

## 3.22 PUBLIC SAFETY AND SECURITY

### 3.22.1 Affected Environment

The following section describes existing conditions, programs, and services associated with public safety and security in the regional study area.

#### 3.22.1.1 SAFETY

Public safety refers to existing potential safety hazards and existing operating public safety providers.

#### *Highway Safety*

Highway safety, as it relates to crash rates and geometric deficiencies that affect them, is analyzed in **Chapter 2 Alternatives** and **Chapter 4 Transportation Impacts**. This section focuses on the facilities and services available to commercial vehicles as they relate to safety.

Approximately 16 percent of daily traffic (approximately 8,000 vehicles) on I-25 is made up of trucks and commercial freight traffic. The Interstate Commerce Commission has set hours of service limits for commercial drivers that legislate mandatory rest periods after every 10 hours of driving. In Colorado, the Federal Highway Administration (FHWA) estimates a demand for 760 rest area parking spaces during the peak hour along interstates carrying more than 1,000 vehicles per day. There is currently a supply of 167 truck parking spaces statewide (FHWA, 2002).

Truck parking is available to drivers at state rest areas and at travel plazas and truck stops. Within the regional study area, the Poudre Rest Area is located at Prospect Road (Exit 268) and I-25. There are two travel plazas: one located at SH 119 and I-25 (Exit 240), and one at Johnson's Corner, located at Exit 254, just south of SH 402.

#### *Transit Safety*

Transit safety reflects existing transit facilities in the regional study area. There are currently four transit service providers in the regional study area. The Regional Transportation District (RTD) is by far the largest transit provider, serving the Denver Metro Area at the far southern end of the regional study area (south of SH 7 and in Longmont). RTD contracts for security on vehicles and at stations, as well as park-n-Ride facilities. They also use video surveillance on vehicles and at selected stations, as well as park-n-Ride facilities. TransFort (Fort Collins), Colt (Loveland), and The Bus (Greeley), the other three transit service providers, all rely on coordination with local police departments through their dispatch centers for security services. In addition, Fort Collins has full lighting at its transfer centers (Downtown, CSU, and South) and video surveillance at the Downtown and Colorado State University (CSU) Transfer Centers.

#### What's in Section 3.22?

##### 3.22 Public Safety and Security

- 3.22.1 Affected Environment
  - 3.22.1.1 Safety
  - 3.22.1.2 Security
- 3.22.2 Environmental Consequences
  - 3.22.2.1 No-Action Alternative
  - 3.22.2.2 Package A
  - 3.22.2.3 Package B
- 3.22.3 Mitigation Measures

1 *Freight Railroad Safety*

2 Three freight railroads operate in the regional study area – the Burlington Northern and  
3 Santa Fe Railway (BNSF), Union Pacific Railroad (UPRR), and Great Western Railroad  
4 (GWR). The Federal Railroad Administration (FRA) reports at-grade crossing safety using  
5 accident predictions. An accident prediction is a value that indicates the statistical likelihood  
6 of a collision at a crossing given the crash history at that location, physical conditions  
7 (including crossing protection), and both roadway and railway traffic levels.

8 BNSF operates their Front Range Subdivision along the west side of the regional study area.  
9 The railroad operates four to six trains per day on this line. The rail network interacts with the  
10 roadway at 90 locations. Two crossings along the existing BNSF alignment are currently  
11 grade separated: US 34 in Loveland and US 287 on the northern edge of Berthoud.  
12 Otherwise, the existing BNSF crossings are all at-grade. The annual accident prediction for  
13 the 90-crossing corridor is 2.37, implying that two to three collisions can be expected in this  
14 corridor each year. This prediction is an analysis of the rail corridor unaffected by  
15 transportation projects.

16 UPRR operates three lines in the regional study area, one of which would be utilized in  
17 proposed future transit projects. The Boulder Industrial Lead historically connected  
18 Commerce City to Boulder via Thornton and Erie. This line is anticipated to be used for the  
19 North Metro FasTracks rail service south of SH 7. North of SH 7, the Colorado Department of  
20 Transportation (CDOT) removed the bridge over I-25 near Erie when the interstate was  
21 widened. Rail service along this line has been cut back, and there are no trains that operate  
22 north of SH 7 today. There were five active at-grade crossings between SH 7 and I-25 before  
23 service was discontinued.

