

2.4 Utilities/ Emergency Services

This section is based on information from the *Preliminary Assessment of Utility Conflicts* (July 2017), and the *Draft Transportation Management Plan (TMP)* (June 2017).

2.4.1 Affected Environment

This section describes the existing utilities and emergency services facilities and providers in the project footprint (the maximum disturbance limits for the Build Alternative) and Study Area extending 0.5 mile (mi) from the limits of the project footprint.

2.4.1.1 Utilities

Existing utilities are located adjacent to and within the Study Area. The locations of utilities have been identified from utility and freeway as-built drawings and field reviews. Utility owners with existing facilities known to exist within the Study Area include the following:

- AT&T
- Century Link
- Charter Communications (formerly Time Warner, and Time Warner Telecom)
- Comcast
- Cox Communications
- Frontier (formerly Verizon and MCI)
- Irvine Ranch Water District
- Kinder Morgan Energy Partners
- Level 3 Communications
- Metropolitan Water District
- Orange County Sanitation
- Orange County Water District
- Southern California Edison
- Southern California Gas
- Wilcon (formerly Freedom Dark Fiber)

2.4.1.2 Fire Protection

Fire protection and emergency medical/paramedic services in the Study Area cities (Santa Ana, Tustin, and Irvine) are provided by the Orange County Fire Authority under contract with those cities. There are four Orange County Fire Authority fire stations within 0.5 mi of the Study Area: Station No. 20 (6933 Trabuco Road, Irvine, CA 92709), Station No. 26 (4691 Walnut Avenue, Irvine, CA 92604), Station No. 51 (18 Cushing, Irvine, CA 92618), and Station No. 72 (1668 East 4th Street, Santa Ana, CA 92701).

2.4.1.3 Police Protection

Police protection services in the Study Area are provided by the police departments in the Study Area cities of Tustin, Santa Ana, and Irvine. There is one police station located within 0.5 mi of the Study Area: Tustin Police Department (300 Centennial Way, Tustin, CA 92780). The other nearest police stations are located 2.1 mi northwest of the Study Area in the City of Santa Ana, and 2.3 mi southwest of the Study Area in the City of Irvine.

Police services on freeways in California, including Interstate 5 (I-5), are provided by the California Highway Patrol (CHP). The nearest CHP office is approximately 1.5 mi northeast of the Study Area in the City of Santa Ana.

2.4.2 Environmental Consequences

2.4.2.1 Temporary Impacts

Build Alternative (Alternative 2A and Alternative 2B [Preferred Alternative])

The construction of the Build Alternative could affect existing underground and overhead utility facilities, which could require protection in-place, removal, or relocation. The utility facilities that could potentially be affected during construction of the Build Alternative are listed in Table 1.7 in Chapter 1. An updated utility search would be conducted during final design to determine all utilities that would require protection in-place, removal, or relocation. Completion of the utility work may result in temporary service disruptions to some utility users in the vicinity of the Study Area. Fewer utility facilities would be affected under Alternative 2B than would be affected under Alternative 2A.

Project Feature PF-UES-1 has been incorporated into the Build Alternative to address the potential temporary adverse effects of the project construction on utilities.

PF-UES-1 During final design, utility relocation plans will be prepared in consultation with the affected utility providers/owners for those utilities that will need to be relocated, removed, or protected in-place. If relocation is necessary, the final design will focus on relocating utilities within existing public rights-of-way (ROWs) and/or easements. If relocation outside of existing ROWs or additional public ROWs and/or easements required for the project are necessary, the final design will focus on relocating those facilities to minimize environmental impacts as a result of project construction and ongoing

maintenance and repair activities. Utility relocations are anticipated to be completed by the various utility owners/project contractors prior to or during construction.

Prior to utility relocation activities, the Contractor will coordinate with affected utility providers regarding potential utility relocations and inform affected utility users in advance about the date and timing of potential service disruptions.

The following temporary impacts would be true for the Build Alternative. For temporary impacts that vary among the Design Variations, see below.

During construction of the Build Alternative, some impairment to the delivery of emergency services, including fire and police response times, may occur due to limited lane closures on the mainline, ramps, and arterials of I-5 within the project limits. Detour routes would be provided to direct traffic around any mainline or ramp closures using the local arterial street network. Emergency services providers (including the local fire and police departments and CHP) could experience these travel delays when traveling to/from emergency scenes during these mainline freeway closures.

