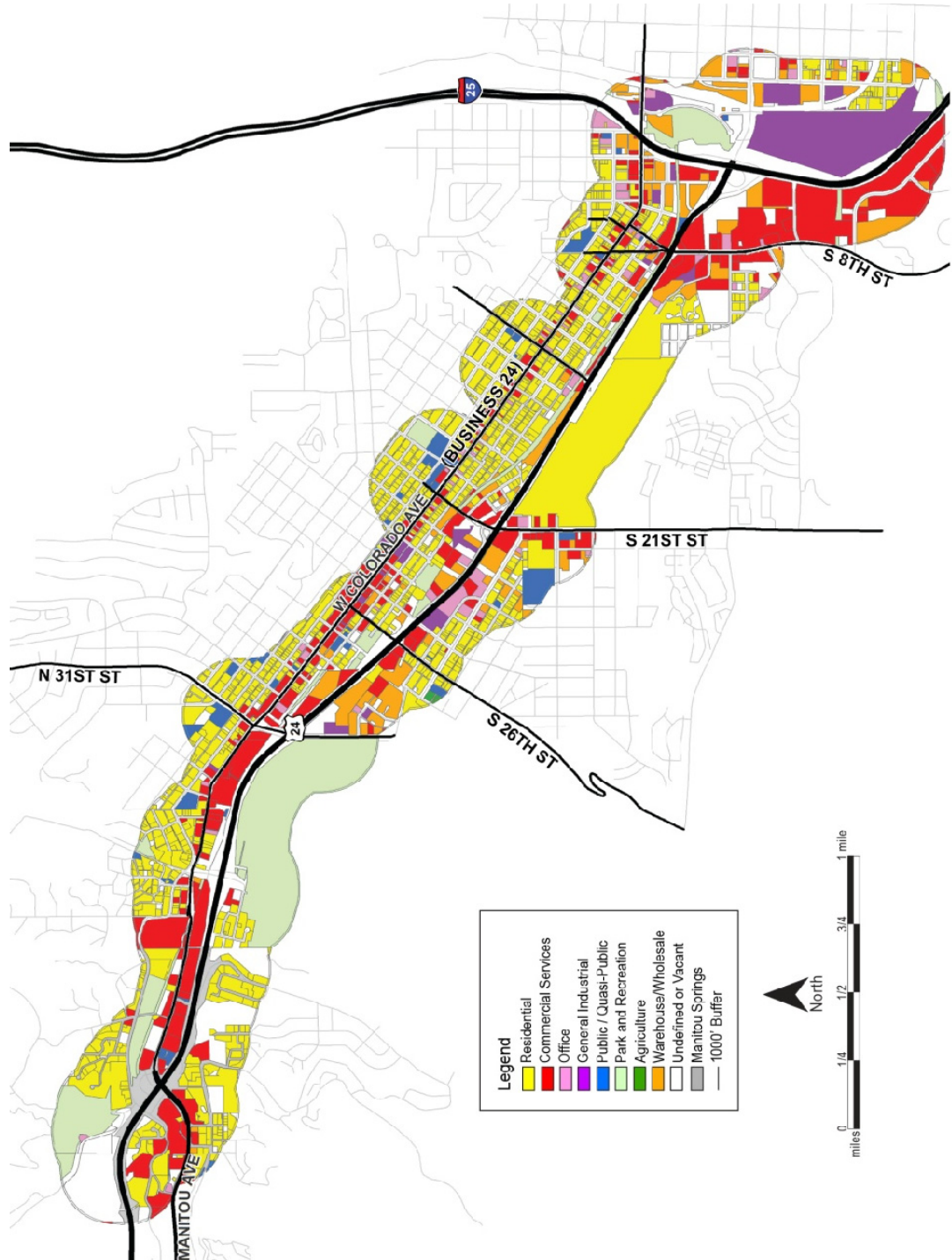
1190 The land uses that currently surround US 24 are varied, and nearly every category is represented.  
 1191 Land immediately north of US 24 consists predominantly of commercial and industrial uses with  
 1192 residential land uses further north. Land immediately south of US 24 includes a mixture of uses.  
 1193 Existing land uses are illustrated in **Exhibit 3-19**.

1194 Existing land use is generally consistent with existing zoning in the study area. Some  
 1195 inconsistencies do exist (e.g., residential uses in commercial or industrial zones), which may  
 1196 indicate a desire to transition lower-intensity uses (e.g., single-family dwellings) to  
 1197 higher-intensity uses (e.g., higher-density residential, offices, or commercial establishments) in  
 1198 the US 24 corridor. Existing zoning is mapped and described in detail in the *Land Use Technical*  
 1199 *Memorandum* (CH2M HILL, 2009a) in **Appendix C**.

1200 Land use planning in the study area is the responsibility of El Paso County, City of Colorado  
 1201 Springs, and City of Manitou Springs. Future land use directly surrounding US 24 is classified by  
 1202 Colorado Springs as a mature redevelopment corridor. According to the *City of Colorado Springs*  
 1203 *Comprehensive Plan* (City of Colorado Springs, 2001a), a mature redevelopment corridor is defined  
 1204 as a corridor that lines older arterial streets and state highways with retail uses and auto-oriented  
 1205 services developed in a typical strip commercial pattern. These corridors also include significant  
 1206 infill and redevelopment opportunities. The adopted land use plans listed below provide policy,  
 1207 goals, and visions for land use, transportation, pedestrian and bicycle access, improvements for  
 1208 intersection operations, and other planning elements within the study area.

- 1209 • *Moving Forward – 2035 Regional Transportation Plan* (PPACG, 2008a): Identifies US 24 in the  
 1210 study area as a major multimodal, regional arterial that facilitates longer-distance regional  
 1211 trips and access to adjacent establishments in the most densely developed areas.

1212 EXHIBIT 3-19  
 1213 Existing Land Use



- 1214 • *City of Colorado Springs Comprehensive Plan* (City of Colorado Springs, 2001a): Does not identify  
 1215 specific goals or objectives for US 24, but includes transportation planning to enhance the  
 1216 natural environment and improve mobility.
- 1217 • *City of Colorado Springs Comprehensive Plan Annual Report 2007-2008* (City of Colorado Springs,  
 1218 2007a): Identifies the US 24 corridor as one of eight designated redevelopment corridors and  
 1219 areas for possible redevelopment and/or infill development.
- 1220 • *City of Colorado Springs Intermodal Transportation Plan* (City of Colorado Springs, 2001b): Does  
 1221 not identify specific goals or objectives for US 24, but is part of a continuing effort to  
 1222 enhance the transportation system for the City of Colorado Springs and to develop a  
 1223 comprehensive approach to transportation planning.
- 1224 • *City of Colorado Springs 2008 Strategic Plan* (City of Colorado Springs, 2007b): Does not identify  
 1225 specific goals or objectives for US 24. A key issue identified in the plan is sustainability and  
 1226 support for development that revitalizes neighborhoods.
- 1227 • *Westside Plan* in 1980 – Updated by the *Midland Plan* in 1986 (City of Colorado Springs,  
 1228 1980 and 1986): Identifies the need for transportation improvements that would keep  
 1229 through traffic off of local residential streets and eliminate congestion problems. Plans for  
 1230 the extension of the Midland Trail and other local bike/pedestrian trails. Potential solutions  
 1231 to address congestion on US 24 and Colorado Avenue identified in the plan include  
 1232 widening US 24 and eliminating signals at major intersections on US 24.

1233 The only major land development project in progress in the study area is Gold Hill Mesa,  
 1234 located south of US 24 between 8th Street and 21st Street. This development includes more than  
 1235 140 acres for residential development and 67 acres for commercial development. As a  
 1236 traffic-generating land use, this could add to the existing traffic congestion problems on US 24.  
 1237 Another smaller residential development of custom homes is being built south of US 24 and  
 1238 west of Ridge Road, and could also add traffic to US 24.

1239 Additional information about land use and zoning is included in the *Land Use Technical*  
 1240 *Memorandum* (CH2M HILL, 2009a) in **Appendix C**.

### 1241 **3.9.1 Impacts of the No Action Alternative**

1242 The No Action Alternative would improve intersection geometry at both 8th Street and  
 1243 21st Street and complete the Midland Trail between 21st Street and Manitou Avenue. These  
 1244 improvements to be built by others might require ROW acquisition and the conversion of  
 1245 existing land to transportation uses.

1246 The No Action Alternative would not support planned development/re-development in the  
 1247 study area because congestion on US 24 would continue. Access to Gold Hill Mesa and other  
 1248 existing neighborhoods would become increasingly difficult, which could make residential and  
 1249 commercial units less desirable.

1250 The No Action Alternative would only partially support the relevant goals and objectives  
 1251 presented in adopted land use plans. It would not provide the necessary congestion relief,  
 1252 improve mobility for vehicles or improve connectivity to destinations along US 24. The Midland  
 1253 Trail extension would support goals related to pedestrian and bicycle access.

### 1254 **3.9.2 Impacts of the Proposed Action**

1255 The Proposed Action is consistent with planned land uses. The study area is mostly built, leaving  
 1256 limited potential for additional new development other than for Gold Hill Mesa and a smaller

1257 residential area being developed with custom homes south of US 24  
 1258 and west of Ridge Road. Improved access at new interchange  
 1259 locations could result in the redevelopment of commercial land uses.  
 1260 Capacity improvements would support the additional traffic  
 1261 associated with Gold Hill Mesa. A detailed analysis of compatibility  
 1262 with relevant land use plans is included in the *Land Use Technical*  
 1263 *Memorandum* (CH2M HILL, 2009a) in **Appendix C**.

*The Proposed Action supports the goals and objectives of adopted land use plans and policies.*

1264 The Proposed Action supports the goals and objectives of adopted land use plans and policies.  
 1265 It provides the additional capacity necessary to accommodate anticipated growth and  
 1266 redevelopment; improves capacity, mobility, transportation connections, and pedestrian and  
 1267 bicycle access; and builds more trail in the existing gap in the Midland Trail.

1268 The Proposed Action would result in the direct conversion of residential, commercial, and  
 1269 public lands to a transportation use. The widening of US 24 and associated improvements  
 1270 described in **Chapter 2, Alternatives** would require the acquisition of 109 properties  
 1271 (81 commercial, three mixed-use, 14 public, and 11 residential) (refer to **Section 3.3,**  
 1272 **Right-of-Way**). Direct impacts to land use by land use classification are quantified in  
 1273 **Exhibit 3-20**.

EXHIBIT 3-20  
 Summary of Direct Land Use Impacts by Land Use Classification<sup>1</sup>

Land Use Classification	Existing Acres in Study Area	Acres Converted for Proposed Action	Percent of Impact
Residential	541.17	5.01	<1
Commercial	268.81	30.51	11
Office	33.59	3.55	11
Industrial	97.43	4.78	5
Public/Quasi-Public	45.23	0.54	1
Park and Recreation	202.01	8.03	4
Agriculture	1.04	0.00	0
Warehouse/Wholesale	116.98	16.97	15
Undefined/Vacant	159.13	15.53	10
<b>Total</b>	<b>1,465.39</b>	<b>84.92</b>	<b>6</b>

<sup>1</sup> Land Use classifications defined by the City of Colorado Springs differ from the property types defined by the El Paso County Assessor. Therefore, the quantities presented in **Exhibit 3-20** should not be compared to those in **Section 3.3, Right-of-Way**.

1274 **3.9.3 Mitigation**

1275 Mitigation strategies for acquiring residential, commercial, and public lands for transportation  
 1276 use are addressed in **Chapter 3, Section 3.3, Right-of-Way**.

1277 No land use specific mitigation measures are necessary. Local planning jurisdictions have the  
 1278 authority to make land use decisions and approve land use change and development. The project  
 1279 team will continue to coordinate with local governments to ensure the Proposed Action is  
 1280 consistent with land use objectives.



## 1281 3.10 Hazardous Materials

1282 US 24 in the study area is a major transportation route and a designated truck route in an area  
 1283 with many commercial and industrial establishments. The US 24 corridor is also a designated  
 1284 route for transport of hazardous materials. Therefore, the potential exists for accidental release  
 1285 of hazardous substances to the environment. Regulations and standard procedures are in place  
 1286 to minimize the risk of spills and to ensure their safe remediation.

1287 Before acquiring any property for use as roadway ROW, CDOT undertakes due diligence to  
 1288 determine whether the property is contaminated with hazardous materials or petroleum products  
 1289 within structures and/or in the soil and groundwater. Encountering such materials during the  
 1290 construction of US 24 improvements could affect the health and safety of the public,  
 1291 construction workers, and the environment.

1292 Four types of contamination are often found along an urban highway:

- 1293 • Soil and groundwater pollution due to fuel leaking from an underground storage tank;
- 1294 • Soil and groundwater contamination due to landfills, material spills, or industrial operations;
- 1295 • Asbestos found in nearby structures that are acquired for highway ROW and in soil where  
 1296 building debris has been buried; and
- 1297 • Lead paint found on highway bridge structures or in buildings acquired for ROW.

1298 Coordination with the Colorado Department of Labor and Employment Division of Oil and  
 1299 Public Safety (OPS) was conducted as part of this study. An environmental records search was  
 1300 performed on the US 24 study area to identify recognized environmental conditions (RECs),  
 1301 potential RECs, or historical RECs that may impact the project. RECs are sites where current or  
 1302 historic activities may have resulted in the release of hazardous materials into the soil,  
 1303 groundwater or surface water. Historical RECs are sites that in the past would have been  
 1304 considered a REC, but may or may not be considered a REC currently, such as a leaking  
 1305 underground storage tank (LUST) site that has been remediated and the remediation has been  
 1306 accepted by the OPS. The results from the environmental records search are shown in  
 1307 **Exhibit 3-21**, and encompass an area extending 1 mile in each direction from the US 24  
 1308 centerline. A summary table is provided as **Exhibit 3-22** listing the Map ID, the site type, the  
 1309 owner or company name of the site, the address of the site, comments regarding the site, and a  
 1310 determination whether the site is considered a REC. Out of the 238 sites reviewed, three are  
 1311 considered RECs and are discussed in **Section 3.10.2, Impacts of the Proposed Action**. A  
 1312 driving tour was also conducted for the purpose of locating and assessing the sites identified in  
 1313 the records search and to identify any other RECs or potential RECs not contained within the  
 1314 EDR report, but none was identified during this site reconnaissance. For detailed results of the  
 1315 database records search, please refer to the *Hazardous Materials Technical Memorandum*  
 1316 (CH2M HILL, 2010f) in **Appendix C**.

1317 US 24 is a transportation corridor through a long-developed urban area with commercial and  
 1318 industrial land uses. A large number and variety of older hazardous material sites were identified  
 1319 in the study area. These include sites that are listed in the national database Comprehensive  
 1320 Environmental Response, Compensation, and Liability Information System, most of which do  
 1321 not require further remedial action. Also found in the study area were a number of underground  
 1322 storage tanks, mostly at gasoline stations, including some that previously leaked and were  
 1323 subsequently removed and remediated. Another prominent site is the Gold Hill Mesa

## EXHIBIT 3-21

## Summary of Hazardous Materials Sites

Map ID	Facility Name and Address	Comments	REC?
1	Abe's Gas House, 32 Manitou Avenue	<b>Leaking underground storage tank (LUST), Underground storage tank (UST):</b> UST is registered with OPS. No Further Action issued from OPS.	Historical REC
2	Garden of the Gods Campground, 3704 West Colorado Avenue	<b>Aboveground storage tank (AST):</b> UST is registered with OPS. Not considered to be leaking.	NO
3	R & P Tours, 3440 West Colorado Avenue	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
4	Cliff Brice Stations, 3313 West Colorado Avenue	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
5	Longs Drug Store #288, 3143 West Colorado Avenue	<b>Facility Index System (FINDS), Resource Conservation and Recovery Act (RCRA)-Conditionally Exempt Small Quantity Generators (CESQG):</b> Site in FINDS database for RCRA-CESQG and Aerometric Information Retrieval System (AIRS). No RCRA violations.	NO
5	Best Cleaners, 3157 West Colorado Avenue	<b>AIRS, DRY CLEANERS, FINDS, RCRA-CESQG, Voluntary Cleanup Program (VCP):</b> Facility has an air permit for trichloroethylene (TCE) emissions. Facility is a dry cleaner. Site in FINDS database for RCRA-CESQG and AIRS. No RCRA violations noted. Approved VCP application in 2005. Outside of project ROW.	NO
5	Red Rocks Shopping Center, 3175 West Colorado Avenue	<b>LUST:</b> No Further Action issued from OPS.	Historical REC
6	7-Eleven #22613, 3004 West Colorado Avenue	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
6	30th Street Car Wash, 3005 West Colorado Avenue	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
6	Fountain Creek RV Park, 3023 West Colorado Avenue	<b>AST:</b> AST is registered with OPS. Not considered to be leaking.	NO
6	K & S Automotive, 3042 West Pikes Peak Avenue	<b>FINDS:</b> Site in FINDS database for RCRA-CESQG. <b>LUST:</b> Two tanks permanently closed. <b>RCRA-CESQG:</b> No RCRA violations noted. <b>UST:</b> UST is registered with OPS.	Historical REC
6	Red Rock AMOCO, 3104 West Colorado Avenue	<b>FINDS:</b> Site in FINDS database for RCRA-Non-Gen. <b>RCRA site not generating waste (NonGen):</b> No RCRA violations noted.	NO
6	AMOCO #5494, 3104 West Colorado Avenue	<b>LUST:</b> 8 tanks total, 4 have been removed; 4 have been permanently closed. <b>LUST TRUST:</b> See LUST for same property. <b>UST:</b> UST is registered with OPS.	Historical REC
7	Diamond Shamrock 675, 2715 West Colorado Avenue	<b>LUST:</b> OPEN, site is in active groundwater monitoring. Outside of project ROW. <b>LUST TRUST:</b> See LUST for same property. <b>UST:</b> UST is registered with OPS.	Historical REC

## EXHIBIT 3-21

## Summary of Hazardous Materials Sites

Map ID	Facility Name and Address	Comments	REC?
7	Old Towne Propane, 2725 West Colorado Avenue	<b>AST:</b> UST is registered with OPS. Not considered to be leaking.	NO
7	Health Marrix The, 2802 West Colorado Avenue	<b>FINDS:</b> Site in FINDS database for RCRA-Non-Gen. <b>RCRA-NonGen:</b> RCRA violation, outside of project ROW.	NO
7	Ford Motor Co Test Facility, 2803 West Cucharras Street	<b>FINDS:</b> Site in FINDS database for RCRA-Non-Gen. <b>RCRA-NonGen:</b> No RCRA violations noted.	NO
7	Sparrow & Jacobs Inc., 2808 West Colorado Avenue	<b>FINDS:</b> Site in FINDS database for RCRA-CESQG. <b>RCRA-CESQG:</b> No RCRA violations noted.	NO
7	Roger & Phil McLaughlin, 2811 West Cucharras Street	<b>UST:</b> AST is registered with OPS. Not considered to be leaking.	NO
8	Colorado Philadelphia Reduction Works, East Side of 31st Street between US 24 and Robinson Street	<b>Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS):</b> Status has been changed to No Further Remedial Action Planned (NFRAP), outside of project ROW. <b>FINDS:</b> Site in FINDS database for CERCLIS.	NO
9	Sno White Linen & Uniform Rent, 110 South 25th Street	<b>AIRS:</b> Facility has an air permit for TEC and particulate matter emissions. <b>DRY CLEANERS:</b> Facility is a dry cleaner. <b>FINDS:</b> Site in FINDS database for RCRA-CESQG and AIRS. <b>RCRA-CESQG:</b> No RCRA violations noted. <b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
9	Sno White Laundry, 2515 West Colorado Avenue	<b>UST:</b> AST is registered with OPS. Not considered to be leaking.	NO
9	Bobs Discount Collision Paint, 2524 West Cucharras Street	<b>FINDS:</b> Site in FINDS database for RCRA-CESQG. <b>RCRA-CESQG:</b> No RCRA violations noted.	NO
9	Dees RV, 314 South 25th Street	<b>AST:</b> AST is registered with OPS. Not considered to be leaking.	NO
10	Cobb Mechanical Contractors, 3007 West Morrison	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
10	Western Service Furniture, 511 South 29th Street	<b>FINDS:</b> Site in FINDS database for RCRA-NonGen. <b>RCRA-NonGen:</b> No RCRA violations noted.	NO
10	Baxley Oil Co., 615 South 29th Street	<b>AIRS:</b> Facility has an air permit benzene and volatile organic compound (VOC) emissions. <b>AST:</b> AST is registered with OPS. <b>FINDS:</b> Site in FINDS database for RCRA-NonGen and AIRS. <b>LUST:</b> 7 USTs permanently closed; 4 USTs in use; and 12 ASTs in use. Downgradient and outside of project ROW. <b>LUST TRUST:</b> See LUST for same property. <b>RCRA-NonGen:</b> No RCRA violations noted. <b>UST:</b> UST is registered with OPS.	Historical REC

## EXHIBIT 3-21

## Summary of Hazardous Materials Sites

Map ID	Facility Name and Address	Comments	REC?
10	American Western Builders Inc., 622 South 29th Street	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
10	Westsidiers Garage, 622 South 29th Street	<b>LUST:</b> No Further Action issued from OPS.	Historical REC
11	The Car Shop, 2423 West Cucharras Street	<b>FINDS:</b> Site in FINDS database for RCRA-NonGen. <b>RCRA-NonGen:</b> No RCRA violations noted.	NO
12	El Paso Asphalt Inc., 2616 Robinson Street	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
12	Oldach Window Corp., 2700 Robinson Street	<b>FINDS:</b> Site in FINDS database for RCRA-CESQG. <b>RCRA-CESQG:</b> No RCRA violations noted.	NO
12	F H Staggs Lumber Inc., 2700 Robinson Street	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
13	Don's Body Shop, 202 South 21st Street	<b>FINDS:</b> Site in FINDS database for RCRA-Non-Gen. <b>LUST:</b> No Further Action issued from OPS. <b>RCRA-NonGen:</b> RCRA violation, outside of project ROW. <b>UST:</b> UST is registered with OPS.	Historical REC
13	Private Garage, 209 South 21st Street	<b>FINDS:</b> Site in FINDS database for RCRA-Non-Gen. <b>RCRA-NonGen:</b> No RCRA violations.	NO
13	1st Stop/Farm Crest, 2105 West Colorado Avenue	<b>LUST TRUST:</b> 7 tanks, 2 in use, 5 permanently closed. No Further Action received from OPS.	Historical REC
13	Farm Crest Stores #1, 2105 West Colorado Avenue	<b>LUST:</b> 7 tanks, 2 in use, 5 permanently closed. No Further Action received from OPS.	Historical REC
13	J Oil Co., 212 South 21st Street	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
13	Auto Max, 212 South 21st Street	<b>LUST:</b> No Further Action issued from OPS. <b>LUST TRUST:</b> No Further Action issued from OPS.	Historical REC
13	Lookout Mountain Motors, 2132 West Colorado Avenue	<b>LUST:</b> No Further Action issued from OPS.	Historical REC
14	Bobs Delivery Service, 2320 Robinson Street	<b>AST:</b> AST is registered with OPS. Not considered to be leaking.	NO
14	Dees RV, 2330 Naegle Road	<b>AST:</b> AST is registered with OPS. Not considered to be leaking.	NO
14	Gold Hill Police Station, 2335 Robinson Street	<b>LUST:</b> No Further Action issued from OPS.	Historical REC
14	Gold Hill Division Station, 2335 Robinson Street	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO

## EXHIBIT 3-21

## Summary of Hazardous Materials Sites

Map ID	Facility Name and Address	Comments	REC?
14	Sun City RV Inc., 2380 Naegle Road	<b>AST:</b> AST is registered with OPS. Not considered to be leaking.	NO
14	United States Postal Service, 2410 Robinson Street	<b>FINDS:</b> Site in FINDS database for RCRA-NonGen. <b>RCRA-NonGen:</b> No RCRA violations.	NO
15	Steve Mills Racing & ACR Inc., 2215 West Vermijo Avenue	<b>FINDS:</b> Site in FINDS database for RCRA-CESQG. <b>RCRA-CESQG:</b> No RCRA violations noted.	NO
16	Rons Auto Body, 210 South 20th Street	<b>FINDS:</b> Site in FINDS database for RCRA-NonGen. <b>RCRA-NonGen:</b> No RCRA violations.	NO
17	Lamar Outdoor Advertising, 2110 Naegle Road	<b>FINDS:</b> Site in FINDS database for RCRA-NonGen. <b>RCRA-NonGen:</b> No RCRA violations.	NO
18	Avenue Cleaners, 1706 West Colorado Avenue	<b>DRY CLEANERS:</b> Facility is a dry cleaner. <b>FINDS:</b> Site in FINDS database for RCRA-CESQG. <b>RCRA-CESQG:</b> No RCRA violations noted.	NO
18	Western National Bank, 1723 West Colorado Avenue	<b>LUST:</b> No Further Action issued from OPS. <b>LUST TRUST:</b> See LUST for same property. <b>UST:</b> UST is registered with OPS.	Historical REC
19	Perkins Auto Body, 2005 West Sheldon Avenue	<b>FINDS:</b> Site in FINDS database for RCRA-CESQG. <b>RCRA-CESQG:</b> No RCRA violations noted.	NO
20	REMCO, 2210 Bott Avenue	<b>FINDS:</b> Site in FINDS database for RCRA-NonGen. <b>RCRA-NonGen:</b> No RCRA violations.	NO
20	Ted Foltz, 2212 Hagerman Street	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
21	7-Eleven #13079, 1011 South 21st Street	<b>LUST:</b> Site received approval from OPS of the Corrective Action Plan. <b>UST:</b> UST is registered with OPS.	Historical REC
21	Yogurt Shop, 1022 South 21st Avenue	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
21	Not reported, 651 South 21st Street	<b>ASBESTOS:</b> Abatement has been completed.	NO
21	Advance Auto Parts #6462, 651 South 21st Street	<b>FINDS:</b> Site in FINDS database for RCRA-NonGen. <b>RCRA-NonGen:</b> No RCRA violations.	NO
21, 22	Shell Oil, 651 South 21st Street	<b>AST:</b> AST is registered with OPS. Not considered to be leaking. <b>LUST:</b> No Further Action issued from OPS. <b>LUST TRUST:</b> See LUST for same property. <b>UST:</b> UST is registered with OPS.	Historical REC
22, 23	Superior Cleaners, 1532 West Colorado Avenue	<b>AIRS:</b> Facility has an air permit for VOC emissions. <b>DRY CLEANERS:</b> Facility is a dry cleaner.	NO
22	Rycole Enterprises Inc., 1532 West Colorado Avenue	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC

## EXHIBIT 3-21

## Summary of Hazardous Materials Sites

Map ID	Facility Name and Address	Comments	REC?
24	7-Eleven #22684, 1428 West Colorado Avenue	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
25	Karle Coachwork Co., 1120 Pecan Street	<b>FINDS:</b> Site in FINDS database for RCRA-CESQG. <b>RCRA-CESQG:</b> No RCRA violations noted.	NO
25	Stripping Workshop, The, 2165 Broadway	<b>FINDS:</b> Site in FINDS database for RCRA-NonGen. <b>RCRA-NonGen:</b> No RCRA violations.	NO
26	Colorado Springs Iron & Metal, 400 South 16th Street	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
27	Murphy Beds Of Colorado, 1301 West Colorado Avenue	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
27	Colorado Fence Co., 1435 West Vermijo Street	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
27	GE Johnson Construction Co Inc., 310 South 14th Street	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS	Historical REC
27	Wreckmasters, 315 South 14th Street	<b>FINDS:</b> Site in FINDS database for RCRA-CESQG. <b>RCRA-CESQG:</b> No RCRA violations noted.	NO
28	Pinecreek Realty, 929 West Colorado Avenue	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
29	Pikes Peak Broadcasting Co., 3 South 7th Street	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC
30	Coca Cola Bottling Co., 415 West Pikes Peak Avenue	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC
31	Gold Hill Mesa, 21st Street / US 24	<b>VCP:</b> Capped and being developed as residential area. Likely institutional controls to consider if purchasing ROW on the property.	NO
32	CCOD Fire Station #8, 1616 Park Avenue	<b>LUST:</b> Address is in Denver. Not applicable to this search. <b>LUST TRUST:</b> Address is in Denver. Not applicable to this search. <b>UST:</b> Address is in Denver. Not applicable to this search.	Historical REC
32	Enterprise Leasing, 803 West Colorado Avenue	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC
32	Avenue Discount Gas Station, 822 West Colorado Avenue	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC
33	Chief Petroleum Bulk Plant, 301 South 10th Street	<b>AST:</b> AST is registered with OPS. Not considered to be leaking. <b>LUST:</b> 14 Tanks: 10 in use, 4 permanently closed. LUSTs are closed. <b>LUST TRUST:</b> See LUST for same property. <b>UST:</b> UST is registered with OPS.	Historical REC

## EXHIBIT 3-21

## Summary of Hazardous Materials Sites

Map ID	Facility Name and Address	Comments	REC?
33	Bulk Lubricants Storage, 302 South 10th Street	<b>AST:</b> AST is registered with OPS. Not considered to be leaking.	NO
33	Chief Petro Card Lock, 910 West Vermijo Street	<b>AST:</b> AST is registered with OPS. Not considered to be leaking.	NO
34	City Glass Co Inc., 414 West Colorado Avenue	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC
34	Koscove Junk Yard, 431 West Colorado Avenue	<b>LUST:</b> No Further Action issued from OPS. <b>LUST TRUST:</b> See LUST for same property. <b>UST:</b> UST is registered with OPS.	Historical REC
35	Colorado Springs Manufactured Gas Plant, 101 South Conejos Street	<b>CERCLIS:</b> NFRAP, downgradient of project ROW. <b>CERC-NFRAP:</b> NFRAP, downgradient of project ROW. <b>Manufactured Gas Plant:</b> Refer to CERCLIS site.	NO
35	Colorado Springs Yard Section, Colorado Avenue / South Conejos	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC
36	USPS Vehicle Maintenance Facility, 119 South Sierra Madre Street	<b>LUST:</b> 4 Tanks: 1 in use, 3 closed, No Further Action from OPS issued for LUST.	Historical REC
37	Bills Tool Rental, 125 South Chestnut Street	<b>AST:</b> AST is registered with OPS. Not considered to be leaking. <b>LUST:</b> 4 Tanks: 2 in use (one LPG and one UST), 2 permanently closed. No Further Action issued from OPS for LUST. <b>LUST TRUST:</b> See LUST for same property. <b>UST:</b> UST is registered with OPS.	Historical REC
37	Flintco Lumber & Components, 221 South Chestnut Street	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
37	DMI Collision, 305 South Chestnut Street	<b>FINDS:</b> Site in FINDS database for RCRA-CESQG. <b>RCRA-CESQG:</b> No RCRA violations noted.	NO
37	Garys Collision Alignment, 601 West Cucharas Street	<b>FINDS:</b> Site in FINDS database for RCRA-CESQG. <b>RCRA-CESQG:</b> No RCRA violations noted.	NO
37	CIMINO Sign Co., 612 West Cucharas Street	<b>FINDS:</b> Site in FINDS database for RCRA-CESQG. <b>RCRA-CESQG:</b> No RCRA violations noted.	NO
37	Boddington Lumber Co., 628 West Vermijo Street	<b>FINDS:</b> Site in FINDS database for RCRA-NonGen. <b>RCRA-NonGen:</b> No RCRA violations	NO
38	Colorado Springs Supply Company, 121 West Cucharas Street	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC
39	Royal Distribution, 212 Conejos Street	<b>LUST:</b> No Further Action issued from OPS.	Historical REC

## EXHIBIT 3-21

## Summary of Hazardous Materials Sites

Map ID	Facility Name and Address	Comments	REC?
39	AP Harley Sales Co., 324 West Costilla Street	<b>LUST TRUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC
39	Scandrett Erickson Properties, 327 West Vermijo Avenue	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
39	Barney's US Maintenance, 327 West Vermijo Avenue	<b>LUST:</b> No Further Action issued from OPS. <b>LUST TRUST:</b> See LUST for same property.	Historical REC
39	Sides Construction Co., 332 West Costilla Street	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
39	302nd Aircraft Maint Hangar, Building 210	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
40	Stanleys Garage, 904 Garner Street	<b>FINDS:</b> Site in FINDS database for RCRA-NonGen. <b>RCRA-NonGen:</b> No RCRA violations	NO
40	Fountain Creek S.C.I.P., 908 Garner Street	<b>FINDS:</b> Site in FINDS database for RCRA-NonGen. <b>RCRA-NonGen:</b> No RCRA violations.	NO
40	Salvage Yard, 928 Garner Street	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC
40	LPW Inc., 946 Garner Street	<b>UST:</b> UST is registered with OPS. Not considered to be leaking.	NO
41	Portland Mill, 1045 West Rio Grande Street	<b>FINDS:</b> Site in FINDS database for VCP. <b>VCP:</b> Downgradient and outside of project ROW.	NO
41	<b>Acorn Food Store #3060, 305 South 8th Street</b>	<b>LUST:</b> 7 tanks total: 4 in use, 3 permanently closed. The corrective action plan for the site is being implemented. If the property is part of the ROW more investigation is needed to determine if the contamination could affect property value and/or construction. <b>LUST TRUST:</b> See LUST for same property. <b>UST:</b> UST is registered with OPS.	<b>YES</b>
41	Daniels Motors Inc., 320 South 8th Street	<b>CERC-NFRAP:</b> NFRAP, inside of project ROW and site is no longer present <b>FINDS:</b> Site in FINDS database for CERC-NFRAP and RCRA-NonGen. <b>LUST:</b> No Further Action issued from OPS. <b>RCRA-NonGen:</b> No RCRA violations. <b>UST:</b> UST is registered with OPS.	Historical REC
41	Grease Monkey, 350 South 8th Street	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC
41	Pikes Peak Broadcasting Co., 399 South 8th Street	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC
41	Burkeen Motors, 514-520 South 8th Street	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC



## EXHIBIT 3-21

## Summary of Hazardous Materials Sites

Map ID	Facility Name and Address	Comments	REC?
41	Gas and Food, 604 South 8th Street	<b>LUST:</b> No Further Action issued from OPS. <b>LUST TRUST:</b> See LUST for same property. <b>UST:</b> UST is registered with OPS.	Historical REC
41	<b>Pikes Peak Humane Society, 633 South 8th Street</b>	<b>VCP:</b> Lies on eastern edge of PCE and TCE plume. Further investigation is needed if ROW is purchased in this area.	<b>YES</b>
41	Dellacroce Property, 697 South 8th Street	<b>LUST:</b> No Further Action issued from OPS.	Historical REC
41	Westside 66, 699 South 8th Street	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC
41	Rudolph Property Lot 1, 707 South 8th Street	<b>LUST:</b> 1/1 Open.	Historical REC
42	Crissey Fowler Lumber Co., 107 West Vermijo Street	<b>LUST:</b> No Further Action issued from OPS.	Historical REC
42	Power Rental South, 114 West Cimarron Street	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC
42	Crissey Fowler Lumber Co., 117 West Vermijo Street	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC
42	Crissey Fowler Lumber Co., 120 West Costilla Street	<b>LUST:</b> No Further Action issued from OPS.	Historical REC
42	Penske Truck Leasing Co., 124 West Cimarron Street	<b>AST:</b> AST is registered with OPS. Not considered to be leaking. <b>LUST:</b> No Further Action issued from OPS. <b>LUST TRUST:</b> See LUST for same property. <b>UST:</b> UST is registered with OPS.	Historical REC
42	Ryder Truck Rental Inc., 124 West Cimarron Street	<b>ERNS:</b> Downgradient and outside of project ROW. <b>LUST:</b> No Further Action issued from OPS.	Historical REC
42	Crissey Fowler Lumber Co., 132 West Costilla Street	<b>LUST:</b> No Further Action issued from OPS.	Historical REC
43	Pueblo Cleaning Corporation 1, 311 South Nevada Avenue	<b>CORRACTS:</b> Downgradient and outside of project ROW. <b>FINDS:</b> Site in FINDS database for RCRA-CESQG and CORRACTS. <b>RCRA-CESQG:</b> Violation, downgradient and outside of project ROW.	NO
44	Denver Burglar Alarm Co., 617 South Sierra Madre Street	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS.	Historical REC

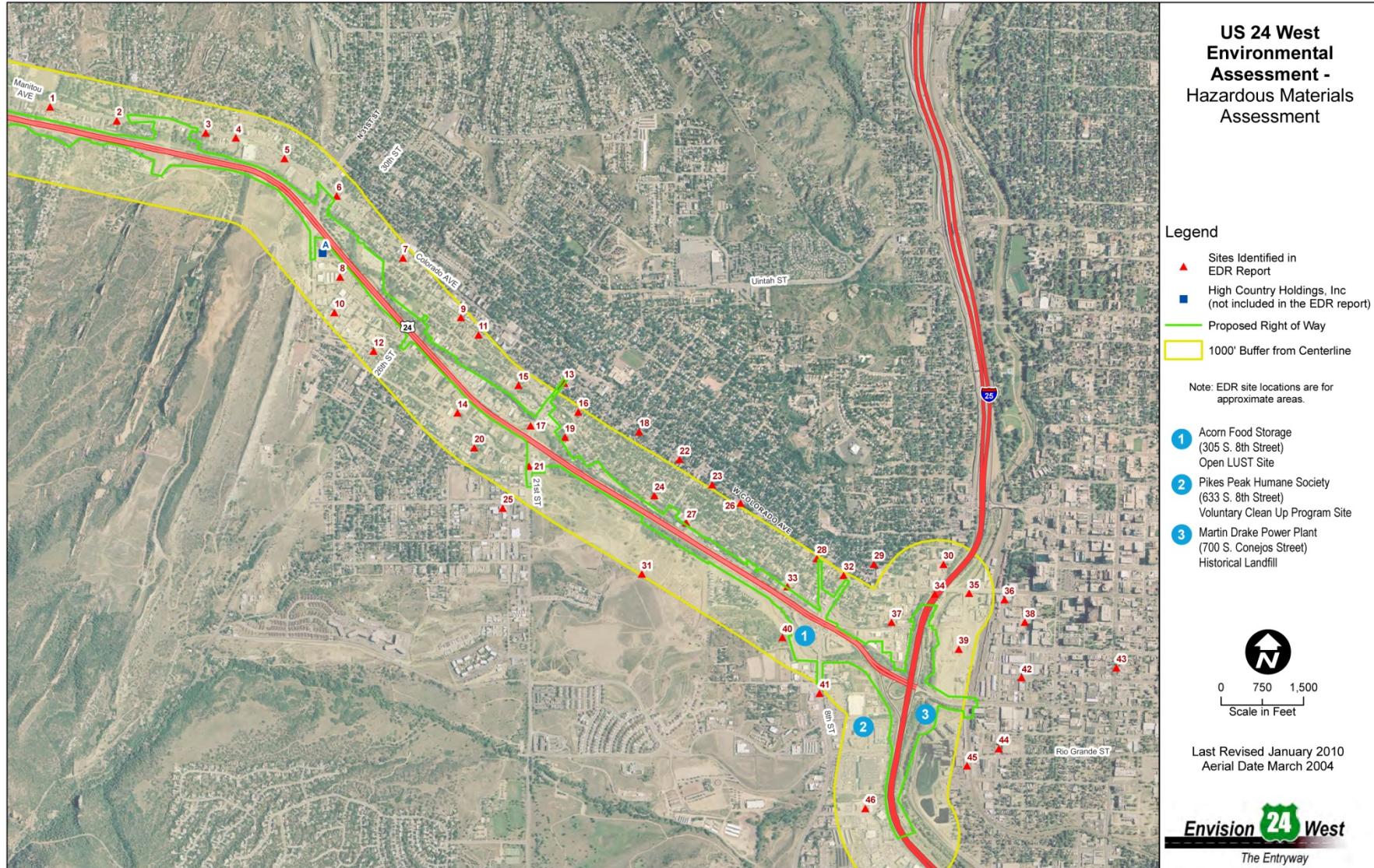
## EXHIBIT 3-21

## Summary of Hazardous Materials Sites

Map ID	Facility Name and Address	Comments	REC?
44	Brookharts Inc., 704 South Sierra Madre Street	<b>LUST:</b> No Further Action issued from OPS. <b>UST:</b> UST is registered with OPS. <b>VCP:</b> Downgradient and outside of project ROW.	Historical REC
45	<b>Martin Drake Power Plant CS, 700 South Conejos Street</b>	<b>AST:</b> AST is registered with OPS. Not considered to be leaking. <b>Historic Landfill:</b> Former evaporation pond. Could be in project ROW. Further investigation is needed.	<b>YES</b>
46	Alpine Porsche-Audi Inc., 1020 Motor City Drive	<b>LUST:</b> No Further Action issued from OPS.	Historical REC
46	South Point Lincoln Mercury, 945 Motor City Drive	<b>FINDS:</b> Site in FINDS database for RCRA-CESQG. <b>LUST:</b> No Further Action issued from OPS. <b>RCRA-CESQG:</b> No RCRA violations noted.	Historical REC

1324  
1325

EXHIBIT 3-22  
Sites of Recognized Environmental Condition in Study Area



1326 development, formerly a gold ore processing facility that has been capped and is being  
1327 developed as a residential area.

