

California High-Speed Rail Authority

Fresno to Bakersfield *Section*

**Final Supplemental
Environmental Impact Report**

**Appendix 2-1
Interim Terminal Station**

October 2018



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APPENDIX 2-I: INTERIM TERMINAL STATION

As identified in the 2018 Business Plan, the Authority is committed to connecting the Silicon Valley to the Central Valley (from San Francisco to Bakersfield) as quickly as possible. Ridership and revenue forecasts show that the initial Phase 1 line – from San Francisco to Bakersfield through the Silicon Valley – will produce revenue that can help fund construction from the Central Valley southward into the Los Angeles Basin. Consistent with the 2016 Business Plan objectives, and further supported by the 2018 Business Plan, the Authority aims to initiate high-speed rail into passenger service as soon as possible. In order to deliver passenger service to the greatest number of communities, the Authority is considering options to deliver early benefits along the Phase 1 corridor, which may include the development of an interim terminal station at the Preferred Alternative station location (F Street) (illustrated in detail in Figure 3.1-A, Pages 16 and 17 of the Draft Supplemental EIR/EIS).

The Authority has developed four feasible concepts for the interim terminal station at the F Street location. All four concepts could be developed wholly within the disturbance footprint evaluated in the Draft Supplemental EIR/EIS. As part of the concept development process, the Authority considered the following parameters:

1. Would the interim terminal station fit wholly within the disturbance footprint evaluated in the Draft Supplemental EIR/EIS?
2. Would the concept be consistent with Authority’s Technical Memoranda for station design?
3. Would the concept minimize initial costs and “throw-away” costs¹?
4. Would the concept require utility relocation (specifically overhead power lines) for construction and operation of temporary features?
5. Would the concept provide the least amount of disruption to future service as the full buildout F Street Station is constructed around the interim service station and as service south of the station is provided?

This Appendix contains an environmental impact analysis of the construction and operation of the potential interim terminal station.² Because all four of the interim terminal station concepts would utilize the track and the station footprint analyzed in the Draft Supplemental EIR/EIS, construction impacts that stem from ground disturbance or “footprint” impacts (e.g., biological resources, agricultural land conversion, etc.) would be the same for Phase 1 HSR service as it would be for this interim terminal station. These construction impacts are discussed in the following sections for completeness, so all analysis is contained in one location (i.e., this appendix).

Concept A (Figure 2-I-1) would be an approximately 4.1-acre site³ and would require the construction of temporary platforms (700 feet in length) along the proposed mainline tracks north

¹ “Throw-away” costs are costs for structures that would need to be removed and replaced for construction of the full buildout Phase 1 F Street Station.

² Estimates for initial construction costs and “throw-away” costs have not been prepared for the four concepts presented in this technical appendix. An allowance for construction of the interim terminal station in Bakersfield has been provided in the Authority’s Baseline cost estimate.

³ The acreages identified for the four interim terminal station concepts have been calculated based on the necessary structures within the 46-acre site of the full buildout F Street Station. The interim terminal station acreages include interim terminal station structure (0.17 acre), parking lots/structures (3.8 acres), and development of the bike/pedestrian path to the Kern River Parkway (0.13 acre). Acreages for Concepts B, C, and D also include the acreages required for relocate the overhead high voltage lines (12.48 acres).

of the Carrier Canal. Existing overhead, high voltage power lines would remain in place. Platform access would be provided from the southern end of the platforms, and emergency egress points would be provided between the Carrier Canal and the Kern River. This concept would minimize construction costs by placing the platforms over the Carrier Canal and would include the development of a temporary station building for customer service. Concept A would require removal of temporary features once the full buildout station is constructed. The cost associated with the removal of the temporary features would be calculated based on design plans, if this concept is selected.

Concept B (Figure 2-I-2) would be an approximately 16.5-acre site and would require the construction of the temporary platforms (700 feet in length) within the proposed station footprint to accommodate egress points on the south side of the Carrier Canal. Temporary platforms would straddle the Carrier Canal and would be constructed along the proposed mainline tracks. Platform access would be provided from the southern end of the platforms. Overhead, high voltage power lines would require relocation and would be located over the northern end of the temporary platform. This concept would include the development of a temporary station building for customer service. Concept B would require removal of temporary features once the full buildout station is constructed. The cost associated with the removal of the temporary features would be calculated based on design plans, if this concept is selected.

Concept C (Figure 2-I-3) would be an approximately 16.5-acre site and would require the construction of the temporary platforms (700 feet in length) entirely on the south side of the Carrier Canal and along the proposed mainline tracks. Access under Concept C would occur anywhere along the platform for both normal use and emergency egress. Overhead, high voltage power lines would require relocation. This concept would include the development of a temporary station building for customer service. Concept C would require removal of temporary features once the full buildout station is constructed. The cost associated with the removal of the temporary features would be calculated based on design plans, if this concept is selected.

