

## **2.2.6 Utilities/Emergency Services**

### **2.2.6.1 Affected Environment**

This section describes existing utilities and emergency services, including the facilities and providers, within the study area that could be affected by construction of the Build Alternatives (including Build Alternative 1a). It was prepared using informational sources that included California Department of Transportation (Caltrans) utility plans, the Utility Conflict Matrices for Build Alternative 1 and its design variation (Build Alternative 1a) (July 2025), and the Community Impact Assessment (2026).

The Project limits are defined as the Project footprint and the area of direct impact where construction and operational activities under the Project have the potential to directly affect surrounding communities.

#### ***Emergency Services***

##### **Police Protection**

The Orange County Sheriff's Department (OCSD) is responsible for providing law enforcement services within unincorporated areas of Orange County as well as incorporated cities, such as Lake Forest, Laguna Hills, and Laguna Woods, that contract with OCSD for protection (OCSD n.d.). Law enforcement services provided by OCSD include patrol, traffic enforcement, accident analysis and investigation, parking enforcement, special investigations, and a Community Support Unit.

Police services on interstates in California, including Interstate 5 (I-5), are provided by the California Highway Patrol (CHP). The nearest CHP offices are in the cities of Irvine (6681 Marine Way, Irvine 92618) and San Juan Capistrano (32951 Camino Capistrano, San Juan Capistrano 92675) (CHP 2025).

##### **Fire Protection/Emergency Services**

The Project limits are within the cities of Lake Forest, Laguna Woods, and Laguna Hills. Fire protection and emergency response services in these previously mentioned cities are provided by the Orange County Fire Authority (OCFA), a regional fire service agency that serves 23 cities in Orange County as well as all unincorporated areas. OCFA protects more than 1,984,758 residents through seven divisions and 78 fire stations throughout Orange County (OCFA 2025a). OCFA's responsibilities include fire protection and suppression, inspection services, paramedic emergency medical services, aircraft rescue and firefighting, and hazardous material response (OCFA 2025b). Stations within the vicinity of the Project limits fall within Division 5 and include Station 57 (57 Journey, Aliso Viejo), Station 11 (259 Emerald Bay, Laguna Beach), Station 19 (23022 El Toro Road, Lake Forest), Station 42 (19150 Ridgeline Road, Lake Forest), Station 54 (19811 Pauling Avenue, Lake Forest), Station 22 (24001 Paseo de Valencia, Laguna Hills), Fire Station 5 (23600 Pacific Island Drive, Laguna Niguel), Fire Station 39 (24241 Avila Road, North Laguna Niguel), and Fire Station 49 (31461 Golden Lantern, Laguna Niguel) (OCFA 2025b).

Twenty-one licensed ambulance providers operate within Orange County as part of the Emergency Medical Services (EMS) system (OC Health Care Agency n.d.). Ambulance transport services are provided by privately contracted ambulance providers operating under the oversight of the county EMS system. Emergency services within the study area are provided primarily through OCFA, which is responsible for paramedic emergency response throughout its service jurisdictions.

Overall, EMS and ambulance transport services within the study area are delivered through a coordinated system involving OCFA paramedic response and contracted private ambulance providers. This structure ensures that the cities of Lake Forest, Laguna Hills, and Laguna Woods maintain access to emergency medical care and ambulance transport services that is consistent with countywide EMS protocols.

### **Utilities**

Existing utility infrastructure within the Project limits is owned and operated by several public and private utility providers. These facilities include water, sewer, natural gas, electrical, telephone, and communication systems that run within roadway rights of way and across adjacent developed parcels. The primary utility owners with facilities in the Project limits are:

- **El Toro Water District (ETWD):** Operates water transmission lines and sewer pipelines throughout the Project area.
- **Southern California Gas (SCG) Company:** Provides natural gas service through underground gas pipelines.
- **Southern California Edison (SCE):** Maintains overhead electrical distribution lines on joint-use poles and underground electrical conduits.
- **American Telephone & Telegraph (AT&T):** Operates underground telephone lines and conduits.
- **Cox Communications:** Provides broadband and fiber-optic service through underground conduits and overhead communication lines on joint-use poles.
- **Irvine Ranch Water District (IRWD):** Owns a regional sewer transmission line that crosses the southern portion of the Project area.