1328 Groundwater flow direction and whether or not the identified site was up or downgradient from  
1329 the US 24 study area was used to determine if the site is an REC. In general, the shallow  
1330 groundwater flow directions within the US 24 study area are toward the creek channels, based  
1331 on geomorphology and stream mechanics. However, since the lower reaches of creeks in alluvial  
1332 sediments are typically losing streams, such as this stretch of Fountain Creek and Monument  
1333 Creek, the shallow groundwater flow direction will turn and flow sub-parallel to the direction of  
1334 creek flow.

### 1335 3.10.1 Impacts of the No Action Alternative

1336 Locally funded projects in adopted transportation plans have the potential to encounter  
1337 contaminated structures, soils, or groundwater and sponsors of those projects would remediate  
1338 sites prior to construction of improvements.

### 1339 3.10.2 Impacts of the Proposed Action

1340 The three locations along US 24 where current hazardous material RECs exist that are impacted  
1341 by the Proposed Action are described below and shown in **Exhibit 3-22**.

- 1342 • **Leaking Underground Storage Tank (LUST) Site - Acorn Food Store.** This site is  
1343 located at 305 South 8th Street in Colorado Springs. The database records search indicates  
1344 Acorn Food Store is an open LUST site with soil and groundwater contamination that has  
1345 migrated offsite. Once the final ROW is determined, file review at OPS is recommended for  
1346 this site regardless of its current status to determine if the existing characterization data  
1347 provide sufficient information to determine possible environmental impacts. Following file  
1348 review, a Phase II environmental site assessment (ESA) may be conducted to verify that the  
1349 documented contamination has been adequately characterized and removed, and to confirm  
1350 that offsite properties continue to not be impacted by the historical releases and/or practices  
1351 at the site.
- 1352 • **Voluntary Cleanup Program Site - Pikes Peak Humane Society.** The Pike's Peak  
1353 Humane Society is located at 633 S 8th Street in Colorado Springs. Based on a file review at  
1354 the Colorado Department of Public Health and Environment (CDPHE), Pikes Peak  
1355 Humane Society lies on the eastern edge of a dissolved perchloroethylene (PCE) and  
1356 trichloroethylene (TCE) plume and is not considered the source of the plume. Once the final  
1357 ROW is determined, file review at CDPHE is recommended for this site regardless of its  
1358 current status to determine if the existing characterization data provides sufficient  
1359 information to determine possible environmental impacts. Following file review, a Phase II  
1360 ESA may be conducted to verify that the documented contamination has been adequately  
1361 characterized and removed, and to confirm that offsite properties continue to not be  
1362 impacted by the historical releases and/or practices at the site.
- 1363 • **Historical Landfill - Martin Drake Power Plant.** This site is located on southeast of the  
1364 intersection of US 24 and I-25 at 700 South Conejos Street. If ROW acquisition is necessary  
1365 for the highway upgrades, further discussion with Colorado Springs Utilities is  
1366 recommended to determine if soils or groundwater within the US 24 ROW have been  
1367 impacted.

1368 • **Historical RECs.** Several LUST sites that have been issued a “no further action” from OPS  
 1369 are within a one-mile area of the US24 Centerline. It should be noted that contamination  
 1370 from closed LUST sites on construction projects has been discovered in the past. While  
 1371 these sites are not considered current RECs at this time, they are considered historical RECs  
 1372 and have been noted as such in **Exhibit 3-21**. Upon completion of the final ROW and  
 1373 design drawings, consideration should be given to conducting further research at OPS to  
 1374 verify the nature and extent of contamination, particularly if the design requires excavation  
 1375 of the soil and groundwater in these areas.

1376 Some highway bridge structures are known to have been painted with lead-based paint. The  
 1377 paint on these structures should be tested prior to demolition or renovation to determine if  
 1378 lead-based paint is present. If the paint contains lead in concentrations above the regulatory  
 1379 threshold, the structures may require removal of the lead-based paint prior to disposal or  
 1380 renovation.

1381 If a portion of the Gold Hill Mesa property is acquired for ROW, research should be conducted  
 1382 with El Paso County to determine if there are institutional or engineering controls on the  
 1383 property that require special handling of the soil if it is excavated.

1384 In addition, the Proposed Action would result in the acquisition of approximately 78 acres of  
 1385 land and the displacement of 24 residences and 77 businesses. All such acquisitions involve  
 1386 some risk of encountering various common hazardous materials, such as asbestos or lead-based  
 1387 paint, that would not normally be listed on any database of hazardous material sites.

### 1388 3.10.3 Mitigation

1389 Before construction begins, CDOT will inspect and test for asbestos, lead-based paint, and  
 1390 hazardous material on any bridges, buildings, and other structures that will be disturbed or  
 1391 demolished. Prior to acquisition of any site, a site-specific Initial Site Assessment Phase I ESA  
 1392 will be conducted.

1393 Additionally, the following mitigation will be undertaken with respect to the three sites listed as  
 1394 RECs.

1395 For the leaking underground storage tank (UST) (305 South 8th Street) and the underground  
 1396 chemical plume (633 South 8th Street), once the final ROW is determined, file review at  
 1397 Colorado’s Division of Oil and Public Safety and/or CDPHE will be undertaken to determine if  
 1398 the available data provide sufficient information to identify possible environmental impacts. In  
 1399 addition, further inquiry with the property owner will be appropriate as part of the acquisition  
 1400 process.

1401 Regarding the historical landfill associated with the power plant, if ROW is to be acquired for  
 1402 the Proposed Action, CDOT will initiate further discussion with Colorado Springs Utilities to  
 1403 determine if soils or groundwater within the US 24 ROW have been impacted or will be  
 1404 impacted in the proposed ROW.

1405 Following file review and/or discussions with the owner, a Phase II ESA may be conducted to  
 1406 verify that the documented contamination has been adequately characterized and removed and  
 1407 to confirm that offsite properties will not be impacted by the historical releases and/or practices  
 1408 at the 1) Acorn Food Store (305 South 8th Street), 2) Pikes Peak Humane Society (633 South  
 1409 8th Street), and and/or 3) Martin Drake Power Plant (700 South Conejos Street).

1410 A Materials Handling Plan will be prepared to address contaminated soil and groundwater that  
 1411 may be encountered as directed by the findings of the Phase II ESA. The plan will be prepared  
 1412 in accordance with CDOT's Standard Specification 250.

### 1413 3.11 Water Quality

1414 Transportation projects can adversely affect water quality during construction and maintenance/  
 1415 operation phases of a project. Soils often are exposed during construction, increasing wind and  
 1416 water erosion and the potential for sediment to enter water bodies. Roadways also collect  
 1417 pollutants, such as sediments, metals, and petroleum compounds from vehicles that can enter  
 1418 water bodies in the form of stormwater runoff. CDOT evaluates the potential for water quality  
 1419 impacts to ensure the quality of stormwater runoff is protected while its roadways are  
 1420 constructed, operated, and maintained.

1421 An FHWA-approved method called the mass-balance equation was used to estimate the impacts  
 1422 of the Proposed Action on water quality. The initial analysis included determination of existing  
 1423 conditions. Predicted future conditions were estimated using preliminary design layouts that  
 1424 incorporate water quality features and actions to avoid and minimize impacts.

1425 The study area is located in the Fountain Creek watershed of the Arkansas River Basin. Fountain  
 1426 Creek is the primary drainage through the study area and is intertwined with US 24. Several  
 1427 smaller creeks and drainages – Monument Creek, Camp Creek, Beckers Lane tributary, and  
 1428 Sutherland Creek – in or adjacent to the study area are tributaries to Fountain Creek, as shown  
 1429 in **Exhibit 3-23**.

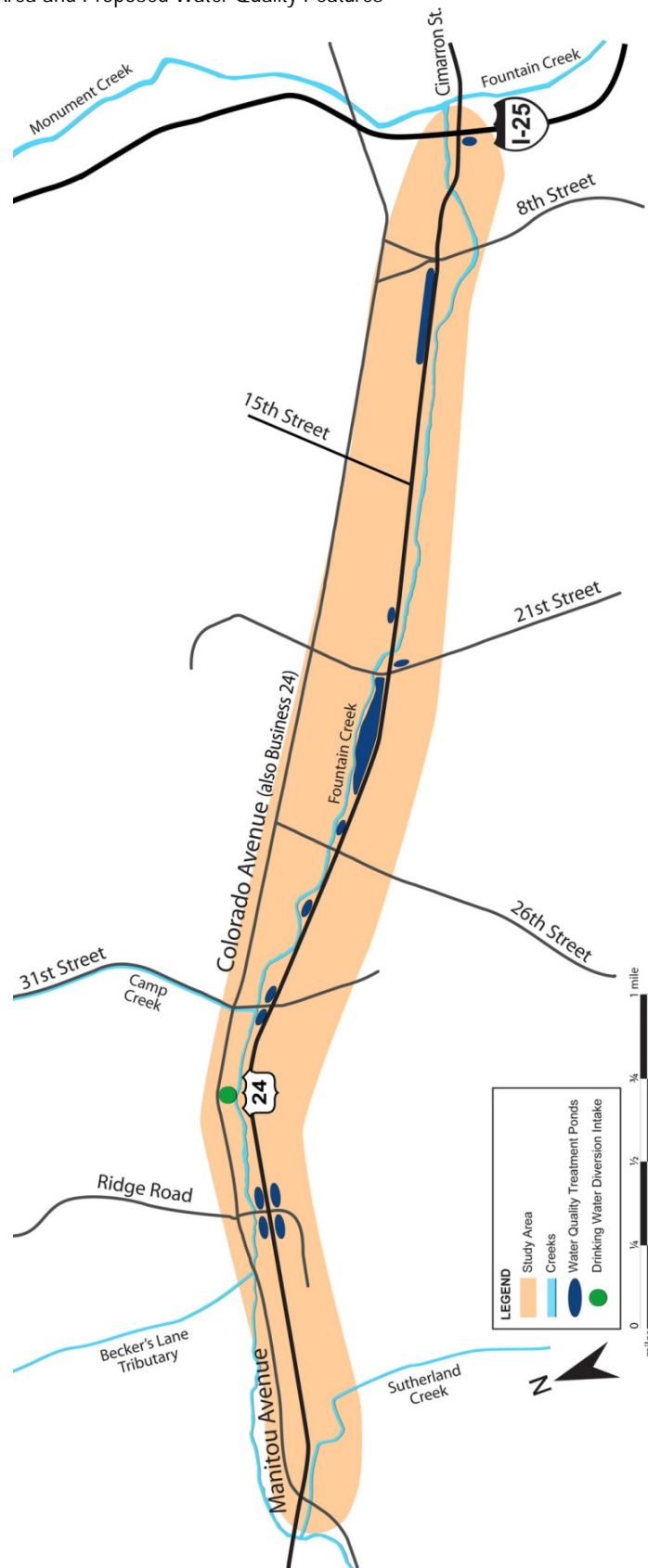
1430 Sediment and flooding are the main problems along Fountain Creek, with large flood events  
 1431 most recently occurring in 1999 and 2000. Near Manitou Springs, problems are accentuated  
 1432 because the channel is more confined than downstream and because the channel is lined with  
 1433 concrete on the west end of Manitou Springs, which has increased sedimentation downstream.  
 1434 Tributaries also contribute a high amount of sediment to Fountain Creek (PPACG, 2003).

1435 No water quality systems exist today that store and filter stormwater runoff in study area. Grass  
 1436 swales and small depressions currently lie along some segments of US 24 and provide minimal  
 1437 water quality treatment in these areas.

1438 Fountain Creek has a long history of being surrounded by various types of residential, industrial,  
 1439 and commercial development. The channel was realigned east of Manitou Springs by historic  
 1440 mining practices and road construction. East of 21st Street, Fountain Creek passes tailing  
 1441 deposits of a former gold milling site, and the channel is constrained between the tailings site  
 1442 and US 24. A project in this area – constructed in 2010 by a partnership of CDOT, City of  
 1443 Colorado Springs Stormwater Enterprise, and Gold Hill Mesa – removed and stabilized  
 1444 contaminated soils, realigned the channel and stabilized the stream banks, planted native  
 1445 vegetation, and improved water quality treatment features.

1446 Fountain Creek in the study area is included in the State of Colorado's 303(d) list for water  
 1447 quality-impaired streams due to levels of selenium and *E. coli* that exceed State standards. The  
 1448 selenium leaches naturally from existing shale and shale-derived soils; the source of *E. coli* has  
 1449 been attributed largely to birds, especially pigeons in Manitou Springs (United States Geological  
 1450 Survey [USGS], 2009). Fountain Creek is listed as impaired for *E. coli* (high priority) and  
 1451 selenium (low priority), but these were not analyzed in this study because they are not pollutants

1452 EXHIBIT 3-23  
 1453 Water Bodies in Study Area and Proposed Water Quality Features



1454 associated with highway runoff. Designated use classifications for this segment of Fountain  
1455 Creek include cold water aquatic life, recreation, water supply, and agriculture.

1456 Wellhead protection area information is classified for security reasons, but according to the  
1457 District Water Commissioner, it is not likely that any municipal wellhead protection areas are  
1458 designated within the study area (Sutton, 2008; Willard, 2008). Groundwater levels below ground  
1459 surface range from 17.5 to 22 feet. No protected groundwater areas exist within several miles of  
1460 the study area. The cities of Manitou Springs and Colorado Springs obtain most of their drinking  
1461 water from reservoirs higher in the Arkansas River watershed. The City of Manitou Springs gets  
1462 most of its water from the Manitou Springs Reservoir. One drinking water diversion intake,  
1463 owned by the City of Colorado Springs, is located in the study area north of US 24 and west of  
1464 33rd Street, as shown in **Exhibit 3-23**. It is piped to the Mesa Treatment Facility, from which it  
1465 is piped to customers. Wastewater from the Mesa Treatment Facility is routed to the Las Vegas  
1466 Wastewater Treatment Facility and released back to Fountain Creek downstream. There are no  
1467 permitted point source discharges found along the project, although there are some downstream.  
1468 The State Engineer's Office records 209 permitted wells within 1,000 feet of the study area  
1469 (SEO, 2008). Most of these wells are monitoring wells at petroleum station locations, and are  
1470 not used for drinking. Of these wells, 168 are designated as monitoring wells, 36 are designated  
1471 for residential use, three are designated for commercial use, one is designated for crop irrigation,  
1472 and one is designated for a gravel pit.

1473 Additional information about water quality monitoring, characterization, and modeling results  
1474 are included in the *Water Quality Technical Memorandum* (CH2M HILL, 2009b) in **Appendix C**.

### 1475 **3.11.1 Impacts of the No Action Alternative**

1476 The No Action Alternative would result in continued increased highway congestion and  
1477 untreated stormwater would continue to impact Fountain Creek and its tributaries. Due to  
1478 regional growth, higher traffic volumes on US 24 would increase the amount of vehicle-related  
1479 contaminant in future runoff. No permanent water quality best management practices (BMPs)  
1480 would be implemented. The existing US 24 study area contains approximately 69 acres of  
1481 impervious surface area. No systems would be constructed to filter stormwater runoff, and  
1482 untreated runoff would continue to discharge into Fountain Creek and its tributaries. New  
1483 impervious areas would be added under the No Action Alternative at the 8th Street and  
1484 21st Street intersection widening and from the extension of the Midland trail to west of  
1485 21st Street. These projects have not been designed so it is not possible to estimate the new  
1486 impervious area. Higher future traffic volumes would increase pollutant concentrations in  
1487 stormwater runoff and cause further water quality degradation in surrounding water bodies.

### 1488 **3.11.2 Impacts of the Proposed Action**

1489 The mass-balance equation modeling conducted for this EA concluded that the Proposed  
1490 Action would result in a reduction of contaminants reaching Fountain Creek and its tributaries  
1491 due to the implementation of the recommended detention/treatment ponds, swales, and other  
1492 BMPs that would trap, treat, or remove contaminants before reaching the creek.

1493 The Proposed Action would add 42 acres of impervious surface area in the study area compared  
1494 with the No Action Alternative. This increase includes additional surface area of US 24,  
1495 interchanges, bridges, and side streets.



1496 Channel realignments would be necessary in three locations as discussed in **Section 3.2,**  
1497 **Floodplains.** Fountain Creek would be adjusted vertically with drop structures near bridge  
1498 crossings to flatten the creek's profile and slow down the stream velocity to reduce erosion.  
1499 These realignments and drop structures would provide opportunities for placement of ponds  
1500 and other BMPs that could minimize highway runoff contaminants reaching the creek. No  
1501 channel improvements are proposed along Fountain Creek in the vicinity of the water diversion  
1502 intake.

1503 During construction, soil-disturbing activities and the placement of new fill would expose  
1504 surfaces subject to erosion. Other construction activities, such as the demolition of existing  
1505 structures, placement of new structures, dewatering for foundations, and storage and fueling of  
1506 equipment, also have the potential to release water contaminants.

1507 Channel improvements included in the Proposed Action would widen drainage areas, stabilize  
1508 embankments, and add drop structures. The wider channel would provide a greater opportunity  
1509 for wetlands and riparian vegetation to re-establish. The wider drainage channels and drop  
1510 structures also would distribute and dissipate flows to reduce scour and erosion in the channels,  
1511 which would reduce sedimentation and improve the quality of waters of the US.

### 1512 3.11.3 Mitigation

1513 The Proposed Action includes permanent water quality treatment features to filter roadway  
1514 runoff and improve water quality; these features will be refined during final design. Where  
1515 possible, the ponds would be placed outside of the floodplain to ensure they provide water  
1516 quality treatment during flood events. Swales also would be built parallel to the roadway to  
1517 prevent contaminants in highway runoff from reaching Fountain Creek. The features include  
1518 detention/treatment ponds to capture and passively treat the stormwater that would run off the  
1519 roadways during a 2-year storm event. The conceptual drainage design determined that water  
1520 quality facilities were needed in seven segments of Fountain Creek to provide the necessary  
1521 water quality capture volume. The locations of these facilities are shown in **Exhibit 3-23.**  
1522 Stormwater treatment facilities could be located anywhere within the dark blue shaded areas in  
1523 the exhibit; these will be designed in more detail during final design.

1524 During construction, silt fences, diversion berms, vehicle tracking control, inlet and outlet  
1525 protection, street sweeping, and concrete washout locations will be established to protect  
1526 streams from construction activities. Temporary stream crossings and diversion will be designed  
1527 to minimize water quality and habitat impacts. Native vegetation will be installed and  
1528 implemented in affected areas after construction is completed on disturbed ground.

1529 The requirements under the MS4 permit and the New Development Redevelopment Program  
1530 (NDRD) will be followed during design and construction. In addition, the CDOT requirements  
1531 under the "Consent Decree" (January, 2009) with the CDPHE will be implemented. CDOT will  
1532 obtain a Colorado Discharge Permit System General Permit for Stormwater Discharges  
1533 Associated with Construction Activities from the Water Quality Control Division of CDPHE,  
1534 and a Construction Dewatering Permit will be required for this project. A Stormwater  
1535 Management Plan will be developed in accordance with the conditions of the permits following  
1536 practices from the *CDOT Erosion Control and Stormwater Quality Guide*. Erosion and sediment  
1537 control BMPs will be implemented in accordance with *CDOT Standard Specifications for Road and*  
1538 *Bridge Construction* and the revised provisions for water quality outlined in the Consent Order with  
1539 CDPHE and incorporated into Section 107.25 (Water Quality) and Section 208 (Erosion  
1540 Control).

## 1541 3.12 Wetlands and Waters of the United States

1542 Executive Order 11990, Protection of Wetlands, requires federal agencies to protect wetlands by  
1543 avoiding construction in wetlands whenever possible. FHWA requirements for compliance with  
1544 this Executive Order are outlined in 23 CFR 777.

1545 Wetlands provide many benefits including water quality improvements, flood control and river  
1546 bank erosion control, food and habitat for fish and wildlife, and recreation. In urban areas,  
1547 wetlands serve the particularly important function of controlling increases in the rate and volume  
1548 of stormwater runoff.

1549 Wetlands are a valuable and declining resource and, therefore, are protected under the Clean  
1550 Water Act. Section 404 of the Clean Water Act provides protection for America’s wetlands,  
1551 streams, and other waters by requiring a permit from the USACE for any actions that may  
1552 dredge or fill streams or wetlands. To obtain a Section 404 permit, applicants must demonstrate  
1553 that dredging or filling streams or wetlands under the jurisdiction of the USACE – which include  
1554 jurisdictional wetlands and other waters of the United States – would not significantly degrade  
1555 the nation’s waters, and no practicable alternatives exist that are less damaging to the aquatic  
1556 environment.

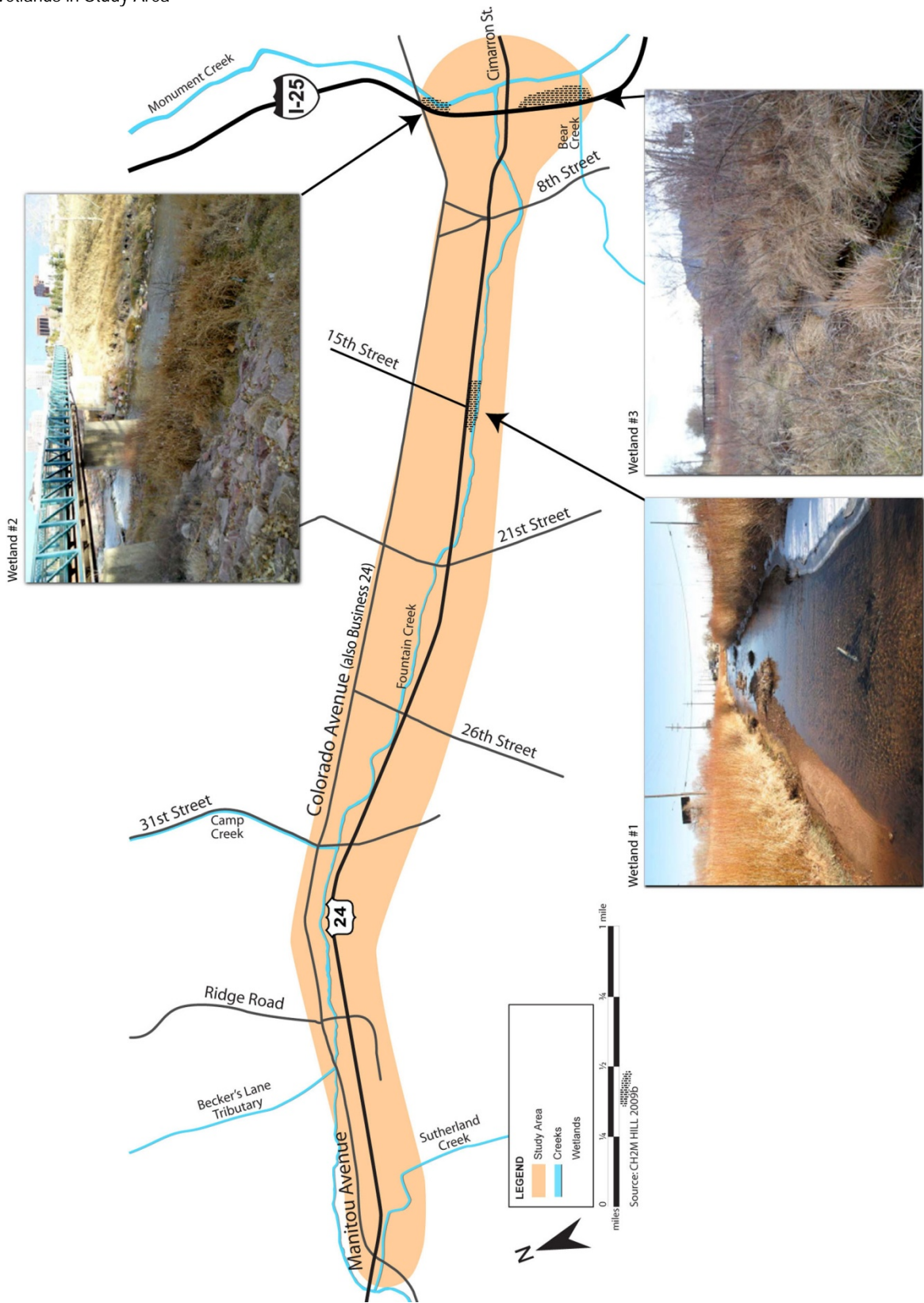
1557 Wetlands and other waters of the United States were evaluated in 2009 and 2011 in accordance  
1558 with the *USACE Wetland Delineation Manual* (USACE, 1987) and the *Regional Supplement to the*  
1559 *Corps of Engineers Wetland Delineation Manual: Great Plains Region* (USACE, 2010). Wetland  
1560 determination was based on the presence of facultative vegetation that will only grow in a very  
1561 damp environment, with hydric soils, and wetland hydrology. Waters of the United States  
1562 include wetlands, lakes, rivers, and intermittent and perennial streams and their tributaries, under  
1563 the jurisdiction of the United States. CDOT received a letter from the USACE concurring with  
1564 the wetland delineations. The letter is included in **Appendix D**.

1565 A total of three wetlands were delineated within the proposed ROW of the project and are  
1566 shown in **Exhibit 3-24**.

1567 Wetland 1 is a 0.02-acre palustrine emergent wetland located within the banks and floodplain of  
1568 Fountain Creek near 13th Street. Dominant wetland vegetation includes sandbar willow (*Salix*  
1569 *exigua*), reed canary grass (*Phalaris arundinacea*), and narrowleaf cattail (*Typha angustifolia*). Other  
1570 plants in the wetland area include curly dock (*Rumex crispus*) and poison hemlock (*Conium*  
1571 *maculatum*). This wetland location occurs near a confluence between Fountain Creek and an  
1572 unnamed drainage near the southern border of US 24 in the Springs Community Improvement  
1573 Program (also known as “SCIP”) Flood Management Area. The unnamed drainage is piped  
1574 under US 24 from an unknown location to the north, and likely is primarily a stormwater  
1575 drainage feature.

1576 Wetland 2 is a 0.04-acre palustrine emergent/scrub-shrub wetland complex located on a terrace  
1577 under a pedestrian bridge along the banks and floodplain of Monument Creek. Dominant  
1578 wetland vegetation includes sandbar willow, reed canary grass, and cattail (*Typha latifolia*). Other  
1579 plants in the wetland area include curly dock, softstem bulrush (*Schoenoplectus tabernaemontani*),  
1580 bluejoint reedgrass (*Calamagrostis canadensis*), and red top (*Agrostis gigantea*). This wetland is  
1581 perched about 5 feet above the channel of Monument Creek, but is located just downstream of a  
1582 rip-rap drop structure that contains a secondary channel that appears to overtop into the  
1583 wetland area during high-flow events.

1584 EXHIBIT 3-24  
 1585 Wetlands in Study Area



1586 Wetland 3 is a 0.13-acre palustrine emergent/scrub-shrub wetland area located on a terrace along  
 1587 the banks and floodplain of Fountain Creek. Dominant wetland vegetation is sandbar willow.  
 1588 Other plants in the wetland area include curly dock, Emory's sedge (*Carex emoryi*), reed canary  
 1589 grass, and cattail. Like wetland 2, this wetland is perched about 5 feet above the channel of  
 1590 Fountain Creek and is located just downstream of a rip-rap drop structure that contains a  
 1591 secondary channel that appears to overtop into the wetland area during high-flow events.

1592 Several waters of the United States are found within the study area and are listed below and  
 1593 shown on **Exhibit 3-24**:

- 1594 • **Fountain Creek** – Fountain Creek is a perennial stream that runs through developed areas  
 1595 of Manitou Springs before reaching its confluence with Monument Creek just north of the  
 1596 US 24 and I-25 bridge. Fountain Creek continues to the south along the I-25 corridor and  
 1597 reaches its confluence with the Arkansas River near Pueblo, Colorado.
- 1598 • **Monument Creek** – Monument Creek is a perennial tributary to Fountain Creek that flows  
 1599 from the north along I-25.
- 1600 • **Bear Creek** – Bear Creek is a perennial tributary to Fountain Creek. The creek flows under  
 1601 I-25 via a box culvert near the southern extent of the study area.
- 1602 • **Becker's Lane Tributary** – Becker's Lane Tributary is a tributary to Fountain Creek that  
 1603 flows from the north. The tributary appears as a solid blue line on topographic maps and is  
 1604 likely perennial.
- 1605 • **Camp Creek** – Camp Creek is a tributary to Fountain Creek that flows from the north  
 1606 along 31st Street before diverting to the southeast away from 31st Street. The creek appears  
 1607 as a solid blue line on topographic maps and is likely perennial.
- 1608 • **Sutherland Creek** – Sutherland Creek is a tributary to Fountain Creek that flows from the  
 1609 south. The creek appears as a solid blue line on topographic maps and is likely perennial.

1610 Fountain Creek and its tributaries are deeply incised, or they have been channelized and  
 1611 redirected to accommodate past development. Erosion and sedimentation have been identified  
 1612 as issues for these water resources. The riparian habitat in the study area is of low quality and  
 1613 provides limited habitat for fish and wildlife. The impact analysis and mitigation analyzed in this  
 1614 EA assumes that wetlands and waters of the United States within the study area are jurisdictional  
 1615 and subject to Section 404 requirements of the Clean Water Act.

1616 For additional information, refer to the *Wetland Delineation Technical Memorandum* (CH2M HILL,  
 1617 2010g) in **Appendix C**; correspondence with the USACE is included in **Appendix D**.

### 1618 3.12.1 Impacts of the No Action Alternative

1619 No wetlands or waters of the United States would be impacted by the No Action Alternative.  
 1620 Under this alternative, conditions in Fountain Creek and its tributaries would be unchanged, and  
 1621 erosion and sedimentation would continue to result in marginal conditions for wetlands and  
 1622 riparian habitat.

### 1623 3.12.2 Impacts of the Proposed Action

1624 The project team has coordinated with the USACE and City of Colorado Springs throughout  
1625 the project. Both have reviewed the design of the project and agree with the drainage  
1626 improvements in the Proposed Action.

1627 The Proposed Action would impact Wetland 1, which is 0.02 acre. Wetland 2 and Wetland 3 are  
1628 within the proposed ROW of the new alignment of I-25 but are not expected to be impacted.

1629 The area of waters of the United States that would be impacted was estimated as the area of  
1630 Fountain Creek below the ordinary high water mark. A high water mark is a delineation of the  
1631 highest level reached by a body of water to leave visual evidence – discoloration, destruction of  
1632 land-based vegetation, or the point where land-based vegetation species shifts to water-based  
1633 species. The other waters of the United States in the study area are not affected by the Proposed  
1634 Action.

1635 The Proposed Action would temporarily impact a total of 5.17 acres, or 8,220 linear feet  
1636 (approximately 1.5 miles) of waters of the United States. Of the 5.17 acres, 5.15 acres would be  
1637 impacted along Fountain Creek and 0.02 acres would be impacted along Bear Creek. Additional  
1638 temporary impacts to Monument Creek at the confluence with Fountain Creek may occur as a  
1639 result of cut and fill activities within the channel from bridge/culvert upgrade and replacement  
1640 work and realignment of the US 24 and I-25 bridge. No other waters of the United States that  
1641 are within the study area are impacted by the Proposed Action.

1642 These areas would be disturbed during construction and the acreage of waters of the United  
1643 States would be permanently enlarged as a result of widening the channel for the Proposed  
1644 Action. The Proposed Action would adversely impact waters of the United States as a result of  
1645 widening the channel as well as portions of the overbank floodplain of Fountain Creek. While  
1646 much of the impacts to Waters of the U.S. would occur temporarily during construction,  
1647 widening the channel may also potentially be considered a long-term adverse impact, because a  
1648 wider channel has the potential to increase the water temperature in Fountain Creek, which  
1649 could be detrimental to aquatic organisms, including fish. Limited channel widening was  
1650 determined a necessary component of raising the baseflow elevation for portions of the channel,  
1651 which is needed for protection of the new bridges as well as reducing the risk of excessive  
1652 erosion within Fountain Creek during storm events. Channel widening would be limited to the  
1653 minimum necessary to reduce potential warming effects within Fountain Creek.

1654 To attenuate the risk of long-term adverse impacts to aquatic organisms in Fountain Creek due  
1655 to widening the stream, the Project would be designed with appropriate depth to width ratios to  
1656 discourage the effects of warming and reduced sediment transport capacity from an excessively  
1657 shallow channel. The existing channelized condition of Fountain Creek, as well as local reference  
1658 stream reaches, would be considerations in new channel designs. The potential risks of lowered  
1659 dissolved oxygen levels from warming would be partially mitigated with the use of rip-rap and  
1660 boulders to encourage mixing within the water column. Pool and riffle habitats would be  
1661 maintained and/or restored within the channel to prevent the formation of a wide, shallow run  
1662 through the Project reach. After construction, inputs of riparian detritus would be restored by  
1663 the replacement of riparian trees along the overbank floodplain channel, thereby reintroducing  
1664 leaf litter and encouraging a return to a functional food web within Fountain Creek.

1665 These impacts would be caused by channel reconstruction upstream and downstream of bridge  
1666 improvements and for flood control features to protect transportation infrastructure.

### 1667 3.12.3 Mitigation

1668 Impacted wetlands will be mitigated for at a 1:1 ratio. The mitigation will be the use of the  
 1669 Limon Mitigation Bank because the project area is in the service area for this bank. Channel  
 1670 improvements would widen drainage areas, stabilize embankments, and add drop structures.  
 1671 Rip-rap improvements would be added to the base of the creek and the elevation of the creek  
 1672 profile would be changed to accommodate adequate flood volumes under each bridge to be  
 1673 improved. The wider channel would provide a greater opportunity for wetlands and riparian  
 1674 vegetation to re-establish.

1675 Realignment of Fountain Creek represents a minor impact to waters of the United States,  
 1676 especially when weighed against the benefits associated with improved stream function, flood  
 1677 conveyance, bank stability, and riparian habitat potential. The wider drainage channels and drop  
 1678 structures also would distribute and dissipate flows to reduce scour and erosion in the channels,  
 1679 which would reduce sedimentation and improve the quality of waters of the United States.

1680 CDOT will obtain a Section 404 permit from the USACE for impacts to wetlands and waters of  
 1681 the United States during final design. The USACE has confirmed informally that the Proposed  
 1682 Action could be permitted under a combination of Section 404 General Nationwide Permits and  
 1683 Individual Permits. Nationwide Permits are often issued by USACE for categories of activities  
 1684 that are similar in nature and have only minimal adverse environmental effects. Final permit  
 1685 applications will be filed during final design.

1686 Under Section 404 permit programs in place today, some segments of the project may qualify  
 1687 for streamlined permitting under Nationwide Permit #14 for Linear Transportation Projects and  
 1688 Nationwide Permit #27 for Aquatic Habitat Restoration, Establishment, and Enhancement  
 1689 Activities.

### 1690 3.13 Other Resources

1691 Some resources are not addressed in detail in this EA because one of the following conditions  
 1692 were met:

- 1693 • they were not present in the study area,
- 1694 • they would not be affected by the Proposed Action, or
- 1695 • they would experience negligible impacts after application of standard construction  
 1696 precautions.

1697 The resources described here are Archaeological Resources, Paleontological Resources, Native  
 1698 American Consultation, Air Quality, Visual Resources, Fish and Wildlife, Threatened and  
 1699 Endangered Species, Vegetation and Noxious Weeds, Utilities, and Farmlands. Detailed analysis  
 1700 was conducted for these resources to inform the decisions about impact analysis, and these  
 1701 analyses are included in separate memoranda in **Appendix C**.

#### 1702 3.13.1 Archaeological Resources

1703 A file search of the study area was conducted in August 2008, through the Colorado Historical  
 1704 Society Office of Archaeology and Historic Preservation. Three previously recorded sites are on  
 1705 record within 0.5 mile of the project limits. All three sites (5EP2161, 5EP2165, and 5EP365) lie  
 1706 outside of the anticipated limits of construction and would not be impacted by construction.

1707 A field survey of the study area was conducted in October 2008. One isolated find, consisting of  
1708 a single prehistoric artifact, was recorded in the course of the inventory. It is assessed as not  
1709 eligible for listing in the National Register (Centennial Archaeology, 2009). No further work with  
1710 regards to this site is necessary.

1711 In the unlikely event that cultural deposits are discovered during construction, CDOT will  
1712 follow its standard practice of ceasing work, consulting with the CDOT archaeologist, and  
1713 evaluating materials in consultation with the Colorado SHPO to determine if mitigation is  
1714 required.