24 GWR operates several lines throughout the regional study area, though there is only one  
25 interaction between a GWR line and a roadway.

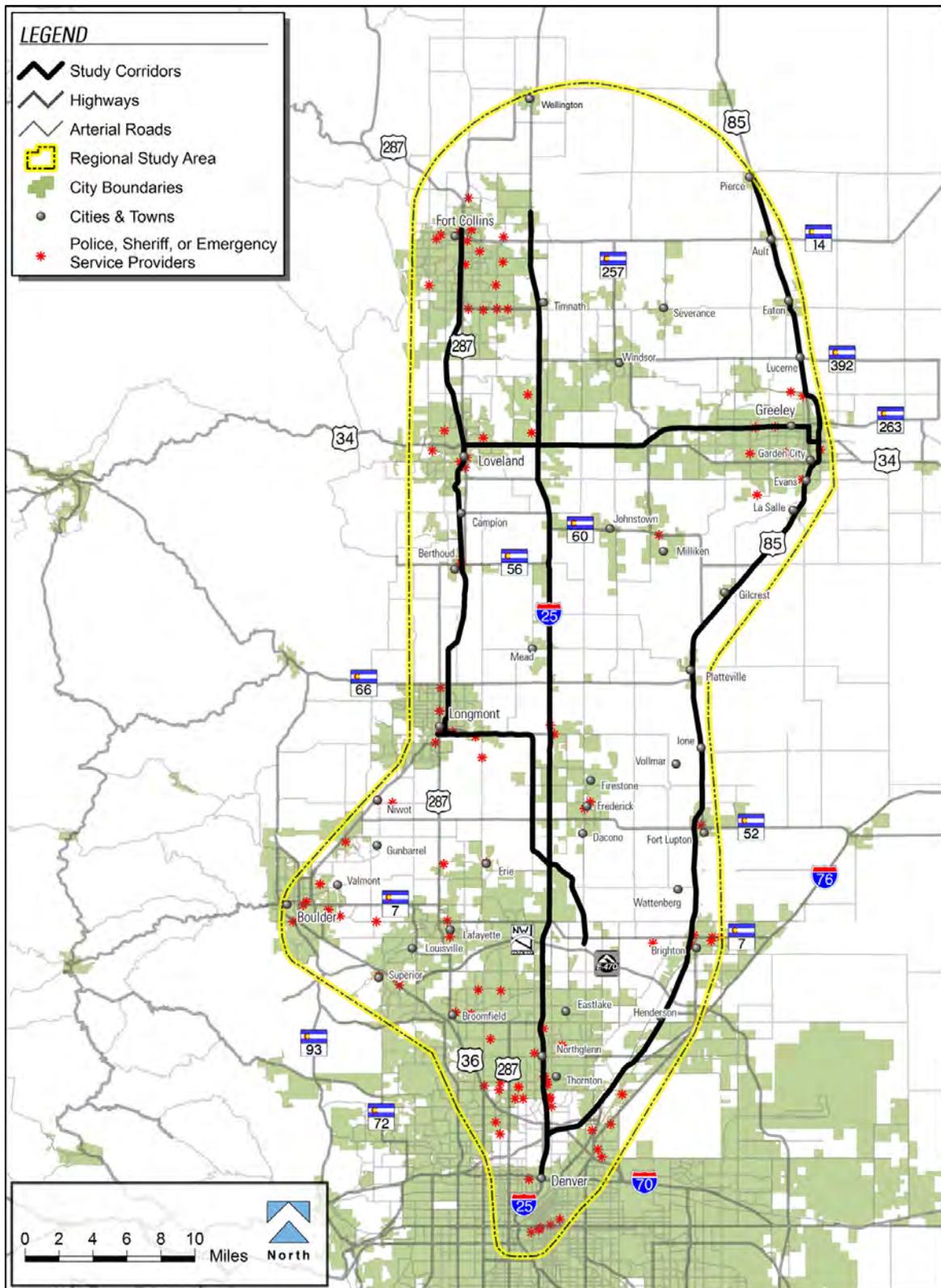
26 *Emergency Service Providers*

27 There are 114 fire, police, and emergency service provider locations within the regional study  
28 area, as shown in **Figure 3.22-1**. In interviews with Larimer and Weld county sheriffs'  
29 officials, it became clear that each responder uses I-25 differently depending on the  
30 circumstance. Lane widths on the interstate are considered too narrow for most fire vehicles  
31 and police cars. Weld County responders usually consider it too congested to respond in  
32 minimal times, but Larimer County responders rely on it as one of the few continuous north-  
33 south routes in the county.

34 **Fire.** There are numerous fire districts within the regional study area including volunteer, rural,  
35 and metro fire departments. In addition to fire and emergency response services, these  
36 departments are often responsible for disaster/emergency planning and fire prevention  
37 education in their communities.

38 There are 61 fire stations providing fire and emergency response services to residents  
39 throughout the regional study area. Each town, city, and county within the regional study area  
40 has individual fire facilities or combines its fire services with other jurisdictions. For example, the  
41 North Metro Fire Rescue District provides service to the cities of Broomfield and Northglenn as  
42 well as portions of unincorporated Adams, Boulder, Jefferson, and Weld counties.

1 Figure 3.22-1 Emergency Service Provider Locations within the Regional Study Area



Map Document - C&B: (EJ\_Planners\_Services\_eis.mxd)  
2-22-2007

1 In addition, a fire and police station is proposed and would be located east of Johnson's Corner  
2 and south of CR 16. This fire and emergency facility would service the Johnstown Fire Rotation  
3 District with officers also present from the police. It would be a new and additional service for the  
