

3.13 SAFETY AND SECURITY

A safety and security assessment was conducted to determine possible impacts by the Preferred Alternative to public safety, security, and emergency services. This section focuses on impacts to security issues involving crime at stations and park-n-Ride facilities. Public safety issues and impacts are discussed in Chapter 4, Sections 4.3, Roadway Facilities and Traffic, 4.4, Pedestrian Facilities, and 4.5, Bicycle Facilities. Emergency services issues and impacts are discussed in Section 3.2, Social Impacts and Community Facilities.

Summary of Results

The Preferred Alternative would not impact security (increase or decrease crime rates) in the project area. Based on calculations from this analysis, the station with the highest potential exposure to crime is Colorado; the station with the lowest potential exposure to crime is 38th/Blake. During construction of the Preferred Alternative, construction areas would be secured to reduce the possibility of security hazards on the construction site. There are no direct impacts to security or emergency response times by the CRMF. There is no difference in safety and security impacts between the Smith Road Realignment Design Options 1 and 2, the 40th Avenue Design Options 1 and 2, or the New Castle Design Options 1 and 2. Impacts and mitigations to safety and security can be found in Table 3.13-4.

3.13.1 Affected Environment

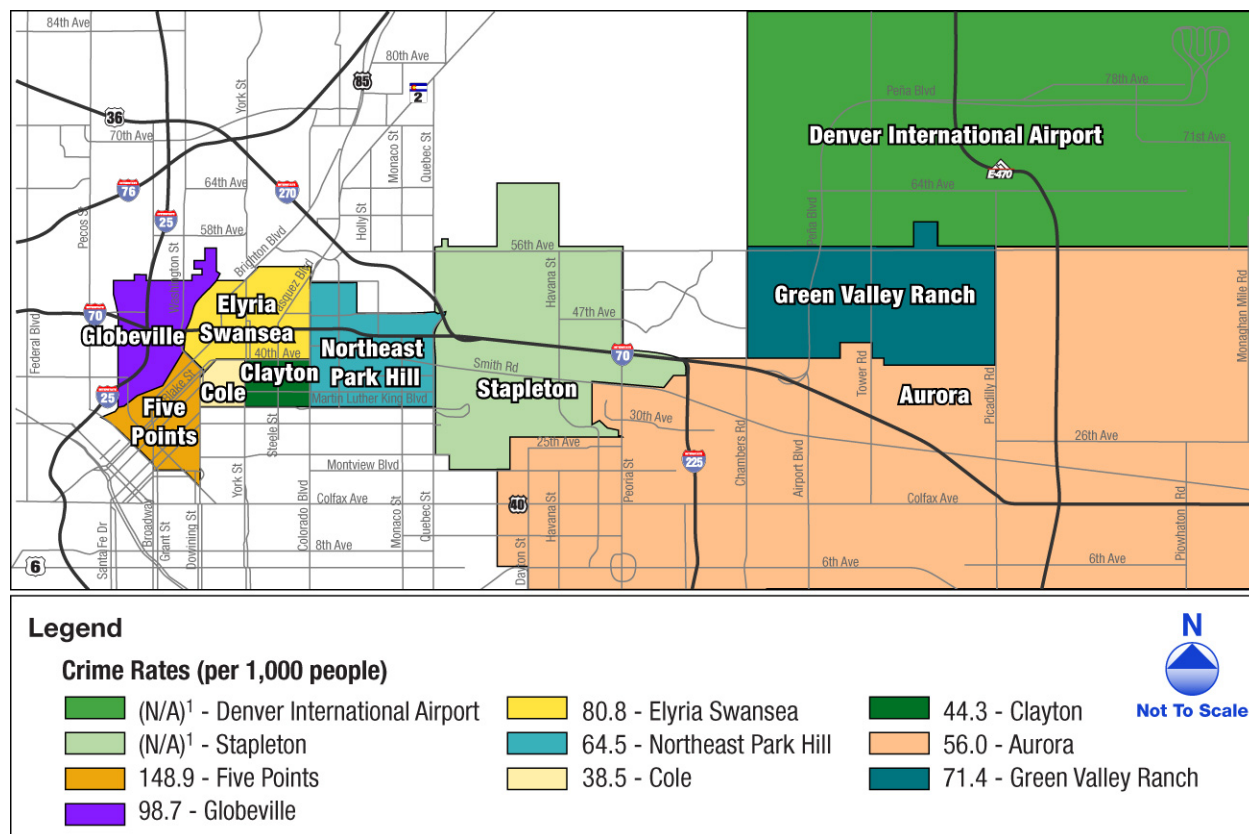
The RTD Safety and Security Manual defines the measures the agency takes to ensure the safety and security of its rail patrons and those indirectly impacted by transit operations. The measures include a Safety and Security department that provides vehicle onboard security staff during hours of rail operation and station area security staff. Emergency telephones are located in station areas and closed circuit television coverage is provided at designated stations, parking structures and lots, and in vehicles. The RTD security force works with the local police to control crime onboard vehicles, along the corridor, at station areas, and in parking facilities.