### 1715 3.13.2 Paleontological Resources

1716 The paleontological sensitivity of the study area was evaluated through a field survey conducted  
1717 in December 2008 and review of scientific literature, geologic mapping, and museum records.  
1718 No fossils were observed within the study area during the field survey, and no records of fossils  
1719 from within the study area were found in the literature or museum record searches (RMP, 2008).  
1720 However, there are numerous reports of fossils from the Colorado Springs area and elsewhere in  
1721 Colorado where geology is similar to the study area. Potential impacts to fossils would be most  
1722 likely to occur in the area of the large rock cut near Red Rock Canyon Open Space, southwest of  
1723 the US 24 and 31st Street intersection, where numerous upturned and faulted fossiliferous rock  
1724 formations, including the highly sensitive Morrison Formation, are exposed in close proximity to  
1725 US 24. West of this location, it is likely that rocks of the Fountain Formation would be locally  
1726 disturbed by construction; however, because this area is sparsely fossiliferous, the likelihood is  
1727 low that the Proposed Action would cause adverse impacts to scientifically significant fossils.

1728 When the project design plans are finalized, the CDOT Staff Paleontologist will examine the  
1729 plans and determine the extent of impact to the bedrock units in the southwest quadrant of  
1730 US 24 and 31st Street, as well as the scope of paleontological monitoring, if any, that is required.  
1731 If any subsurface bones or other potential fossils are found anywhere within the study area  
1732 during ground disturbance, the CDOT Staff Paleontologist will be notified immediately to assess  
1733 their significance and make further recommendations.

### 1734 3.13.3 Native American Consultation

1735 Section 106 of the National Historic Preservation Act (as amended) and the Advisory Council  
1736 on Historic Preservation regulations (36 CFR 800.2[c][2][ii]) mandate that federal agencies  
1737 coordinate with interested Native American tribes in the planning process for federal  
1738 undertakings in order to protect cultural resources. Consultation with Native American tribes  
1739 recognizes the government-to-government relationship between the United States government  
1740 and sovereign tribal groups. In that context, federal agencies must acknowledge that historic  
1741 properties of religious and cultural significance to one or more tribes may be located on  
1742 ancestral, aboriginal, or ceded lands beyond modern reservation boundaries.

1743 Consulting tribes are offered the opportunity to identify concerns about cultural resources and  
1744 comment on how the project might affect them. If it is found that the project would impact  
1745 properties that are eligible for inclusion in the National Register and are of religious or cultural  
1746 significance to one or more consulting tribes, their role in the consultation process may also  
1747 include participation in resolving how best to avoid, minimize, or mitigate those impacts. By  
1748 describing the proposed undertaking and the nature of any known cultural sites, and consulting  
1749 with the interested Native American community, FHWA and CDOT strive to effectively protect  
1750 areas important to Native American people.

1751 In November 2008, FHWA contacted 10 federally recognized tribes listed below with an  
 1752 established interest in El Paso County and invited them to participate as consulting parties.  
 1753 Correspondence with the tribes is included in **Appendix D**.

- 1754 • Apache Tribe of Oklahoma
- 1755 • Cheyenne and Arapaho Tribes of Oklahoma (two tribes administered by a unified tribal  
 1756 government)
- 1757 • Comanche Nation of Oklahoma
- 1758 • Kiowa Tribe of Oklahoma
- 1759 • Northern Arapaho Tribe (Wyoming)
- 1760 • Northern Cheyenne Tribe (Montana)
- 1761 • Pawnee Nation of Oklahoma
- 1762 • Southern Ute Indian Tribe (Colorado)
- 1763 • Ute Mountain Ute Tribe (Colorado)
- 1764 • Ute Tribe of the Uintah and Ouray Agency (Utah)

1765 The Comanche Nation of Oklahoma replied to the solicitation by phone and indicated a desire  
 1766 to participate as a consulting party. The tribe will be kept apprised of progress on the project and  
 1767 provided all available documentation for review in that regard. The tribes will receive an  
 1768 announcement of the Public Hearing following the publication of the EA. No additional tribal  
 1769 governments responded and, therefore, only the Comanche Nation is considered a formal  
 1770 consulting tribe under the auspices of the National Historic Preservation Act.

### 1771 3.13.4 Air Quality

1772 The Pikes Peak Region has not recorded a violation of National Ambient Air Quality Standards  
 1773 (NAAQS) for more than two decades. The air quality analysis performed for this project  
 1774 indicates that the Proposed Action would not cause or contribute to any new violations. The  
 1775 project is included in the air quality conforming PPACG's *Moving Forward – 2035 Regional*  
 1776 *Transportation Plan* (PPACG, 2008), which means that the project has been factored into the  
 1777 larger, regional air quality conformity determination for the Pikes Peak Area. Regional  
 1778 conformity indicates that transportation activities within the region would not exceed regional  
 1779 emissions budgets, result in violations of NAAQS, or adversely affect the region's air quality.

1780 Project-level conformity analysis also was performed to assess localized effects of traffic growth.  
 1781 Carbon monoxide (CO) concentrations were modeled for the US 24 corridor's two most  
 1782 congested intersections (US 24/I-25 and US 24/8th Street). The predicted CO concentrations  
 1783 for both the No Action Alternative and the Proposed Action are well within the allowable  
 1784 NAAQS of 9.0 parts per million for all years modeled (2020, 2030, and 2035). The Pikes Peak  
 1785 Region currently has no air quality plans in place for ozone or particulate matter less than  
 1786 10 microns in diameter (PM<sub>10</sub>). However, the Proposed Action is not expected to exceed  
 1787 NAAQS for either of these pollutants.

1788 NAAQS exist for three additional pollutants not discussed above: lead, sulfur dioxide (SO<sub>2</sub>), and  
 1789 nitrogen dioxide (NO<sub>2</sub>). In the past two decades of monitoring (1988 to 2007), concentrations of  
 1790 these air pollutants were well below allowable levels and showed no upward trends. With the  
 1791 approval of the CDPHE, monitoring of all three pollutants has recently been discontinued in the



1792 Pikes Peak Region, which has no State Implementation Plan element for any of these criteria  
1793 pollutants.

1794 No appreciable difference in regional mobile source air toxics emissions is anticipated between  
1795 the No Action Alternative and the Proposed Action. In both cases, emissions in 2035 would  
1796 likely be lower than present levels due to United States Environmental Protection Agency (EPA)  
1797 national control programs that are projected to reduce mobile source air toxics emissions by  
1798 57 to 87 percent between 2000 and 2020.

1799 Emissions of particulate matter would increase temporarily during construction as a result of the  
1800 operation of diesel equipment, lower traffic speed, soil disturbance and handling, and paving  
1801 activities. Fugitive dust emissions during construction will be controlled by implementing BMPs,  
1802 such as wetting exposed soils, covering trucks when transporting soil and other fine materials,  
1803 minimizing mud tracking by vehicles, limiting vehicle speeds on construction access roads,  
1804 stabilizing and covering stockpile areas quickly, and re-vegetating exposed areas. Air emissions  
1805 from construction vehicles will be reduced by limiting the idling time of equipment and  
1806 requiring the use of newer construction equipment or equipment with add-on emission controls.

### 1807 3.13.5 Visual Resources

1808 US 24 is a developed urban corridor, and existing views in the study area are dominated by  
1809 commercial land uses, highway infrastructure, the Fountain Creek riparian corridor, and the  
1810 foothills and Rocky Mountains. Although US 24 and associated improvements would be more  
1811 visually apparent from surrounding land uses, the Proposed Action would improve visual  
1812 consistency and quality within the US 24 corridor. Elevating the roadway in some locations  
1813 would accentuate existing views of Pikes Peak and Cheyenne Mountain for motorists travelling  
1814 on US 24. The Proposed Action would introduce new infrastructure components, such as  
1815 retaining walls, noise walls, and jersey barriers that would obstruct views to and from the project  
1816 area. However, efforts will be made to coordinate the aesthetic treatments of the retaining walls  
1817 and noise barriers throughout the US 24 corridor. The expansion and improvement of Midland  
1818 Trail would improve short-range views along the north and south sides of US 24. Changes to the  
1819 rock face near Red Rock Canyon Open Space would not impact its function as a focal point and  
1820 separation between urban and rural view sheds. Because US 24 already occurs in an urban,  
1821 developed corridor, expansion of US 24 infrastructure would not be readily perceived by  
1822 recreationalists at Garden of the Gods Park at that distance.

1823 The Proposed Action was developed with input from an Aesthetic Working Group that  
1824 included representatives from CDOT, El Paso County, City of Colorado Springs, City of  
1825 Manitou Springs, Colorado Springs Utilities, PPACG, Organization of Westside Neighbors, Old  
1826 Colorado City Historical Society, Friends of Red Rock Canyon, the Trails and Open Space  
1827 Coalition, and the owner of Gold Hill Mesa. The group met three times between 2008 and 2009  
1828 to help develop the look and feel of the Proposed Action, and developed aesthetic guidelines  
1829 that will direct final design elements of the Proposed Action. Mitigation could include  
1830 coordinated architectural aesthetic treatments of new structural elements, such as bridges,  
1831 retaining walls, and noise walls. CDOT will coordinate with the City of Colorado Springs'  
1832 landscape architect to select replacement vegetation that is approved by the City of Colorado  
1833 Springs. CDOT will look for opportunities to provide gateway monuments for city or  
1834 neighborhood boundaries. Additional information on results from the Aesthetic Working Group  
1835 is documented in *US 24 I-25 to Ridge Road Aesthetic Guidelines* (THK, 2009) in **Appendix F**.

### 1836 3.13.6 Fish and Wildlife

1837 The study area is surrounded by mature urban development, and most natural areas have been  
1838 disturbed. Red Rock Canyon Open Space provides wildlife habitat contiguous to the Pike  
1839 National Forest and is a source and destination for wildlife movement north and south across  
1840 US 24.

1841 Large mammals commonly observed in the study area include mule deer (*Odocoileus hemionus*) and  
1842 small mammals such as coyote (*Canis latrans*), raccoon (*Procyon lotor*), red fox (*Vulpes vulpes*), and  
1843 striped skunk (*Mephitis mephitis*). Bird diversity in the study area is typical of urban habitat and is  
1844 supported by the existing vegetation. No raptor nests were identified during field visits in 2006  
1845 and 2009. Nine bat species may occur within the study area: big brown bat (*Eptesicus fuscus*),  
1846 fringed myotis (*Myotis thysanodes*), hoary bat (*Lasiurus cinereus*), little brown myotis (*M. lucifugus*),  
1847 long-eared myotis (*M. evotis*), long-legged myotis (*M. volans*), pallid bat (*Antrozous pallidus*),  
1848 silver-haired bat (*Lasionycteris noctivagans*), and Townsend's big-eared bat (*Plecotustownsendii*). Brown  
1849 trout (*Salmo trutta*), brook trout (*Salvelinus fontinalis*), green sunfish (*Lepomis cyanellus*), White sucker  
1850 (*Catostomus commersonii*), Longnose sucker (*Catostomus catostomus*), and Longnose dace (*Rhinichthys*  
1851 *cataractae*), inhabit Fountain Creek in the study area (Chadwick Ecological Consultants, Inc.,  
1852 2006).

1853 The Colorado Division of Wildlife (CDOW) has recognized mule deer as the species at greatest  
1854 risk for passing through the study area. Approximately 50 percent of mule deer deaths near the  
1855 study area are due to vehicle strikes. Black bear (*Ursus americanus*) and mountain lion (*Felis*  
1856 *concolor*) also are present but less common. The primary concerns identified by CDOW in  
1857 relation to the Proposed Action are potential for increased vehicle strikes and a preference for  
1858 median design that would not trap wildlife on US 24 (SAIC, 2006a; CH2M HILL, 2010h).

1859 The Proposed Action includes a grade-separated crossing of US 24 at Ridge Road, with Ridge  
1860 Road remaining at its current level and US 24 crossing over. This underpass would improve  
1861 wildlife crossing opportunities from north to south of US 24. Jersey barriers would not be  
1862 constructed outside of the shoulder lanes so as to not trap wildlife.

1863 Adverse impacts to wildlife would include minor habitat loss as a result of vegetation removal  
1864 during construction. As detailed in the *Wetland Delineation Technical Memorandum* (CH2M HILL,  
1865 2010g) in **Appendix C**, impacts to Fountain Creek and Bear Creek would occur as a result of  
1866 the project. Impacts to Monument Creek may occur as a result of cut-and-fill activities within  
1867 the channel from bridge/culvert upgrade and replacement work and realignment of the US 24  
1868 and I-25 bridge. Riparian woodland fringes associated with these channels would also be  
1869 impacted. Project construction activities would be carried out in accordance with CDOT's  
1870 standard BMPs and re-vegetation requirements.

1871 An active nesting survey will be conducted within the study area by a qualified biologist prior to  
1872 the start of any construction activities to ensure compliance with Migratory Bird Treaty Act of  
1873 1918 (MBTA). Active bird nests, trees, grasses, and shrubs located within the limits of  
1874 construction will not be removed during nesting season (between April 1 and August 31).  
1875 Recent improvements made to Fountain Creek as part of the Fountain Creek Restoration  
1876 project (developed and funded in part by CDOT, the City of Colorado Springs and its  
1877 Stormwater Enterprise Program, and Gold Hill Mesa) may eventually create new wetlands and  
1878 increase fish populations (primarily trout) in Fountain Creek.

1879 Senate Bill 40 certification and project activities will be and carried out in compliance with  
 1880 permit requirements. Under Senate Bill 40, CDOT may be required to obtain a Senate Bill 40  
 1881 permit from CDOW whenever a transportation project involves impacts to any stream, river,  
 1882 lake, or adjacent riparian area and the wildlife habitat those areas provide. Following final design,  
 1883 an application for Senate Bill 40 Wildlife Certification may be required if the project does not fall  
 1884 within CDOT's Programmatic Agreement with CDOW, including detailed plans and  
 1885 specifications. Plans will be reviewed by CDOW to ensure they are technically adequate to  
 1886 protect and preserve fish and wildlife species and provide recommendations or alternative plans  
 1887 if the project would adversely affect a riparian area along Fountain Creek and its tributaries.  
 1888 Additional information regarding fish and wildlife is included in the *Final Wildlife and Wildlife*  
 1889 *Habitat – Baseline Conditions Report* (SAIC, 2006a) and in the *Supplement to the Wildlife and Wildlife*  
 1890 *Habitat Baseline Conditions Report* (CH2M HILL, 2010h) in **Appendix C**.

### 1891 3.13.7 Threatened and Endangered Species

1892 Federal- or state-listed threatened and endangered species and state species of special concern  
 1893 are either not present or are unlikely to occur in the study area. The study area lacks suitable  
 1894 habitat to support federal or state threatened and endangered species in El Paso County. The  
 1895 Preble's meadow jumping mouse (*Zapus hudsonius preblei*) is the only federally listed species with  
 1896 the potential to occur in the study area, and the study area is located beyond the established  
 1897 block clearance for the mouse. The United States Fish and Wildlife Service (USFWS) was  
 1898 consulted regarding the potential occurrence of the mouse or its habitat in the study area. The  
 1899 USFWS determined that formal trapping was not necessary due to the Proposed Action's  
 1900 location within a highly urbanized region and the severely degraded condition of Fountain Creek  
 1901 (SAIC, 2006b; CH2M HILL, 2010i).

### 1902 3.13.8 Vegetation and Noxious Weeds

1903 Field visits to the study area were conducted in June 2006 and July 2009. The study area is a  
 1904 highly disturbed urban landscape with sparse native vegetation. Siberian elm is one of the most  
 1905 common trees throughout the study area, and it appears to be out-competing native trees and  
 1906 shrubs, and reducing plant diversity. Some segments of the Fountain Creek riparian area contain  
 1907 small remnants of a cottonwood-dominated woodland; however, other areas are highly disturbed  
 1908 with sparse native understory vegetation and non-native and weed infestations. Six species of  
 1909 noxious weeds were identified in the study area: musk thistle (*Carduus nutans*), diffuse knapweed  
 1910 (*Centaurea diffusa*), spotted knapweed (*Centaurea maculosa*), Canada thistle (*Cirsium arvense*), Chinese  
 1911 clematis (*Clematis orientalis*), and leafy spurge (*Euphorbia esula*). Canada thistle and Chinese  
 1912 clematis were the most commonly observed noxious weeds. Chinese clematis has the potential  
 1913 to climb and suffocate existing or future native vegetation, including shrubs and native trees in  
 1914 the riparian areas, making it an especially important weed to control. US 24 roadsides are  
 1915 maintained by occasional mowing. Additional vegetation and noxious weeds information is  
 1916 included in **Appendix C** (SAIC, 2006a; CH2M HILL, 2010h; CH2M HILL, 2010j).

1917 Natural vegetation and noxious weeds would be disturbed during construction of the Proposed  
 1918 Action. To minimize impacts to natural vegetation and limit the spread of noxious weeds in the  
 1919 construction area, areas disturbed during construction will be re-vegetated with native species.  
 1920 All trees greater than 2 inches in diameter at breast height will be mitigated at a 1 to 1 basis.  
 1921 Non-native trees will be replaced with native trees. Prior to construction, a noxious weeds  
 1922 survey will be conducted, and an Integrated Noxious Weed Management Plan will be developed  
 1923 and implemented during construction. The plan will contain specific BMPs to prevent and/or

1924 control the establishment of noxious weeds, such as appropriate herbicide application,  
 1925 equipment cleaning and management, topsoil management, stakeholder coordination, the use of  
 1926 weed-free materials, and prompt re-vegetation of disturbed soil surfaces. The plan should focus  
 1927 on controlling Chinese clematis because it can be harmful to native vegetation.

### 1928 3.13.9 Utilities

1929 The project team met several times with Colorado Springs Utilities and contacted the Utility  
 1930 Notification Center of Colorado to identify private utilities and facilities in the study area. The  
 1931 project team also reviewed USGS topographic mapping and conducted field reviews. Utilities are  
 1932 present throughout the study area, including water and wastewater mains, underground and  
 1933 overhead electrical transmission lines, natural gas lines, telecommunication lines, and fiber optic  
 1934 communications. **Exhibit 3-25** lists major utility lines in the study area and identifies the general  
 1935 location of potential conflicts. The exact locations of utilities will be determined during the  
 1936 preliminary design phase of the project. Additional information is included in the *Utilities*  
 1937 *Technical Memorandum* (CH2M HILL, 2009c) in **Appendix C**.

#### EXHIBIT 3-25

##### Summary of Major Utilities and Potential Utility Conflicts in the Study Area

Owner	Utility Type	Description
City of Colorado Springs	Water	30-inch ductile iron water main. Crosses beneath West Colorado Avenue, west of Ridge Road.
	Water	36-inch steel water main. Crosses beneath US 24, east of South 8th Street.
	Wastewater	42-inch concrete wastewater pipe. Runs along the west side of Fountain and Monument Creeks north and south of the Cimarron interchange.
	Electric	Primary underground transmission lines adjacent to US 24 at 31st Street (north of US 24), east of 25th Street (north of US 24), east of 21st Street (north and south of US 24), east and west of 8th Street (south of US 24), and east of I-25 (north and south of US 24 adjacent to the railroad).
	Electric	Martin Drake Power Plant. Electrical generating station in the southeast quadrant of the Cimarron interchange. Approximately 1.9 acres of property would need to be acquired to allow for vertical clearance of the flyover ramp. Steam from the power plant could cause fog or icing at the interchange's loop ramp during certain combinations of temperature, humidity, and wind direction and speed.
Colorado Springs School District 11	Fiber Optics	Fiber optic lines cross beneath US 24.
Comcast	Fiber Optics	Fiber optic lines cross beneath US 24 near 8th Street and at 25th Street. Fiber optics also located near I-25.
Qwest	Telecom	Cable TV lines cross beneath US 24 near 8th Street and at 25th Street.

Source: CH2M HILL, 2009c

1938 Colorado Springs Utilities' Martin Drake Power Plant is located southeast of the I-25  
 1939 interchange and would be affected by the Proposed Action by construction of a flyover ramp to  
 1940 carry eastbound-to-northbound traffic (refer to **Section 3.3, Right-of-Way**). Alternative designs  
 1941 were evaluated to avoid this aerial encroachment to the power plant. However, traffic patterns  
 1942 and the proximity to the I-25 and Bijou interchange constrained design flexibility, making

1943 complete avoidance impossible. The 1.9 acres of property that would be acquired from the plant  
 1944 would be purchased by CDOT and then leased back to Colorado Springs Utilities. Power plant  
 1945 electrical generation would not be affected, although some activities and storage would need to  
 1946 be relocated.

1947 CDOT will continue to coordinate with Colorado Springs Utilities and private utility providers  
 1948 throughout project design.

1949 During final design, utilities will be avoided through design modifications or, where conflicts  
 1950 cannot be avoided, utilities will be relocated. Impacts to buried utilities may be avoided by  
 1951 protecting them with encasements. Utilities relocated outside of the proposed ROW will require  
 1952 an easement.

### 1953 3.13.10 Farmlands

1954 No farmlands are present in the study area, which is within the urbanized area of Colorado  
 1955 Springs and Manitou Springs.

## 1956 3.14 Cumulative Impacts

1957 The preceding sections of this chapter have discussed direct and indirect impacts of the  
 1958 Proposed Action and the No Action Alternative. NEPA regulations also require consideration  
 1959 of cumulative impacts. Cumulative impacts can result if resources affected by this project also  
 1960 are affected by other past, present, or reasonably foreseeable future actions. The cumulative  
 1961 impacts analysis focuses on specific resources that are directly or indirectly affected by the  
 1962 Proposed Action. If an individual project has no direct or indirect impact on a resource, then it  
 1963 would not contribute to cumulative impacts on that resource. According to federal guidance,  
 1964 cumulative impacts analysis should focus on resources and impacts that are important – in other  
 1965 words, “count what counts” (CEQ, 1997).

### 1966 3.14.1 Cumulative Impacts Analysis in the Pikes Peak Region

1967 To determine “what counts” in the Pikes Peak Region, CDOT prepared a regional cumulative  
 1968 impacts analysis in 2003. This effort, conducted in  
 1969 cooperation with various agencies, community groups,  
 1970 and citizens, resulted in the report *Sustaining Nature and*  
 1971 *Community in the Pikes Peak Region: A Sourcebook for*  
 1972 *Analyzing Regional Cumulative Effects*. The report was known  
 1973 informally as the Regional Cumulative Effects Analysis  
 1974 (RCEA) (CDOT, 2003).

*Cumulative impacts result from the incremental impact of an action when added to other past, present, and reasonably foreseeable actions, regardless of what agency or entity undertakes such actions.*

1975 The RCEA examined “big-picture” environmental trends in the region based on adopted land  
 1976 use and transportation plans; input from an expert panel convened for the RCEA analysis; and  
 1977 data supplied by local, regional, and state agencies. Six major topics were identified by the expert  
 1978 panel and confirmed by the public as indicators of the quality of life for the human and natural  
 1979 environment. These topics were: Transportation Patterns, Noise, Landscape Patterns, Water  
 1980 Quality and Quantity, Air Quality, and Visual Resources.

1981 Trends were examined back in time to 1955 and forward to 2025, the future long-range planning  
 1982 horizon that was in effect when the RCEA was prepared. The 1955 benchmark year represented  
 1983 a time just prior to the opening of Interstate 25 and the United States Air Force Academy, and  
 1984 just before rapid suburbanization began in Colorado Springs.

1985 The RCEA focused on four major roadway improvement projects that were considered  
 1986 imminent at that time: I-25 widening (first phase now completed); Woodmen Road widening  
 1987 (eastern portion complete, western portion under construction); Milton E. Proby Parkway  
 1988 (construction began in 2010); and Powers Boulevard improvements (EA completed in 2010).  
 1989 US 24 was not a focus of the report, but was identified as a foreseeable future project.

1990 **3.14.2 US 24 Cumulative Impacts Analysis**

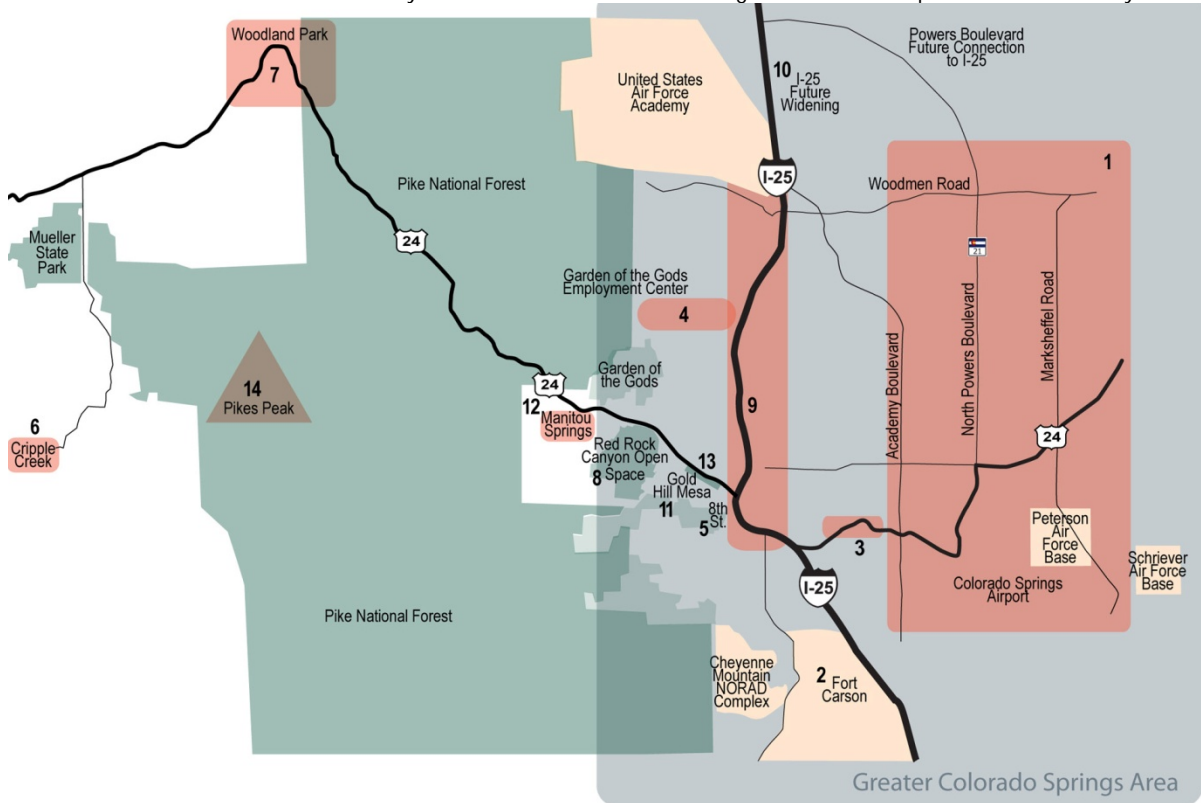
1991 The current Regional Transportation Plan adopted by PPACG has a planning horizon of 2035.  
 1992 The 2035 Plan contains an extensive discussion of environmental conditions in a chapter  
 1993 entitled “Regional Setting,” which provides an updated context for assessing cumulative impacts  
 1994 (PPACG, 2008a). Based on this new information, an appropriate temporal scale for US 24  
 1995 cumulative impacts analysis extends to the new planning horizon of 2035, a quarter century into  
 1996 the future. Looking backward the same length of time, to the 1980’s, US 24 was already nearly  
 1997 two decades old but still not congested.

1998 **Past, Present, and Reasonably Foreseeable Future Actions**

1999 **Exhibit 3-26** identifies the location (numbered areas) of past, present, and reasonably  
 2000 foreseeable actions that are expected to contribute to cumulative impacts involving the US 24  
 2001 study area. A brief explanation of each action follows the exhibit.

2002 **EXHIBIT 3-26**

2003 Location of Past, Present, and Reasonably Foreseeable Actions Contributing to Cumulative Impacts the US 24 Study Area



2004 1. **Regional growth** in the Colorado Springs metro area, totaling approximately 100,000  
 2005 persons per decade, has occurred mostly east of I-25. A 40-mile pipeline from the south is  
 2006 now under construction to provide water for future eastward growth. An approved EA calls  
 2007 for future connection of North Powers Boulevard and I-25 to accommodate traffic from

- 2008 continued eastward growth. Another EA approved in 2010 calls for upgrading the existing  
 2009 Powers Boulevard expressway to a freeway between the Colorado Springs Airport and  
 2010 Woodmen Road. East-west capacity is being improved on Woodmen Road.
- 2011 2. **Fort Carson**, the region’s largest single employer, has been an important contributor to  
 2012 regional growth, partly by providing stable employment through times of national recession.  
 2013 The military population at Fort Carson increased from 12,600 in December 2006 to nearly  
 2014 25,000 in December 2009, with another 4,000 troops expected by 2013. Adding the  
 2015 associated civilian contractors and military families, the population attributable to the Army  
 2016 post will be 59,000 (Fort Carson, 1986; PPACG, 2010).
- 2017 3. **US 24 Martin Luther King Bypass**, which opened in 1993, provides an additional option  
 2018 for eastside residents to access US 24.
- 2019 4. **The Garden of the Gods Employment Center**, in northwestern Colorado Springs, has  
 2020 been the location of high-tech industrial employers since the 1970s. Some of those  
 2021 employers (e.g., Intel) are now gone but their facilities are now finding new users.
- 2022 5. **Commercial development along South 8th Street**, including a Walmart Superstore  
 2023 opened in the 1990s, has dramatically increased traffic congestion at the east end of the  
 2024 study area.
- 2025 6. **Cripple Creek casinos** sprang up after a 1991 state law permitted gaming in this and two  
 2026 other “ghost towns” that were once busy gold-mining camps.
- 2027 7. **Woodland Park** has grown from about 2,600 residents in 1980 to more than 7,500 in 2009  
 2028 (State of Colorado, 2010).
- 2029 8. **Red Rock Canyon Open Space** opened in 2004. This city-owned feature preserves a  
 2030 789-acre parcel of spectacular scenery that was once proposed for residential and golf course  
 2031 development.
- 2032 9. **I-25 widening**, completed in 2007 as the COSMIX project, has made it easier for traffic to  
 2033 go to and from US 24. The freeway was widened to six lanes for 12 miles between exit  
 2034 138 (S. Circle Drive) and exit 150 (N. Academy Boulevard).
- 2035 10. **Future I-25 widening** to four lanes each direction is planned between exit 139 (US 24  
 2036 Bypass) and exit 151 (Briargate Boulevard). An approved EA also calls for widening I-25 to  
 2037 six lanes southward to exit 135 (S. Academy Boulevard) and northward from exit 151 to exit  
 2038 161 (Monument).
- 2039 11. **Gold Hill Mesa** is a planned mixed-use development being built on land where Cripple  
 2040 Creek gold was formerly processed by the Golden Cycle Mill. A total of 600 homes on  
 2041 140 acres are planned on this conveniently located “brownfield” land immediately south of  
 2042 US 24 between 21st Street and 8th Street. The plan includes a 67-acre commercial village.
- 2043 12. **City of Manitou Springs Fountain Creek Restoration Project**, detailed in a 2009 Master  
 2044 Plan, is in the process of upgrading Fountain Creek, ecologically and aesthetically, within  
 2045 that city.
- 2046 13. **Midland Greenway** development and the associated **Colorado Springs Fountain Creek**  
 2047 **Restoration Project** (13th Street to 21st Street), both adjacent to US 24, will accomplish a  
 2048 number of interrelated goals, including provision for trail connections, flood control, water

2049 quality improvement and aesthetic enhancement, and removal of contaminated soils. As  
 2050 previously described, some elements of the Midland Greenway will be constructed as part of  
 2051 the Proposed Action. Enhancements or completion of some features would be constructed  
 2052 in the future by others.

2053 14. **Pikes Peak** will become increasingly open for public recreational uses in accordance with a  
 2054 Colorado Springs Utilities *Plan for Recreational Uses on Municipal Watershed Lands* (Springs  
 2055 Utilities, 2010) and a related predecessor study, the 1999 *Pikes Peak Multi-Use Plan* (Springs  
 2056 Utilities, 1999).

2057 Looking back, rapid growth from 1980 to the present took place largely to the east and  
 2058 northeast, farther away from centrally located concentrations of employment and services. This  
 2059 has increased the attractiveness of close-in redevelopment and infill opportunities such as South  
 2060 8th Street, Gold Hill Mesa, and downtown loft developments. As commuting times and  
 2061 distances to eastern suburbs increased, commuting from Woodland Park and other Ute Pass  
 2062 communities has also become more attractive.

2063 Looking forward, reasonably foreseeable actions include near-term continued Fort Carson  
 2064 growth, development of Gold Hill Mesa, and continued regional growth necessitating  
 2065 improvements to I-25 and Powers Boulevard, as well as other roadways in Colorado Springs.  
 2066 The region's continued population growth will increase recreational trips on US 24 to and from  
 2067 the mountains, and the region's employment growth will continue to attract commuting trips by  
 2068 Woodland Park residents.

### 2069 3.14.3 Cumulative Impacts on Transportation Patterns

2070 Transportation patterns in western Colorado Springs have been determined by long-established  
 2071 development. The construction of US 24 in the mid-1960s was the most substantial change in  
 2072 many years, as it provided trucks, recreational vehicles, and other through-traffic a faster, less  
 2073 congested alternative to using Colorado Avenue. This enabled Old Colorado City to become  
 2074 more pedestrian-oriented, as it was when streetcars used this route prior to 1930.

2075 Traffic volumes on US 24 have increased in the past and will increase in the future due to some  
 2076 of the other actions presented in **Exhibit 3-27**. The effects of those actions include the  
 2077 following:

- 2078 • **Regional growth** – While most of the growth has occurred to the east, these new residents  
 2079 use US 24 for access to recreational opportunities around Pikes Peak and farther west into  
 2080 the Rocky Mountains.
- 2081 • **Fort Carson** – The increasing number of troops at Fort Carson generates additional demand  
 2082 for recreational trips into the mountains, just as with the civilian component of regional  
 2083 growth.
- 2084 • **US 24 Martin Luther King Bypass** – Constructing this roadway likely did not increase  
 2085 traffic on US 24, because no matter how the motorist gets there, US 24 is the only state  
 2086 highway into the mountains between Pueblo and Denver.
- 2087 • **The Garden of the Gods Employment Center** – The west-side location of this center  
 2088 attracts workers from western Colorado Springs, generating traffic that uses or crosses  
 2089 US 24 West.



- 2090 • **Commercial development along South 8th Street** – Development since the 1990s,  
2091 including a Walmart Superstore, has dramatically increased traffic congestion at the east end  
2092 of the study area.
- 2093 • **Cripple Creek casinos** – Based on recent traffic data, it is estimated that gaming traffic may  
2094 account for up to 2,000 vehicles per day on US 24 West.
- 2095 • **Woodland Park** – This community has become increasingly self-sufficient for employment,  
2096 shopping, and services, but nevertheless generates significant vehicular traffic on US 24 in  
2097 Colorado Springs. By comparison, other Ute Pass communities are smaller and have  
2098 experienced modest growth.
- 2099 • **Red Rock Canyon Open Space** – The popular open space’s parking area is directly  
2100 accessible from US 24. Use of this open space has increased traffic slightly on US 24.
- 2101 • **I-25 widening** – Completion of the COSMIX project in 2007 has made it easier for traffic  
2102 to go to and from US 24.
- 2103 • **Future I-25 widening** – Planned future I-25 improvements, including both freeway  
2104 widening and reconstruction of the I-25/US 24 interchange, will also make it easier for  
2105 motorists to reach US 24.
- 2106 • **Gold Hill Mesa** – The planned 600 new homes and 67-acre commercial development  
2107 immediately south of US 24 will generate increased traffic demand on US 24. That increased  
2108 demand is already included in regional traffic forecasts.
- 2109 • **Midland Greenway** – Greenway development will make the US 24 corridor more attractive  
2110 for non-motorized travel.
- 2111 • **Pikes Peak** – Increased recreational use of Pikes Peak, newly allowed by Colorado Springs  
2112 Utilities, could increase US 24 traffic slightly.
- 2113 US 24 is the predominant east-west artery serving traffic between downtown Colorado Springs  
2114 and the city’s Westside neighborhoods. The combined mobility barrier effect of this highway  
2115 and Fountain Creek focus north-south traffic onto the limited number of streets (e.g., 8th Street,  
2116 21st Street, 26th Street, and 31st Street) that cross. This, in turn, has affected the transportation  
2117 network and land development in western Colorado Springs.
- 2118 It is important to note again that US 24 is the only major roadway into the Rocky Mountains  
2119 serving the more than 600,000 residents of El Paso County. **Exhibit 3-27** indicates the amount  
2120 of vehicle travel on US 24 in the study area relative to the region overall.

2121 EXHIBIT 3-27  
2122 Average Weekday Vehicle Miles Traveled, US 24 Study Area and Region Wide

	Baseline <sup>1</sup>	2035 No Action	2035 Proposed Action	Change From Baseline
US 24, I-25 to 31st Street	162,000	209,000	213,000	+29 to 31%
Pikes Peak Region	11.8 million	N/A	22.1 million	+87%
US 24 as Percent of Region	1.4%	N/A	1.0%	N/A

<sup>1</sup> US 24 data are for 2007; Pikes Peak Region data are for 2005.

2123 **Cumulative Impacts of the Proposed Action**

2124 The Proposed Action would reduce traffic congestion on US 24. Together with the other  
2125 improvements included in PPACG's *Moving Forward – 2035 Regional Transportation Plan* (PPACG,  
2126 2008a), the Proposed Action would result in acceptable levels of service for the US 24 corridor.  
2127 Provision of adequate roadway capacity on US 24 would help to keep traffic on US 24, rather  
2128 than on other nearby roadways that are not designed to carry large traffic volumes at speeds  
2129 compatible with regional trips.

2130 The Proposed Action would not preclude future transit alternatives and would accommodate  
2131 proposed trail development as well as a potential future park and ride lot which would be  
2132 constructed by others. The Midland Trail through the US 24 corridor is part of the region's  
2133 primary east-west trail system called the America the Beautiful Trail, designated by the White  
2134 House as Colorado's Millennium Legacy Trail in 2000.

2135 **Mitigation**

2136 No mitigation measures are required.

2137 **3.14.4 Cumulative Impacts on Noise**

2138 Human activity in an urban area generates many types of noise. Planes, trains, automobiles,  
2139 trucks, and motorcycles are transportation-related sources of noise. Urban noise also includes  
2140 contributions from non-transportation sources such as lawn mowing, leaf-blowing, and  
2141 construction activities. As the Colorado Springs metropolitan area grows, the peace and quiet of  
2142 the once-rural countryside has given way to noisier suburban development.

2143 Noise barriers have been built since 2004 along I-25 and several city streets, and more are  
2144 proposed along Powers Boulevard and Woodmen Road when roadway improvements are made.  
2145 Generally, any high-speed, high-volume roadways in the region are likely to result in noise  
2146 impacts to surrounding neighborhoods. Due to funding constraints, noise barriers are not  
2147 installed independently in the absence of a road improvement project.