4 fire protection district that is currently north of US 60 at CR 15. The location was selected  
5 because of its proximity to I-25 and because of community development near the I-25 corridor.  
6 Driveway access would be to CR 16, which has access to I-25 at Exit 254 and at SH 402.

7 **Police.** There are 21 police departments and eight sheriffs' offices providing public safety  
8 services to residents throughout the regional study area. Sheriffs in Adams, Boulder,  
9 Broomfield, Denver, Larimer, and Weld counties coordinate search-and-rescue efforts,  
10 handle civil processes and evictions, provide animal control services, respond to hazardous  
11 material events, and provide public safety services to residents living in unincorporated  
12 portions of the regional study area. In addition to these county services, each municipality  
13 within the regional study area has individual police departments geared toward crime  
14 prevention, law enforcement, and traffic management. Sheriff's offices and police  
15 departments that serve the regional study area are shown by location in **Figure 3.22-1**.

16 **Emergency Service.** Emergency medical response services are provided to regional study  
17 area residents by local fire departments and hospitals. In addition to these service providers,  
18 numerous independent agencies provide emergency response services in the regional study  
19 area. Several jurisdictions have joined together to meet their emergency response needs.  
20 One example is the Weld County Paramedic Services, which was created through a joint  
21 agreement between Weld County and Greeley to serve both incorporated and unincorporated  
22 communities in Weld County.

### 23 3.22.1.2 SECURITY

24 Security refers to crime, and related crime-prevention methods and services.

25 In general, security in the regional study area is typical of many growing portions of the  
26 nation, with property-related crimes being most prevalent (theft, vandalism, etc.). The various  
27 policing entities described above respond to these crimes.