These underground and overhead utility systems, which are typical of a developed urban interchange area, are located within public rights of way or along the edges of adjacent commercial parcels. Several utilities intersect or run parallel to the Project improvements and may require protection, relocation, or adjustment under the Build Alternatives.

## 2.2.6.2 Environmental Consequences

### *Temporary Impacts*

#### **Build Alternatives**

##### *Build Alternative 1*

##### Emergency Services

Construction of the Build Alternative would temporarily affect overall traffic circulation, as well as pedestrian and bicycle access, within and around the Project segment of I-5. These effects would result from short-term closures of mainline freeway lanes, on- and off-ramps, and local arterial roadways, which could cause temporary delays for emergency responders. Although detour routes would allow traffic to continue flowing, the temporary closures would result in increased travel times and delays. Such delays have the potential to temporarily affect emergency response times for fire, paramedic, and law-enforcement services that rely on I-5 and adjacent arterials for regional and local access. However, closures and detours would be phased and coordinated with local jurisdictions and emergency service providers to maintain access and minimize disruption. This would be addressed by implementation of Project Features **PF-UES-1** and **PF-UES-2**. With implementation of these features, temporary construction-related impacts on emergency response would be minimized.

**PF-UES-1** All temporary closures and detour plans would be coordinated with law enforcement, fire protection, and emergency medical service providers to minimize temporary delays in emergency response. This coordination includes identifying alternate routes for emergency vehicles, with access routes across the construction areas developed in coordination with the affected agencies.

**PF-UES-2** To ensure that emergency response times are not disrupted, OCSD and OCFA will be informed of the Project construction schedule, lane closures (if any), and detour plans well in advance of any lane closure or detour plan being implemented during the construction period.

Additional details regarding the proposed closures and traffic management measures are provided in Section 2.2.7, *Transportation*.

##### Utilities

Construction of Build Alternative 1 would affect existing overhead and underground utility facilities, which could require protection in place, removal, replacement, or relocation. As shown in Table 2.2.6-1 below, communication lines, water lines, telephone conduits, and electrical utilities would need to be relocated for Build Alternative 1.

**Table 2.2.6-1. Existing Utilities: Potential Conflicts and Recommended Resolutions**

| <b>Utility ID No.</b> | <b>Utility Owner</b> | <b>Utility Type</b>           | <b>Location</b>         | <b>Utility Conflict Description</b>                                                   | <b>Recommended Action or Resolution</b>                                                       |
|-----------------------|----------------------|-------------------------------|-------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 1-03                  | SCE                  | UG electrical conduit (12 kV) | El Toro Road SB on-ramp | Potential conflict near proposed ROW line; exact horizontal/vertical location unknown | Conduct PS&E potholing to verify location and depth; determine final resolution during design |
| 1-04                  | SCE                  | UG electrical conduit (12 kV) | Avenida de la Carlota   | Inside new ROW; conflict with policy                                                  | Relocate or request encroachment/utility policy exception (EEP)                               |
| 1-05                  | SCE                  | Electrical manhole (12 kV)    | El Toro Road SB on-ramp | Inside new ROW; conflict with policy                                                  | Relocate or request encroachment/utility policy exception (EEP)                               |
| 1-06                  | ETWD                 | Water (42 inches)             | Avenida de la Carlota   | Potential conflict near proposed ROW line; exact horizontal/vertical location unknown | Conduct PS&E potholing to verify location and depth; determine final resolution during design |
| 1-07                  | ETWD                 | Water (42 inches)             | Avenida de la Carlota   | Inside new ROW; conflict with policy                                                  | Relocate or request encroachment/utility policy exception (EEP)                               |
| 1-08                  | AT&T                 | UG telephone conduit          | Avenida de la Carlota   | Potential conflict near proposed ROW line; exact horizontal/vertical location unknown | Conduct PS&E potholing to verify location and depth; determine final resolution during design |
| 1-09                  | AT&T                 | UG telephone conduit          | El Toro Road SB on-ramp | Inside new ROW; conflict with policy                                                  | Relocate or request encroachment/utility policy exception (EEP)                               |
| 2-01                  | SCE                  | UG electrical conduit (12 kV) | Avenida de la Carlota   | Inside new ROW; conflict with policy                                                  | Relocate or request encroachment/utility policy exception (EEP)                               |
| 2-02                  | SCE                  | Electrical manhole (12 kV)    | Avenida de la Carlota   | Inside new ROW; conflict with policy                                                  | Relocate or request encroachment/utility policy exception (EEP)                               |