2148 US 24 is the busiest roadway in western Colorado Springs, offering the highest travel speeds, and  
2149 it is also an important truck route. There are few activities in the US 24 study area that  
2150 contribute to cumulative noise impacts. For example, there are no active railroads west of I-25,  
2151 and the Colorado Springs Airport is located on the southeastern side of the metro area.  
2152 Additionally, the two closest hospitals with flight-for-life helicopters are both east of I-25.

## 2153 Cumulative Impacts of the Proposed Action

2154 The Proposed Action would accommodate higher traffic volumes, at higher speeds, compared  
 2155 to current conditions, and also compared to the No Action Alternative. It would also elevate  
 2156 portions of US 24 and would add on-ramps and off-ramps that are closer to adjacent properties  
 2157 than the existing highway is today. As a result of these effects, highway noise would increase  
 2158 from current levels, and in various locations would exceed the state threshold (66 decibels) that  
 2159 triggers consideration of noise mitigation. Despite construction of noise walls as mitigation, the  
 2160 US 24 corridor is expected to become somewhat noisier as the metro area continues to grow.  
 2161 Noise barriers are proposed for three locations where state noise abatement criteria would be  
 2162 met, as described in **Section 3.6, Traffic Noise**. Other locations along the US 24 corridor  
 2163 would experience increased traffic noise for which mitigation was not found to be feasible or  
 2164 reasonable according to CDOT standards.

## 2165 Mitigation

2166 The direct impacts of the Proposed Action will be mitigated to the extent that would be  
 2167 considered reasonable and feasible, as described earlier in this EA. No cumulative impacts  
 2168 requiring mitigation were identified.

## 2169 3.14.5 Cumulative Impacts on Landscape Patterns

2170 The RCEA indicated that both the human and natural environment are affected by landscape  
 2171 patterns. The term “landscape patterns” refers to the type, size, and arrangement of land cover  
 2172 and land use, which are important for such purposes as wildlife habitat and human needs. Blocks  
 2173 of land and their connections within a landscape are critical to wildlife for their food, shelter,  
 2174 movement, and reproduction. For people, appropriate landscape patterns provide livable  
 2175 neighborhoods and efficient infrastructure. Implementation of the Proposed Action would  
 2176 improve mobility, which would facilitate development at Gold Hill Mesa and redevelopment  
 2177 throughout the US 24 corridor.

2178 Landscape patterns in the US 24 study area are strongly influenced by Fountain Creek, as  
 2179 described in **Section 3.2, Floodplains** and elsewhere in this chapter. Several specific influences  
 2180 are listed below.

- 2181 • **Aesthetics** – The creek and its riparian habitat are visible from much of US 24, and the  
 2182 vegetation softens the suburban landscape (aesthetic influence).
- 2183 • **Ecology** – The creek provides a movement corridor for fish and wildlife, and US 24 is a  
 2184 barrier to wildlife crossing (ecological influence).
- 2185 • **Mobility** – The creek is a barrier to north-south traffic (urban development influence).
- 2186 • **Land Use** – The creek’s floodplain limits the types of development that are suitable along  
 2187 US 24 (development constraint).
- 2188 • **Floodplains** – Most of US 24 in the study area is in the 100-year floodplain of Fountain  
 2189 Creek, making this highway vulnerable to flooding (safety and mobility issue).

2190 Much of the area along the US 24 corridor developed many years ago and remaining  
 2191 undeveloped lands have various development constraints (topography, floodplains, designated  
 2192 open space). The opening of the 789-acre Red Rock Canyon Open Space in 2004 and the

2193 140-acre Gold Hill Mesa development in 2007 largely complete the land use in-fill of this study  
2194 area that is surrounded by historic Old Colorado City and historic Manitou Springs.

2195 It is noted below in the discussion of water quality that the amount of developed land in this  
2196 subwatershed is not expected to increase in the next 30 years. However, within the developed  
2197 areas, there is potential of redevelopment to higher land use densities. Increased population and  
2198 traffic densities will place further stress on the natural resources found in the surrounding  
2199 landscape.

2200 Fountain Creek and the public open space provide continuity for wildlife movement for  
2201 urban-adapted species (deer, coyote, raccoon). Fountain Creek restoration efforts may eventually  
2202 increase fish populations (primarily trout) in the creek.

2203 The existing US 24 roadway with its surrounding development represents a barrier to north-  
2204 south movement by wildlife. The noise and lighting of the roadway and the development  
2205 discourage wildlife from approaching the US 24 corridor, and vehicular traffic presents an  
2206 obvious threat of animal injury or roadkill.

2207 Ongoing efforts for restoration of Fountain Creek by local groups would occur under the No  
2208 Action Alternative and with the Proposed Action as well. These efforts are independent of any  
2209 US 24 improvements.

#### 2210 **Cumulative Impacts of the Proposed Action**

2211 With regard to aesthetics, the Fountain Creek restoration work and Midland Greenway work  
2212 being performed by CDOT and others would improve the view from the roadway. CDOT will  
2213 use aesthetic guidelines developed in coordination with local stakeholders to design the roadway  
2214 improvements.

2215 With regard to ecological impacts, the Proposed Action would widen US 24, accommodating  
2216 additional vehicles and pushing US 24's direct and indirect effects closer to Fountain Creek. This  
2217 would increase the effect of US 24 as a barrier to wildlife crossing. An important opportunity for  
2218 crossing US 24 would remain at Ridge Road. That road would remain at grade, with US 24  
2219 crossing over it. Ridge Road does not carry a high volume of vehicles and is likely to be used as a  
2220 wildlife crossing of US 24. Additionally, use of the Midland Trail by people and their pets would  
2221 also encroach on wildlife in the US 24 corridor. Use of the Red Rock Canyon Open Space since  
2222 2004 and development of Gold Hill Mesa since 2007 are making the area less attractive to  
2223 wildlife.

2224 Impacts to fish in Fountain Creek would be mixed. Although channel reconstruction would be  
2225 temporarily detrimental, it will be mitigated by adding rock work and natural substrates (to the  
2226 bottom of box culverts), which would improve fish habitat. Stormwater mitigation measures  
2227 would reduce contaminants in the runoff that is discharged into the creek. Recent improvements  
2228 made to Fountain Creek as part of the Fountain Creek Restoration project (developed and  
2229 funded in part by CDOT, the City of Colorado Springs and its Stormwater Enterprise Program,  
2230 and Gold Hill Mesa) may eventually create new wetlands and increase fish populations (primarily  
2231 trout) in Fountain Creek.

2232 With regard to mobility, no new crossings of Fountain Creek are included in the Proposed  
2233 Action, but crossing US 24 itself would become easier at the several locations where at-grade  
2234 intersections would be replaced with grade-separated interchanges. Traffic flow on Colorado

2235 Avenue would benefit from reducing cut-through traffic that results today from inadequate  
2236 capacity on US 24.

2237 With regard to land use, the Proposed Action would result in the need for approximately  
2238 78 acres of land to be acquired for ROW from more than 100 adjacent property owners. The  
2239 land uses of these parcels are primarily commercial and light industrial, along with a few  
2240 residential properties. They provide little or no habitat for urban wildlife. Converting these  
2241 properties to highway ROW would not change the pattern of surrounding uses, or split any  
2242 neighborhoods.

2243 Planned floodplain modifications as a result of the Proposed Action would reduce the risk of  
2244 flooding for US 24 and a number of nearby properties. The vulnerability of the US 24 corridor  
2245 to flooding became very clear during an estimated 20-year flood event that occurred in 1999.  
2246 The Proposed Action is consistent with regional plans for improved stormwater management.

#### 2247 **Mitigation**

2248 Efforts undertaken by CDOT to minimize direct and indirect project impacts with Fountain  
2249 Creek restoration and Midland Greenway development were planned in consultation with local  
2250 stakeholders and will be welcome improvements to the landscape of the US 24 corridor. No  
2251 cumulative effects regarding landscape will need mitigation.

### 2252 **3.14.6 Cumulative Impacts on Water Quality and Quantity**

2253 The US 24 study area is located within the Fountain Creek watershed. Cumulative impacts of  
2254 growth in this watershed include increased water import, use, and discharge by the rapidly  
2255 growing population, and increased stormwater runoff due to increased impervious surface.  
2256 Impervious surface is land used for roads, driveways, parking lots, and buildings that does not  
2257 allow water to soak into the ground and recharge underground aquifers. Instead, the water flows  
2258 to nearby drainages, carrying with it urban pollutants such as vehicle oils, lawn fertilizers, pet  
2259 wastes, and debris.

2260 The regional watershed has been divided into subwatersheds that identify what areas drain into  
2261 individual creeks. **Exhibit 3-28** provides PPACG's assessment of impervious surface area in  
2262 2005 and 2035 as a percentage of total area within a few subwatersheds selected as illustrative  
2263 examples (PPACG, 2005). The Garden of the Gods subwatershed that includes the US 24 study  
2264 area contains both developed and undeveloped areas (e.g., Old Colorado City and the Garden of  
2265 the Gods Park), and minimal land use change is expected. The 14 percent figure for this  
2266 subwatershed suggests that about 5.5 square miles (out of 39 square miles in this drainage area)  
2267 are impervious surface. Two of the examples are rapid-growth areas in eastern Colorado Springs,  
2268 where the amount of impervious surface will increase substantially in the future.

2269 EXHIBIT 3-28  
2270 Current and Future Impervious Surface in Selected Subwatersheds

Subwatershed	Description	Area (sq. mi.)	Impervious Surface	
			2005	2035
Colorado Springs Composite (CSC2)	Highly urbanized portion of central Colorado Springs	45	45%	45%
Sand Creek (CSC6)	Suburban Powers Boulevard corridor in eastern Colorado Springs	59	27%	43%
Jimmy Camp Creek (CSC7)	Eastern prairie slated for Banning-Lewis Ranch urban development	69	7%	37%
Garden of the Gods Composite (FC4)	Near west side of Colorado Springs, including the US 24 study area	39	14%	14%
Manitou Reservoir Composite (FC2)	Undeveloped eastern slope of Pikes Peak	18	1%	1%

Source: PPACG, 2005

2271 Samples routinely taken at various locations along Fountain Creek are analyzed to determine  
2272 whether the water's potential uses (e.g., water supply, recreation, domestic irrigation) are  
2273 impaired by pollutants, and if so, which pollutants. High concentrations of selenium occur in  
2274 portions of Fountain Creek due to erosion of underlying shale bedrock. The bacteria *E. coli*  
2275 exceed state standards; the source of *E. coli* has been attributed largely to birds, especially  
2276 pigeons, in Manitou Springs (USGS, 2009). No segments of Fountain Creek are known to be  
2277 impaired by vehicle-generated pollutants.

2278 Much of the US 24 study area is located in Fountain Creek's 100-year floodplain and would be  
2279 inundated in the event of a storm with very heavy precipitation. A storm within the last decade  
2280 caused damage to bridges within the US 24 study area because they were not designed to convey  
2281 such flows. A major flood event in 1999 demonstrated that there are extensive drainage  
2282 problems in the areas of historic development along Fountain Creek west of I-25.

2283 Fountain Creek through the US 24 study area has been channelized and highly manipulated due  
2284 to development over many years. Near the confluence of Fountain Creek and Monument Creek,  
2285 the Fountain Creek channel passes near the tailing deposits of a former gold milling site, and the  
2286 channel is constrained between the tailings site and US 24 (PPACG, 2003). The US 24 road  
2287 embankment and other development constrain the floodplain to a narrow area.

2288 Channel alignment along most of upper Fountain Creek has not changed greatly in the recent  
2289 past because most of the channel is formed in bedrock. In the reach from Cascade to Manitou  
2290 Springs, upper Fountain Creek is confined to a channel between the two lanes of US 24.  
2291 Although this course approximates the original channel, the road embankments and riprap now  
2292 constrain the channel to a narrower width. In the City of Manitou Springs, channelization and  
2293 structures in the floodplain have straightened and confined the channel (PPACG, 2003). These  
2294 channelization effects are not conducive to the formation of wetlands, which, if more abundant  
2295 in the area, could aid in sediment deposition and in other ways improve water quality.

2296 Topographical constraints, reserved open space, limited roadway capacity, and 140 years of  
2297 development limit the amount of urban growth, traffic volumes, and increased impervious  
2298 surface that are expected in the US 24 study area. Water quality can be expected to remain stable

2299 in its current condition here, while continuing to change downstream as the result of growth  
 2300 elsewhere in the region. Federal and state stormwater management requirements now applicable  
 2301 to development region-wide would reduce the incremental impact of new development  
 2302 compared to past development.

### 2303 **Cumulative Impacts of the Proposed Action**

2304 With the Proposed Action, impervious surface in the US 24 study area would increase from  
 2305 about 69 acres today to 111 acres, an increase of 42 acres, or about 0.07 square mile. If not  
 2306 already included in the forecast, this increment would not change PPACG’s estimate of  
 2307 14 percent impervious surface in the subwatershed.

2308 The increased impervious surface area and increasing traffic volumes have the potential to result  
 2309 in more vehicle-generated water pollutants from the roadway, but stormwater detention features  
 2310 included in the Proposed Action will capture the runoff and reduce the amount of pollution and  
 2311 sediment that reaches Fountain Creek. Stormwater management features of the Proposed Action  
 2312 will not only address the proposed new lanes, but will capture runoff that would normally be  
 2313 generated from the existing facility, thereby improving water quality over current conditions.

2314 Regarding floodplains, the design of the Proposed Action would reduce the width of the  
 2315 100-year floodplain, making the road and its users safer from potential flooding. An estimated  
 2316 68 properties with residential or commercial structures in the current 100-year floodplain would  
 2317 be outside the 100-year floodplain as modified by the Proposed Action.

2318 Stormwater detention areas will be created in accordance with CDOT’s permit from the  
 2319 CDPHE. In conjunction with ongoing creek restoration efforts and plans for the Midland  
 2320 Greenway, these changes associated with the Proposed Action would help to decrease the  
 2321 amount of untreated stormwater that enters Fountain Creek in the US 24 study area.

2322 CDOT’s substantial water quality mitigation efforts for the US 24 corridor will meet the  
 2323 requirements of its stormwater discharge permit. Municipal separate stormwater sewer system  
 2324 (MS4) permit requirements apply not only to CDOT, but also to the City of Colorado Springs  
 2325 and, thus, to private development in the surrounding area. These water quality safeguards were  
 2326 not in place decades ago when US 24 was originally constructed and as the surrounding area  
 2327 developed.

### 2328 **Mitigation**

2329 CDOT’s project-level efforts undertaken to minimize direct and indirect impacts will be  
 2330 beneficial for both floodplains and water quality. No further mitigation will be needed.

### 2331 **3.14.7 Cumulative Impacts on Visual Resources**

2332 The discussion of visual resources in the RCEA focuses on preserving views to attractive visual  
 2333 features such as lakes, streams, mountain views, and other scenic vistas. Westbound travelers on  
 2334 US 24 view Pikes Peak ahead of them. Views into Red Rock Canyon Open Space from US 24  
 2335 are very limited due to landforms, the angle of the view, and the speed of the traffic. Currently,  
 2336 views of Fountain Creek are not overly scenic, but stream restoration efforts and development  
 2337 of the Midland Greenway have the potential to improve this situation. New home construction  
 2338 and erosion control measures associated with Gold Hill Mesa will continue to transform the  
 2339 appearance of the barren hillside south of US 24 and east of 21st Street. No other major actions  
 2340 are expected to significantly modify existing views.

2341 North of US 24, the Old Colorado City Historic District and the city’s historic Westside  
 2342 neighborhoods (bounded by US 24, 31st Street, Uintah Street, and I-25) now have a set of  
 2343 voluntary Design Guidelines to help maintain the area’s historic character. Developed through  
 2344 the group efforts of the City of Colorado Springs, Westside neighborhoods, and historic  
 2345 preservation advocates, these guidelines were completed in 2009.

#### 2346 **Cumulative Impacts of the Proposed Action**

2347 The Proposed Action would result in US 24 becoming a more prominent feature in the urban  
 2348 landscape pattern because the roadway would be widened and it would be elevated at grade-  
 2349 separated interchanges and an overpass. This impact would be more noticeable at the east end of  
 2350 the US 24 corridor near I-25, with fewer impacts near the more scenic west end of the  
 2351 US 24 corridor. Removal of some adjacent industrial businesses needed for highway ROW may  
 2352 also enhance the aesthetic quality of the US 24 corridor. CDOT will use the Aesthetic  
 2353 Guidelines that were developed with substantial community input to guide the look and feel of  
 2354 highway features – as described in **Section 3.13.5, Visual Resources**.

2355 It is recognized that US 24 is an important transportation gateway for tourists and local residents  
 2356 alike from downtown Colorado Springs to the city’s west side, Pikes Peak, and the mountains  
 2357 beyond. CDOT’s design for the US 24 corridor was developed using a context-sensitive  
 2358 solutions approach, and will incorporate aesthetic design and landscaping that support this  
 2359 gateway concept.

#### 2360 **Mitigation**

2361 CDOT’s project-level design efforts will address the direct and indirect impacts of the Proposed  
 2362 Action. No further mitigation will be necessary.

#### 2363 **3.14.8 Cumulative Impacts on Air Quality**

2364 The Pikes Peak Region has not recorded a violation of any federal air quality standard since  
 2365 1989, when the region had a much smaller population and much less vehicle use than it does  
 2366 today. A number of federal and state actions reduced emissions of vehicle-generated air  
 2367 pollutants. Federal motor vehicle emission standards, vehicle emission inspections, cleaner-  
 2368 burning fuels, and a regional carpool matching program were among these efforts.

2369 Concentrations of CO are measured at a regional monitoring site along US 24 just west of I-25.  
 2370 Recorded concentrations of CO at this monitor are well within allowable national standards.  
 2371 Due to continued technological improvements, CO concentrations are not expected to increase  
 2372 substantially in the future, despite continued growth in regional population and vehicle use. The  
 2373 PPACG *Moving Forward – 2035 Regional Transportation Plan* indicates that the amount of daily  
 2374 vehicle travel in the region is expected to increase by about 87 percent between 2005 and 2035  
 2375 (PPACG, 2008a).

2376 Ozone pollution is measured at a regional monitoring site in Manitou Springs. ozone is created  
 2377 by chemical reactions in the atmosphere on warm, sunny days. As the air heats, it rises in  
 2378 elevation. Thus, ozone concentrations measured in Manitou Springs reflect the cumulative  
 2379 impact of pollutants emitted throughout the region earlier in the day. Ozone concentrations  
 2380 recorded in Manitou Springs in recent years have not exceeded allowable limits but have been  
 2381 close.

2382 The federal EPA ozone standard , to be reviewed again in 2013, could launch the Pikes Peak  
 2383 Region and other Colorado metropolitan areas into the preparation of regional air quality plans



2384 aimed at reducing the types of emissions that result in ozone formation. These pollutants are  
2385 generated not only by motor vehicles but by non-road equipment (e.g., lawnmowers, bulldozers,  
2386 generators), industry, utilities, and even the use of household chemicals. Currently mandated  
2387 improvements in vehicle technology offer substantial emission reductions for the long-term  
2388 future.

2389 Vehicle traffic congestion results in excessive idling, which is an inefficient use of motor vehicle  
2390 fuel. Persistent weekday congestion predicted for the No Action Alternative would produce  
2391 more ozone-related idling emissions than would the Proposed Action.

### 2392 **Cumulative Impacts of the Proposed Action**

2393 The Proposed Action would accommodate higher traffic volumes with less congestion than is  
2394 experienced today. At several locations along the US 24 corridor, construction of grade-  
2395 separated interchanges and overpasses would allow east-west US 24 traffic to flow without  
2396 stopping at cross streets. This would reduce excessive vehicle idling within the US 24 corridor  
2397 and improve air quality. However, due to the short length of the Proposed Action and the  
2398 modest traffic volumes involved, any congestion relief impacts of the Proposed Action would  
2399 have a minimal influence on regional air quality levels.

2400 The Proposed Action for the US 24 study area has been designed to be compatible with the  
2401 proposed Midland Greenway, a major east-west trail for bicyclists and pedestrians. It also will  
2402 accommodate a potential future park and ride lot to be constructed by others. These alternative  
2403 transportation modes help to reduce emissions, compared to driving alone.

2404 If a portion of the Pikes Peak Region becomes a nonattainment area for ozone, it can be  
2405 expected that a variety of air quality improvement measures would be undertaken by federal,  
2406 state, and local governments for the purpose of attaining the new ozone standard as  
2407 expeditiously as practicable.

2408 The issue of global climate change is an important national and global concern that is being  
2409 addressed in several ways by the federal government. The transportation sector is the second  
2410 largest source of total greenhouse gases (GHGs) in the United States, and the greatest source of  
2411 carbon dioxide (CO<sub>2</sub>) emissions – the predominant GHG. In 2004, the transportation sector was  
2412 responsible for 31 percent of all U.S. CO<sub>2</sub> emissions. The principal anthropogenic  
2413 (human-made) source of carbon emissions is the combustion of fossil fuels, which account for  
2414 approximately 80 percent of anthropogenic emissions of carbon worldwide. Nearly all  
2415 (98 percent) transportation-sector emissions result from the consumption of petroleum products  
2416 such as gasoline, diesel fuel, and aviation fuel.

2417 Recognizing this concern, FHWA is working nationally with other modal administrations  
2418 through the DOT Center for Climate Change and Environmental Forecasting to develop  
2419 strategies to reduce transportation's contribution to GHGs – particularly CO<sub>2</sub> emissions – and to  
2420 assess the risks to transportation systems and services from climate changes.

2421 At the state level, there are also several programs underway in Colorado to address  
 2422 transportation GHGs. The Governor’s Climate Action Plan, adopted in November 2007,  
 2423 includes measures to adopt vehicle CO<sub>2</sub> emissions standards and to reduce vehicle travel  
 2424 through transit, flex time, telecommuting, ridesharing, and broadband communications. CDOT  
 2425 issued a Policy Directive on Air Quality in May 2009. This Policy Directive was developed with  
 2426 input from a number of agencies, including the CDPHE, EPA, FHWA, Federal Transit  
 2427 Administration (FTA), Denver Regional Transportation District (RTD), and the Denver  
 2428 Regional Air Quality Council (RAQC). This Policy Directive addresses unregulated mobile  
 2429 source air toxics (MSAT) and greenhouse gases (GHG) produced from Colorado’s state  
 2430 highways, interstates, and construction activities.

2431 As a part of CDOT’s commitment to addressing MSATs and GHGs, some of CDOT’s  
 2432 program-wide activities include:

- 2433 1. Developing truck routes/restrictions with the goal of limiting truck traffic in proximity to  
 2434 facilities, including schools, with sensitive receptor populations.
- 2435 2. Continue researching pavement durability opportunities with the goal of reducing the  
 2436 frequency of resurfacing and/or reconstruction projects.
- 2437 3. Developing air quality educational materials, specific to transportation issues, for citizens,  
 2438 elected officials, and schools.
- 2439 4. Offering outreach to communities to integrate land use and transportation decisions to  
 2440 reduce growth in vehicle miles traveled (VMT), such as smart growth techniques, buffer  
 2441 zones, transit-oriented development, walkable communities, and access management plans.
- 2442 5. Committing to research additional concrete additives that would reduce the demand for  
 2443 cement.
- 2444 6. Expanding Transportation Demand Management (TDM) efforts statewide to better utilize  
 2445 the existing transportation mobility network.
- 2446 7. Continuing to diversify the CDOT fleet by retrofitting diesel vehicles, specifying the types of  
 2447 vehicles and equipment contractors may use, purchasing low-emission vehicles such as  
 2448 hybrids, and purchasing cleaner-burning fuels through bidding incentives where feasible.  
 2449 Incentivizing is the likely vehicle for this.
- 2450 8. Exploring congestion and/or right-lane-only restrictions for motor carriers.
- 2451 9. Funding truck parking electrification (note: mostly via exploring external grant  
 2452 opportunities)
- 2453 10. Researching additional ways to improve freight movement and efficiency statewide.
- 2454 11. Committing to incorporating ultra-low sulfur diesel (ULSD) for non-road equipment  
 2455 statewide before June 2010, likely using incentives during bidding.
- 2456 12. Developing a low-VOC-emitting tree landscaping specification.

2457 Because climate change is a global issue, and the emissions changes due to project alternatives  
 2458 are very small compared to global totals, the GHG emissions associated with the alternatives  
 2459 were not calculated. The relationship of current and projected Colorado highway emissions to  
 2460 total global CO<sub>2</sub> emissions is presented in **Exhibit 3-29**. Colorado highway emissions are

2461 expected to increase by 4.7 percent between now and 2035. The benefits of the fuel economy  
 2462 and renewable fuels programs in the 2007 Energy Bill are offset by growth in VMT; the draft  
 2463 2035 statewide transportation plan predicts that Colorado VMT will double between 2000 and  
 2464 2035. This table also illustrates the size of the US 24 corridor relative to total Colorado travel  
 2465 activity.

## EXHIBIT 3-29

## Relationship of Current and Projected Colorado Highway Emissions to Total Global Carbon Dioxide Emissions

Global CO <sub>2</sub> Emissions, 2005, Million Metric Tons (MMT) <sup>1</sup>	Colorado Highway CO <sub>2</sub> Emissions, 2005, MMT <sup>2</sup>	Projected Colorado 2035 Highway CO <sub>2</sub> Emissions, MMT <sup>2</sup>	Colorado Highway Emissions, % of Global Total (2005) <sup>2</sup>	US 24 Corridor VMT, % of Statewide VMT (2005)
27,700	29.9	31.3	0.108%	0.7%

<sup>1</sup> EIA, International Energy Outlook 2007

<sup>2</sup> Calculated by FHWA Resource Center

2466 A detailed discussion of the air quality analyses is provided in the *Air Quality Technical*  
 2467 *Memorandum* (Wilson & Company, 2010) in **Appendix C**.

### 2468 Mitigation

2469 The Proposed Action meets federal conformity requirements, which take into account both  
 2470 project-level and regional air quality. No mitigation measures are required.

### 2471 3.14.9 Cumulative Impacts on Economic Conditions

2472 Unrelated to the RCEA, economic consultants were retained by CDOT to prepare a detailed  
 2473 analysis of economic impacts from the US 24 improvement alternatives. As noted in  
 2474 **Section 3.7, Social Resources**, that study was entitled, *U.S. Highway 24 Alternatives Analysis*  
 2475 *(Manitou Springs to Interstate 25) Market and Socio-Economic Impacts* (THK Associates, Inc., 2006).  
 2476 The study identified direct economic impacts of the US 24 Preferred Alternative but also  
 2477 identified how improved mobility on US 24 could result in substantial long-term economic  
 2478 benefits due to indirect and cumulative effects.

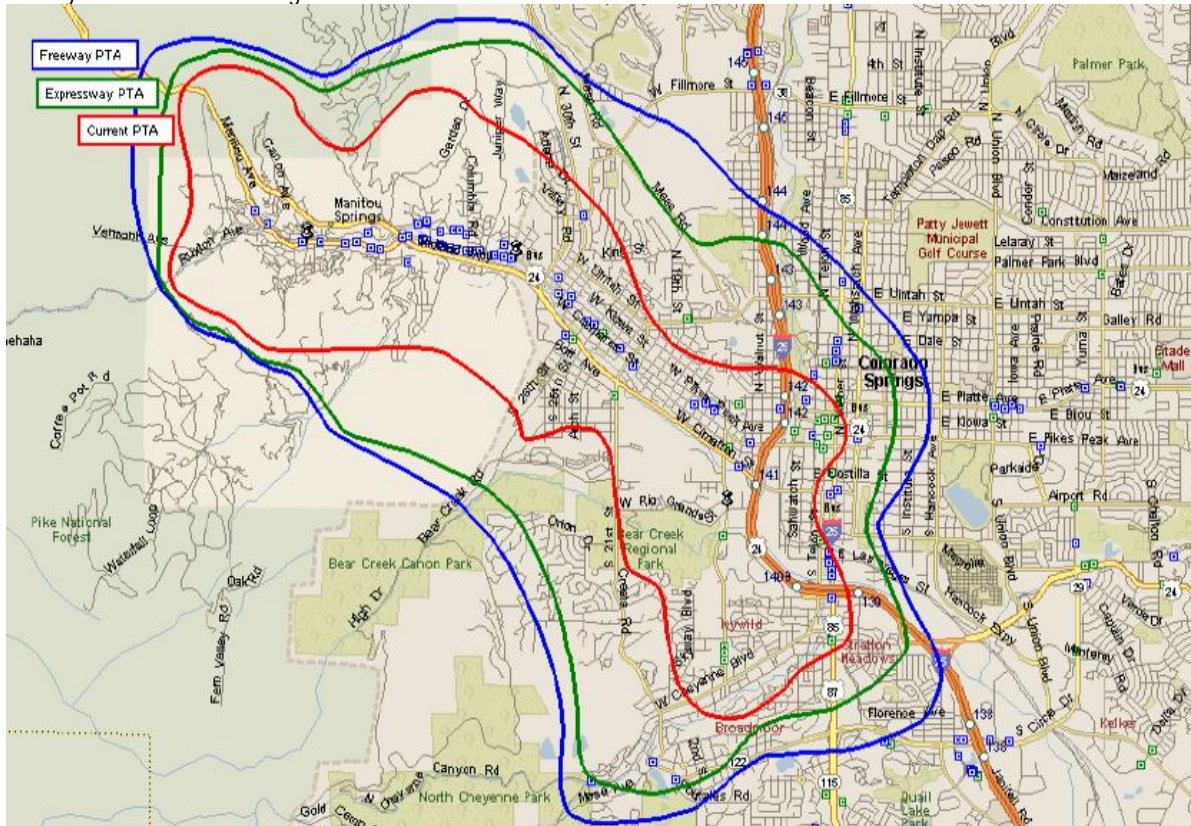
2479 In a September 2008 follow-up memorandum, the economic consultants indicated that direct  
 2480 impacts of the US 24 improvements would be the displacement of 76 residents and  
 2481 1,859 employees. These displacements would be due to the ROW acquisitions that are described  
 2482 in **Section 3.3, Right-of-Way**. A list of the specific businesses that would be displaced can be  
 2483 found in the *Right-of-Way Technical Memorandum and Acquisition Atlas* (CH2M HILL, 2010b) in  
 2484 **Appendix C**. The US 24 economic study also examined the availability of undeveloped land and  
 2485 areas of redevelopment opportunity and concluded that it would be feasible for most of the  
 2486 displaced businesses to relocate within the US 24 study area. Some of the businesses would not  
 2487 relocate in the area. Of the sales tax revenues currently generated by the businesses that would  
 2488 be displaced, it was estimated that only a 25 percent reduction would occur over the long term.

2489 Offsetting direct, short-term economic losses, however, is the indirect effect that improved  
 2490 mobility on the US 24 corridor would expand the primary trade area for local businesses. Based  
 2491 on data available through 2005, the US 24 economic impacts study identified the geographical  
 2492 area located within a 5-minute drive time from the US 24 project area, calling this the US 24  
 2493 corridor's Primary Trade Area. The average distance that could be traveled during that time was

2494 estimated to be 0.7 mile, because most streets in the area are local streets with a speed limit of  
 2495 25 miles per hour. It was estimated that in 2006, this Primary Trade Area included 5.9 percent of  
 2496 the region's households and 4.7 percent of the region's population. The difference in these  
 2497 numbers reflects the fact that west side homes tend to be older and smaller than homes in the  
 2498 newer, eastern suburbs.

2499 **Exhibit 3-30**, below, depicts the Primary Trade Area for the US 24 existing roadway as well as  
 2500 for an improved expressway (the Preferred Alternative) and a Freeway Alternative that was also  
 2501 considered in this EA. The Freeway Alternative was not selected and is not discussed below.

2502 EXHIBIT 3-30  
 2503 Primary Trade Areas Resulting from US 24 Alternatives



2504 The Primary Trade Area that would result due to faster average speeds on US 24 with the  
 2505 Preferred Alternative is substantially larger than the current trade area. It includes 10.2 percent  
 2506 of the region's population and 8.2 percent of the region's population. The average distance  
 2507 traveled during the 5 minutes was 1.5 miles due to increased travel speeds on US 24. The ability  
 2508 of additional customers to access the US 24 corridor would facilitate redevelopment in the  
 2509 long-term and result in an economic benefit for the US 24 corridor, more than offsetting  
 2510 short-term job losses. Projecting regional growth for 10 years, to 2016, the study predicted net  
 2511 increases of 641 jobs and \$3.7 million in increased sales tax revenue. Due to continued  
 2512 recessionary economic conditions in the US, coupled with the fact that the Preferred Action may  
 2513 not be built by 2016, the important conclusion of the study is not a specific number of added  
 2514 jobs by a specific year but instead the positive influence of the project on job creation in the  
 2515 US 24 corridor.

2516 The predicted economic benefits of the US 24 Preferred Action would be the cumulative result  
2517 of population and employment growth in the region, with individual entrepreneurs deciding to  
2518 invest in the US 24 corridor because of its improved accessibility. Some of the past, present, and  
2519 reasonably foreseeable actions affecting growth in the US 24 corridor were discussed earlier in  
2520 **Section 3.14.2, US 24 Cumulative Impacts Analysis.**



# 1 Chapter 4 –Section 4(f) Evaluation

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## 2 4.1 Introduction

3 The United States Department of Transportation (USDOT) Act of 1966 included a special  
4 provision – Section 4(f) – that expressly prohibits the Federal Highway Administration (FHWA)  
5 and other USDOT agencies from using land from publicly owned parks, recreation areas  
6 (including recreational trails), wildlife and waterfowl refuges, or public and private historic  
7 properties unless there is no feasible and prudent alternative to that use and the action includes all  
8 possible planning to minimize harm to the property resulting from such use.

9 The analysis that follows evaluates the impacts of this project on Section 4(f) properties. It is  
10 prepared in compliance with Section 4(f) of the USDOT Act of 1966 and is supported by the  
11 analyses presented in this Environmental Assessment (EA) and in the following materials  
12 contained in **Appendix C: Historic Resources Survey and Effect Determination** (TEC, 2010), and the  
13 *Parks and Recreational Resources Technical Memorandum* (CH2M HILL, 2010c).

## 14 4.2 Purpose and Need

15 The purpose of the project is to: 1) reduce congestion problems for travelers today and through the  
16 year 2035; 2) improve mobility for local trips within the US 24 corridor and regional trips through  
17 the US 24 corridor; and 3) improve connectivity to the multiple destinations accessible from the  
18 US 24 corridor. **Exhibit 4-1** shows the US 24 study area.

19 El Paso County has been among the fastest growing counties in the nation for the last three  
20 decades. When US 24 was built in 1964, the populations of El Paso County and Teller County  
21 totaled 146,000. In 2010, the populations of these counties totaled approximately 626,000, a figure  
22 forecast to grow by 330,000 to 956,000 by 2035 (State of Colorado, 2010). This growth means  
23 more drivers will be on the roadways. In addition, the average annual number of miles traveled by  
24 motorized vehicles more than doubled between 1982 and 2007 (Casper, 2008). This growth in  
25 vehicle travel means that roadways are used more heavily because people drive more miles each  
26 year than they did in the past. These two factors—substantially more people traveling substantially  
27 more miles—overload US 24 and side streets in the study area to the point that they no longer  
28 have adequate capacity for current and future travelers.

29 Congestion in the study area is caused by the high volume of traffic and the interruption of traffic  
30 flow on mainline US 24 at signalized intersections. Daily and peak hour traffic volumes have been  
31 increasing steadily over time, a trend that the Pikes Peak Area Council of Governments (PPACG)  
32 predicts will continue. If the capacity of US 24 and its intersections are not improved to handle  
33 more vehicles, congestion issues will grow as traffic volumes increase over time.