The following project feature has been incorporated in the Build Alternative to address the potential temporary adverse effects of the project construction on emergency services:

PF-UES-2 Prior to and during construction, the Contractor will coordinate all temporary mainline, ramp, and arterial roadway closures and detour plans with law enforcement, fire protection, and emergency medical service providers to minimize temporary delays in emergency response times, including the identification of alternative routes for emergency vehicles and routes across the construction areas that are developed in coordination with the affected agencies.

In addition, temporary construction impacts to emergency services would be addressed by Project Feature PF-T-1 in Section 2.5, Traffic and Transportation/ Pedestrian and Bicycle Facilities. Project Feature PF-T-1 requires development and implementation of a TMP during construction of the Build Alternative to address traffic delays; maintain traffic flow in the I-5 corridor; manage detours and temporary road, lane, and ramp closures; provide ongoing information to the public regarding

construction activities, closures, and detours; and maintain a safe environment for construction workers and travelers.

Closures would include partial bridge closures, as well as the complete closure of a local street or freeway for construction of bridges during the nighttime and off-peak hours during critical construction phases. During partial bridge closures, the contractor would post signs notifying the public five working days prior to the closure. For complete overnight bridge closures, the contractor would coordinate and obtain prior authorization from the California Department of Transportation (Caltrans) and notify the public of the full closure five working days prior to the closure.

The contractor would implement traffic controls for all bridges and for any local streets that are underneath the freeway bridges per approved traffic control plans. Emergency services providers, including the local fire and police departments and the CHP, could experience travel delays when traveling to/from emergency scenes during bridge closures.

Alternative 2A would require short-term ramp closures at westbound Jeffrey Road to the northbound I-5 on-ramp, the northbound I-5 off-ramp to Jamboree Road, westbound Jamboree Road to the northbound I-5 on-ramp, Red Hill Avenue to the northbound I-5 on-ramp, Tustin Ranch Road to the southbound I-5 on-ramp, and the Newport Avenue off-ramp from southbound SR-55 to the southbound I-5 connector. Alternative 2A would also require full nighttime closures on I-5 at Alton Parkway and Jeffrey Road. Build Alternative 2B would require short-term closures at westbound Jeffrey Road to the northbound I-5 on-ramp, westbound Jamboree Road to the northbound I-5 on-ramp, and the Tustin Ranch Road on-ramp to the southbound I-5 on-ramp. Most of the interchange ramps are expected to be open during construction, with periodic closures at night or for a period of less than 10 days. The contractor would post signs to notify the public five working days prior to the closures. For these ramp closures, detoured traffic would use Tustin Ranch Road, Walnut Avenue, Bryan Avenue, Jamboree Road, Red Hill Avenue, Mitchell Avenue, El Camino Real, and Newport Avenue. The contractor would implement traffic controls per approved traffic control plans for eastbound and westbound bridge and local street closures. Emergency services providers, including the local fire and police departments and the CHP, could experience travel delays when traveling to/from emergency scenes during ramp closures.

Construction of Alternative 2A would also require the full closure of one or both directions of I-5 at Alton Parkway and Jeffrey Road, and on State Route 261 (SR-261) at the I-5 northbound off-ramp to Jamboree Road during nighttime or off-peak hours for the construction of the bridge replacements. Construction of the Build Alternative may require additional lane closures on I-5 during nighttime or off-peak hours for placement of temporary K-rail and other construction equipment. The contractor would coordinate and obtain prior authorization from Caltrans for any lane closures on the freeway mainline, and will notify local police, fire, and emergency responders regarding the planned closures. The public will also be notified of any closures through public information outreach. In addition, construction alerts would be issued to local transit operators, local radio and cable television companies, emergency services (fire and police), schools, local major employers, and traffic navigation systems groups. Detour plans would be developed during final design to finalize detours routes. Currently, it is expected that that detoured traffic would use major arterials in the vicinity of the project, Interstate 405 (I-405), and SR-55. Emergency services providers, including the local fire and police departments and the CHP, could experience travel delays when traveling to/from emergency scenes during freeway closures.

All temporary mainline, ramp, and arterial road closures and detour plans would be coordinated with law enforcement, fire protection, and emergency medical service providers to minimize temporary delays in emergency response times. Construction of the project is anticipated to last 48–60 months. The majority of the work would be conducted during the day time behind temporary K-rails, with localized areas of construction occurring at night using lane closures per Caltrans Standard Plans (T-sheet series). The contractor would contact the respective Transportation Management Center (TMC) regarding events taking place in Irvine and Tustin and to coordinate exact closure dates and times. The TMCs include the City of Irvine Traffic Research and Control Center, the City of Tustin Public Works Department, and Caltrans District 12 TMC.