There is a potential for theft, vandalism, and other crimes at new stations or park-n-Rides and onboard transit vehicles for the East Corridor. Figure 3.13-1 shows crime rates by neighborhood based on CCD and Aurora police departments' 2006 crime statistics. Evaluating crime rates is important because the crime rates near station areas will be similar to the crime rates for the surrounding area. Areas where rates are higher require a greater presence of police for crime deterrence.

The majority of crimes at existing transit stations and park-n-Rides involve motor vehicle theft, personal property theft, and vandalism. Crime data for existing RTD facilities in the project area (40th/Airport and Stapleton park-n-Rides) are shown in Table 3.13-1 with facilities along the Southwest Corridor (I-25/Broadway and Mineral stations).

Additionally, crime onboard the RTD existing light rail service is listed in Table 3.13-2.

**Figure 3.13-1
2006 Crime Rates by Neighborhood**



Source: CCD, 2006c; Aurora Police Department, 2006.

¹Excluded from rates and ranks per 1,000 persons due to a low resident and/or high daytime non-resident population.

**Table 3.13-1
Existing RTD Crime Data (total number)**

Station	Auto Theft		Auto Burglary		Bike Theft		Vandalism	
	2004	2005	2004	2005	2004	2005	2004	2005
40th/Airport (park-n-Ride)	1	0	8	1	0	0	4	2
Stapleton (park-n-Ride)	12	3	17	6	0	0	13	18
I-25/Broadway (station)	3	5	12	9	0	2	5	5
Mineral (station)	1	2	1	2	1	0	0	0

Source: RTD Safety and Security Division (as reported to RTD).

**Table 3.13-2
Onboard Crime on RTD's
Existing Light Rail System (by type)**

Onboard Incident Type	2004	2005
Alcohol offense	2	0
Arson	0	1
Assault	2	5
Disorderly conduct	11	5
Drug offense	3	0
Forgery/Counterfeit	0	0
Fraud	0	0
Robbery	0	1
Sex offense	0	2
Theft	2	1
Transit-specific crime	1	0
Trespassing	7	5
Threats	2	0
Weapons offense	0	1
Vandalism	2	6

Source: RTD Safety and Security Division (as reported to RTD).

3.13.2 Environmental Consequences

Security impacts involve the potential for criminal activity at stations, park-n-Rides, and onboard transit vehicles.

3.13.2.1 No-Action Alternative

The No-Action Alternative would result in no direct, indirect, or temporary construction impacts to security.

3.13.2.2 Preferred Alternative

This subsection details direct, indirect, and temporary construction impacts of the Preferred Alternative. Both the 40th Avenue Design Option 2 and the New Castle Design Option 2, included in the Preferred Alternative, would eliminate potential at-grade roadway crossings.

Direct Impacts

The Preferred Alternative would not increase or decrease crime rates in the project area. A comparison of crime potential at station areas was evaluated by calculating a crime index for each station. The crime index was calculated by multiplying the number of parking spaces per station by the crime rate for the surrounding area. Table 3.13-3 shows the crime index for the stations along the Preferred Alternative.

The Preferred Alternative would increase the frequency of trains at existing grade crossings along the UPRR corridor and introduce three to five new at-grade roadway crossings. RTD would provide a high degree of safety improvements at each grade crossing, including gates and signal improvements. The Preferred Alternative includes the closure of the existing at-grade crossing of Columbine Street, which would improve safety at that location. RTD has convened a

Fire and Life Safety Committee that will assist in preparing an emergency plan and coordinate response to emergency situations.

**Table 3.13-3
Preferred Alternative Station Crime Index**

Station	Neighborhood	Number of Parking Spaces	Crime Rate (Crimes/1,000 People)	Crime Index
38th/Blake	Elyria and Swansea	500	80.8	40.4
Colorado	Elyria and Swansea	1,800	80.8	145.4
Central Park	Stapleton	1,500	N/A*	N/A*
Peoria	Aurora	1,900	56.0	106.3
40th/Airport	Aurora	2,200	N/A*	123.2

Source: CCD, 2006c; Aurora Police Department, 2006.

*Excluded from rates and ranks per 1,000 persons due to a low resident and/or high daytime non-resident population.

Based on the crime index, the station with the highest potential exposure to crime is Colorado. The station with the lowest potential exposure to crime will be 38th/Blake.

The Preferred Alternative would eliminate one at-grade crossing at New Castle Street. However, with proposed active warning devices and crossing safety improvements that would be included in the New Castle Design Option 1, there is no significant difference in impacts between the Preferred Alternative and the New Castle Design Option 1. As a result there is no difference in impacts in New Castle Design Options 1 and 2.

There are no differences in impacts between the Smith Road Realignment Design Options 1 and 2 or the 40th Avenue Design Options 1 and 2.