34 See **Chapter 1, Purpose and Need** for additional details.

35 EXHIBIT 4-1  
36 US 24 Study Area



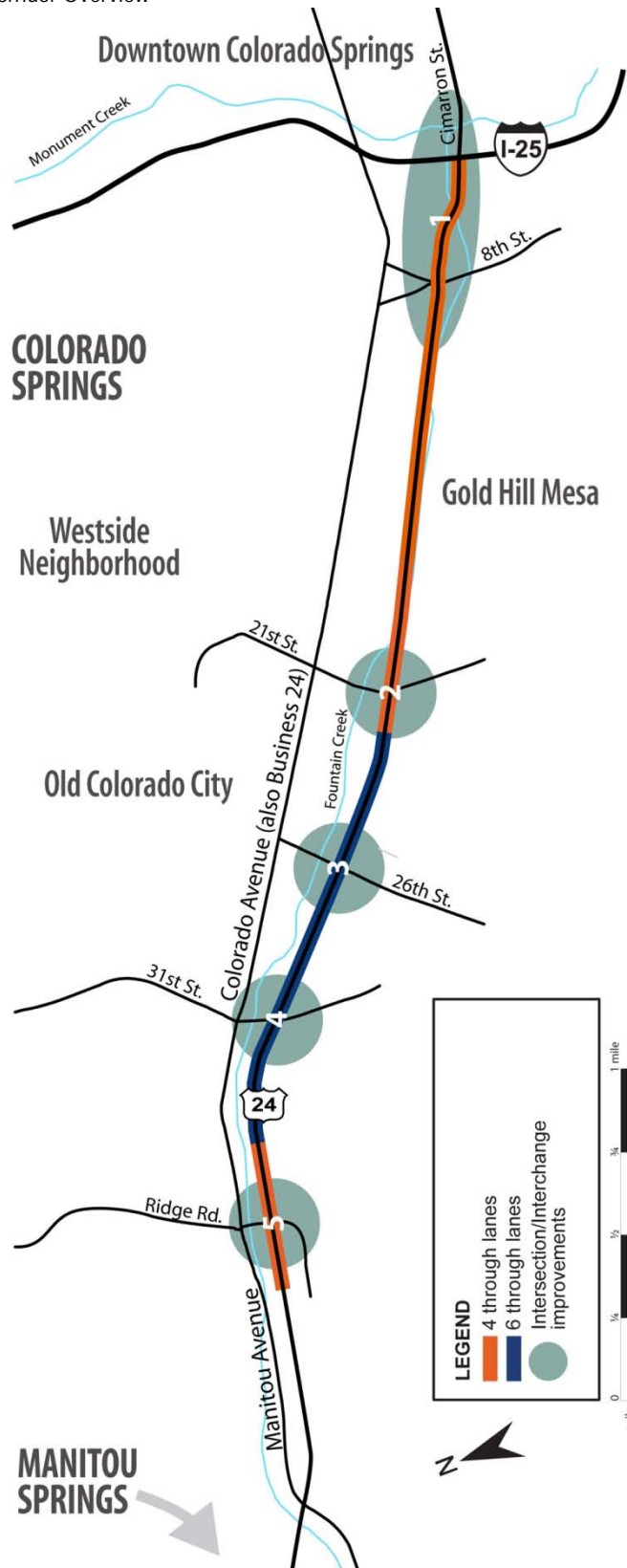


### 37 4.3 Proposed Action

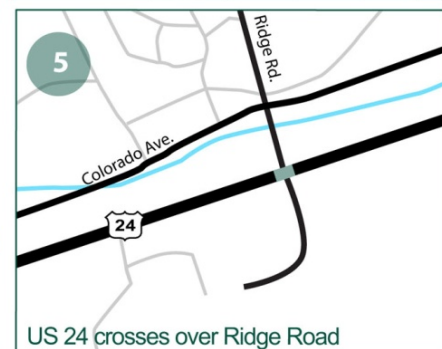
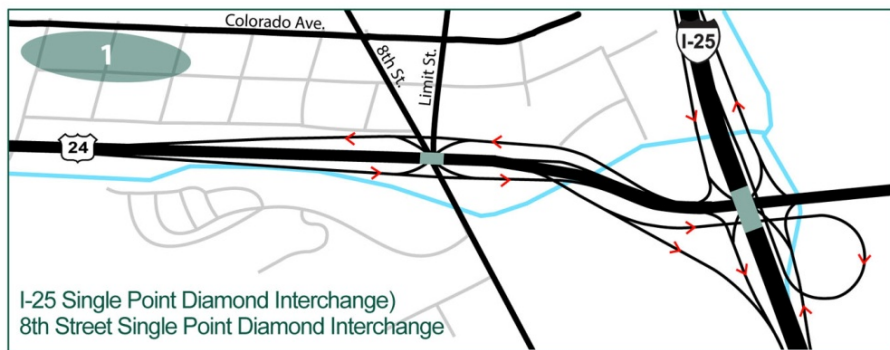
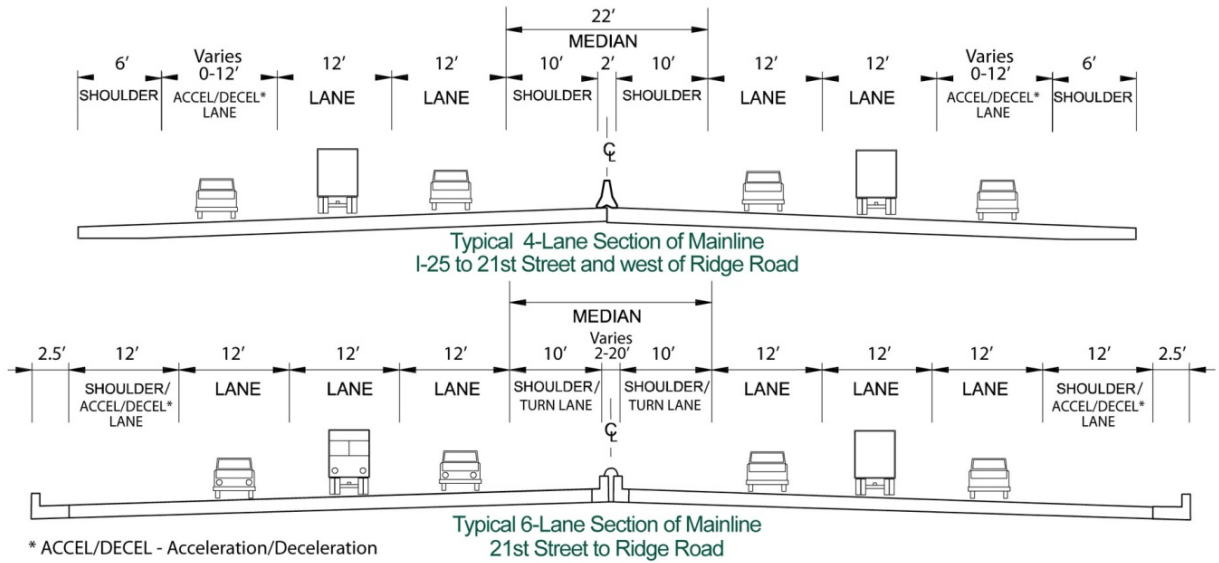
38 All features of the Proposed Action would be designed for 50 miles per hour (mph) and meet or  
 39 exceed American Association of State Highway and Transportation Officials (AASHTO)  
 40 standards. The Proposed Action is generally described in **Exhibit 4-2** and **Exhibit 4-3** and  
 41 detailed in drawings included in **Appendix A**. The Proposed Action on the US 24 corridor  
 42 includes the following elements:

- 43 • **Maintain four through-lanes** (two in each direction) **between I-25 and 21st Street**.
- 44 • **Add two through-lanes, between 21st Street and just west of Ridge Road**, for a total of  
 45 six through-lanes (three in each direction).
- 46 • **Replace nine bridges on US 24 and cross streets** to accommodate the profile changes to  
 47 US 24. Over Fountain Creek, these bridges would be built to comply with current state and  
 48 local standards to reduce flooding hazards in the study area.
- 49 • **Due to replacement of the nine bridges, realign and widen Fountain Creek** at bridge  
 50 crossings and locations where the roadway overlaps the existing channel to provide an  
 51 armored low-flow channel and a widened stabilized area to accommodate the 100-year flood.
- 52 • **Build single-point diamond interchange (SPDI) with a loop ramp for eastbound-to-**  
 53 **northbound travel at US 24 and I-25**. This interchange design replaces the tight diamond  
 54 interchange identified in the *I-25 Improvements through the Colorado Springs Urbanized Area EA*  
 55 (Colorado Department of Transportation [CDOT], 2004). Since that EA was approved, traffic  
 56 forecasts and future traffic operations have been revised by the PPACG, making a SPDI  
 57 design more efficient operationally.
- 58 • **Naegle Road from 21st Street to 25th Street would be closed because the intersection**  
 59 **of 21st Street and Naegle Road is too close to the US 24 and 21st Street interchange**.  
 60 There is inadequate room to provide a turn lane for vehicles at Naegle Road.
- 61 • **The existing 25th Street bridge over Fountain Creek would be removed because it**  
 62 **would no longer connect to Naegle Road and, therefore, provide no function**. The  
 63 existing 25th Street would be ended north of the Fountain Creek.
- 64 • **Replace the existing at-grade intersections with interchanges at 8th Street and at 21st**  
 65 **Street**, which also includes directional interchange ramps and acceleration/deceleration lanes.
- 66 • **Upgrade the US 24 and 26th Street at-grade intersection**, which also includes left and  
 67 right turn lanes.
- 68 • **Widen the intersection of US 24 and 31st Street. Widen the 31st Street and Colorado**  
 69 **Avenue intersection**. South of US 24, 31st Street would be rebuilt to better align with the  
 70 highway intersection.
- 71 • **Replace the existing at-grade intersection with an overpass that carries US 24 over**  
 72 **Ridge Road**. Ridge Road would be widened between High Street and Colorado Avenue and  
 73 improvements would be made to the Ridge Road and Colorado Avenue intersection.
- 74 • **All improvements tie into the unimproved, existing US 24 approximately 1,800 feet**  
 75 **west of Ridge Road**. Because neither existing nor future congestion is a problem between  
 76 Ridge Road and Manitou Avenue, no changes to US 24 are proposed west of Ridge Road.

77 EXHIBIT 4-2  
78 Proposed Action – US 24 Corridor Overview



79 EXHIBIT 4-3  
 80 Proposed Action – Typical Section, Design Details – NOT TO SCALE



- 81 • **Build sidewalks on the north-south cross streets** at all intersections and as a part of all  
82 interchanges.
- 83 • **Connect the Midland Trail from 21st to 25th Street**, with north-south trail connections at  
84 each of the interchanges and intersections along the US 24 corridor. The trail would be built to  
85 meet the City of Colorado Spring’s trail design standards and to allow clearance under the  
86 bridges for bicycle, pedestrian, and equestrian crossings. Completing this east-west bicycle and  
87 pedestrian trail system was an opportunity resulting from the required roadway right-of-way  
88 acquisitions and the channel re-grading required by the bridge replacements. The trail would  
89 improve pedestrian and bicycle mobility in the study area and is consistent with community  
90 planning.
- 91 • **Incorporate Transportation System Management** elements such as signal timing, turn  
92 lanes, and consideration for transit stops.

93 The Proposed Action also includes various environmental mitigation measures, such as  
94 enhancements to park and recreation resources, noise barriers, and permanent water quality  
95 features such as stormwater detention/treatment ponds.

## 96 4.4 Alternatives Analysis

97 Section 4(f) analysis requires a determination of whether feasible and prudent alternatives exist  
98 that avoid the use of Section 4(f) property. An alternative is considered feasible if it is technically  
99 possible to design and build. According to FHWA regulations (Title 23 of the Code of Federal  
100 Regulations [CFR] Part 774.17), an alternative is not prudent if:

- 101 i. It compromises the project to a degree that it is unreasonable to proceed with the project in  
102 light of its stated purpose and need;
- 103 ii. It results in unacceptable safety or operational problems;
- 104 iii. After reasonable mitigation, it still causes:
- 105 a. Severe social, economic, or environmental impacts;
- 106 b. Severe disruption to established communities;
- 107 c. Severe disproportionate impacts to minority or low-income populations; or
- 108 d. Severe impacts to environmental resources protected under other federal statutes;
- 109 e. It results in additional construction, maintenance, or operation costs of an extraordinary  
110 magnitude;
- 111 iv. It causes other unique problems or unusual factors; or
- 112 v. It involves multiple factors described above, that while individually minor, cumulatively cause  
113 unique problems or impacts of extraordinary magnitude.

114 “Where sufficient analysis demonstrates that a particular  
115 alternative is not feasible and prudent, the consideration of that  
116 alternative as a viable alternative comes to an end. If a feasible  
117 and prudent alternative is identified that avoids the use of  
118 Section 4(f) properties, it must be selected.” (FHWA, 2005)

*No feasible and prudent  
avoidance alternative was  
identified for this project.*

119 An extensive alternatives development process was conducted by the project team, as described in  
120 **Chapter 2, Alternatives**. Under a context sensitive design process, more than 395 ideas were  
121 generated from the public to address transportation issues in the study area. The project team  
122 categorized these ideas into nine broadly defined potential solutions. Among the nine potential  
123 solutions analyzed, two considered improvements to alternate routes in order to avoid or  
124 minimize harm to Section 4(f) properties adjacent to US 24. These potential solutions were  
125 **Reconstruct Local Streets** and **Other Regional Routes**. The following is a brief description of  
126 each solution.

### 127 **Reconstruct Local Streets**

128 Upgrading local or parallel streets or providing traffic-calming features were considered under the  
129 **Reconstruct Local Streets** potential solution. One focus of this potential solution was to make  
130 improvements to Colorado Avenue, just north of US 24, to relieve traffic from US 24. When  
131 US 24 was originally constructed, it was intended to serve as a bypass to Colorado Avenue;  
132 however, the design team considered this option to avoid impacts to Section 4(f) properties along  
133 US 24. Adding capacity to Colorado Avenue, even by just removing the parking, was seen by the  
134 community as unacceptable and inconsistent with its adopted plans. The **Reconstruct Local**  
135 **Streets** potential solution was eliminated as it would not meet purpose and need because it would  
136 only provide minimal reduction of traffic congestion on US 24. Further, given the historic nature  
137 of the study area, it would likely impact other Section 4(f) properties.

### 138 **Other Regional Routes**

139 **Other Regional Routes** were studied to avoid the US 24 corridor. Rebuilding Rampart Range  
140 Road, Mount Herman Road, and other regional routes (all of which are several miles outside the  
141 study area) were considered in the **Other Regional Routes** potential solution category. These  
142 potential solutions were eliminated because none of the routes met the purpose and need given  
143 that each route only captured a minimal number of vehicles from US 24 and, therefore, would not  
144 reduce congestion on US 24. Further, improvements to these routes outside the study area would  
145 not improve mobility for local trips within the US 24 corridor or improve north-south  
146 connectivity to the multiple destinations accessible from the US 24 corridor.

147 Using the nine potential solutions, three alternatives were developed, **the No Action Alternative**,  
148 **the US 24 Freeway Alternative**, and **the Midland Expressway Alternative**. These alternatives  
149 were screened against criteria developed from the project's purpose and need and evaluated with  
150 the Critical Issues and the Community Vision. These criteria included measuring the number of  
151 recorded historic sites within 500 feet of the edge of pavement, as well as the number of parks,  
152 trails, and recreation resources potentially affected.

153 While the No Action Alternative would avoid the use of Section 4(f) properties, it is not  
154 considered to be a prudent alternative because it does not address the purpose and need for the  
155 project. Both of the build alternatives are considered feasible and prudent, but would not avoid  
156 the use of Section 4(f) properties.

157 The design team minimized the right-of-way footprint for both build alternatives to the extent  
158 possible while still meeting design standards, capacity requirements, and minimum floodplain  
159 conditions. In most cases, uses of Section 4(f) properties were avoided through design  
160 modifications. However, impacts to Section 4(f) properties, such as buildings along Sheldon  
161 Avenue on the north side of US 24 near the proposed US 24 interchanges at 8th Street and  
162 21st Street and intersection upgrades at 26th Street, could be avoided but would result in impacts

163 to other Section 4(f) properties to the south, such as the Midland Terminal Railroad Roundhouse  
 164 (5EP194), which is an important historic property currently listed on the National Register of  
 165 Historic Places (National Register). For these reasons, no feasible and prudent alternative to avoid  
 166 use of all Section 4(f) properties was identified for this project.

167 **Exhibit 4-4** summarizes the avoidance potential, the feasibility, and prudence of the No Action  
 168 Alternative, US 24 Freeway Alternative, and Midland Expressway Alternative for the project.

EXHIBIT 4-4  
 US 24 Alternatives

Alternative	Description	Does the Alternative Avoid Section 4(f) Property?	Is the Alternative Feasible?	Is the Alternative Prudent?
No Action	The No Action Alternative consists of existing transportation facilities and transportation projects committed to be built regardless of whether the Proposed Action is built. The No Action Alternative would not make any changes to existing US 24 beyond those that are already planned and funded.	Yes	Yes	<b>No. Not Prudent - 23 CFR 774.17(3.i,ii).</b> Does not address the purpose and need for the project and would result in unacceptable traffic operations.
US 24 Freeway	US 24 would be reconstructed as a high-capacity free-flowing roadway with four through-lanes in each direction west of 8th Street. Interchanges at 8th Street, 21st Street, and 31st Street would provide access to and from US 24 between I-25 and Manitou Avenue; 26th Street and Ridge Road would be rebuilt as overpasses. Access to US 24 at 14th Street, 26th Street, and Ridge Road would be removed.	<b>No.</b> Requires the use of 21st Street pocket park, Vermijo Park, Midland Trail, five historic properties (5EP5285, 5EP5288, 5EP5335, 5EP5336, 5EP5218), and one historic district (5EP5364)	Yes	Yes
Midland Expressway (Proposed Action)	Includes two through-lanes in each direction from I-25 to 21st Street, and three through-lanes in each direction from west of 21st Street to Ridge Road. New interchanges are proposed at 8th Street and 21st Street, and improved at-grade intersections would remain at 26th Street and 31st Street. An overpass would be built to carry US 24 over Ridge Road. Access to US 24 at 14th Street would be removed.	<b>No.</b> Requires the use of 21st Street pocket park, Vermijo Park, Midland Trail, five historic properties (5EP5285, 5EP5288, 5EP5335, 5EP5336, 5EP5218), and one historic district (5EP5364)	Yes	Yes

169 Because all feasible and prudent alternatives use land from Section 4(f) properties, a least-harm  
 170 analysis must be performed to determine which alternative would create the least overall harm to  
 171 the Section 4(f) properties. In performing this analysis after mitigation, the net harm to the

172 properties is the governing factor unless there are additional important environmental impacts that  
 173 are non-Section 4(f) resources. For these alternatives, there are no impacts to important resources  
 174 that need to be considered in assessing feasible and prudent alternatives.

## 175 4.5 Properties Evaluated and All Possible Planning to Minimize 176 Harm

### 177 4.5.1 Parks and Recreation Properties

178 Three Section 4(f) park and recreation properties are within the construction limits for the  
 179 Proposed Action: 21st Street pocket park, Vermijo Park, and Midland Trail. These properties are  
 180 described below and detailed in the *Parks and Recreational Resources Technical Memorandum*  
 181 (CH2M HILL, 2010c) in **Appendix C**. The two parks and the trail are owned and maintained by  
 182 the City of Colorado Springs. Representatives from the City of Colorado Springs were engaged in  
 183 the development of avoidance alternatives and worked with the design teams on the determination  
 184 of mitigation where a use of publicly owned parks and trails properties occurs. A letter from  
 185 CDOT to the City of Colorado Springs Parks, Recreation & Cultural Services Department  
 186 regarding agreement for the use of these park and recreation resources is presented in  
 187 **Appendix I**.

#### 188 4.5.1.1 21st Street Pocket Park

##### 189 *Property Description*

190 The 21st Street pocket park is a small 1.5-acre park located at the intersection of US 24 and 21st  
 191 Street. As shown in **Exhibit 4-5**, the park is bisected by Naegle Road. On the south, a landscaped  
 192 mound holds the Prospector Sculpture, which is a landmark for the community, while on the  
 193 north, the majority of the park is a paved parking lot with a small area for a picnic table and a  
 194 walking path. The park is owned and maintained by the City of Colorado Springs and activities or  
 195 events are not scheduled in this park.

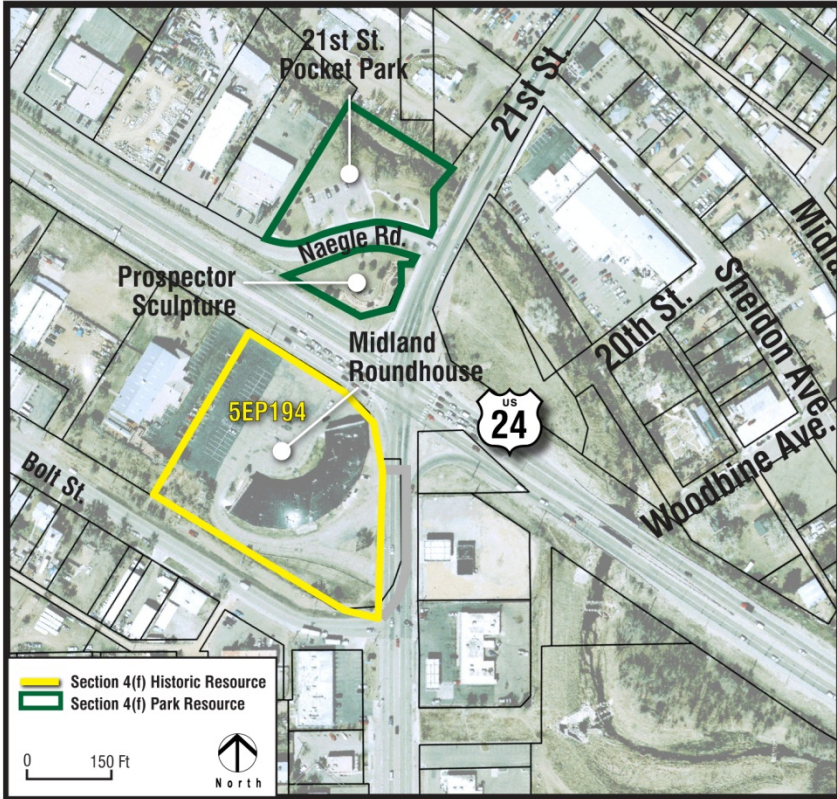
##### 196 *Section 4(f) Use*

197 Both the US 24 Freeway Alternative and the  
 198 Proposed Action would require the same new  
 199 interchange at 21st Street, which would result in the  
 200 total acquisition of the 21st Street pocket park under  
 201 either the US 24 Freeway Alternative or the Proposed  
 202 Action. In this location, the interchange and highway  
 203 widening would occur to the north to avoid impacts  
 204 to the Midland Terminal Railroad Roundhouse  
 205 (5EP194), a Section 4(f) historic property. As shown  
 206 in **Exhibit 4-5**, this new interchange would use a  
 207 large portion of the 1.5-acre park. The remaining  
 208 parcel of parkland would no longer be accessible due  
 209 to its proximity to the interchange. The Prospector Sculpture would be relocated.

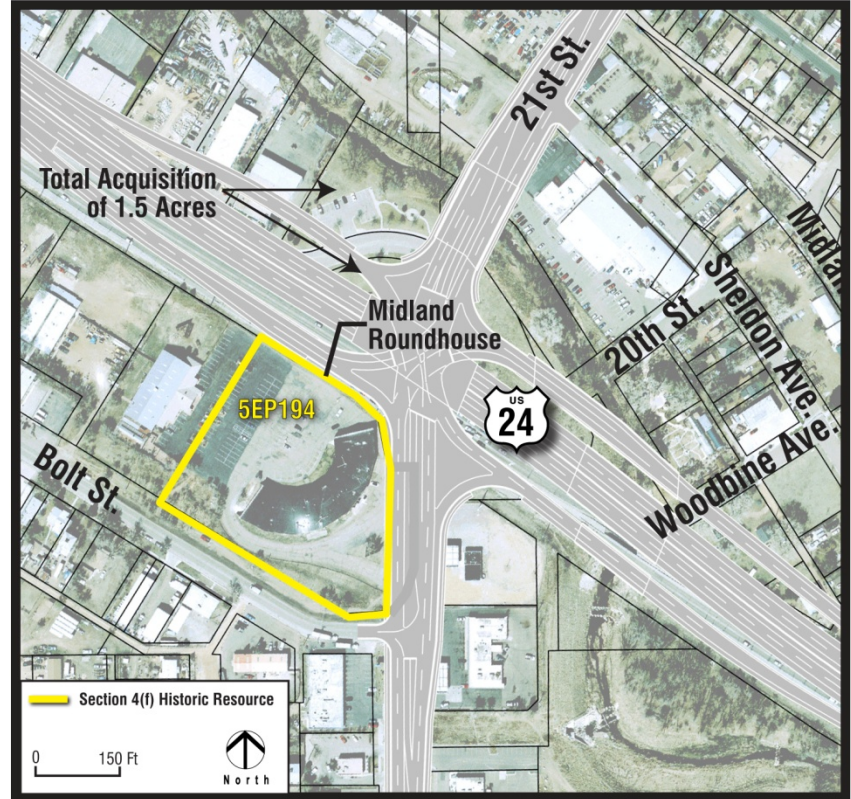


*Prospector Sculpture at 21st Street Pocket Park*

210 EXHIBIT 4-5  
211 Proposed Action for Section 4(f) Use of 21st Street Pocket Park



**Existing Condition**



**Proposed Action**



212 *Measures to Avoid and Minimize Harm*

213 **Avoidance:** The project team evaluated six design options at this location for their potential to  
 214 avoid impacts to the 21st Street pocket park. Five of the design options shifted the roadway to the  
 215 north, maintaining the existing south right-of-way line of US 24 and one design option shifted US  
 216 24 to the south. All five interchange or intersection options that move US 24 to the north would  
 217 require full acquisition of the 21st Street pocket park. These design options are shown in detail in  
 218 **Appendix B** and are listed below:

- 219 • **Design Option 10:** 21st Street Signalized Intersection
- 220 • **Design Option 11:** 21st Street Diamond Interchange with Loop
- 221 • **Design Option 12:** 21st Street Split Diamond Interchange with 18th Street
- 222 • **Design Option 13:** 21st Street Tight Diamond Interchange
- 223 • **Design Option 14:** 21st Street SPDI to the North

224 The one option to move US 24 to the south, **Design Option 15:** 21st Street SPDI South, has the  
 225 potential to avoid use of the 21st Street pocket park. To avoid impacting the Midland Terminal  
 226 Railroad Roundhouse, a historic Section 4(f) property, the designers would have to realign US 24  
 227 to the south, as shown in **Exhibit 4-6**.

228 This south alignment of US 24 would introduce three curves in a short distance into the highway  
 229 alignment in an otherwise straight roadway. These curves would introduce unacceptable  
 230 operational and safety problems due to driver expectations in the roadway. Additionally, this curve  
 231 in the road would cause a reduction in stopping sight distance as drivers approach the 21st Street  
 232 interchange ramps.

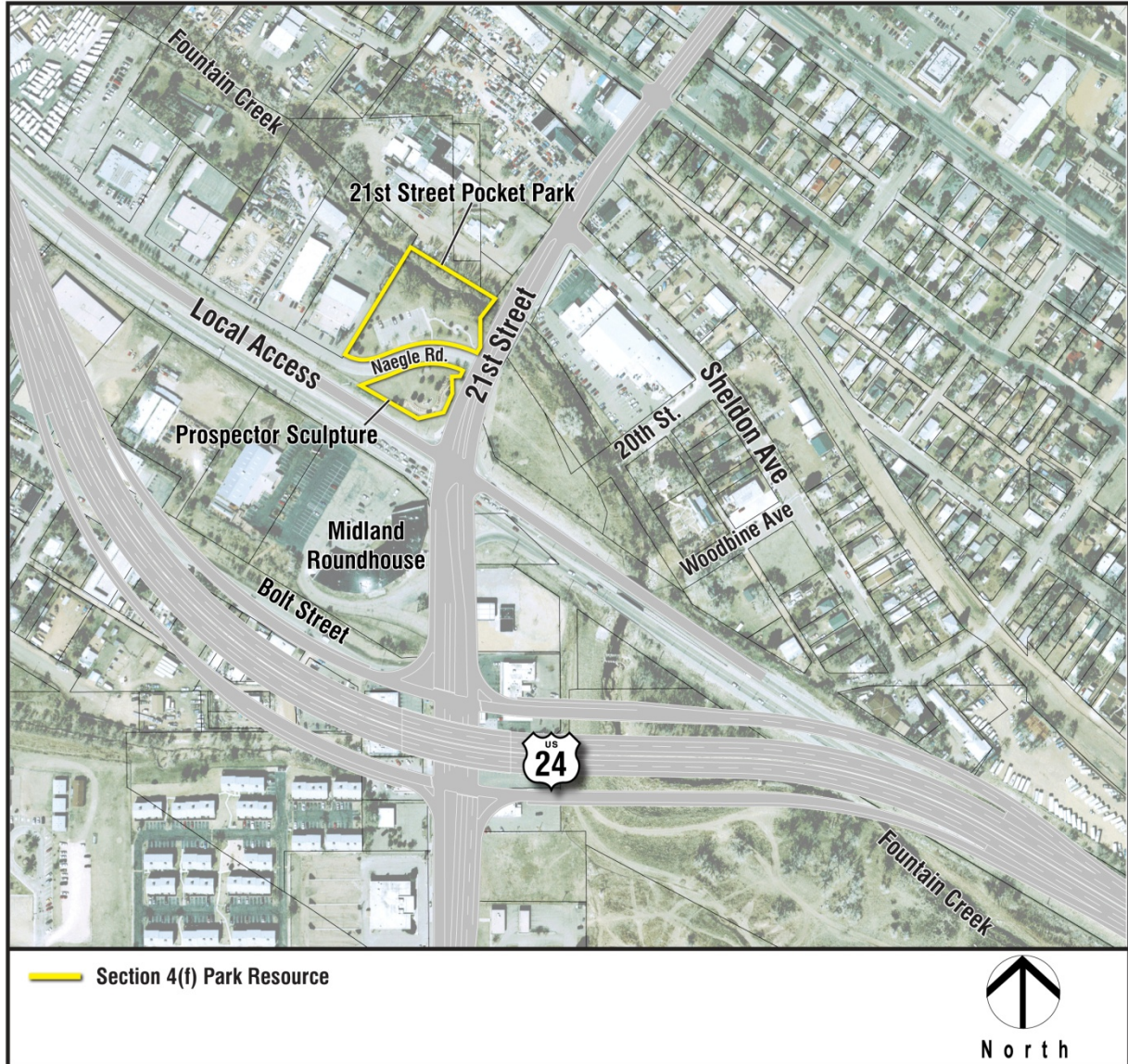
233 This avoidance option would result in 25 property acquisitions in a low-income, community. As  
 234 discussed in **Section 3.8 Environmental Justice**, the proposed action is expected to acquire a  
 235 total of 24 residences with 22 of these being low-income households. Acquisition of 25 more  
 236 properties to avoid this Section 4(f) property would more than double the acquisitions of low-  
 237 income households in the US 24 corridor. This avoidance option would cause severe  
 238 disproportionate impacts to low-income populations.

239 There would be environmental impacts to Fountain Creek from this alternative. As shown in  
 240 **Exhibit 4-6**, a long segment of the creek would run under a new raised US 24 and under the  
 241 off-ramps. The increase in shading on the creek from the bridge would disrupt the ecosystem  
 242 processes of the creek.

243 The shading issue could be minimized by rerouting this segment of Fountain Creek currently on  
 244 the south side of existing US 24 to shorten the distance it has to flow under the improved US 24,  
 245 but such re-routing would shorten the stream segment length and create erosion and other  
 246 geomorphic stresses within the system. This solution would be detrimental to fish habitat, as a  
 247 reduced stream length would introduce additional hard surfaces in the channel adversely impacting  
 248 stream morphology along this stretch of creek.

249 Because of this combination of issues - introducing the curves that degrade the safety and  
 250 operations of the highway, affecting the low-income households, and the environmental impacts  
 251 to the creek - **Design Option 15:** 21st Street SPDI South, was found to be not prudent.

252 EXHIBIT 4-6  
 253 21st Street Pocket Park Design Option 15: 21st Street SPDI South Avoidance Option



254 **Minimization:** No viable strategies to minimize harm to the 21st Street pocket park were found.  
 255 Improvements to the 21st Street bridge over Fountain Creek require channel modification that  
 256 impact the 21st Street pocket park. Because Naegle Road provides the only existing access to the  
 257 park, closing Naegle Road results in the total acquisition of the park.

258 **Mitigation:** Mitigation strategies were developed in consultation with the City of Colorado  
 259 Springs Parks, Recreation & Cultural Services Department. A letter sent from CDOT to the City  
 260 of Colorado Springs in January 2012 described impacts and the proposed mitigation for 21st  
 261 Street Pocket Park. A concurrence line on this letter was signed February 3, 2012 by the City,  
 262 indicating their agreement with the mitigation for the park. The letter is included in **Appendix I**.

263 The Prospecter Sculpture will be relocated by CDOT to a location along US 24 within what is  
 264 known as Old Colorado City. Several possible locations exist, such as within Vermijo Park at the  
 265 intersection of US 24 and 26th Street. This site was popular with the stakeholders because

266 26th Street is considered the gateway into the Old Colorado City Historic District. Relocating the  
267 sculpture would avoid harm to the 21st Street pocket park’s most notable feature and could  
268 potentially improve access to and visibility of the monument. CDOT will provide advanced notice  
269 to the community prior to acquisition of the 21st Street pocket park. CDOT will coordinate with  
270 the community and the City of Colorado Springs Parks, Recreation & Cultural Services  
271 Department to identify a location where the sculpture will be relocated.

#### 272 4.5.1.2 Vermijo Park

##### 273 *Property Description*

274 Vermijo Park is a 4.6-acre park located in the northwest corner of US 24 and 26th Street. Vermijo  
275 Park is owned and maintained by the City of Colorado Springs. Recreational amenities include a  
276 baseball field, basketball court, playground, and walking paths. The park is isolated and  
277 underutilized, hidden from the roadway by the riparian habitat associated with Fountain Creek and  
278 from neighborhoods to the north by a change in topography. The park’s baseball field is not  
279 programmed for events by the City of Colorado Springs, and the public has expressed some  
280 concern over personal safety in the park due to its isolated setting.

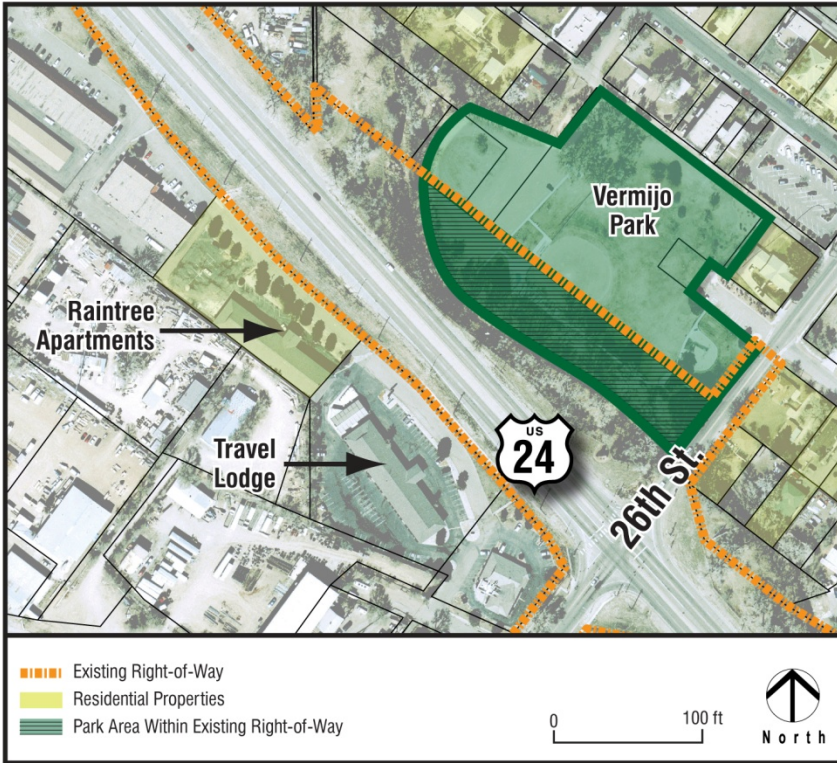
##### 281 *Section 4(f) Use*

282 Improving US 24 involves a bridge replacement at 26th Street, which requires channel  
283 modifications be made to Fountain Creek. Both the US 24 Freeway Alternative and the Proposed  
284 Action would result in the same use of Vermijo Park. However, the US 24 Freeway Alternative  
285 would reduce access to the park because this alternative gives preference to regional travel with  
286 higher speeds on the mainline. The Midland Expressway Alternative does a better job of balancing  
287 local travel and regional trips while providing improved peak hour operations. The Proposed  
288 Action would require the use of nearly half (2.2 acres) of the park area, including part of the  
289 baseball field. This 2.2 acre area is currently located within CDOT right-of-way as illustrated by  
290 the existing right-of-way line in **Exhibit 4-7**. This part of the park is needed for re-channeling  
291 Fountain Creek, which is needed to accommodate the new bridge on 26th Street. See **Section 3.2,**  
292 **Floodplains** for more information on the required channel modifications. When rechanneling  
293 occurs, the baseball field will be removed, which means a complete loss of the baseball field  
294 because there is no other place to construct a new baseball field. In addition, 0.01 acres of the park  
295 will be acquired for the sidewalk improvements along 26th Street. Although 2.4 acres of Vermijo  
296 Park would remain undisturbed after construction, the reduction in park area and a partial loss of  
297 the baseball field would reduce some of its current functions as described above.

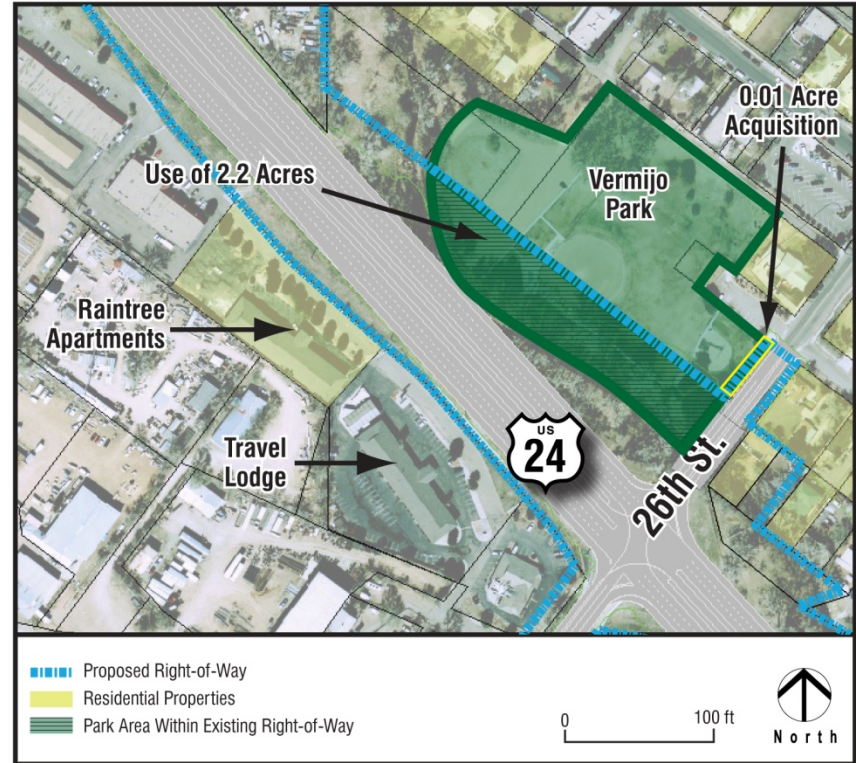
##### 298 *Measures to Avoid and Minimize Harm*

299 ***Avoidance:*** No design options are possible that would avoid impacts to Vermijo Park because the  
300 land acquisition for sidewalk improvements and the use of 2.2 acres is necessary to accommodate  
301 the channel improvements associated with the new bridge on 26th Street. Although designers  
302 tried, there is no way to save the baseball field. Improvements to the 26th Street bridge are  
303 required by changes to the vertical profile of US 24, requiring an elevation change on 26th Street.  
304 Also, the City of Colorado Springs requires that all bridges accommodate the 100-year flood. The  
305 design team considered shifting the alignment of US 24 to the south between 26th Street and  
306 31st Street; however, realignment does not reduce the elevation change on the 26th Street bridge  
307 or the remove the requirement to accommodate the 100-year flood. The Existing Conditions and  
308 the Proposed Action at Vermijo Park are shown in **Exhibit 4-7**.

309 EXHIBIT 4-7  
 310 Existing Conditions and Proposed Action for Section 4(f) Use of Vermijo Park



**Existing Condition**



**Proposed Action**

311 **Minimization:** No viable measures to minimize harm to Vermijo Park were found. No design  
 312 options are possible that would minimize harm to Vermijo Park because the land acquisition of  
 313 0.01 acre and the use of 2.2 acres are necessary to accommodate the channel improvements  
 314 associated with the new bridge on 26th Street. Improvements to the 26th Street bridge are  
 315 required by changes to the vertical profile of US 24, which requires an elevation change on  
 316 26th Street. Also, the City of Colorado Springs requires that all bridges accommodate the 100-year  
 317 flood. The design team considered shifting the alignment of US 24 to the south between  
 318 31st Street and 26th Street; however, realignment does not reduce the elevation change on the  
 319 26th Street bridge or remove the requirement to accommodate the 100-year flood.

320 **Mitigation:** Mitigation proposed for impacts to Vermijo Park include CDOT contributing up to  
 321 \$50,000 to the City of Colorado Springs for a park study. In addition, all trees greater than  
 322 2 inches in diameter at breast height (DBH) will be mitigated at a 1 to 1 basis in the park or along  
 323 Fountain Creek.