| Utility ID No. | Utility Owner | Utility Type                  | Location              | Utility Conflict Description                             | Recommended Action or Resolution                                                              |
|----------------|---------------|-------------------------------|-----------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 2-03           | SCE           | Electrical manhole (12 kV)    | Avenida de la Carlota | Inside new ROW; conflict with policy                     | Relocate or request encroachment/utility policy exception (EEP)                               |
| 2-04           | SCE           | UG electrical conduit (12 kV) | Avenida de la Carlota | Near proposed ROW line; exact location unknown           | Conduct PS&E potholing to verify location and depth; determine final resolution during design |
| 2-05           | ETWD          | Water (42 inches)             | Avenida de la Carlota | Inside new ROW; conflict with policy                     | Relocate or request encroachment/utility policy exception (EEP)                               |
| 2-06           | ETWD          | Water (42 inches)             | Avenida de la Carlota | Near proposed ROW line; exact location unknown           | Conduct PS&E potholing to verify location and depth; determine final resolution during design |
| 2-07           | AT&T          | UG telephone conduit          | Avenida de la Carlota | Inside new ROW; conflict with policy                     | Relocate or request encroachment/utility policy exception (EEP)                               |
| 2-08           | AT&T          | UG telephone conduit          | Avenida de la Carlota | Near proposed ROW line; exact location unknown           | Conduct PS&E potholing to verify location and depth; determine final resolution during design |
| 2-09           | ETWD          | Sewer (8 inches)              | Avenida de la Carlota | Conflict with roadway widening; within Project footprint | Remove                                                                                        |
| 2-11           | AT&T          | Telephone conduit (4 inches)  | Avenida de la Carlota | Conflict with acquisition                                | Abandon and remove                                                                            |
| 2-12           | AT&T          | Telephone conduit (4 inches)  | Avenida de la Carlota | Conflict with widening; portion within new ROW           | Relocate                                                                                      |
| 2-13           | AT&T          | Telephone conduit (4 inches)  | Avenida de la Carlota | Conflict with widening; portion within new ROW           | Relocate                                                                                      |
| 2-14           | AT&T          | Telephone conduit (4 inches)  | Avenida de la Carlota | Near proposed ROW line; exact location unknown           | Conduct PS&E potholing to verify location and depth; determine final resolution during design |

| Utility ID No. | Utility Owner | Utility Type                          | Location              | Utility Conflict Description                               | Recommended Action or Resolution                                                              |
|----------------|---------------|---------------------------------------|-----------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 2-15           | AT&T          | Telephone conduit (4 inches)          | Avenida de la Carlota | Near proposed ROW line; exact location unknown             | Conduct PS&E potholing to verify location and depth; determine final resolution during design |
| 4-03           | SCG           | Natural gas (3 inches)                | Avenida de la Carlota | Exact location unknown; potential conflict near ADA ramp   | Conduct PS&E potholing to verify location and depth; remain in place                          |
| 4-11           | SCE           | Street lighting conduit               | Bridger Road          | Conflict with new cul-de-sac on Bridger Road               | Relocate                                                                                      |
| 4-12           | SCE           | Street lighting conduit               | Bridger Road          | Conflict with new cul-de-sac on Bridger Road               | Relocate                                                                                      |
| 4-13           | ETWD          | Water (8 inches)                      | Bridger Road          | Potential conflict near cul-de-sac; exact location unknown | Conduct PS&E potholing to verify location and depth; remain in place                          |
| 4-14           | SCE           | UG conduit (12kV)                     | Bridger Road          | Potential conflict near cul-de-sac; exact location unknown | Conduct PS&E potholing to verify location and depth; remain in place                          |
| 4-15           | SCG           | Natural gas (3 inches)                | Bridger Road          | Potential conflict near cul-de-sac; exact location unknown | Conduct PS&E potholing to verify location and depth; remain in place                          |
| 4-16           | SCE/Cox       | OH electric (12 kV)/OH communications | NB I-5                | Conflict with roadway widening                             | Relocate                                                                                      |
| 4-17           | SCE           | Electrical pole                       | NB I-5                | Conflict with roadway widening                             | Relocate                                                                                      |
| 4-18           | SCE           | Electrical pole                       | NB I-5                | Conflict with roadway widening                             | Relocate                                                                                      |
| 4-19           | SCE           | Electrical pole                       | NB I-5                | Conflict with roadway widening                             | Relocate                                                                                      |
| 4-20           | SCE           | Electrical pole                       | NB I-5                | Conflict with roadway widening                             | Relocate                                                                                      |