28 Currently there is a security presence at the existing carpool lots along I-25. County and  
29 municipal police officers patrol the existing carpool lots on an as-needed basis in response to  
30 police calls and reported crimes. There has been growth in crime rate related to property  
31 (vehicle break-ins and/or thefts), illegal drug trafficking, and illicit sexual activity at these  
32 facilities. In response, CDOT and the North Front Range Metropolitan Planning Organization  
33 (NFRMPO) are working cooperatively to improve carpool lots at the following locations  
34 including installing lighting and security cameras:

- 35 ▶ SH 34 – installation of security cameras
- 36 ▶ SH 402 – installation of security cameras and entrance lighting
- 37 ▶ SH 60 – implementation of access control (one-way in and out with curb added between  
38 the frontage road and the park and ride)
- 39 ▶ SH 119 – installation of security cameras

40 Both CDOT and NFRMPO have identified available funding to make these improvements.

## 3.22.2 Environmental Consequences

Public transit and transportation projects could impact public safety and security by increasing the demand for police and fire protection in the communities they serve, or by increasing or decreasing the potential for accidents involving pedestrians or automobiles. Potential impacts to safety and security as a result of the No-Action Alternative and the build packages were evaluated.

The differences in public safety and security between the No-Action Alternative and two build packages are difficult to quantify. There is a potential for moderate increases in theft, vandalism, and other emergency services at commuter rail and bus stations but no quantifiable evidence to show that these increases would result from implementation of either build package.

### 3.22.2.1 NO-ACTION ALTERNATIVE

Because the No-Action Alternative involves the existing highway and bus system, local jurisdictions and the Colorado State Patrol would continue to provide security. The existing railway system would be maintained by the freight companies who operate them.

As congestion increases, there would be a greater likelihood of both highway and railway crashes within the regional study area and emergency response times would be negatively affected. Weld County emergency responders have indicated that they would avoid I-25 due to increased response times as described in **Section 3.22.1.1**. The likely higher number of crashes also could affect the likelihood of a crash involving a transporter of hazardous waste.

### 3.22.2.2 PACKAGE A

Package A includes safety improvements, structure upgrades, construction of additional general purpose plus auxiliary lanes on I-25, and the implementation of commuter rail and bus service. This alternative is described in detail in **Chapter 2 Alternatives**.

#### *Police Protection and Community Safety Services*

**Components A-H1 and A-H4: Safety Improvements and Structure Upgrades.** Police protection services would be required for project security during both the construction and operation phases. During the construction phase, security would be required to minimize or prevent construction site thefts. Control of security at the construction site would be the responsibility of the construction contractor. When a site theft occurs, modest increases in police services would be required for investigation, arrests, citations, report writing, and court appearances. Responding to site thefts is within the existing responsibilities of the affected municipalities listed in the section detailing existing conditions. Responding to construction site theft would represent a minimal impact to the overall police workload and is not envisioned to necessitate an increase in staff to maintain existing levels of service.

**Components A-H2 and A-H3: General Purpose Lanes.** I-25 would continue to be patrolled by the Colorado State Patrol. In addition, each county or municipality would have a local law enforcement agency that has jurisdiction on intersecting streets. During the construction phase, security would be required to minimize or prevent construction site thefts. The construction of general purpose lanes also would potentially result in an increased need for security and municipal law enforcement due to increased traffic. The accident rate is projected to decrease, however.

1 **Components A-T1, A-T2, A-T3, and A-T4: Commuter Rail and Commuter Bus.** During the  
2 construction phase, security would be required to minimize or prevent construction site thefts.

3 During the operation phase of the commuter rail project, police protection would be required  
4 to ensure safety on the trains and at the stations and park and rides. Although an operational  
5 authority for the commuter rail has not yet been identified, the creation and maintenance of a  
6 transit system that has a consistent level of service, safety, and security would be one of the  
7 over-arching goals. For discussion of impacts, it can be assumed that the standards practiced  
8 by RTD, the largest transit service provider in the regional study area, would be implemented  
9 by the commuter rail operational authority.

10 The commuter rail operational authority would provide uniformed, armed security officers who  
11 patrol, by vehicle and on foot, the park and rides, trains, and platforms associated with the  
12 commuter rail system. Security would be provided seven days a week during all hours of  
13 revenue service. All elements of the commuter rail system would likely be designed generally  
14 in accordance with RTD's Comprehensive Safety Certification Program (Interview with Dave  
15 Genova, RTD, May 2006), ensuring that safety issues are addressed and that the level of  
16 service is consistent throughout the transit corridor.