324 Mitigation for impacts to Vermijo Park was developed in coordination with the City of Colorado  
 325 Springs Parks, Recreation & Cultural Services. A letter sent from CDOT to the City of Colorado  
 326 Springs in January 2012 described impacts and the proposed mitigation for Vermijo Park. A  
 327 concurrence line on this letter was signed by the City on February 3, 2012, indicating their  
 328 agreement with the mitigation for the park. The letter is included in **Appendix I**.

### 329 4.5.1.3 Midland Trail

#### 330 *Property Description*

331 The Midland Trail is a 2.8-mile concrete trail that  
 332 extends from America the Beautiful Park (located  
 333 on the east side of I-25) and ends at Ridge Road  
 334 with a short segment missing between 21st Street  
 335 and 25th Street. The trail is owned and maintained  
 336 by the City of Colorado Springs, and is classified  
 337 by the City of Colorado Springs as a Tier 1 trail.  
 338 Tier 1 trails are paved, multi-purpose trails that can  
 339 accommodate a variety of trail users including  
 340 walkers, joggers, recreational bicyclists, commuting  
 341 bicyclists, and horseback riders within the same  
 342 trail corridor. The Midland Trail runs parallel to  
 343 US 24 between 8th Street and 11th Street. The  
 344 *Parks, Recreation and Trails 2000-2010 Master Plan* (City of Colorado Springs, 2000) proposes to  
 345 expand the Midland Trail west to the City of Manitou Springs' Creekside Trail, increasing its  
 346 length to a total of 3.52 miles.



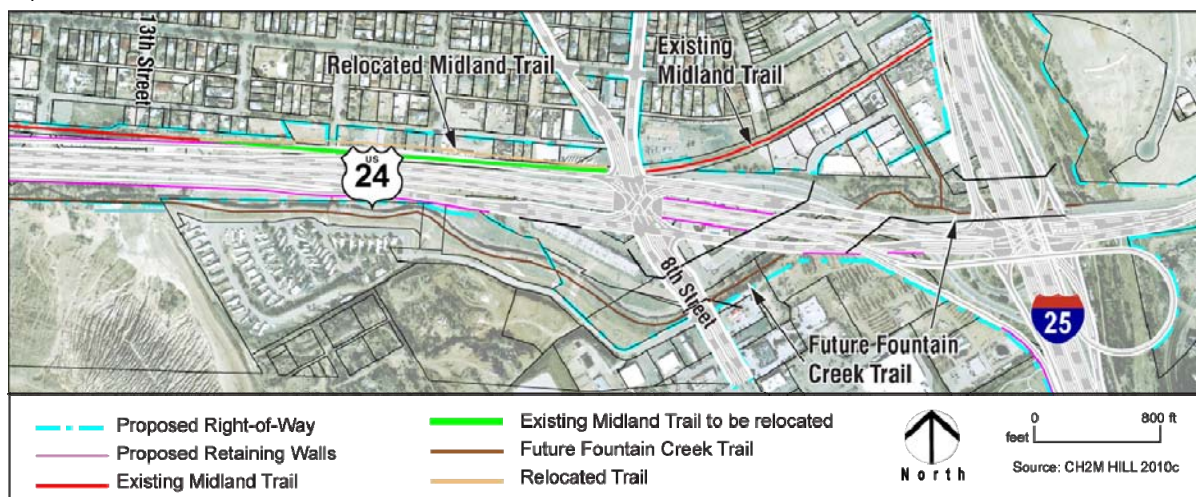
View of Midland Trail

#### 347 *Section 4(f) Use*

348 As shown in **Exhibit 4-8**, the construction of the 8th Street interchange would require the same  
 349 realignment of the Midland Trail between 8th Street and 11th Street, a distance of approximately  
 350 0.3 mile for both the US 24 Freeway Alternative and the Proposed Action. The Proposed Action  
 351 would reconstruct the affected portion of the trail within CDOT right-of-way. No temporary  
 352 impacts are expected and no permanent change in the function or continuity of the trail would  
 353 occur.

354 Prior to disruption of the existing trail, the realignment of the Midland Trail will be completed or a  
355 detour will be provided to ensure the trail's continuity is maintained.

356 EXHIBIT 4-8  
357 Proposed Action for Section 4(f) Use of Midland Trail



358 At the cross streets of 21st Street, 26th Street, 31st Street, and Ridge Road, the bridges will be  
359 replaced, which will cause a temporary use of the trail during construction. Together, these four  
360 temporary uses of the trail will involve approximately 0.2 mile of the Midland Trail. The trail will  
361 be temporarily relocated during the construction of bridges over Fountain Creek and new  
362 permanent trail will be constructed as part of each bridge improvement. Once construction is  
363 completed, users will be able to cross under each bridge at these locations on newly constructed  
364 trails.

365 Improvements would not impact the Midland Trail near I-25 and the pedestrian bridge over  
366 Monument Creek, which are improvements funded with Land and Water Conservation Fund  
367 monies.

### 368 *Measures to Avoid and Minimize Harm*

369 **Avoidance:** No design options are possible that would avoid impacts to Midland Trail between  
370 8th Street and 11th Street without unacceptable and adverse environmental impacts to the  
371 Fountain Creek 100-year floodplain. Substantial realignment and modification of US 24 and  
372 Fountain Creek would be necessary to avoid this segment of the Midland Trail. Realigning either  
373 US 24 or the creek farther south would impact the A-1 Mobile Village (a low-income community  
374 with more than 70 homes) and cause impacts to Fountain Creek, which is classified as a water of  
375 the United States.

376 The Proposed Action requires reconstruction of the bridges over Fountain Creek at 21st Street,  
377 26th Street, 31st Street, and Ridge Road. The design team was not able to find options for  
378 avoiding the temporary use of the trail at each of these bridge locations.

379 **Minimization:** The US 24 alignment in the Proposed Action minimizes the impacts to the  
380 Midland Trail by impacting only the section between 8th Street and 11th Street. Between  
381 8th Street and 11th Street, the Midland Trail is almost entirely within the proposed area for the  
382 8th Street on-ramp. For safety reasons, the 10-foot-wide trail must be offset from the highway by

383 12 feet to allow adequate separation (highway clear zone) between higher-speed vehicles and  
384 pedestrians or bicycles using the trail. Therefore, the trail could not remain in place.

385 At the four bridge locations, the trail will be temporarily relocated during construction and a new  
386 trail will be constructed under each bridge to provide safe passage under each bridge without  
387 having to cross the street at grade. Between each cross street along US 24, the land between  
388 Fountain Creek and the Midland Trail will be graded to accommodate realignment and widening  
389 of Fountain Creek. This can be accomplished without disturbing the trail at its current location  
390 along Fountain Creek.

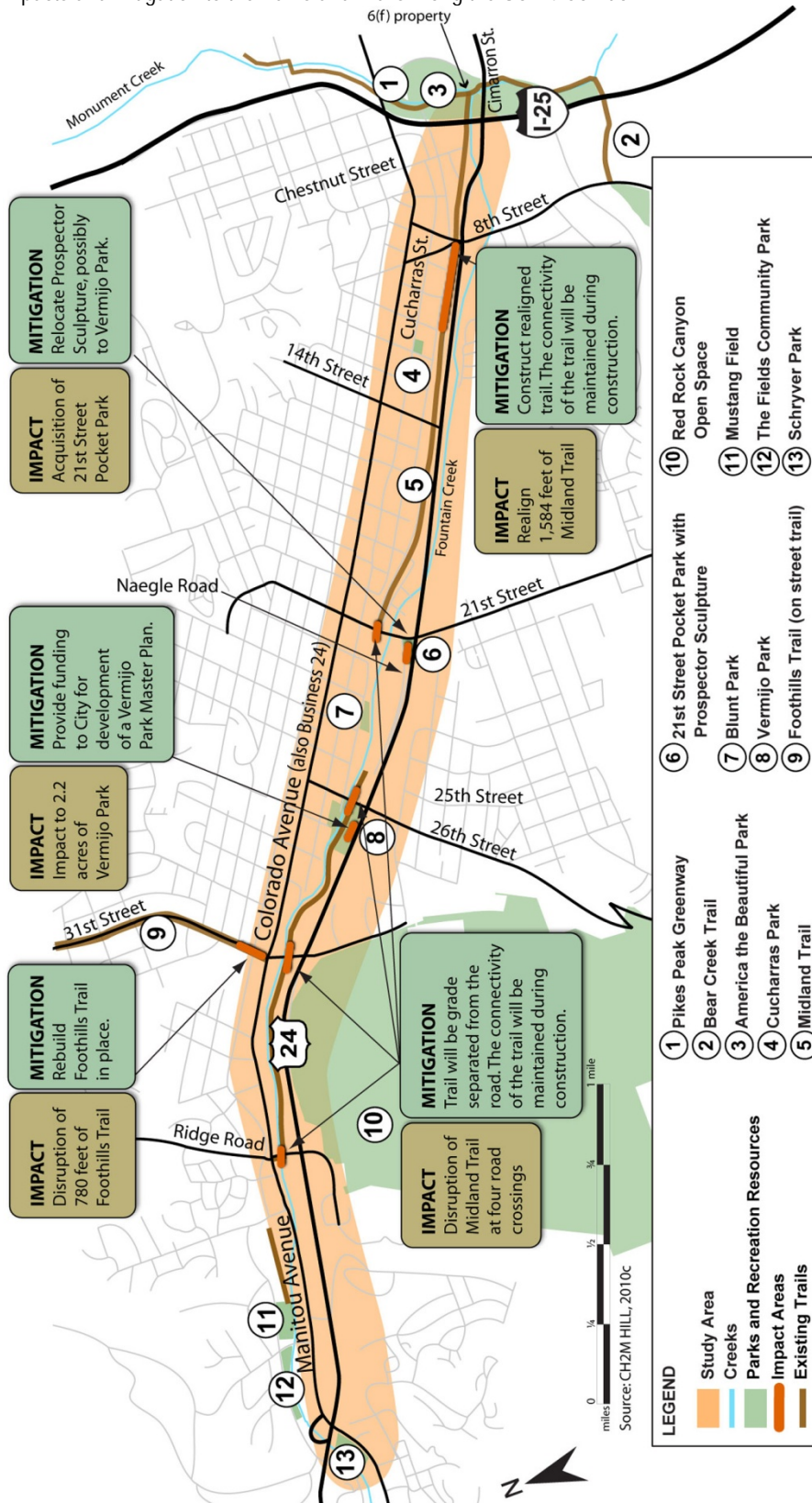
391 **Mitigation:** The Midland Trail is currently a heavily used trail for commuters accessing downtown  
392 Colorado Springs. The segment of the Midland Trail between 8th Street and 11th Street will be  
393 realigned on the north side of US 24 and be built to accommodate the commuter use. This  
394 mitigation was developed in coordination with the City of Colorado Springs Parks, Recreation &  
395 Cultural Services Department. A letter from CDOT sent to the City of Colorado Springs in  
396 January 2012 described impacts and the proposed mitigation for the Midland Trail. A concurrence  
397 line on this letter was signed by the City on February 3, 2012, indicating their agreement with the  
398 mitigation for the park. The letter is included in **Appendix I**.

399 Prior to disruption of the existing trail, the realignment of the Midland Trail will be completed or a  
400 detour will be provided to ensure the trail's continuity is maintained.

401 At each of the four bridge locations, a temporary trail will be constructed to provide a safe detour  
402 around the bridge construction. Once bridge construction is completed, a new trail segment will  
403 be constructed under the bridge and CDOT will post signs indicating segments of the trails that  
404 are within the 100-year floodplain.

405 The following **Exhibit 4-9** illustrates the impacts and mitigation to the parks and trails along the  
406 US 24 corridor.

407 EXHIBIT 4-9  
 408 Impacts and Mitigation to the Parks and Trails Along the US 24 Corridor



409



## 410 4.5.2 Historic Properties

411 The proposed Action results in a Section 4(f) use of five historic properties and one historic  
 412 district. These include two residential properties (5EP5285 and 5EP5288), two commercial  
 413 properties (5EP5335 and 5EP5336), one hotel/motel property (5EP5218), and the Westside  
 414 Historic District (5EP5364), which are discussed below. A small segment of the former Colorado  
 415 Midland Railroad is located at approximately US 24 and 21st Street (5EP384.2), which is now  
 416 overlaid by the Midland Trail. This segment of the Midland Railroad lacks integrity and does not  
 417 support the significance of the entire Colorado Midland Railroad (5EP384), which is considered  
 418 NRHP eligible. This segment of the railroad will be temporarily disrupted and will be replaced in  
 419 kind at the same location except at undercrossing locations where existing at-grade crossing will be  
 420 grade separated (in particular at the 21st Street intersection). During construction, the trail that  
 421 follows the railroad grade will be moved away from bridge construction locations and then will be  
 422 moved back, but at a higher grade, when the bridge work is done. The work involves no transfer  
 423 of land so there is no use of the historic property. There will be temporary impacts that will not be  
 424 adverse. Therefore, the resource was not discussed further in this Section 4(f).

### 425 4.5.2.1 5EP5285 (1815 Sheldon Avenue)

#### 426 *Property Description*

427 Property 5EP5285 is a wood-frame, one-story, single-family residence built in 1899 that faces  
 428 north toward Sheldon Avenue. The back of the property slopes significantly so that the property's  
 429 back edge is approximately 7 feet lower than the front edge of the property where the house is  
 430 situated. The lot is approximately 25 percent larger than surrounding lots, and mature landscaping  
 431 surrounds the property. A vacant lot separates the property from US 24.  
 432  
 433

434 Property 5EP5285 is **eligible for the National**  
 435 **Register under Criterion C** as a good example of  
 436 a Hipped-Roof-Box style of architecture. Its  
 437 hipped roof, full-length porch, and boxy  
 438 appearance are character-defining elements of this  
 439 style. The property is also a contributing element  
 440 to the Westside Historic District (5EP5364).

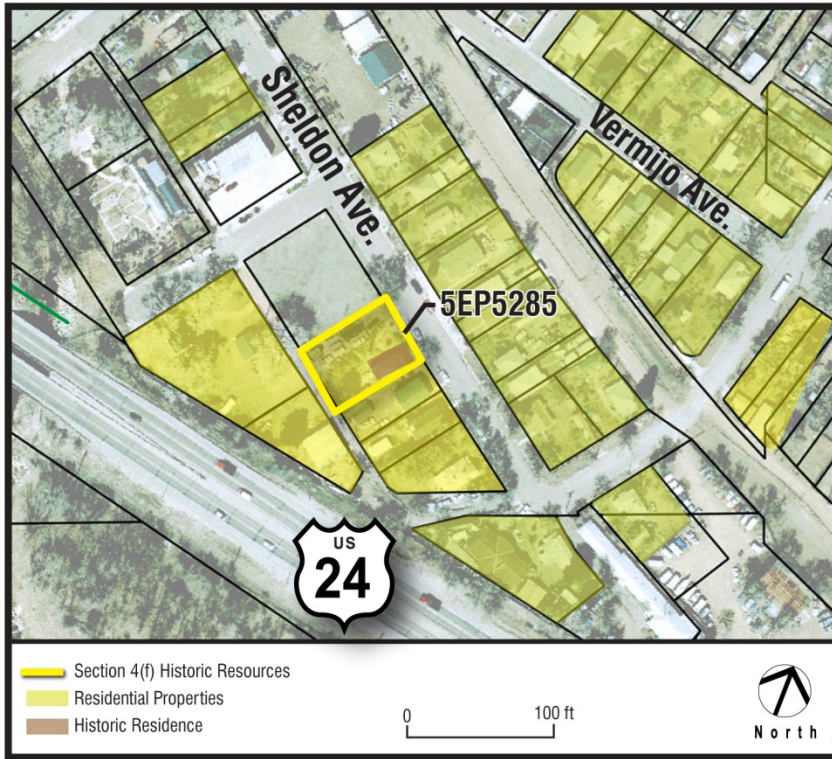


5EP5285, 1815 Sheldon Avenue

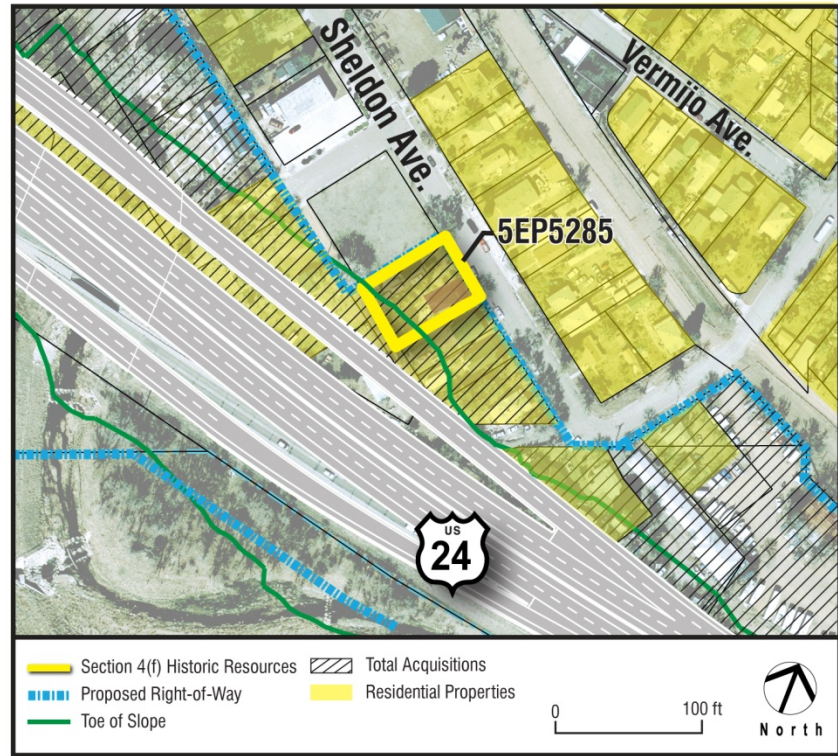
#### 441 *Section 4(f) Use*

442 Both the US 24 Freeway Alternative and the  
 443 Proposed Action would require the total  
 444 acquisition and demolition of the house at 1815 Sheldon Avenue built in 1899 (5EP5285). As  
 445 shown in **Exhibit 4-10**, US 24 would be widened approximately 66 feet to the north, ending 26  
 446 feet from the house (5EP5285). The grade difference between US 24 and the house (5EP5285) as  
 447 well as the proximity of the interchange ramps would make construction in this area not possible  
 448 without affecting the residence. Large construction equipment would be needed to bring in fill  
 449 material and create new grades.

450 EXHIBIT 4-10  
 451 Existing Condition and Proposed Action for Section 4(f) Use of Property 5EP5285



**Existing Conditions**



**Proposed Action**

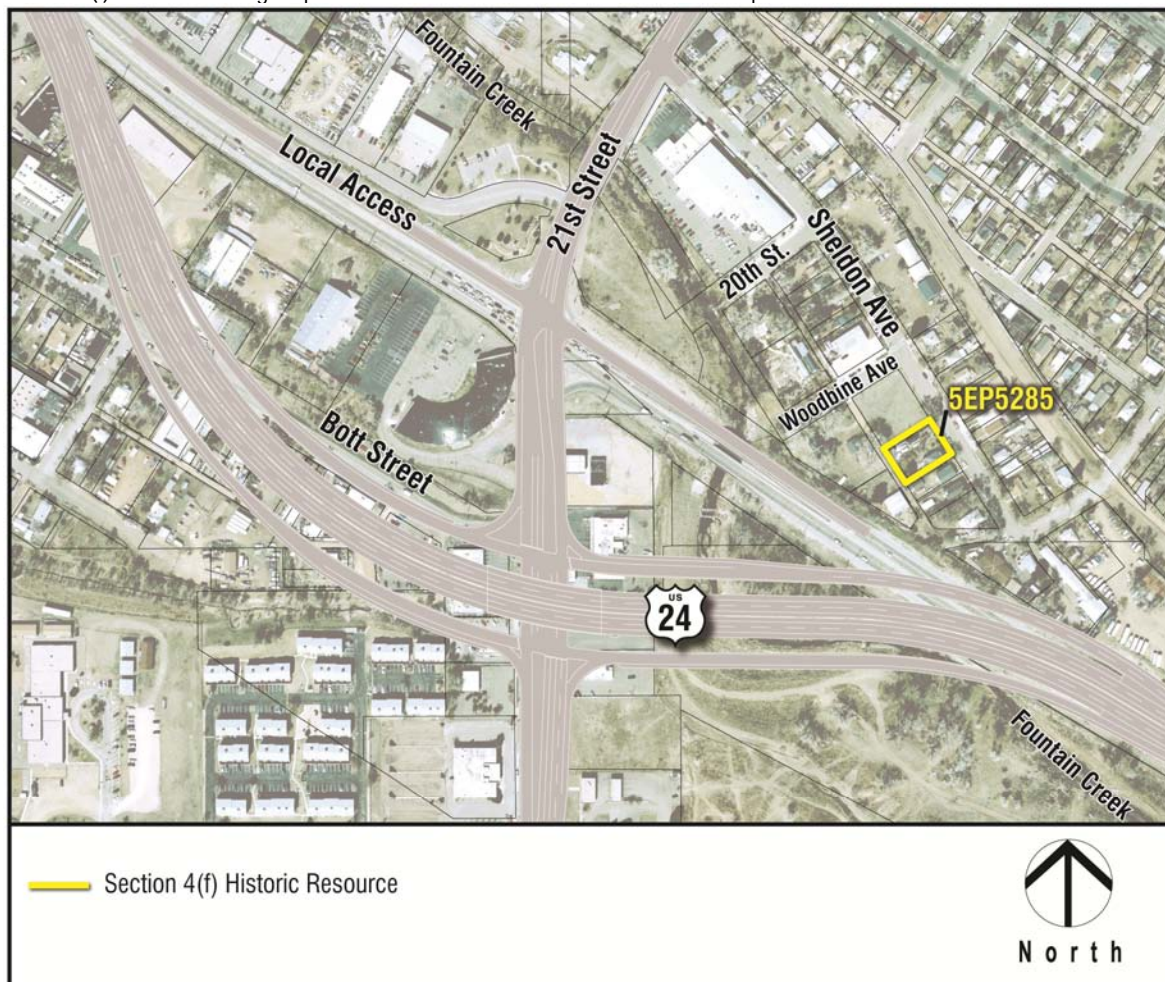
452 **Measures to Avoid and Minimize Harm**

453 **Avoidance:** The project team evaluated six design options at this location for their potential to  
 454 avoid impacts to the historic house (5EP5285). Five of the design options shifted the roadway to  
 455 the north, maintaining the existing south right-of-way line of US 24 and one design option shifted  
 456 US 24 to the south. All five of the interchange or intersection options that move US 24 to the  
 457 north would require the full acquisition of the historic house (5EP5285). These design options are  
 458 shown in detail in **Appendix B** and are listed below:

- 459 • **Design Option 10:** 21st Street Signalized Intersection  
 460 • **Design Option 11:** 21st Street Diamond Interchange with Loop  
 461 • **Design Option 12:** 21st Street Split Diamond Interchange with 18th Street  
 462 • **Design Option 13:** 21st Street Tight Diamond Interchange  
 463 • **Design Option 14:** 21st Street SPDI to the North

464 The one option to move US 24 to the south, **Design Option 15:** 21st Street SPDI South has the  
 465 potential to avoid use of the historic house (5EP5285). To avoid impacting the Midland Terminal  
 466 Railroad Roundhouse the designers would have to realign US 24 to the far south, as shown in  
 467 **Exhibit 4-11**.

468 EXHIBIT 4-11  
 469 Section 4(f) 5EP5285 Design Option 15: 21st Street SPDI South Avoidance Option



470 For the same reasons, this avoidance option does not work for avoiding the 21st Street pocket  
 471 park as discussed in Section 4.5.1.1 under Measures to Avoid and Minimize Harm, this option is  
 472 not a prudent alternative to avoiding the historic house (5EP5285).

473 **Minimization:** The alignment of the Proposed Action was laid out to minimize harm to the  
 474 property by not directly touching the building (5EP5285). However, land between the house and  
 475 the highway is needed for highway widening. While this closer proximity of the road to a  
 476 residential property is common in urban neighborhoods, it represents a substantial change to the  
 477 setting of this property, which is characterized by a larger-than-average lot that backs to another  
 478 vacant lot, giving the existing property a more expansive feel. The Proposed Action would also  
 479 require acquisition of three residential properties east of this residence, which would leave the  
 480 house (5EP5285) as the last remaining residential property on the block.

481 Moving the highway closer to the property would leave this property in an unlivable condition.  
 482 Reuse of the structure would require a change in the function of the building for something other  
 483 than a residence. Leaving the structure unoccupied would cause it to fall into disrepair and become  
 484 a nuisance, making demolition now (with recordation) preferable. Therefore, it was determined  
 485 that a partial acquisition of land without the residence did not minimize harm to the property.

486 **Mitigation:** Mitigation for impacts to this property has been developed through consultation with  
 487 the Colorado State Historic Preservation Office (SHPO) and other consulting parties and is  
 488 documented in a Memorandum of Agreement (MOA). The MOA is included in **Appendix H** and  
 489 mitigation considered includes, but is not limited to, interpretive signing and architectural salvage  
 490 from historic buildings.

#### 491 4.5.2.2 5EP5288 (1803 Sheldon Avenue)

##### 492 *Property Description*

493 Property 5EP5288 is a brick, one-and-one-half-story,  
 494 single-family, Queen Anne style residence with a  
 495 hipped, cross-gable roof covered in asphalt shingles.  
 496 The property is **eligible for the National Register**  
 497 **under Criterion C** for architectural merit. Built in 1897,  
 498 the house displays characteristics of the Queen Anne  
 499 style of architecture. The property is also a contributing  
 500 element to the Westside Historic District (5EP5364).

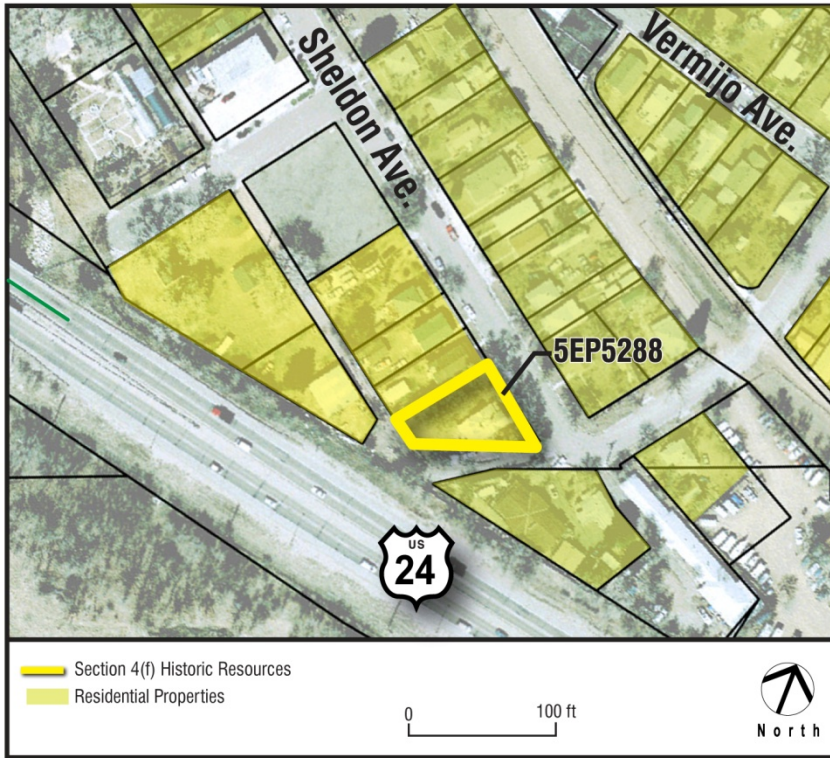


5EP5288, 1803 Sheldon Avenue

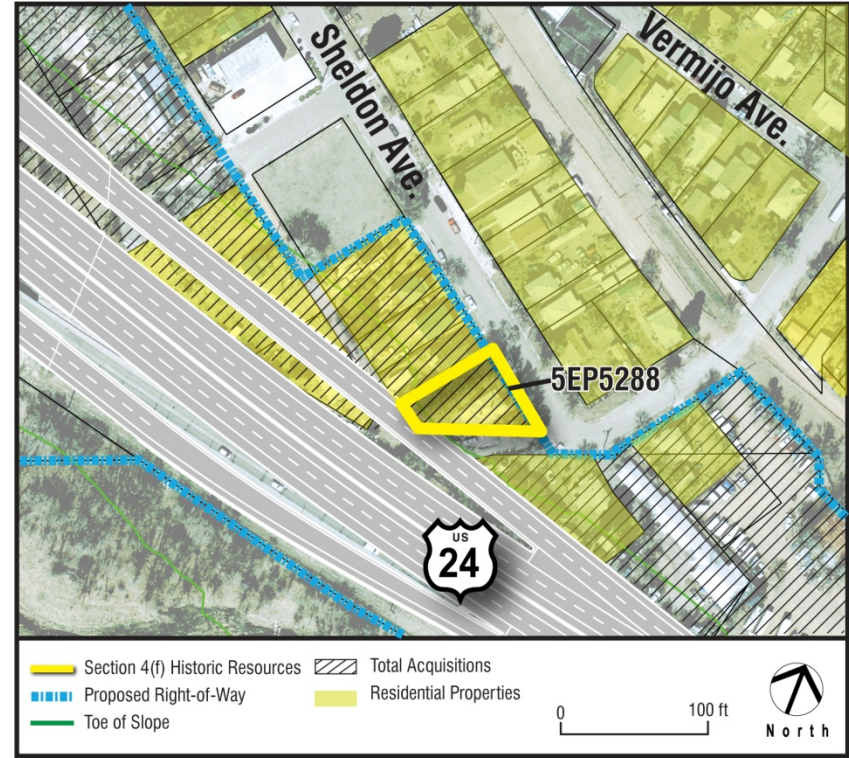
##### 501 *Section 4(f) Use*

502 Both the US 24 Freeway Alternative and the Proposed Action would require the total acquisition  
 503 and demolition of 5EP5288. As shown in **Exhibit 4-12**, the off-ramp for the US 24 and  
 504 21st Street interchange would occupy approximately 921 square feet of the southern portion of  
 505 5EP5288 - more than 10 percent of the property area.

506 EXHIBIT 4-12  
507 Existing Condition and Proposed Action for Section 4(f) Use of Property 5EP5288



**Existing Conditions**



**Proposed Action**

508 In addition, the roadway would move to within 24 feet of the back of the structure, as compared  
 509 to the existing 124 feet that currently buffers the property from the roadway. Relocation of the  
 510 highway off-ramp would decrease the historic integrity of the property’s setting and constitute an  
 511 adverse effect. Construction activities would not be possible in the 24-foot strip that would remain  
 512 at the back of the property if the building was not demolished.

513 ***Measures to Avoid and Minimize Harm***

514 **Avoidance:** The project team evaluated six design options at this location for their potential to  
 515 avoid impacts to the historic house (5EP5288). Five of the design options shifted the roadway to  
 516 the north, maintaining the existing south right-of-way line of US 24 and one design option shifted  
 517 US 24 to the south. All five of the interchange or intersection options that move US 24 to the  
 518 north would require full acquisition of the historic house (5EP5288). These design options are  
 519 shown in detail in **Appendix B** and are listed below:

- 520 • **Design Option 10:** 21st Street Signalized Intersection
- 521 • **Design Option 11:** 21st Street Diamond Interchange with Loop
- 522 • **Design Option 12:** 21st Street Split Diamond Interchange with 18th Street
- 523 • **Design Option 13:** 21st Street Tight Diamond Interchange
- 524 • **Design Option 14:** 21st Street SPDI to the North

525 The one option to widen to the south, **Design Option 15:** 21st Street SPDI South has the  
 526 potential to avoid use of the historic house (5EP5288). To avoid impacting the Midland Terminal  
 527 Railroad Roundhouse the designers would have to realign US 24 to the far south, as shown in  
 528 **Exhibit 4-13**.

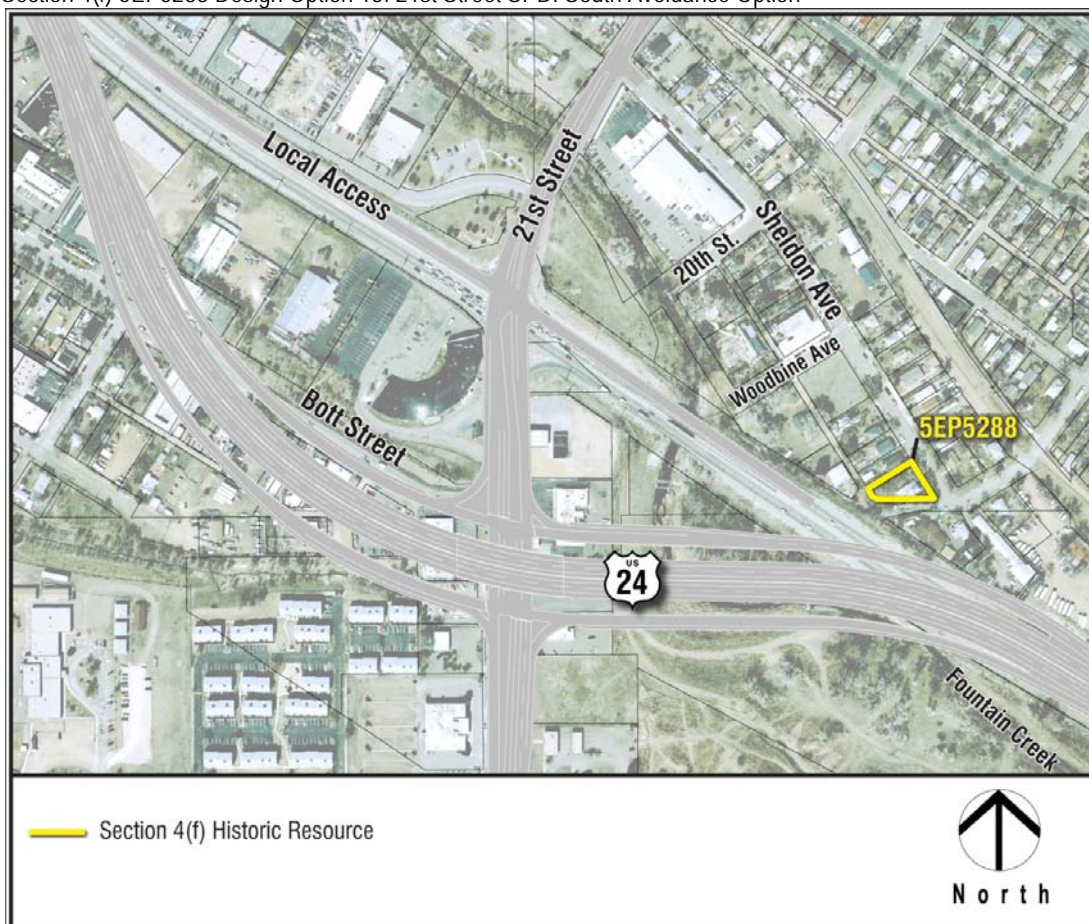
529 For the same reasons, this avoidance option does not work for avoiding the 21st Street Pocket  
 530 Park as discussed in Section 4.5.1.1 under Measures to Avoid and Minimize Harm, this option is  
 531 not a prudent alternative to avoiding the historic house (5EP5288).

532 **Minimization:** The alignment of the Proposed Action was laid out to minimize harm to the  
 533 property by not directly touching the building. However, land between the house and the highway  
 534 is needed for highway widening.

535 Moving the highway closer to the property would leave this property in an unlivable condition.  
 536 Reuse of the structure would require a change in the function of the building for something other  
 537 than a residence. Leaving the structure unoccupied would cause it to fall into disrepair and become  
 538 a nuisance. Therefore, it was determined that a partial acquisition of land without the residence did  
 539 not minimize harm to the property.

540 **Mitigation:** Mitigation for impacts to this property has been developed through consultation with  
 541 the Colorado SHPO and other consulting parties and is documented in a MOA. The MOA is  
 542 included in **Appendix H** and mitigation considered includes, but is not limited to, interpretive  
 543 signing and architectural salvage from historic buildings.

544 EXHIBIT 4-13  
 545 Section 4(f) 5EP5288 Design Option 15: 21st Street SPDI South Avoidance Option



546 4.5.2.3 5EP5335 (302 South 10th Street)

547 *Property Description*

548 Property 5EP5335 is a wood-framed, one-story,  
 549 brick-clad commercial building constructed in 1959.  
 550 This commercial building is currently occupied by  
 551 CITGO Lubricants. The building's principal façade  
 552 faces north toward Vermijo Street; the Midland Trail  
 553 and US 24 run along the southern edge of the  
 554 property. A concrete block building with a flat roof  
 555 and no visible entrance or doorways is attached along  
 556 the building's west façade.



5EP5335 CITGO Lubricants, 302 South 10th Street

557 Property 5EP5335 is **eligible for listing in the**  
 558 **National Register under Criterion C** as an example of the Folk Victorian style of architecture.

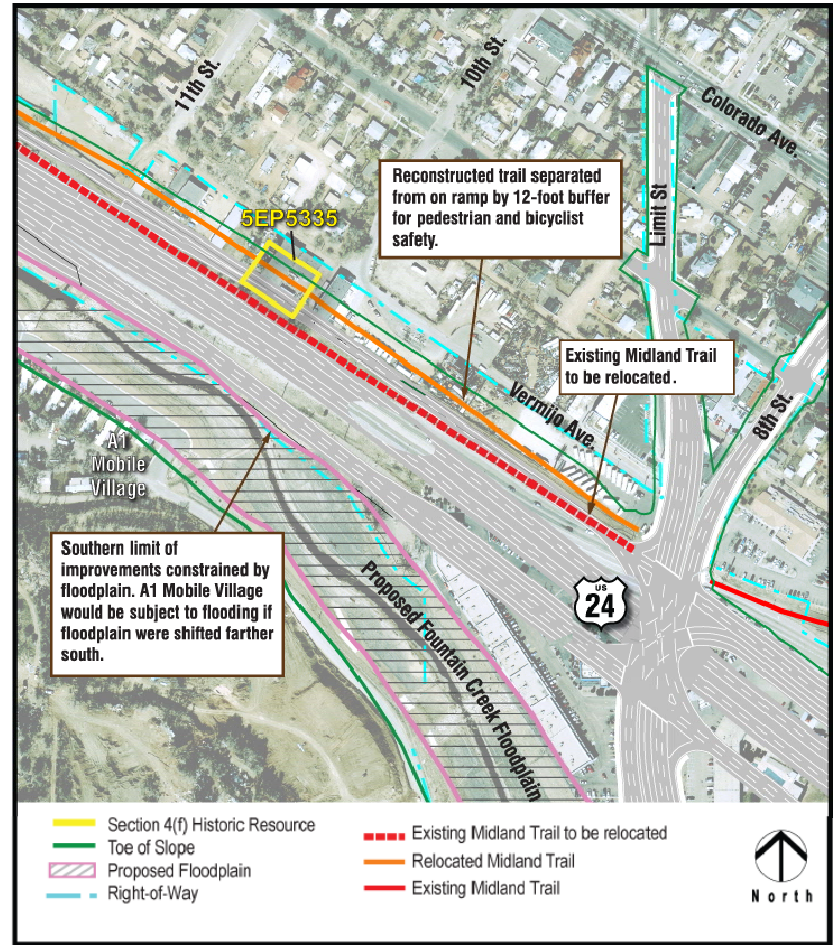
559 *Section 4(f) Use*

560 Both the US 24 Freeway Alternative and the Proposed Action would require the total acquisition  
 561 and demolition of 5EP5335. As illustrated in **Exhibit 4-14**, the proposed westbound  
 562 through-lanes on US 24 and interchange ramps associated with the proposed 8th Street  
 563 interchange directly encroach on 5EP5335.