There are no direct impacts to security by the CRMF. Once operational, the CRMF would be fenced, lighted, and patrolled to prevent crime. The CRMF would not increase or decrease crime or represent a safety hazard to surrounding neighborhoods. Emergency response times would not be affected by train movements to and from the CRMF because track leading into the CRMF would be constructed under 48th Avenue, where a grade separation currently exists.

Indirect Impacts

The Preferred Alternative would result in no indirect impacts to security.

Temporary Construction Impacts

During construction of the Preferred Alternative, construction areas would be secured to reduce the possibility of security hazards on the construction site.

3.13.3 Mitigation

No mitigation is required for direct impacts. As a means of avoiding and minimizing safety and security impacts, the RTD design, construction, and operations standards for new transit systems, including the Preferred Alternative, incorporate several components and actions to make the systems safe and secure for transit patrons and the general public. The implementation of a hazard identification, analysis, and resolution process is required for all transit engineering projects. Hazards are identified through a preliminary analysis to document the description, factors, and effects of the hazards. A safety certification process must be

conducted to verify that the system elements comply with a formal list of safety requirements for the transit mode.

RTD will work with police, fire, and transportation agencies during project design to ensure reliable emergency access is maintained and develop alternative plans or routes to avoid delays in emergency response times.

Fencing or barriers will be provided along the proposed alignment and surrounding station areas. These would be designed to be a safety barrier to prevent trespassers, vehicles, trucks, and other roadway users from entering the trackway. They will also be designed to prevent road debris or plowed snow, slush, and ice from entering the trackway or station areas. Safety measures will be incorporated on elevated sections to provide fall protection as well as adequate space for maintenance workers.

Stations will be designed with a minimum of two access and egress points. These points will facilitate safe and efficient evacuation of a station in four minutes or less.

Surveillance will include both personal and video surveillance. Video surveillance systems will be capable of transmitting real-time video to RTD through a fiber optic transmission backbone or other suitable transmission network. Personal surveillance will include uniformed officers who inspect transit stations on a recurring basis.

Emergency telephones will be installed onsite. They will be consistent with existing RTD units and meet performance requirements of RTD's existing emergency telephone network. Emergency telephones will cover station platforms, elevator waiting areas, stairwell entrances, parking structures, and pedestrian overpasses.

Crime prevention through environmental design (CPTED) will be incorporated in the entire design. The purpose of CPTED is to minimize potential threats and vulnerabilities to the transit system, facilities, and patrons and maximize safety and security through engineering and design. Some CPTED strategies would include:

- Maximize visibility of people, parking areas, patron flow areas, and building/structure areas.
- Provide adequate lighting to minimize shadows.
- Install graffiti guards and remove graffiti when discovered.
- Install mylar shatter guard protection for glass windows.
- Install landscaping that maximizes visibility.
- Provide gateway treatments, decorative fencing, perimeter control, and a minimum number of parking structure access points.
- Coordinate and cooperate with municipalities to promote transit-friendly land uses.
- Establish maintenance programs that repair broken windows, pick up litter, and manage streetscapes and public spaces.

Design elements and electronic technology will be used to ensure the transit platform area is safe and free of hazards. Representative measures include:

- Active and passive warning devices that alert persons of risks and hazards.
- Light-emitting, diode-flashing pedestrian warning signs that warn of an approaching train.
- Pavement coloring and texturing to notify pedestrians of hazards and/or risk areas.

- Pedestrian barriers such as swing gates, automatic pedestrian gates, or Z-crossings on platforms with poor sight distance to prevent pedestrians from entering the railway.

RTD will work with local police and sheriff's departments to plan for appropriate security and would increase the number of private security guards on patrol within the corridor proportionate to the increase in service.

No mitigation is required beyond adherence to RTD safety and security design standards.

Table 3.13-4 summarizes the impacts to security by the Preferred Alternative and mitigation measures.

**Table 3.13-4
Security Impacts and Mitigation Related to the Preferred Alternative**

Impacts	Mitigation
<p>Direct Impacts</p> <ul style="list-style-type: none"> • The operation of the Preferred Alternative would neither increase nor decrease crime rates in the project area. • The operation of the Preferred Alternative would increase the frequency of trains at grade crossings. 	<ul style="list-style-type: none"> • No mitigation required beyond adherence to the RTD station design guidelines for safety and security. • RTD will continue to coordinate with the Fire and Life Safety Committee in preparing an emergency plan and coordinating emergency responses. • Crossing improvements would upgrade existing warning devices to gates and barrier curbs at a minimum.
<p>Indirect Impacts</p> <ul style="list-style-type: none"> • No impacts. 	<ul style="list-style-type: none"> • No mitigation required.
<p>Temporary Construction Impacts</p> <ul style="list-style-type: none"> • Potential security hazards if the work areas are not adequately secured. 	<ul style="list-style-type: none"> • Secure construction areas to reduce security hazards.