17 Security on Commuter Trains. Armed security officers would be provided on vehicles and, at  
18 times, off-duty police officers would be utilized. Increased demand for local police protection  
19 could be required. The operational authority would likely have surveillance cameras on board  
20 commuter trains. As with existing commuter trains, police and firefighters would be permitted  
21 and encouraged to ride the system for free if identification were presented to the operator.

22 Security on Commuter Buses. Armed security officers would likely be provided on vehicles  
23 and, at times, off-duty police officers would be utilized. Increased demand for local police  
24 protection could be required. As with existing commuter bus services, police and firefighters  
25 would be permitted and encouraged to ride the system for free if identification were presented  
26 to the operator.

27 Security at Commuter Rail Stations, Commuter Bus Stations, and Park and Rides.

28 Passengers would congregate at station platforms and at the park and rides, providing an  
29 increased opportunity for crime. Parked cars also would be potentially exposed to theft and  
30 vandalism. Security forces hired by the commuter rail operational authority would be  
31 responsible for public security at the stations, in conjunction with cooperation from local law  
32 enforcement jurisdictions. The stations would incorporate security design features, such as  
33 lighting and in some cases cameras, to deter criminals.

34 Based on historic RTD experience, special security at the park and rides is not anticipated,  
35 although cameras would be placed at any identified high crime park and rides. When thefts  
36 occur at park and ride facilities, security forces would work with local police to apprehend  
37 criminals. When a crime at the stations or a park-n-ride facility occurs, police involvement  
38 would be required for investigation, arrest, citation, report writing, and court appearances.  
39 The presence of security forces at the stations would not require increased staffing for local  
40 police within any of the affected municipalities.

1 *Fire Protection and Emergency Medical Services*

2 **Components A-H1, A-H2, A-H3, and A-H4: Safety Improvements, General Purpose**  
3 **Lanes, and Structure Upgrades.** The impacts to fire protection and emergency medical  
4 services as a result of safety improvements, construction of general purpose and auxiliary  
5 lanes, and structure upgrades would not be expected to differ substantially from those  
6 described for Police Protection and Community Services relating to Component A-H2.  
7 Service for the regional study area would continue to be provided by existing local  
8 jurisdictions. Safety improvements, construction of general purpose and auxiliary lanes, and  
9 structure upgrades would potentially result in an increased need for fire protection and  
10 emergency services due to increased roadway traffic.

11 **Components A-T1, A-T2, A-T3, and A-T4: Commuter Rail and Commuter Bus.** A  
12 commuter rail line and commuter bus service would require fire protection services for control  
13 of fires in the vehicles and at the stations. It is unlikely that a fire would occur at the stations  
14 because of the simple design and nonflammable construction materials. There is the potential  
15 for fire in the trash receptacles and because of the concentration of passengers at the  
16 commuter train and bus stations, the potential for increased demands for emergency services  
17 exists.

18 Because the potential for fire is low, it is not anticipated that the commuter trains or buses  
19 would necessitate the hiring of additional fire protection personnel in any of the affected  
20 communities in the corridor. While the stations may occasionally require first aid calls, the  
21 potential impact is considered negligible.

22 *Pedestrian and Vehicle Safety*

23 **Components A-H1, A-H2, A-H3, and A-H4: Safety Improvements, General Purpose**  
24 **Lanes, and Structure Upgrades.** Highway safety information, relating to crash rates and the  
25 geometric deficiencies that affect them, is documented in **Chapter 4 Transportation Impacts**.  
26 All four transit service providers in the regional study area operate buses, which are subject  
27 to highway crashes.

28 Planned construction at the interchange from I-25 to Johnson's Corner at Exit 254 would  
29 provide improved access to the rest area and higher capacity for truck and commercial freight  
30 parking in accordance with standards for mandatory rest periods as set by the Interstate  
31 Commerce Commission.

32 The addition of pedestrian facilities in certain locations to ensure safe access to and from  
33 transit stations would enhance pedestrian safety within the project area.