564 EXHIBIT 4-14  
 565 Existing Condition and Proposed Action for Section 4(f) Use of Property 5EP5335



**Existing Condition**



**Proposed Action**



566 **Measures to Avoid and Minimize Harm**

567 **Avoidance:** A substantial realignment and modification of US 24 and Fountain Creek would be  
 568 necessary to avoid 5EP5335. Because of recent efforts to improve Fountain Creek undertaken by  
 569 the City of Colorado Springs Stormwater Engineering, CDOT, and the private developer Gold  
 570 Hill Mesa, in coordination with the US Army Corps of Engineers, negative impacts to Fountain  
 571 Creek were not supported by the agencies or the community.

572 Two design options were analyzed that would move US 24 south using the floodplain as the right-  
 573 of-way needed for the highway widening. These avoidance options prevented impacts to CITGO  
 574 Lubricants (5EP5335) by moving the highway to the south, but resulted in unacceptable and  
 575 adverse environmental impacts to Fountain Creek and its 100-year floodplain by either putting the  
 576 Fountain Creek in a pipe under US 24 or re-routing the Fountain Creek and its floodplain to the  
 577 south. The option to avoid 5EP5335 requires that Fountain Creek be put in a pipe under US 24  
 578 through this segment. This would disrupt the ecosystem processes of the creek and would  
 579 jeopardize the stream restoration work completed along this stretch of creek. Furthermore, this  
 580 avoidance option would undermine the City's efforts to improve fish habitat and increase fish  
 581 populations in Fountain Creek by introducing an artificial barrier for fish movement and by  
 582 increasing the speed of stream flow in the pipe resulting in an adverse impact to stream  
 583 morphology along this stretch of the creek.

584 For these reasons, putting Fountain Creek in a pipe under US 24 was found to not be prudent.  
 585 The second option, realigning the highway and the Fountain Creek farther south, would shift the  
 586 100-year floodplain south and would require the acquisition of a portion of the A-1 Mobile  
 587 Village, a low-income community with more than 70 homes. Of the 70 manufactured homes  
 588 approximately 30 would need to be acquired, more than doubling the low income residential  
 589 acquisitions for the project. Furthermore, the A-1 Mobile Village is one parcel with one owner and  
 590 it is possible that acquisition of 30 of the 70 manufactured home sites would result in an  
 591 uneconomical remnant and therefore require acquisition of the entire parcel and all 70 homes.  
 592 Acquisition of all 70 homes would more than triple the number of low-incomes homes impacted  
 593 from this avoidance option.

594 For these reasons, a substantial realignment of US 24 and Fountain Creek was found to not be  
 595 prudent.

596 Four other design options were studied in an attempt to avoid CITGO Lubricants (5EP5335) that  
 597 involved widening to the north. All of these design options evaluated for the US 24 from I-25 to  
 598 15th Street would require full acquisition of the historic property. The four design options  
 599 considered are shown in detail in **Appendix B** and are listed below:

- 600 • **Design Option 16:** I-25 Direct/8th Street Overpass/13th Street Diamond
- 601 • **Design Option 17:** I-25 Direct/One-Way Pair 8th Street and 10th Street/14th Street Access
- 602 • **Design Option 18:** I-25 Direct/8th Street Signalized Intersection/14th Street Access
- 603 • **Design Option 19:** I-25 Direct/8th Street SPDI/14th Street Access

604 **Minimization:** No viable measures to minimize harm were found for this property. Design  
 605 options either avoided the property with impacts to the Fountain Creek and the A-1 Mobile  
 606 Village, or required full acquisition of this property.

607 **Mitigation:** Mitigation for impacts to this property has been developed through consultation with  
 608 the Colorado SHPO and other consulting parties and is documented in a MOA. The MOA is

609 included in **Appendix H** and mitigation considered includes, but is not limited to, interpretive  
610 signing and architectural salvage from historic buildings.

#### 611 4.5.2.4 5EP5336 (301 South 10th Street)

##### 612 *Property Description*

613 Property 5EP5336 is a wood-framed, brick-clad Twentieth-Century Commercial building  
614 constructed in 1950. The building is currently occupied by Chief Petroleum Company. The  
615 property includes the primary building, a gravel lot with paving near the building, and petroleum  
616 storage tanks that line the south end of the property, east of the principal building. The building is  
617 situated on the west end of the property, oriented north-south on the lot so that the building  
618 encompasses the width of the property at its western end. Its principal façade faces north toward  
619 Vermijo Street; the Midland Trail and US 24 run along the southern edge of the property.

620 Property 5EP5336 is **eligible for listing in the National Register under Criterion C** for  
621 architectural merit as a Twentieth-Century Commercial building. The surrounding property,  
622 including the parking and circulation areas and storage tanks, are contributing historic features of  
623 the property.

##### 624 *Section 4(f) Use*

625 Both the US 24 Freeway Alternative and the Proposed Action would require the total acquisition  
626 and demolition of 5EP5336. As illustrated in **Exhibit 4-15**, the proposed westbound  
627 through-lanes on US 24 and interchange ramps associated with the proposed 8th Street  
628 interchange are features that directly encroach on 5EP5336.

629 The north-south orientation of the Chief Petroleum building and the relatively small size of the  
630 property for an industrial operation together limit  
631 the land area within the property to accommodate  
632 improvements without removing the historic  
633 commercial building and affecting most of the  
634 remaining property area.

##### 635 *Measures to Avoid and Minimize Harm*

636 **Avoidance:** A substantial realignment and  
637 modification of US 24 and Fountain Creek would be  
638 necessary to avoid 5EP5336. Because of recent  
639 efforts to improve Fountain Creek undertaken by the  
640 City of Colorado Springs Stormwater Engineering,  
641 CDOT and Gold Hill Mesa, in coordination with the  
642 US Army Corps of Engineers, negative impacts to  
643 Fountain Creek were not supported by the agencies  
644 or the community.



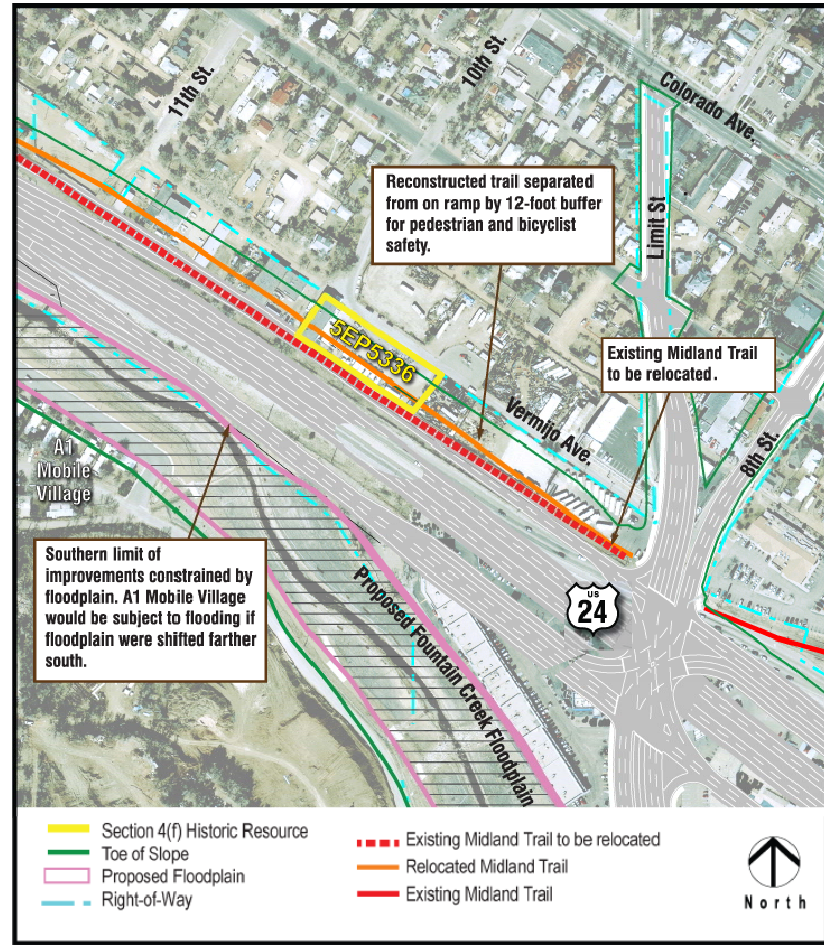
635 5EP5336 Chief Petroleum Company, 301  
636 South 10th Street

645 Two options were considered to avoid impacts to Chief Petroleum Co. (5EP5336). Putting  
646 Fountain Creek in a pipe under US 24 or re-routing it and its flood plain to the south. For the  
647 same reasons these avoidance options do not work for avoiding CITGO Lubricant (5EP5335) as  
648 discussed in Section 4.5.2.3 under Measures to Avoid and Minimize Harm, these options are not  
649 prudent alternatives to using Chief Petroleum Co. (5EP5336).

650 EXHIBIT 4-15  
 651 Existing Condition and Proposed Action for Section 4(f) Use of Property 5EP5336



**Existing Condition**



**Proposed Action**

652 Four other design options were studied in an attempt to avoid this historic property that involved  
 653 widening to the north. All of these design options evaluated for US 24 from I-25 to 15th Street  
 654 would require full acquisition of the historic property. The four design options considered are  
 655 shown in detail in **Appendix B** and are listed below:

- 656 • **Design Option 16:** I-25 Direct/8th Street Overpass/13th Street Diamond
- 657 • **Design Option 17:** I-25 Direct/One-Way Pair 8th Street and 10th Street/14th Street Access
- 658 • **Design Option 18:** I-25 Direct/8th Street Signalized Intersection/14th Street Access
- 659 • **Design Option 19:** I-25 Direct/8th Street SPDI/14th Street Access

660 **Minimization:** No viable measures to minimize harm were found for this property. Design  
 661 options either avoided the property with impacts to the Fountain Creek and the A-1 Mobile  
 662 Village, or required full acquisition of this property.

663 **Mitigation:** Mitigation for impacts to this property has been developed through consultation with  
 664 the Colorado SHPO and other consulting parties and is documented in a MOA. The MOA is  
 665 included in **Appendix H** and mitigation considered includes, but is not limited to, interpretive  
 666 signing, architectural salvage from historic buildings, and investigation into the reuse of the Chief  
 667 Petroleum sign.

#### 668 4.5.2.5 5EP5218 (3627 West Colorado Avenue)

##### 669 *Property Description*

670 The property at 3627 West Colorado Avenue is a  
 671 heavily wooded, multi-building motel complex  
 672 (Timber Lodge) that is accessible via a single-car  
 673 bridge over Fountain Creek. It is located in a light  
 674 commercial setting north of US 24 and south of  
 675 West Colorado Avenue. The complex consists of  
 676 29 units, four of which are partially visible from  
 677 Colorado Avenue. The main structure was  
 678 constructed in 1885. It is a small rectangular, one-  
 679 story, gable-roofed building that is located in the  
 680 northwestern portion of the property. The  
 681 moderately pitched gable roof is covered with  
 682 composition. Many of the cottages on the  
 683 property retain integrity from their original  
 684 construction in the 1930s.



5EP5218, Timber Lodge, 3627 West Colorado Avenue

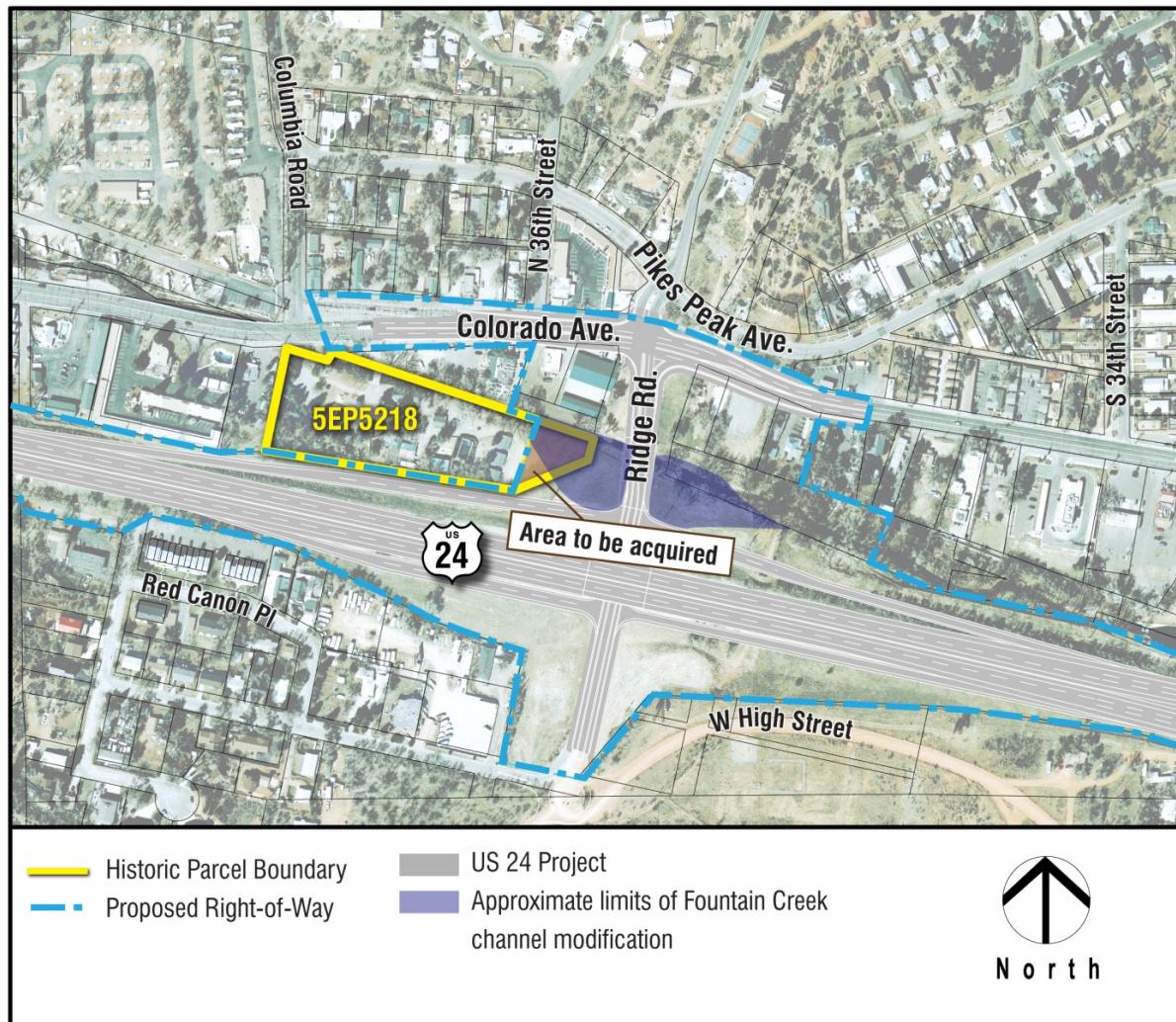
685 The property is **eligible for the National Register under Criterion A** for its association with the  
 686 development of automobile tourism in Colorado and the United States.

##### 687 *Section 4(f) Use*

688 Both the US 24 Freeway Alternative and the Proposed Action would require acquisition of a small  
 689 portion of property at the eastern end of the Timber Lodge property boundary (see **Exhibit 4-16**).  
 690 The area of acquisition involves approximately 0.43 acre (14 percent) of the land area at the  
 691 eastern border of the motor lodge property and does not include any buildings, structures, or  
 692 features of historic importance. The acquisition is needed for the construction of the Ridge Road  
 693 bridge over Fountain Creek and the associated floodplain improvements. The action involves  
 694 widening, deepening, and realigning the channel to carry the 100-year flood. No new physical

695 infrastructure would be introduced, so the change in setting from existing conditions at the  
 696 Timber Lodge is minimal, particularly because the changes would occur at the periphery of the  
 697 property.

698 EXHIBIT 4-16  
 699 Proposed Action for Section 4(f) Use of Property 5EP5218



#### 700 *Measures to Avoid and Minimize Harm*

701 **Avoidance:** No design options are possible to avoid 5EP5218, Timber Lodge. The project team  
 702 considered refinements to the alignment for both the US 24 Freeway Alternative and the Midland  
 703 Expressway Alternative; however, because the use of this property is a function of the 110-foot  
 704 wide Fountain Creek channel and floodplain modifications, no realignment of US 24 avoids this  
 705 property. Moving the creek to the southern edge of this property would not only further impact  
 706 the property (since the creek would no longer flow through the parcel) but would also require  
 707 extreme angles in the creek to return it to its original location as it crosses back under Colorado  
 708 Avenue.

709 The design options evaluated for the US 24 at Ridge Road would all impact the historic property  
 710 due to the Fountain Creek channel modifications. The three design options considered are shown  
 711 in detail in **Appendix B** and are listed below:

- 712 • **Design Option 6:** Ridge Road Overpass
- 713 • **Design Option 7:** Ridge Road Signalized Intersection
- 714 • **Design Option 20:** Ridge Road Diamond Interchange

715 **Minimization:** The alignment of the Proposed Action was laid out to minimize harm to the  
 716 5EP5218, Timber Lodge, by having US 24 go over Ridge Road, which allows the new Ridge Road  
 717 bridge over the Fountain Creek to be raised only enough to accommodate the 100-year flood, as  
 718 required by the City of Colorado Springs and CDOT design standards. In addition, the Proposed  
 719 Action avoids the acquisition of any buildings located on the property.

720 The acquisition of land would have no adverse effect on the operation of the property as a motel  
 721 and would not change its setting or character. The elevation of Ridge Road over US 24 would  
 722 have a minor visual effect to the east side of the property. The orientation of the buildings to the  
 723 north minimizes this effect, as does the existing vegetative screening from the property's  
 724 landscaping.

725 **Mitigation:** As a mitigation measure, CDOT will replace the existing vegetation and trees to  
 726 maintain the visual screen and wooded setting of the property. All trees greater than 2 inches in  
 727 DBH will be mitigated at a 1 to 1 basis.

728 Additional mitigation for impacts to this property has been developed through consultation with  
 729 the Colorado SHPO and other consulting parties and is documented in a MOA. The MOA is  
 730 included in **Appendix H**. Mitigation considered includes, but is not limited to, interpretive signing  
 731 and architectural salvage from historic buildings.

#### 732 4.5.2.6 5EP5364 (Westside Historic District)

##### 733 *Property Description*

734 The Westside Historic District encompasses the  
 735 area north of US 24 between I-25 to the east and  
 736 Columbia Road to the west, as shown in  
 737 **Exhibit 4-17**. It is a residential/mixed-use  
 738 neighborhood constructed between the late  
 739 1800s and early 1900s. It contains more than  
 740 60 subdivisions and thousands of properties.

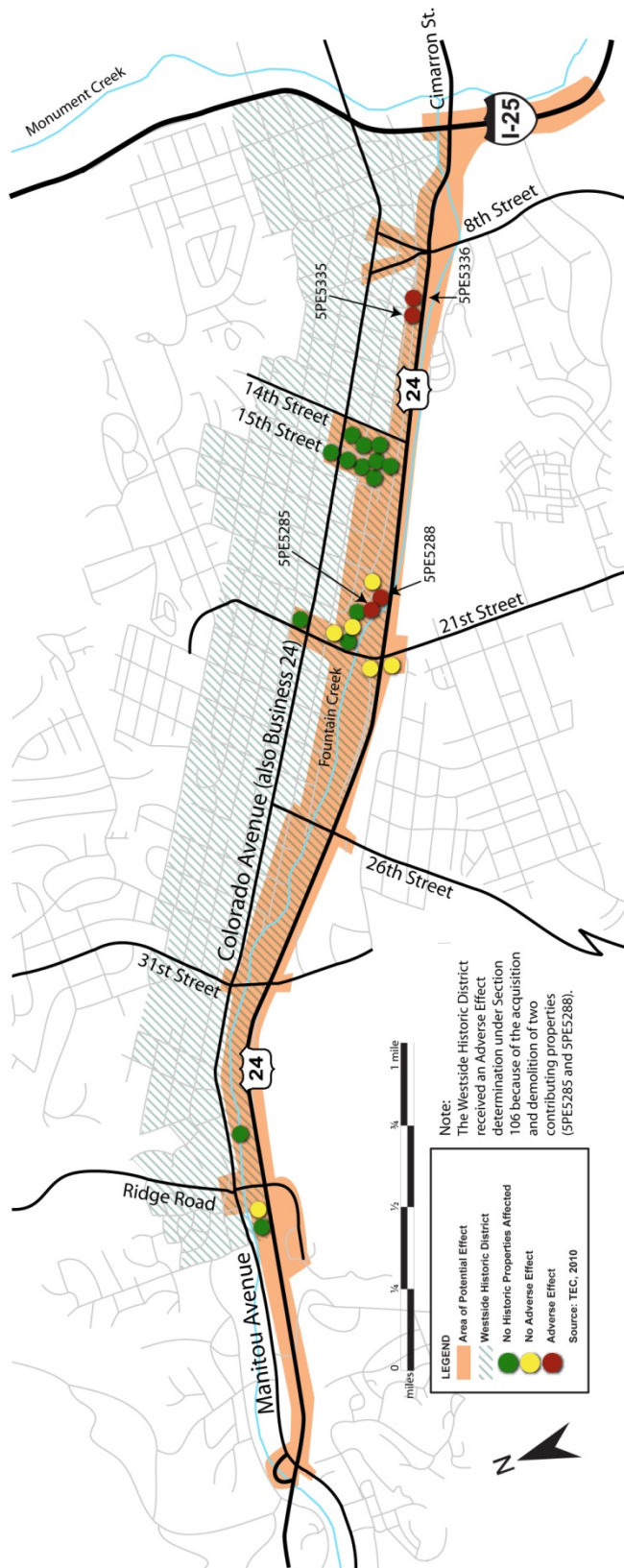
741 The Westside Historic District is **eligible for**  
 742 **listing in the National Register under**  
 743 **Criterion A** for its role in the development of  
 744 Colorado Springs and **Criterion C** for its  
 745 architectural significance a late Nineteenth  
 746 Century and Early Twentieth Century commercial and residential neighborhood.



*Typical Residential Dwelling in the Westside Historic District*

747 Of the affected historic properties within the study area (5EP5285, 5EP5288, 5EP5335, 5EP5336,  
 748 and 5EP5218), the two residential properties (5EP5285 and 5EP5288) on Sheldon Avenue  
 749 contribute to the Westside Historic District. The two industrial properties (5EP5335 and  
 750 5EP5336) and the Timberline Lodge Motel (5EP5218) were determined to not contribute to the  
 751 Westside Historic District.

752 EXHIBIT 4-17  
 753 Westside Historic District



754 **Section 4(f) Use**

755 Both the US 24 Freeway Alternative and the Proposed Action would acquire and demolish two  
 756 contributing properties within the Westside Historic District (5EP5285 and 5EP5288), as shown  
 757 in **Exhibit 4-10** and **Exhibit 4-12**.

758 **Measures to Avoid and Minimize Harm**

759 **Avoidance:** The project team evaluated six design options for their potential to avoid impacts to  
 760 the Westside Historic District including houses at 1815 Sheldon Avenue (5EP5285), shown in  
 761 **Exhibit 4-10**, and 1803 Sheldon Avenue (5EP5288), shown in **Exhibit 4-12**.

762 The project team evaluated six design options at this location for their potential to avoid impacts  
 763 to the historic houses (5EP5288 and 5EP5285). Five of the design options shifted the roadway to  
 764 the north, maintaining the existing south right-of-way line of US 24 and one design option shifted  
 765 US 24 to the south. All five of the interchange or intersection options that move US 24 to the  
 766 north would require full acquisition of the historic houses (5EP5288 and 5EP5285). These design  
 767 options are shown in detail in **Appendix B** and are listed below:

- 768 • **Design Option 10:** 21st Street Signalized Intersection
- 769 • **Design Option 11:** 21st Street Diamond Interchange with Loop
- 770 • **Design Option 12:** 21st Street Split Diamond Interchange with 18th Street
- 771 • **Design Option 13:** 21st Street Tight Diamond Interchange
- 772 • **Design Option 14:** 21st Street SPDI to the North

773 The one option to widen to the south, **Design Option 15:** 21st Street SPDI South has the  
 774 potential to avoid use of the historic houses (5EP5288 and 5EP5285). To avoid impacting the  
 775 Midland Terminal Railroad Roundhouse the designers would have to realign US 24 to the far  
 776 south, as shown in **Exhibit 4-13**.

777 For the same reasons, this avoidance option does not work for avoiding the 21st Street Pocket  
 778 Park as discussed in Section 4.5.1.1 under Measures to Avoid and Minimize Harm, this option is  
 779 not a prudent alternative to avoiding the Westside historic houses (5EP5288 and 5EP5285).

780 The other five design options widened the roadway to the north, maintaining the existing south  
 781 right-of-way line of US 24. With the widening to the north, all of the other five interchange or  
 782 intersection options evaluated for the US 24 and 21st Street would require full acquisition of these  
 783 properties. The five other design options considered are shown in detail in **Appendix B** and are  
 784 listed below:

- 785 • **Design Option 10:** 21st Street Signalized Intersection
- 786 • **Design Option 11:** 21st Street Diamond Interchange with Loop
- 787 • **Design Option 12:** 21st Street Split Diamond Interchange with 18th Street
- 788 • **Design Option 13:** 21st Street Tight Diamond Interchange
- 789 • **Design Option 14:** 21st Street SPDI to the North

790 Measures to avoid the two contributing properties within the Westside Historic District would  
 791 have impacted other district Section 4(f) resources such as the Midland Terminal Railroad  
 792 Roundhouse, a property on the National Register of Historic Places. This avoidance option would  
 793 separate the Roundhouse from its historic association.



794 **Minimization:** The alignment of the Proposed Action was laid out to minimize harm to the  
 795 Westside Historic District by avoiding as many properties as possible. The Proposed Action was  
 796 then refined to minimize harm to the two affected contributing historic properties. However,  
 797 construction of the highway requires the consumption of the backyards of the two residences and  
 798 would leave the homes in a setting that is not livable. Therefore, it was determined that partially  
 799 acquiring the needed land and leaving the structures did not minimize harm to the properties or  
 800 the Westside Historic District.

801 **Mitigation:** Mitigation for impacts to Westside Historic District has been developed through  
 802 consultation with the Colorado SHPO and other consulting parties and is documented in a MOA.  
 803 The MOA is included in **Appendix H** and mitigation considered includes, but is not limited to,  
 804 interpretive signing and architectural salvage from historic buildings.

#### 805 4.5.2.7 Section 4(f) Use and Mitigation Summary

806 **Exhibit 4-18** provides a summary of information presented in this chapter that documents the  
 807 Section 4(f) resource evaluation and the proposed mitigation for impacted Section 4(f) resources  
 808 for both the US 24 Freeway Alternative and the Proposed Action.

EXHIBIT 4-18  
 Summary of Section 4(f) Resource Evaluation

Site Number	Property Description	Property Type	Property Name/ Address	Section 4(f) Use <sup>1</sup>	Proposed Mitigation
N/A	Park	Park	21st Street Pocket Park	Full Acquisition	The Prospector Sculpture will be relocated to a location along US 24. <sup>2</sup>
N/A	Park	Park	Vermijo Park	Partial Acquisition 0.01 acres	CDOT will provide \$50,000 to plan Vermijo Park. <sup>2</sup> All trees greater than 2 inches in diameter will be replaced.
N/A	Trail	Recreation	Midland Trail	Partial Acquisition 0.3 miles	Realign the trail between 8th Street and 11th Street to ensure a connection with the full trail.  Prior to construction, either complete the realignment of the trail or provide a safe detour until the permanent realigned trail is completed. <sup>2</sup>
5EP5285	Residential Building	Historic Site	1815 Sheldon Avenue	Full Acquisition	Details are contained in the signed Section 106 MOA. <sup>3</sup>
5EP5288	Residential Building	Historic Site	1803 Sheldon Avenue	Full Acquisition	Details are contained in the signed Section 106 MOA. <sup>3</sup>
5EP5335	Commercial Building	Historic Site	CITGO 302 South 10th Street	Full Acquisition	Details are contained in the signed Section 106 MOA. <sup>3</sup>

EXHIBIT 4-18  
Summary of Section 4(f) Resource Evaluation

Site Number	Property Description	Property Type	Property Name/ Address	Section 4(f) Use <sup>1</sup>	Proposed Mitigation
5EP5336	Commercial Building	Historic Site	Chief Petroleum 301 South 10th Street	Full Acquisition	Details are contained in the signed Section 106 MOA. <sup>3</sup>
5EP5218	Hotel/Motel	Historic Site	Timber Lodge 3627 West Colorado Avenue	Partial Acquisition 0.43 acres	Details are contained in the signed Section 106 MOA. <sup>3</sup>
5EP5364	Historic District	Historic District	Westside Historic District	Full Acquisition of 2 contributing properties (1815 Sheldon Avenue and 1803 Sheldon Avenue)	Details are contained in the signed Section 106 MOA. <sup>3</sup>

<sup>1</sup> This table summarizes the Section 4(f) evaluation for both the US 24 Freeway Alternative and the Proposed Action. Note that both build alternatives would use the same Section 4(f) resources to the same degree.

<sup>2</sup> The City of Colorado Springs owns and maintains this park. CDOT consulted with the City of Colorado Springs Parks, Recreation & Cultural Services Department to determine these mitigation measures. See **Appendix I** for details.

<sup>3</sup> The Section 106 MOA is included in **Appendix H** and mitigation considered includes, but is not limited to: interpretive signing and architectural salvage from historic buildings, and investigation into the reuse of the Chief Petroleum sign.

## 809 4.6 Least Harm

810 The Section 4(f) regulation states that, if no feasible and prudent alternative exists that avoids use  
811 of Section 4(f) properties, FHWA “may approve only the alternative that causes the least overall  
812 harm in light of the statute’s preservation purpose.” In determining the alternative that causes the  
813 overall least harm, the following factors must be balanced and weighted before deciding which  
814 alternative would cause the least overall harm (23 CFR 774.3):

- 815 i. The ability to mitigate adverse impacts to each Section 4(f) property (including any measures  
816 that result in benefits to the property);
- 817 ii. The relative severity of the remaining harm, after mitigation, to the protected activities,  
818 attributes, or features that qualify each Section 4(f) property for protection;
- 819 iii. The relative significance of each Section 4(f) property;
- 820 iv. The opinions of the official(s) with jurisdiction over each Section 4(f) property;
- 821 v. The degree to which each alternative meets the purpose and need for the project;

822 vi. After reasonable mitigation, the magnitude of any adverse impacts to resources not  
823 protected by Section 4(f); and

824 vii. Substantial differences in costs among the alternatives.

825 As indicated in **Exhibit 4-4**, each of the build alternatives requires the use of the same eight  
826 Section 4(f) properties and one historic district, which is also a Section 4(f) property. Because the  
827 direct Section 4(f) use is the same for each build alternative, many of the above factors do not aid  
828 in making a determination of least harm (that is, factors i through iv). Therefore, emphasis is  
829 placed on factors v through vii.

830 Both build alternatives satisfy the purpose and need for the project (factor v); however, the  
831 Midland Expressway Alternative (Proposed Action) better meets the purpose and need. The US 24  
832 Freeway Alternative emphasizes regional mobility between Colorado Springs and the mountains,  
833 rather than access to local neighborhoods and destinations between I-25 and Manitou Avenue.  
834 Because the US 24 Freeway Alternative was designed to serve local traffic from grade-separated  
835 interchanges, it gives preference to regional travel with higher speeds on the mainline. This would  
836 reduce access to local destinations, neighborhoods, and some public amenities, such as Vermijo  
837 Park. The Midland Expressway Alternative does a better job of balancing local travel and regional  
838 trips while providing improved peak hour operations.

839 There are differences between the build alternatives in terms of impacts to resources that Section  
840 4(f) does not protect (factor vi). The US 24 Freeway Alternative does not provide the balance  
841 needed for all users, is less consistent with the neighborhood context, and would impair some  
842 characteristics that make the community unique. A freeway would be more visually intrusive than  
843 an expressway. It would change the use and feel of the entryway access into Manitou Springs, the  
844 Old Colorado City Historic District, and the neighborhoods that surround it. The Midland  
845 Expressway Alternative would result in 42 acres of impervious surface area, 4 acres less than the  
846 US 24 Freeway Alternative. The US 24 Freeway Alternative would require 10 additional acres of  
847 right-of-way over the Midland Expressway Alternative. Both build alternatives would impact  
848 approximately 5.2 acres of waters of the United States, including one small wetland totaling  
849 0.02 acre.

850 The cost of each alternative is also considered (factor vii). Conceptual program-level construction  
851 costs for the US 24 Freeway Alternative are \$260 million (not including right-of-way acquisition  
852 costs). This is compared to \$230 million for the Midland Expressway Alternative (not including  
853 right-of-way acquisition). While there is not a substantial difference in costs among the  
854 alternatives, there is a difference worth noting because cost differences among alternatives is one  
855 of the factors in determining which alternative will cause the least overall harm (23 CFR 774.3).

856 The Midland Expressway Alternative is the least-harm alternative based on factors vi and vii. It  
857 better meets the project's purpose and need because it has fewer impacts to resources not  
858 protected by Section 4(f) and is less expensive than the US 24 Freeway Alternative. The above  
859 discussion of least-harm factors is summarized in **Exhibit 4-19**.

860

## EXHIBIT 4-19

## Factors to Determine Least-Harm Alternative

<b>Factors to Determine Least Harm 23 CFR 774.3 (c)</b>	<b>Midland Expressway Alternative</b>	<b>US 24 Freeway Alternative</b>
(v) The degree to which each alternative meets the purpose and need for the project	<ul style="list-style-type: none"> <li>Balances local travelers' needs and the needs of regional commuters with improved peak hour operations while still providing the connectivity needed by local travelers to destinations along US 24. Maintains existing intersection at 26th Street (considered the Gateway to Old Colorado City) as a way to maintain access to US 24 needed by local travelers</li> </ul>	<ul style="list-style-type: none"> <li>Does not provide the connectivity needed by local travelers to destinations along US 24</li> <li>Emphasizes regional mobility between Colorado Springs and the mountains with all grade-separated interchanges</li> </ul>
(vi) After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f)	<ul style="list-style-type: none"> <li>42 acres of impervious surface area</li> <li>A total of 78 acres of right-of-way would be required.</li> <li>Has community support because of the connectivity of at-grade intersections at 26th Street and 31st Street and because of the more urban arterial feel and the lower speeds.</li> <li>Is more consistent with neighborhood context for an urban arterial</li> </ul>	<ul style="list-style-type: none"> <li>46 acres of impervious surface area</li> <li>A total of 88 acres of right-of-way would be required.</li> <li>Is less consistent with neighborhood context because it introduces continuous flow for regional trips</li> <li>Would impair the urban characteristic that defines the setting by requiring local trips to reroute their trips to the interchanges</li> <li>Removes intersections at 26th Street, considered the Gateway to Old Colorado City</li> <li>Community would not support the grade separated freeway because there is no access at 26th Street and because of the freeway feel and also due to the higher speed.</li> </ul>
(vii) <sup>1</sup> Differences in costs among the alternatives	<ul style="list-style-type: none"> <li>\$230 million for program level construction cost estimate (not including right-of-way acquisition costs)</li> </ul>	<ul style="list-style-type: none"> <li>\$260 million for program level construction cost estimate (not including right-of-way acquisition costs)</li> </ul>

<sup>1</sup>23 CFR 774.3 (c) (vii) references "substantial" differences in costs. The costs of each alternative are noted here.

861 Based on the available factors for consideration in the least harm analysis, the Midland  
862 Expressway Alternative is the least harm alternative because it better meets the project's purpose  
863 and need and does so at less cost than the other prudent and feasible alternative. After considering  
864 comments on this evaluation from the Department of the Interior and the City of Colorado  
865 Springs as the agency with jurisdiction over the parks, trail and SHPO-historic Section 4(f)  
866 resources, FHWA will approve the final Section 4(f) evaluation. The FHWA approved decision  
867 document will include the final Section 4(f) evaluation.

## 868 4.7 Consultation and Coordination

869 Agencies and the public will have the opportunity to comment on the US 24 EA and this  
870 Section 4(f) Evaluation. Coordination will continue throughout the EA process, Decision  
871 Document, and final design to identify additional opportunities to avoid and minimize potential  
872 effects on Section 4(f) properties.

### 873 4.7.1 Parks

874 CDOT and FHWA have coordinated with agencies that have jurisdiction over the affected  
875 Section 4(f) properties, including the City of Colorado Springs Parks, Recreation & Cultural  
876 Services Department for park properties.

877 Development of the Proposed Action occurred over several years and was guided by extensive  
878 public involvement and input from an Executive Leadership Team (ELT) and a Technical  
879 Leadership Team (TLT) that included elected officials and representatives from the City of  
880 Colorado Springs Parks, Recreation & Cultural Services Department. Members of the public and  
881 community organizations (such as the City of Colorado Springs' Trails, Open Space & Parks  
882 [TOPS] Working Committee) have been involved from the start of the project, and have helped  
883 shape project outcomes as part of a collaborative, interdisciplinary process – sometimes referred  
884 to as “Context Sensitive Solutions.” The City of Colorado Springs contributed to the design of the  
885 Proposed Action and assisted with the identification of Section 4(f) properties. Coordination with  
886 the City of Colorado Springs Parks, Recreation & Cultural Services Department regarding  
887 Section 4(f) Park and Recreation properties was completed and the City of Colorado Spring's  
888 agreement with the mitigation measures is documented in the signed letter in **Appendix I**.

### 889 4.7.2 Historic Properties

890 Agreement among the Colorado SHPO and FHWA has been reached through the Section 106  
891 process of the National Historic Preservation Act concerning effects of this project to the historic  
892 Section 4(f) resources. The Colorado SHPO concurred that the project results in an adverse effect  
893 in a concurrence letter dated December 27, 2010 (see **Appendix H**). The Section 106  
894 correspondence letter and MOA are located in **Appendix H**. The City of Colorado Springs  
895 Historic Preservation Board and the El Paso County Public Services Department were involved in  
896 the Section 106 process.