Source: Caltrans 2025a, 2025b, 2025c, 2025d

ADA = Americans with Disabilities Act; AT&T = American Telephone & Telegraph; Cox = Cox Communications; EEP = encroachment/utility policy exception; ETWD = El Toro Water District; kV = kilovolt; NB = northbound; OH = overhead; PS&E = Plans, Specifications, & Estimates; ROW = right of way; SCE = Southern California Edison; SCG = Southern California Gas; UG = underground

Under Build Alternative 1, approximately 18 facilities would be relocated, four would be protected in place, and two would be removed or abandoned. The status of remaining utilities would be confirmed and resolved during the Plans, Specifications, & Estimates (PS&E) phase.

An updated utility search would be conducted during the final design phase of Build Alternative 1 to identify utilities requiring protection in place, removal, or relocation. Table 2.2.6-1 identifies which conflicts would be resolved during the PS&E phase, with final utility coordination occurring during the construction phase. Construction may result in temporary service disruptions for some utility users in the vicinity of the Project; however, such impacts would be minimized through implementation of Project Feature **PF-UES-3**.

**PF-UES-3** During final design, utility relocation plans for those utilities that will need to be relocated, removed, or protected in place will be prepared in consultation with the affected utility relocation providers/owners. If relocation is necessary, the final design will focus on relocating utilities within the Caltrans right of way or other existing public right of way and/or easement. If relocation outside of an existing right of way or additional public right of way and/or easement is required for the Project, 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. The utility relocation plans will be included in the Project specifications.

Prior to and during construction, the construction contractor will implement the applicable components of the relocation plans provided in the Project specifications.

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

#### *Design Variation: Build Alternative 1a*

Temporary impacts on utilities and emergency services for Build Alternative 1a would be the same as those under Build Alternative 1. Refer to the discussion above under Build Alternative 1.

#### *Build Alternative 3*

Build Alternative 3 would not result in any ground disturbance or other activities that would affect emergency services or utilities.

#### **No-Build Alternative**

No construction is proposed under the No-Build Alternative; therefore, the No-Build Alternative would not result in temporary impacts on utilities or emergency services.

## ***Permanent Impacts***

### **Build Alternatives**

#### ***Build Alternative 1***

##### **Emergency Services**

After Project completion, operational improvements are expected to reduce congestion within the I-5/EI Toro Road interchange area, which could improve emergency response times. Because the Build Alternative would not induce growth or increase residential development, there would be no change in demand for emergency services.

##### **Utilities**

As described under temporary impacts, existing surface or subsurface utility facilities would be protected in place, removed, or relocated during construction. All existing utility facilities are anticipated to be maintained during operation of Build Alternative 1. Therefore, Build Alternative 1 would not result in permanent adverse effects on utility providers or their facilities.

#### ***Design Variation: Build Alternative 1a***

Permanent impacts on utilities and emergency services under Build Alternative 1a would be the same as under Build Alternative 1. Refer to the Build Alternative 1 discussion.

### ***Build Alternative 3***

##### **Emergency Services**

Build Alternative 3 would not alter roadway geometry or access and would not result in permanent impacts on emergency services. Improvements to intersection operations may reduce delay, which could benefit emergency responders because of reduced travel times within the Project area.

##### **Utilities**

Build Alternative 3 would not involve physical modifications to roadway facilities and would not require the relocation of utilities. Therefore, no permanent impacts on utility infrastructure or service providers are anticipated, and existing utility facilities and service conditions would be maintained.

### **No-Build Alternative**

No improvements to this interchange are proposed under the No-Build Alternative, leaving the interchange in its existing configuration. The No-Build Alternative would not result in permanent impacts on utilities and emergency services. However, the response times of emergency service providers (e.g., police, fire, and emergency services) could be affected by projected freeway congestion associated with future No-Build conditions.

### **2.2.6.3 Avoidance, Minimization, and/or Mitigation Measures**

Project Features have been incorporated into the Build Alternatives, as discussed above and in Section 2.2.7, *Transportation*, to address the potential temporary impacts from construction of the Build Alternatives on utilities and emergency services. No Project-specific avoidance, minimization, and/or mitigation measures are required.

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