34 **Components A-T1 and A-T2: Commuter Rail.** Proposed commuter trains would interact  
35 with the roadway network at 90 locations spread along the length of the rail components.  
36 Some of these are already grade-separated, others would be grade-separated as part of the  
37 project, and the remainder would stay at-grade. To determine design alternatives of rail  
38 crossings, two distinct analyses were undertaken: an "exposure factor analysis" and the  
39 Federal Railroad Administration's GradeDec.Net analysis, which evaluates benefits and costs  
40 of rail investments.

1 Exposure factors are used to evaluate whether a crossing should be grade-separated.  
2 An exposure factor is the product of train volumes and roadway volume. Crossings where the  
3 exposure factor is largest are typically candidates for grade separations. Exposure factors  
4 were calculated and evaluated for each of the 90 crossings. Crossings are generally clustered  
5 in developed areas such as downtown Longmont and downtown Fort Collins. Exposure  
6 factors were calculated for existing conditions and project conditions in the year 2030 for the  
7 No-Action Alternative and two build packages. Of the 90 crossings evaluated, 14 crossings  
8 had exposure factors at or above 1,000,000. Many of the rural crossings in the corridor had  
9 exposure factors under 100,000. Every crossing in the corridor received at least lights and  
10 gates as a suggested minimum improvement. Each of the crossings with exposure factors  
11 over 1,000,000 was further evaluated for grade separation and recommended for  
12 improvements.

13 The commuter rail operational authority would be responsible for implementing design plans  
14 and coordinating efforts with freight railroad companies to ensure that at-grade crossings  
15 would maximize safety to vehicles and pedestrians. Design measures could include grade  
16 separation, installation of gates and lights, and installation of 4-quadrant gates with medians.

17 In the base year, a point of analysis that evaluates the regional study area in a year with  
18 no planned construction projects, the overall corridor was predicted to have about 2.4 grade  
19 crossing accidents per year. With the improvements defined during the exposure factor  
20 analysis, the corridor accident prediction rate dropped to 0.7 grade crossing accidents per  
21 year. This is a 70 percent reduction in predicted accidents. Assuming a 2030 design year,  
22 a corridor-wide benefit/cost analysis was performed. The results indicated an overall  
23 benefit/cost ratio of approximately 2.8. This positive benefit/cost ratio indicates that the  
24 recommendations made would increase corridor safety without over-designing it.

25 To help ensure passenger and pedestrian safety, transit stations would likely be designed in  
26 accordance with RTD's life-safety standards. Warning signs, tactile strips, signals, and  
27 fencing would be provided to protect pedestrians at station locations. Some stations would  
28 require pedestrian overpasses or underpasses to get patrons from the park and rides to the  
29 station platforms. These overpasses and underpasses would be designed with adequate  
30 fencing and lighting to protect patrons as they walk to the stations.

31 **Components A-T3 and A-T4: Commuter Bus.** The addition of commuter bus service to the  
32 transportation corridor, as well as highway safety related to crash rates and the geometric  
33 deficiencies that affect them, is described in **Chapter 2 Alternatives** and **Chapter 4**  
34 **Transportation Alternatives**. Each of the transit providers in the regional study area operate  
35 buses that are subject to highway crashes. Impacts associated with the addition of commuter  
36 bus service are described in **Chapter 2 Alternatives** and **Chapter 4 Transportation**  
37 **Alternatives**.

### 38 *Summary of Key Impacts for Package A*

39 Key safety and security impacts associated with implementing Package A would occur  
40 temporarily during construction and permanently after implementation. Temporary impacts  
41 include:

- 42 ▶ There is a potential for increased theft during the construction phase.

1 Permanent changes include:  
2

- 3 ▶ There is a potential for modest increases to police services in response to increases in crime.
- 4 ▶ An increased security presence would be needed on trains, buses, and at proposed stations  
5 and associated existing stations.
- 6 ▶ A 70 percent reduction in accidents associated with trains and other vehicles is predicted.