# 1 Chapter 5 – Agency Coordination and Public 2 Involvement

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3 This chapter describes the agency coordination and public involvement conducted during the  
4 United States Highway 24 (US 24) Environmental Assessment (EA). Agency coordination and  
5 public involvement included agency and public scoping, public open houses, neighborhood  
6 organization and small group meetings, workshops, newsletters, website postings, and media  
7 information. The project team encouraged open communication and was responsive to all  
8 groups and individuals interested in the project. Special effort was made to reach minority and  
9 low-income residents within the study area.

10 The US 24 project utilized Context Sensitive  
11 Solutions (CSS), a collaborative, interdisciplinary  
12 team approach that involves all stakeholders to  
13 develop a transportation facility that reflects  
14 community values, is sensitive to environmental  
15 and community resources, and meets the purpose  
16 and need for the project. As a result of this  
17 approach, community residents and other  
18 partners were able to play an important role in  
19 shaping alternatives, design options, mitigation,  
20 and the Proposed Action. The influence of this  
21 approach on the Proposed Action is described in **Chapter 2, Alternatives**, and in the Colorado  
22 Department of Transportation (CDOT) publication *Shifting Gears: 51 ways the community shaped the  
23 solution for US 24 West* (CDOT, 2009).



24 Coordination with local, state, and federal agencies occurred throughout the project to ensure  
25 compliance with agency policies and procedures, transportation planning requirements, National  
26 Environmental Policy Act of 1969 (NEPA) requirements, and accurate resource identification  
27 and impact evaluation.

## 28 5.1 Agency Coordination

29 The Federal Highway Administration (FHWA), CDOT, and the consultant team met and  
30 corresponded with resource management agencies to solicit comments and identify agency  
31 issues and concerns related to the project. These scoping meetings were conducted at the onset  
32 of the project to initiate ongoing coordination. Agencies that participated in scoping included:

- 33 • City of Colorado Springs Parks, Recreation and Cultural Service Department
- 34 • City of Colorado Springs' Trails, Open Space & Parks Program staff
- 35 • Colorado Department of Public Health and Environment
- 36 • Colorado Division of Wildlife (CDOW)
- 37 • Colorado State Historic Preservation Officer (SHPO)
- 38 • United States Army Corps of Engineers (USACE)
- 39 • United States Environmental Protection Agency

40 The FHWA, CDOT, and the project team have also worked closely with local agencies  
41 including:

- 42 • City of Colorado Springs
- 43 • City of Manitou Springs
- 44 • Colorado Springs Utilities
- 45 • El Paso County
- 46 • Federal Emergency Management Agency
- 47 • Mountain Metro Transit
- 48 • Pikes Peak Area Council of Governments (PPACG)

49 Formal consultation with the Colorado SHPO is being conducted to fulfill the requirements of  
50 Section 106 of the National Historic Preservation Act. In addition to the scoping meeting and  
51 letters sent to all agencies, consultation with the Colorado SHPO has included these additional  
52 steps: consultation on the boundaries of the Area of Potential Effect (APE), which resulted in  
53 no objections from the Colorado SHPO; submittal of the determination of eligibility of historic  
54 resources, which resulted in concurrence from the Colorado SHPO; and submittal of the  
55 determination of effects to historic resources, which also resulted in concurrence from the  
56 Colorado SHPO. Records of this correspondence are included in **Appendix H**. Mitigation for  
57 impacts to historic properties will be developed in consultation with the Colorado SHPO and  
58 other consulting parties. This agreed upon mitigation will be documented in a Memorandum of  
59 Agreement, included in **Appendix H**. Additional information on the Section 106 process can be  
60 found in **Section 3.4, Historic Properties**.

61 Formal consultation with the USACE was conducted to fulfill the requirements of Section 404  
62 of the Clean Water Act as well as promote discussion about Fountain Creek floodplains. In  
63 addition to the scoping meeting and letters sent to all agencies, consultation with the USACE  
64 has included these additional steps: three visits to Fountain Creek, eight meetings with USACE  
65 staff, submittal of the Wetland Delineation Report and jurisdictional determinations, and  
66 informal coordination regarding potential impacts and permitting requirements. Coordination  
67 with the USACE will continue through final design and permitting.

68 Coordination with the CDOW explored issues such as wildlife populations and habitat as well as  
69 wildlife movement and corridor use. In addition to the scoping meeting and letters sent to all  
70 agencies, consultation with the CDOW has included these additional steps: two visits with  
71 agency staff and informal coordination regarding potential impacts and mitigation measures.

72 The consultant team spoke with the Colorado Springs Police Department in the early phases of  
73 the project to provide information about the project and identify any safety and emergency  
74 response concerns. The department provided input that contributed to the design of the  
75 Proposed Action, such as identifying the need for standard shoulders throughout the US 24  
76 corridor.

## 77 5.2 Community Coordination

### 78 5.2.1 Executive Leadership Team

79 The Executive Leadership Team (ELT) was formed to represent local jurisdictions and provide  
80 policy recommendations regarding funding, maintenance, and ownership responsibilities. The  
81 ELT also assisted with formal actions required by respective councils, boards, and/or  
82 commissions for project support. The ELT met 12 times from 2005 through 2008. The ELT



83 consisted of representatives – typically at the level of City Councilor/County Commissioner,  
 84 City Manager/County Administrator, or Executive Director – from FHWA, CDOT, the City of  
 85 Colorado Springs, City of Manitou Springs, Colorado Springs City Council, Manitou Springs  
 86 City Council, El Paso County Commissioners, Colorado Springs Utilities, and PPACG. A  
 87 complete list of ELT members is included in **Appendix E**.

## 88 5.2.2 Technical Leadership Team

89 The Technical Leadership Team (TLT) was formed to guide technical decisions involving data  
 90 gathering and analysis, review technical documentation, provide support and insight with respect  
 91 to agency issues and regulations, assist with the development and screening of alternatives, and  
 92 facilitate coordination with agency staff and ELT members. The TLT met 29 times from 2004  
 93 through 2008 as alternatives were developed and evaluated. TLT members consisted of  
 94 representatives – typically at the level of Planning Director, Traffic Engineer, Roadway  
 95 Engineer, and similar positions – from FHWA, CDOT, the City of Colorado Springs, City of  
 96 Manitou Springs, Manitou Springs Economic Development Council, Colorado Springs Utilities,  
 97 El Paso County, and PPACG. A complete list of TLT members is included in **Appendix E**. The  
 98 TLT meetings were discussed during ELT meetings to keep ELT members informed about the  
 99 technical work on the project.

## 100 5.2.3 Aesthetic Working Group

101 The Aesthetic Working Group provided community input to the look and feel of future US 24  
 102 corridor elements. This group was formed after the major elements of the Proposed Action were  
 103 known, thereby providing the group with knowledge of the possible visual changes and  
 104 opportunities for aesthetic treatments.

105 The participants, whose work is documented in *US 24 I-25 to Ridge Road Aesthetic Guidelines*  
 106 (THK, 2009), met three times in 2008 and 2009. Meetings were held in a workshop format and  
 107 attendance varied. In general, participants represented CDOT, El Paso County, City of Colorado  
 108 Springs, City of Manitou Springs, Colorado Springs Utilities, PPACG, Organization of Westside  
 109 Neighbors, Old Colorado City Historical Society, Friends of Red Rock Canyon, the Trails and  
 110 Open Space Coalition, Gold Hill Mesa, local residents, and business owners.

## 111 5.2.4 Midland Greenway Advisory Committee

112 The Midland Greenway Advisory Committee helped guide the master planning process for the  
 113 Midland Greenway. The Committee provided technical expertise, support, and insight on how  
 114 right-of-way acquired for improvements could be used to develop a greenway along Fountain  
 115 Creek. The greenway concept was recognized as an opportunity to provide community benefits  
 116 related to recreation, water quality, flood risk reduction, and aesthetics. The committee met  
 117 seven times in 2007 and 2008, and its work resulted in the *Midland Greenway Master Planning*  
 118 *Process, Final Report* (CDOT, 2007), discussed in more detail in **Section 3.5, Parks, Trails, and**  
 119 **Recreation Resources** and in **Chapter 4, Section 4(f) Evaluation**. Committee members  
 120 represented CDOT, El Paso County, the City of Colorado Springs, City of Manitou Springs,  
 121 Colorado Springs Utilities, PPACG, Old Colorado City Historical Society, Friends of Red Rock  
 122 Canyon, the Trails and Open Space Coalition, and Gold Hill Mesa. A complete list of Midland  
 123 Greenway Advisory Committee members is included in **Appendix E**.

## 124 5.2.5 Fountain Creek Restoration Project

125 During the planning for the US 24 corridor, representatives from CDOT, the City of Colorado  
 126 Springs and its Stormwater Enterprise Program, and Gold Hill Mesa worked together to develop

127 a master plan and fund major improvements to a 0.6-mile section of Fountain Creek that lies  
 128 between 8th Street and 21st Street. The restoration improved water quality, reduced erosion of  
 129 contaminated mine tailings, reduced flood risk, and reestablished riparian vegetation along  
 130 Fountain Creek. Cooperating partners included local agencies, private businesses, and non-profit  
 131 organizations. The project was completed in April 2010.

## 132 5.3 Public Involvement Activities

133 Public involvement was conducted using the principles of CSS throughout the development of  
 134 this EA to ensure communication with all stakeholders occurred. The process examined multiple  
 135 alternatives with multi-disciplinary teams so the Proposed Action would represent a project with  
 136 an understanding of the landscape, the community, and the valued resources.

137 The first public activity in a CSS process is to discuss and gain agreement on the process  
 138 planned for selecting the Proposed Action. The three-step screening process, as discussed in  
 139 **Chapter 2, Alternatives**, was the foundation for communication with the stakeholders. This  
 140 approach resulted in widespread public awareness of the project and opportunities for timely  
 141 input to project decision making. Participants included interested citizens, property owners,  
 142 business owners, and the general public.

### 143 5.3.1 Public Open Houses

144 Open houses were designed to give individuals time to discuss  
 145 specific project-related issues with project team members.  
 146 Stations staffed by team members were set up for each issue  
 147 presented. Nine open houses were held between 2004 and  
 148 2008 with more than 1,200 total participants. The dates and  
 149 locations of each public open house are included in  
 150 **Appendix E**. All of the open houses were held at the West  
 151 Center for Intergenerational Learning in Colorado Springs.



### 152 5.3.2 Public Workshops

153 Public workshops were gatherings of stakeholders with a  
 154 structured agenda and a defined outcome. Workshops were  
 155 designed to set overarching project goals and visions with  
 156 stakeholders of diverse backgrounds. Three public workshops  
 157 were held in 2008 and 2009 to review concepts and design  
 158 options for the Midland Greenway. A complete list of public  
 159 workshops is included in **Appendix E**.



*Public meetings were well attended*

### 160 5.3.3 Neighborhood Organizations and Small Group 161 Meetings

162 Meetings with neighborhood organizations and other small groups were events where  
 163 community members could participate in project-related discussions to develop project  
 164 alternatives consistent with local land use and in harmony with the natural and built  
 165 environment. These meetings gathered neighbors to discuss specific issues affecting where they  
 166 live, work, and play. Events were small, usually with fewer than 30 participants. These meetings  
 167 typically began with a short presentation on a specific neighborhood issue and progressed to  
 168 dialog with project team members. These meetings helped the project team understand a

169 neighborhood’s positions, goals, and needs. They also identified project elements that would be  
170 valued as a lasting asset to the community.

171 The project team held 25 meetings with neighborhood organizations and other small groups  
172 between 2005 and 2008. This included a series of 13 meetings with the Organization of Westside  
173 Neighbors. Meetings were also held with the Trails and Open Space Coalition, Friends of Red  
174 Rock Canyon, Skyway Homeowners Association, Manitou Springs Chamber of Commerce, and  
175 Manitou Springs Kiwanis, among others. A complete list of neighborhood organizations and  
176 small group meetings is included in **Appendix E**.

### 177 5.3.4 Outreach to Minority and Low-Income Populations

178 Focused outreach was conducted to identify and engage minority and low-income stakeholders  
179 in the decision-making process. To determine the location where outreach should be  
180 concentrated, the project team evaluated demographic data, conducted interviews with local  
181 businesses, and contacted housing and human services agencies. Based on this information, the  
182 project team determined that outreach to minority and low-income populations should be  
183 provided to all residences and business owners within 0.5 mile of the US 24 corridor. Focused  
184 outreach included the efforts listed below.

- 185 • Spanish translation and hearing-impaired services were offered at all public meetings.
- 186 • Newspaper ads included telephone numbers for Spanish translation and information.
- 187 • Newsletters and public scoping meeting invitations were mailed in English, with an offer of  
188 translation into Spanish upon request.
- 189 • Invitations to eight of the 10 open houses were published in *Hispania*. Most ran twice,  
190 2 weeks and 1 week prior to the open house.
- 191 • To ensure that both renters and property owners were included in public involvement  
192 activities, the mailing list included property owners identified in the county assessor’s  
193 database as well as renters identified from United States Postal Service stops within 0.5 mile  
194 on each side of the US 24 corridor. The mailing list was updated after each public meeting.
- 195 • To ensure public involvement activities included a broad representation of the study area,  
196 the project team conducted focused outreach following the fourth open house in 2005. The  
197 team used sign-in sheet addresses and a geographic information system to map participants’  
198 locations. The project team recognized two neighborhoods had not participated in any  
199 public involvement activities, including the A-1 Mobile Home Park. To encourage  
200 participation, flyers (with information in both English and Spanish) were hand delivered to  
201 this community announcing subsequent open houses.
- 202 • Prior to the fourth open house, flyers with information in both English and Spanish were  
203 delivered to addresses along Colorado Avenue, where several churches, commercial  
204 establishments, and the Goodwill Industries are located.
- 205 • All of the open houses were held at the West Center for Intergenerational Learning in  
206 Colorado Springs, which is co-located with the Billie Spielman Center. The Billie Spielman  
207 Center provides family stabilization services, help with utilities and gas vouchers, and serves  
208 as a community center for the Westside Neighborhoods.

- 209 • Coordination with Native American tribes occurred in 2008 and 2011. **Section 3.13.3,**  
 210 **Native American Consultation** provides details regarding the outreach and coordination  
 211 with Native American tribes.

### 212 5.3.5 Outreach to Businesses

213 The project team held 14 meetings with business organizations between 2005 and 2008. This  
 214 included meetings with the Chambers of Commerce in Colorado Springs and Manitou Springs,  
 215 the Colorado Springs Regional Economic Development Corporation, and the Manitou Springs  
 216 Economic Development Council. Meetings were held with other business groups including the  
 217 Old Colorado City Association and Colorado Springs Downtown Business Partnership. A  
 218 complete list of meetings held with business organizations is included in **Appendix E.**

219 The project team worked closely with the Gold Hill Mesa developer throughout the project. As  
 220 discussed in **Section 5.2.5, Fountain Creek Restoration Project**, Gold Hill Mesa was a  
 221 partner in the Fountain Creek Restoration Project, which stabilized mine tailings within the  
 222 Fountain Creek floodplain. CDOT also coordinated with Gold Hill Mesa to improve access to  
 223 the re-development. As a result of this coordination, the Proposed Action was designed to  
 224 accommodate a connection to Gold Hill Mesa across US 24 at 15th Street. The developer of  
 225 Gold Hill Mesa also plans to build a trail along Fountain Creek that would serve residents of the  
 226 area and connect to the Midland Greenway.

## 227 5.4 Public Information Program

228 The public information program used a dedicated project website, telephone hot line, press  
 229 releases, media contacts, newsletter mailings and notices, and other tools to disseminate  
 230 information to the public.

### 231 5.4.1 Project Website

232 A project website ([www.coloradodot.info/projects/us24west](http://www.coloradodot.info/projects/us24west)) was developed in 2005 to provide  
 233 the public with access to reports and  
 234 documents, newsletters,  
 235 announcements of upcoming meetings,  
 236 and meeting summaries. The public  
 237 was able to submit comments and  
 238 questions, sign up for the mailing list,  
 239 and request information online. The  
 240 website is active, averaging nearly 1,000  
 241 hits per day since its inception. The  
 242 website will announce the locations  
 243 where the public can view a paper copy  
 244 of the EA; in the future, this website  
 245 will be used to announce the  
 246 development and availability of a  
 247 Decision Document for the project.

248 During the public comment period,  
 249 this EA will be posted on the website  
 250 to provide an opportunity for the  
 251 public to read and provide comments.

*The project website has received millions of hits*

252 **5.4.2 Media Relations**

253 Project information was regularly provided to local newspapers, television stations, and radio  
 254 stations. In addition to interviews, the project team issued 15 press releases to eight newspapers  
 255 in the region, including the *Gazette*, *Westside Pioneer*, *Independent*, and *Hispania*.

256 The media provided extensive coverage during the project. In all, eight newspapers from  
 257 Colorado Springs to Cripple Creek printed more than 170 stories from 2004 through 2010, the  
 258 majority of which were printed in the weekly *Westside Pioneer*, which focuses on the area in which  
 259 the project is located.

260 **5.4.3 Mailings and Notices**

261 A project mailing list containing more than 4,000 names and addresses was developed and  
 262 maintained throughout the project. The mailing list included property owners, elected officials,  
 263 media representatives, homeowners associations, business owners, and other interested citizens.  
 264 Those on the project mailing list received four newsletters in 2004, 2005, 2007, and 2008; a  
 265 postcard in March 2008; and the Midland Greenway brochure in January 2009.

266 **5.5 How the Community Helped Shape the Proposed Action**

267 Community residents and other partners played an important role in shaping the Proposed  
 268 Action, including:

- 269 • Members of the community provided observations about their community’s context that  
 270 they wanted considered during project implementation. These included unique features such  
 271 as Fountain Creek and sensitive resources like the Midland Terminal Railroad Roundhouse.
- 272 • Business owners emphasized the importance of maintaining 26th Street access to Old  
 273 Colorado City.
- 274 • Agency staff on the TLT provided suggestions on technical elements related to congestion  
 275 relief.

276 A few specific examples of how the community helped shape the project are summarized in  
 277 **Exhibit 5-1.**

EXHIBIT 5-1  
 How Community Ideas Shaped the Proposed Action

Ideas from the Community <sup>1</sup>	Element or Feature in Proposed Action
Improve major intersections to make them operate better and improve the ability for neighborhood traffic and pedestrians to cross US 24.	All intersections would be rebuilt to improve traffic operations for US 24 as well as the cross streets. Signalized intersections would provide adequate turn lanes and acceleration/deceleration lanes, and signals would be timed to provide uniform traffic progression for US 24. New interchanges at 8th Street and 21st Street would improve traffic flow for all movements at these locations. All intersections and interchanges would accommodate bicycles and pedestrians.

EXHIBIT 5-1  
How Community Ideas Shaped the Proposed Action

Ideas from the Community <sup>1</sup>	Element or Feature in Proposed Action
Do not destroy Fountain Creek.	A greenway master plan for this segment of Fountain Creek was developed in cooperation with the neighborhoods and various state and local partners that includes the construction and reconstruction of trails, habitat improvements, and other amenities (CDOT, 2007). CDOT would implement some improvements under the Proposed Action, while other entities would provide improvements that are within their authority as funds become available.
Do not touch the historic Midland Terminal Railroad Roundhouse.	The proposed interchange at 21st Street would avoid the Midland Terminal Railroad Roundhouse.
Do not overload Colorado Avenue by moving traffic off US 24.	By improving traffic flow on US 24, commuters and regional travelers would be less likely to divert to Colorado Avenue as an alternate route around congested intersections.
Add a park-and-ride lot that could be used for both transit and off-site parking for neighborhood events.	Although not an element of the Proposed Action, a park and ride could be accommodated on CDOT right-of-way and may be built by others on the northeast corner of US 24 and 31st Street.
Elevate US 24 to go over Ridge Road to make it safer for trail users and wildlife to enter the Red Rock Canyon Open Space and provide a trail connection from Midland Trail to the Open Space.	US 24 would be elevated to go over Ridge Road, which would remain at ground level for easier access to the Open Space by non-motorized travelers and wildlife; Ridge Road would be reconstructed and would accommodate a connection from the Open Space to the Midland Trail.
Make bridges over Fountain Creek friendly for pedestrians, bikes, and horses.	Bridges and trails would be designed to accommodate these users.
Leave underpass at I-25 into America the Beautiful Park open to bikes and pedestrians.	Midland Trail underpass of I-25 would remain open and not be impacted by the Proposed Action.
Avoid encroaching into Fountain Creek near Safeway.	US 24 west of 31st Street would be shifted south to avoid impacting Fountain Creek south of Safeway.

<sup>1</sup> Ideas from participants at Open House #3 on April 14, 2005; TLT meetings; project website; and telephone hotline.

278 **5.6 Remaining Agency Coordination and Public Involvement**

279 FHWA and CDOT are providing this EA for agency and public comment. A 45-day comment  
 280 period will begin with the publishing of the EA. Within the comment period, CDOT will  
 281 conduct a Public Hearing. An announcement of the public hearing will be sent to all individuals  
 282 on the mailing list. The public hearing also will be advertised in newspapers, websites,  
 283 neighborhood newsletters, and flyers distributed throughout the study area. Interested  
 284 individuals can attend the public hearing to provide comments or learn more about the EA  
 285 study and its recommendations.

286 Efforts will be made to notify and include minority and low-income populations in the public  
 287 hearing for the EA. The public hearing will be advertised in *Hispania* and on community  
 288 websites, neighborhood newsletters, and flyers. Telephone numbers for information and Spanish

289 translation will be included. Translators will be available upon request at the public hearing for  
 290 the EA.

291 The document can be obtained and comments can be provided at the public hearing, on the  
 292 project website ([www.coloradodot.info/projects/us24west](http://www.coloradodot.info/projects/us24west)), or mailed to US 24 EA Comments  
 293 c/o Wilson & Company 5755 Mark Dabling Boulevard, Suite 220, Colorado Springs, Colorado  
 294 80919-2200.

295 Copies of the EA will be available for public review at:

Pikes Peak Library District – Old Colorado City Branch 2418 West Pikes Peak Avenue Colorado Springs, CO 80904 (719) 634-1698	CDOT Region 2, North Program Office 1480 Quail Lake Loop, Suite A Colorado Springs, CO 80906 (719) 227-3200
Pikes Peak Library District – Penrose Branch 20 North Cascade Avenue Colorado Springs, CO 80903 (719) 531-6333	CDOT Headquarters (Public Relations Office) 4201 East Arkansas Avenue Denver, CO 80222 (303) 757-9228
Pikes Peak Library District – Ute Pass Branch 8010 Severy Cascade, CO 80809 (719) 684-9342	FHWA Colorado Division Office 12300 West Dakota Avenue, Suite 180 Lakewood, CO 80228 (720) 963-3000
Rampart Library District – Woodland Park Branch 218 East Midland Avenue Woodland Park, CO 80866 (719) 687-9281	Pikes Peak Area Council of Governments 15 South Seventh Street Colorado Springs, CO 80905 (719) 471-7080
Manitou Springs Public Library 701 Manitou Avenue Manitou Springs, CO 80829 (719) 685 – 5206	City of Colorado Springs, City Clerk Office 30 South Nevada Avenue # 101 Colorado Springs, CO 80903-1802 (719) 385-5901

296 Reviewing agencies will be provided a copy of the EA document, and individual meetings will be  
 297 held with agency representatives if requested.

298 After the review period ends, all comments will be addressed in a formal response and issued  
 299 with the final decision document on the project. A notice will be mailed to the entire mailing list  
 300 at the end of the study to inform agency and public stakeholders of the study’s conclusions and  
 301 next steps.





# 1 Chapter 6 – References

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- 2 Casper, Craig, 2008. Email from PPACG Transportation Director, to Dirk Draper,  
3 CH2M HILL. September 23.
- 4 Colorado Department of Transportation (CDOT), 2010. *Environmental Assessment for Powers*  
5 *Boulevard (SH 21) between Woodmen Road and SH 16 in Colorado Springs, Colorado.*  
6 [http://thepowerslink.com/Phase\\_2\\_EA-1.asp](http://thepowerslink.com/Phase_2_EA-1.asp)
- 7 CDOT, 2009. *Shifting Gears: 51 ways the community shaped the solution for US 24 West.*
- 8 CDOT, 2008. *National Environmental Policy Act Manual.* December.
- 9 CDOT, 2007. *Midland Greenway Master Planning Process, Final Report.* December 19.
- 10 CDOT, 2004a. *I-25 Improvements through the Colorado Springs Urbanized Area EA.* March.
- 11 CDOT, 2004b. *Drainage Design Manual.*
- 12 CDOT, 2003. *Sustaining Nature and Community in the Pikes Peak Region: A Sourcebook for Analyzing*  
13 *Regional Cumulative Effects.* Available online in three parts as Appendix I to the PPACG 2035  
14 *Regional Transportation Plan.* <http://ppacg.org/transportation/regional-transportation-plan>.
- 15 Centennial Archaeology, 2009. *A Class III Archaeological Inventory of U.S. Highway 24 West –*  
16 *Interstate 25 to Manitou Avenue, El Paso County, Colorado. Final.* Prepared for Colorado  
17 Department of Transportation and CH2M HILL. March.
- 18 CEQ (Council on Environmental Quality), 1997. *Considering Cumulative Effects Under the National*  
19 *Environmental Policy Act.* <http://ceq.hss.doe.gov/nepa/ccenepa/ccenepa.htm>
- 20 CH2M HILL, 2011. *Supplement to the Parks and Recreation Resources Technical Memorandum.*  
21 November.
- 22 CH2M HILL, 2010a. *Floodplains Technical Memorandum, US 24 West.* Prepared for Colorado  
23 Department of Transportation. January.
- 24 CH2M HILL, 2010b. *Right-of-Way Technical Memorandum, US 24 West.* Prepared for Colorado  
25 Department of Transportation. January.
- 26 CH2M HILL, 2010c. *Parks and Recreational Resources Technical Memorandum, US 24 West.* Prepared  
27 for Colorado Department of Transportation. February.
- 28 CH2M HILL, 2010d. *Socioeconomic Resources Technical Memorandum, US 24 West.* Prepared for  
29 Colorado Department of Transportation. January.
- 30 CH2M HILL, 2010e. *Environmental Justice Technical Memorandum, US 24 West.* Prepared for  
31 Colorado Department of Transportation. February.
- 32 CH2M HILL, 2010f. *Hazardous Materials Technical Memorandum, US 24 West.* Prepared for  
33 Colorado Department of Transportation. February.

- 34 CH2M HILL, 2010g. *Wetland Delineation, US 24 West*. Prepared for Colorado Department of  
35 Transportation. May.
- 36 CH2M HILL, 2010h. *Supplement to the Wildlife and Wildlife Habitat Baseline Conditions Report*.  
37 Prepared for Colorado Department of Transportation. May 15.
- 38 CH2M HILL, 2010i. *Supplement to the Threatened and Endangered Species Baseline Conditions Report*.  
39 Prepared for Colorado Department of Transportation. May 15.
- 40 CH2M HILL, 2010j. *Noxious Weed Assessment Technical Memorandum, US 24 West*. Prepared for  
41 Colorado Department of Transportation. February.
- 42 CH2M HILL, 2009a. *Land Use Technical Memorandum, US 24 West*. Prepared for Colorado  
43 Department of Transportation. September.
- 44 CH2M HILL, 2009b. *Water Quality Memorandum, US 24 West*. Prepared for Colorado Department  
45 of Transportation. September.
- 46 CH2M HILL, 2009c. *Utilities Technical Memorandum, US 24 West*. Prepared for Colorado  
47 Department of Transportation. October.
- 48 CH2M HILL, 2008a. *Traffic Impact Analysis Technical Memorandum*. Report to Colorado  
49 Department of Transportation. December.
- 50 CH2M HILL, 2008b. *Summary of the Tenth Open House*. August 2.
- 51 CH2M HILL, 2006a. *Summary of the Ninth Open House*. August 24.
- 52 CH2M HILL, 2006b. *Summary of the Eighth Open House*. May 10.
- 53 CH2M HILL, 2006c. *Summary of the Seventh Open House*. February 28.
- 54 CH2M HILL, 2006d. *Summary of the Sixth Open House*. January 26.
- 55 CH2M HILL, 2005a. *Summary of the Fifth Open House*. November 10.
- 56 CH2M HILL, 2005b. *Summary of the Fourth Open House*. June 21.
- 57 CH2M HILL, 2005c. *Summary of the Third Open House*. April 14.
- 58 CH2M HILL, 2005d. *Summary of the Second Open House*. January 20.
- 59 CH2M HILL, 2004. *Summary of the First Open House/Workshop*. November 18.
- 60 Chadwick Ecological Consultants, Inc., 2006. *Fountain Creek Watershed Study: Native and Non-*  
61 *Native Fish Mapping*. Prepared for URS. January.
- 62 City of Colorado Springs, 2009. Digital parcel data. Provided in September 2008.
- 63 City of Colorado Springs, 2008. *Trails and Hiking in Colorado Springs*.  
64 <http://www.springsgov.com/Page.asp?NavID=605#P>. Accessed on June 27.
- 65 City of Colorado Springs, 2008. *Colorado Springs Parks, Recreation & Cultural Services*.  
66 <http://www.springsgov.com/Page.asp?NavID=788>. Accessed on June 24.
- 67 City of Colorado Springs, 2007a. *City of Colorado Springs Annual Report 2007*.

- 68 City of Colorado Springs, 2007b. *City of Colorado Springs 2008 Strategic Plan*. Adopted August 14,  
69 2007. [http://www.springsgov.com/units/budget/StratActionPlan/  
70 StrategicPlan2008ADOPTED.pdf](http://www.springsgov.com/units/budget/StratActionPlan/StrategicPlan2008ADOPTED.pdf)
- 71 City of Colorado Springs, 2001a. *City of Colorado Springs Comprehensive Plan*. March 27.
- 72 City of Colorado Springs, 2001b. *Intermodal Transportation Plan*.  
73 <http://www.springsgov.com/Page.asp?NavID=1686>. Accessed on April 10, 2008.
- 74 City of Colorado Springs, 2000. *Colorado Springs Parks, Recreation & Trails 2000-2010 Master Plan*.  
75 January.
- 76 City of Colorado Springs, 1988. *The Midland/Fountain Creek Parkway Corridor Plan*.
- 77 City of Colorado Springs, 1986. *Midland Plan*, Amendment to the *Westside Plan*.
- 78 City of Colorado Springs, 1980. *Westside Plan*. January 22.
- 79 City of Manitou Springs, 2008. *Parks*. <http://manitousprings-co.gov/parks.asp>. Accessed on  
80 January 12.
- 81 Colorado Springs Utilities (CSU), 2010. *Plan for Recreational Uses on Municipal Watershed Lands,  
82 Draft Report*. April 21. [http://www.csu.org/residential/environment/recreation/  
83 watershed/plan/item5564.pdf](http://www.csu.org/residential/environment/recreation/watershed/plan/item5564.pdf).
- 84 Federal Emergency Management Agency (FEMA), 1999. *Flood Insurance Study El Paso County,  
85 Colorado and Incorporated Areas, Volume 1 of 4*. August.
- 86 Federal Highway Administration (FHWA), 2005. “Section 4(f) Policy Paper” Office of Planning,  
87 Environment and Realty Project Development and Environmental Review. March 1, 2005.
- 88 Fort Carson, 1986. *Fort Carson: A Tradition of Victory*. [http://www.carson.army.mil/pao/  
89 History%20Book/History%20Book.pdf](http://www.carson.army.mil/pao/History%20Book/History%20Book.pdf).
- 90 Hankard Environmental Inc. (Hankard), 2010. *Noise Impact and Abatement Analysis Technical  
91 Memorandum*. Report to CH2M HILL. March 11.
- 92 Muller Engineering, 1994. *Fountain Creek Drainage Basin Planning Study*. Prepared for City of  
93 Colorado Springs.
- 94 Pikes Peak Area Council of Governments (PPACG), 2010. *Phase II Fort Carson Regional Growth  
95 Plan, Final Draft Report*. [http://www.ppacg.org/files/Military\\_Impact/Fort\\_Carson\\_Growth  
96 /Project\\_Materials/Growth\\_Plan/Phase\\_II\\_Interim/Final%20Draft%20Fort%20Carson%  
97 20Phase%20II%20-%20Executive%20Summary.pdf](http://www.ppacg.org/files/Military_Impact/Fort_Carson_Growth/Project_Materials/Growth_Plan/Phase_II_Interim/Final%20Draft%20Fort%20Carson%20Phase%20II%20-%20Executive%20Summary.pdf).
- 98 PPACG, 2008. *Moving Forward – 2035 Regional Transportation Plan*. February.
- 99 PPACG, 2005. *Fountain Creek Watershed Impervious Surface Area and Watershed Health Analysis*.  
100 [http://www.fountain-crk.org/Reports/fc\\_impervious\\_surface\\_report.pdf](http://www.fountain-crk.org/Reports/fc_impervious_surface_report.pdf).
- 101 PPACG, 2003. *PPACG Water Quality Management Plan*. [http://www.ppacg.org/cms/  
102 index.php?option=com\\_remository&Itemid=27&func=select&id=21](http://www.ppacg.org/cms/index.php?option=com_remository&Itemid=27&func=select&id=21). Accessed October  
103 2008.
- 104 PPACG, 1996. *U.S. 24 Corridor Study, Colorado Springs to Woodland Park*. July 19.

- 105 Ramblin' Express, 2010. <http://www.casinoshuttle.com/default.asp>. Accessed on March 9.
- 106 Rocky Mountain Paleontology (RMP), 2008. *Paleontological Technical Report: CDOT Project NH*  
 107 *0242-040, US Highway 24 West Corridor, Manitou Springs to Interstate 25, El Paso County, Colorado.*  
 108 Prepared for Centennial Archaeology, Inc., under State of Colorado Paleontological Permit  
 109 2008-363. Paul C. Murphey, Ph.D. and David Daitch, M.S., comps. December.
- 110 Science Applications International Corporation (SAIC), 2006a. *Final Wildlife and Wildlife Habitat –*  
 111 *Baseline Conditions Report, U.S. 24 West Corridor, El Paso County, Colorado.* May 30.
- 112 SAIC, 2006b. *Final Threatened and Endangered Species – Baseline Conditions Report, U.S. 24 West*  
 113 *Corridor, El Paso County, Colorado.* May 30.
- 114 State Engineers Office (SEO), 2008. <http://water.state.co.us/>. Accessed October.
- 115 State of Colorado, 2010. Department of Local Affairs. [http://dola.colorado.gov/dlg/demog/](http://dola.colorado.gov/dlg/demog/population/forecasts/counties1yr.pdf)  
 116 [population/forecasts/counties1yr.pdf](http://dola.colorado.gov/dlg/demog/population/forecasts/counties1yr.pdf). Accessed in October.
- 117 State of Colorado, 2008. Office of Economic Development and International Trade. Minority  
 118 Business Office Small Business Database. [http://www.colorado.gov/cs/Satellite/OEDIT/](http://www.colorado.gov/cs/Satellite/OEDIT/OEDIT/1162927366289)  
 119 [OEDIT/1162927366289](http://www.colorado.gov/cs/Satellite/OEDIT/OEDIT/1162927366289). Accessed in December.
- 120 Sutton, Brian, 2008. Personal communication from District 10 Water Commissioner for the City  
 121 of Colorado Springs to Doug Stewart, CH2M HILL. October 23.
- 122 TEC, 2010. *Historic Resources Survey and Effect Determination, US 24 West, Colorado Springs, Colorado.*  
 123 Prepared for Colorado Department of Transportation and CH2M HILL. June.
- 124 Texas Transportation Institute, 2005. *The 2005 Urban Mobility Report.* David Schrank and Tim  
 125 Lomax, the Texas A&M University System.
- 126 THK Associates, Inc. (THK), 2009. *US 24 I-25 to Ridge Road, Aesthetic Guidelines.* Prepared for  
 127 Colorado Department of Transportation and CH2M HILL. July 22.
- 128 THK, 2006. *US Highway 24 Alternatives Analysis (Manitou Springs to Interstate 25) Market and Socio-*  
 129 *Economic Impacts.* Prepared for Colorado Department of Transportation. June 12.
- 130 Transportation Research Board, 2000. “*Highway Capacity Manual.*” Washington, DC.
- 131 URS, 2006. *Upper Fountain Creek HEC-RAS model.*
- 132 URS, 2005. *Fountain Creek Watershed Study.* Prepared for US Army Corps of Engineers.
- 133 United States Census Bureau, 2010a. *2009 American Community Survey.* [www.census.gov](http://www.census.gov). Accessed  
 134 in December 2010.
- 135 United States Census Bureau, 2010b. Summary File 1 and Summary File 3 1990 and 2000; City  
 136 of Colorado Springs Profiles and Census Tracts 13.01, 14, 15, 23, 24, 30, 34, 66, 67.  
 137 [www.census.gov](http://www.census.gov). Accessed in March.
- 138 United States Census Bureau, 2000. Race, Ethnicity, and Income statistics for census blocks and  
 139 block groups. [www.census.gov](http://www.census.gov).
- 140 United States Department of Housing and Urban Development, 2009. *Federal Year 2008 Income*  
 141 *Limits.* <http://www.huduser.org/portal/datasets/il/il09/index.html>. Accessed in September  
 142 2008.

- 143 United States Environmental Protection Agency, 2010. *National Ambient Air Quality Standards for*  
144 *Ozone, Proposed Rule*. January 19, 2010 Federal Register, pp. 2938-3052.  
145 <http://www.epa.gov/air/ozonepollution/fr/20100119.pdf>.
- 146 United States Army Corps of Engineers (USACE), 2005. *HEC-RAS 3.1.3 River Analysis System*.  
147 May.
- 148 USACE, 1987. *Corps of Engineers Wetland Delineation Manual, Final Report*. Wetlands Research  
149 Program Technical Report Y-87-1. January.
- 150 United States Geological Survey (USGS), 2009. *Sources of Fecal E.coli to Upper Fountain Creek,*  
151 *Summary of Final Project Results*. [http://www.fountain-crk.org/Projects/e-coli%20-final-](http://www.fountain-crk.org/Projects/e-coli%20-final-results-presentation.pdf)  
152 [results-presentation.pdf](http://www.fountain-crk.org/Projects/e-coli%20-final-results-presentation.pdf). September 9.
- 153 Willard, Alisa, 2008. Personal communication from Water Quality Database Supervisor for the  
154 Colorado Department of Public Health and Environment to Doug Stewart, CH2M HILL.  
155 October 17.
- 156 Wilson & Company, 2010. *Air Quality Technical Memorandum, US 24 West*. Prepared for Colorado  
157 Department of Transportation and CH2M HILL. February.