Alternative 2A

Alternative 2A would require the Alton Parkway overcrossing over I-5 and the Jeffrey Road overcrossing over I-5 to be replaced with new bridges. Closures for Alton Parkway and Jeffrey Road would include partial bridge closures, as well as complete closure of the street during nighttime and off-peak hours during critical construction phases. During partial bridge closures, the contractor would post signs notifying the public five working days prior to the closure. For complete overnight

bridge closures, the contractor would coordinate and obtain prior authorization from Caltrans and notify the public of the full closure five working days prior to the closure. Detoured traffic for a complete closure to the Alton Parkway overcrossing would use Irvine Center Drive, Barranca Parkway, and Technology Drive. Detoured traffic for a complete closure to the Jeffrey Road overcrossing would use Walnut Avenue, Yale Avenue, and Trabuco Road. The contractor would implement traffic controls per approved traffic control plans. Emergency services providers, including the local fire and police departments and the CHP, could experience travel delays when traveling to/from emergency scenes during bridge closures.

During construction of Alternative 2A, some impairment to the delivery of emergency services, including fire and police response times, may occur due to limited lane closures on the mainline, ramps, and arterials. Detour routes would be provided to direct traffic around any mainline or ramp closures using the local arterial street network. Emergency services providers (including the local fire and police departments and the CHP) could experience these travel delays when traveling to/from emergency scenes during these mainline freeway closures.

Alternative 2B (Preferred Alternative)

Alternative 2B would not require replacement of the Alton Parkway overcrossing and the Jeffrey Road overcrossing. Alternative 2B proposes most of the same improvements as Alternative 2A, except for its inclusion of reduced shoulder widths and lane widths in specific areas to minimize right-of-way (ROW) or other impacts. Closures would include partial or complete closure of the mainline freeway, local streets and ramps during nighttime and off-peak hours during critical construction phases. During partial local street closures, the contractor would post signs notifying the public five working days prior to the closure. For complete local street or ramp closures, the contractor would coordinate and obtain prior authorization from Caltrans and notify the public of the full closure five working days prior to the closure. The contractor would implement traffic controls per approved traffic control plans. Emergency services providers, including the local fire and police departments and the CHP, could experience travel delays when traveling to/from emergency scenes during bridge closures.

Similar to Alternative 2A, some impairment to the delivery of emergency services may occur due to limited lane closures on the mainline, ramps, and arterials. As discussed under Alternative 2A, detour routes would be provided to direct traffic around any mainline or ramp closures using the local arterial street network.

No Build Alternative (Alternative 1)

No improvements to I-5 other than routine maintenance are proposed under the No Build Alternative. The freeway would remain as is, with the exception of other proposed projects that are under development or currently under construction. Therefore, the No Build Alternative would not result in temporary adverse effects on utilities and emergency services.

2.4.2.2 Permanent Impacts

Build Alternative (Alternative 2A and Alternative 2B [Preferred Alternative])

Any relocation or other effects to utility facilities under the Build Alternative would occur during the final design or construction phase. All existing utility facilities would be anticipated to be maintained under the Build Alternative. The Build Alternative would not result in an increased demand for domestic water services, wastewater facilities, or solid waste disposal. Therefore, the Build Alternative would not result in permanent adverse effects on utility providers or their facilities.

As required by Caltrans and the respective standards of the affected cities, emergency access would be maintained or provided as part of the final design of the Build Alternative. The improvements to the I-5 mainline under the Build Alternative would reduce traffic congestion and result in decreased travel times on I-5 between I-405 and SR-55 compared to the No Build Alternative. These improvements in traffic flow are likely to improve emergency response times within the Study Area. Therefore, the Build Alternative would not result in adverse effects on emergency services and providers.

No Build Alternative (Alternative 1)

No improvements to I-5 are proposed under the No Build Alternative other than routine maintenance. The freeway would remain as is, with the exception of other proposed projects that are under development or currently under construction. Therefore, the No Build Alternative would not result in permanent adverse effects related to emergency services and utility services and their facilities.

2.4.3 Avoidance, Minimization, and/or Mitigation Measures

The Preferred Alternative will incorporate project features as outlined above in Section 2.4.2.1 to help address potential impacts. No avoidance, minimization, and/or mitigation measures are required.

This page intentionally left blank