### 7 **3.22.2.3 PACKAGE B**

8 Package B includes safety improvements, construction of tolled express lanes on I-25, and  
9 the implementation of bus rapid transit service. This alternative was described in detail in  
10 **Chapter 2 Alternatives.**

#### 11 *Police Protection and Community Safety Services*

12 **Components B-H1, B-H2, B-H3, B-H4, B-T1, and B-T2 : Safety Improvements, Tolled**  
13 **Express Lanes, and Bus Rapid Transit.** Impacts to police protection and community  
14 services from implementing Package B components would not differ substantially from those  
15 described for Package A.

#### 16 *Fire Protection and Emergency Medical Services*

17 **Components B-H1, B-H2, B-H3, B-H4, B-T1, and B-T2 : Safety Improvements, Tolled**  
18 **Express Lanes, and Bus Rapid Transit.** Impacts to police protection and community  
19 services from implementing Package B components would not differ substantially from those  
20 described for Package A.

#### 21 *Pedestrian and Vehicle Safety*

22 **Components B-H1, B-H2, B-H3, B-H4, B-T1, and B-T2 : Safety Improvements, Tolled**  
23 **Express Lanes, and Bus Rapid Transit.** The construction of tolled express lanes and the  
24 addition of bus rapid transit service to the transportation corridor, as well as highway safety  
25 related to crash rates and the geometric deficiencies that affect them, is described in **Chapter**  
26 **2 Alternatives** and **Chapter 4 Transportation Alternatives.** Each of the transit providers in the  
27 regional study area operate buses that are subject to highway crashes. Buses operating in an  
28 exclusive facility with only one lane would be safer than buses operating in multiple general  
29 purpose lanes. Impacts associated with these bus components are described in **Chapter 2**  
30 **Alternatives** and **Chapter 4 Transportation Alternatives.**

#### 31 *Summary of Key Impacts for Package B*

32 Key safety and security impacts associated with implementing Package B would occur temporarily  
33 during construction and permanently after implementation. A temporary impact includes:

- 34 ▶ There would be a potential for increased theft during the construction phase.

1 Permanent changes include:  
2

- 3 ▶ There would be a potential for modest increases to police services in response to  
4 increases in crime.
- 5 ▶ An increased security presence would be needed on trains, buses, and at proposed and  
6 existing associated stations.

### 7 **3.22.3 Mitigation Measures**

8 Mitigation measures for temporary impacts during construction include:

9 Potential losses at construction sites will be mitigated through fencing and on-site security  
10 provided by contractors. All construction contractors will be responsible for safety at their  
11 respective sites and be required to follow all Occupational Safety and Health Administration  
12 (OSHA) requirements applicable to construction site safety. Each contractor's site safety  
13 plans will be approved by the appropriate agencies or a construction management consultant,  
14 if chosen. The appropriate agencies will provide a site safety officer to monitor site safety.

15 Mitigation measures for permanent impacts include:

16 The design of bus stations will incorporate life-safety standards, similar to RTD's  
17 Comprehensive Safety Certification Program. To ensure consistency of service across the  
18 transit corridor, the commuter rail operating authority will be expected to adhere to these  
19 same standards. These include measures such as fencing to protect patrons from the track  
20 area; well-designed pedestrian underpasses; lighting as a deterrent to crime and to ensure  
21 good visibility in stations and parking areas; and, where walls and elevator shafts are  
22 constructed, the use of transparent materials to provide better sight lines and reduce  
23 concealment areas for criminals. The commuter rail operational authority will likely use  
24 applicable National Fire Protection Association guidelines for life-safety and fixed-guideway  
25 transit systems. Local police will be encouraged to use the park and ride lots when they need  
26 to fill out paperwork in order to increase their visibility at stations. It also will be helpful for the  
27 commuter rail operating authority to work with neighborhoods adjacent to stations and  
28 park and rides to establish neighborhood watch programs and encourage regular attendance  
29 of police and security personnel at neighborhood meetings.

30 Before project startup, the commuter rail operational authority will host training sessions for  
31 all affected police, fire, emergency response teams, schools, and employers who either are  
32 responsible for police or emergency response or are located in the immediate project  
33 corridor. These training sessions will cover the details of commuter train and bus operations,  
34 potential security issues, and agency responsibilities.