Concept D (Figure 2-I-4) would be an approximately 16.5-acre site and would be the most expensive of the four concepts, because it would require construction of the proposed full buildout features in their proposed locations including the station tracks and platforms (1,400 feet in length). Mainline and station track alignments would be constructed in their permanent position with only minor shifts in turnout locations. Concept D would require the relocation of the overhead, high voltage power lines. Mainline and station track alignments under Concept D would be constructed in their permanent positions; therefore, under Concept D, there would be no throw away costs due to the removal of temporary features.

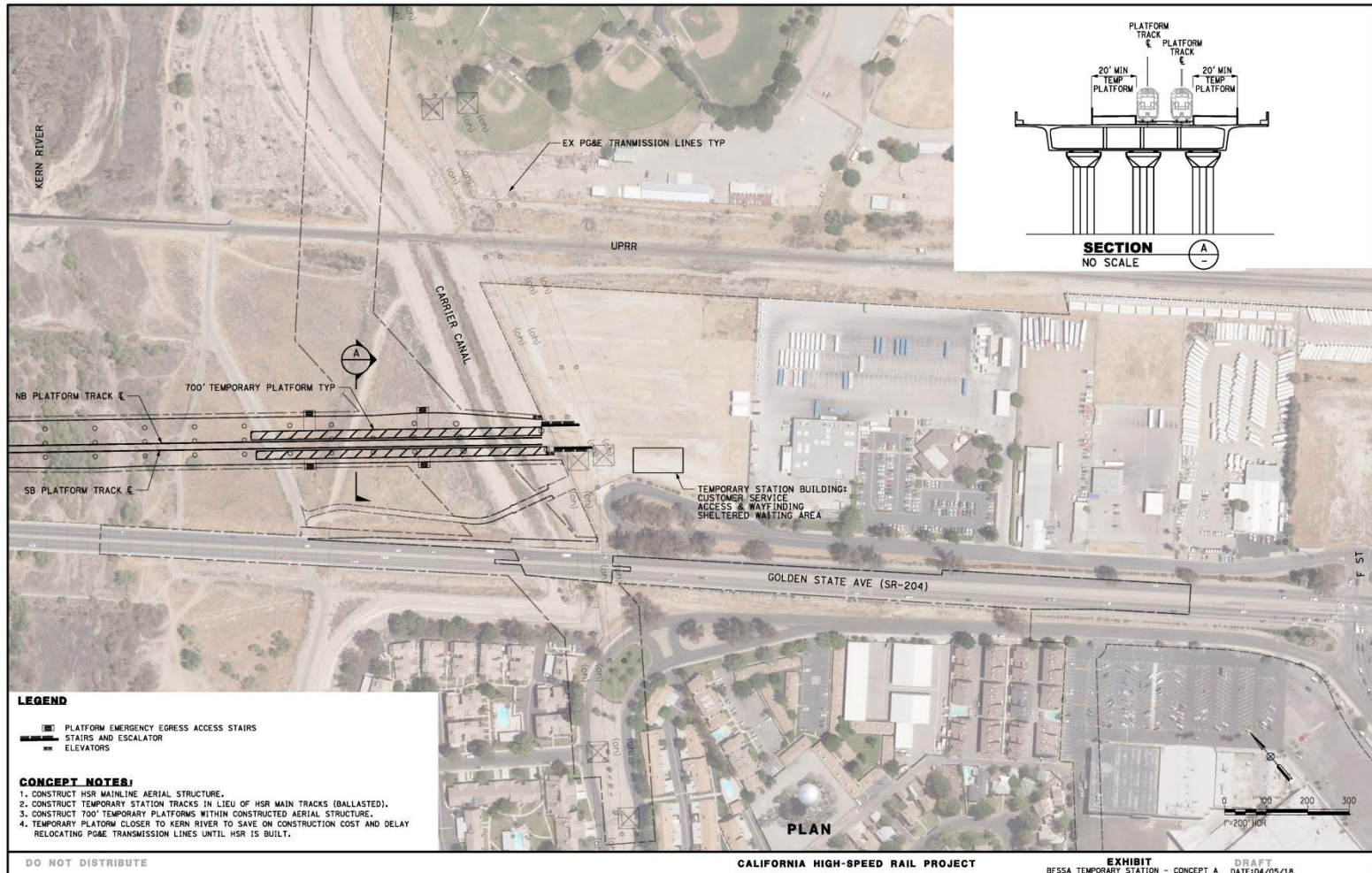


Figure 2-I-1 Interim Terminal Station Concept A

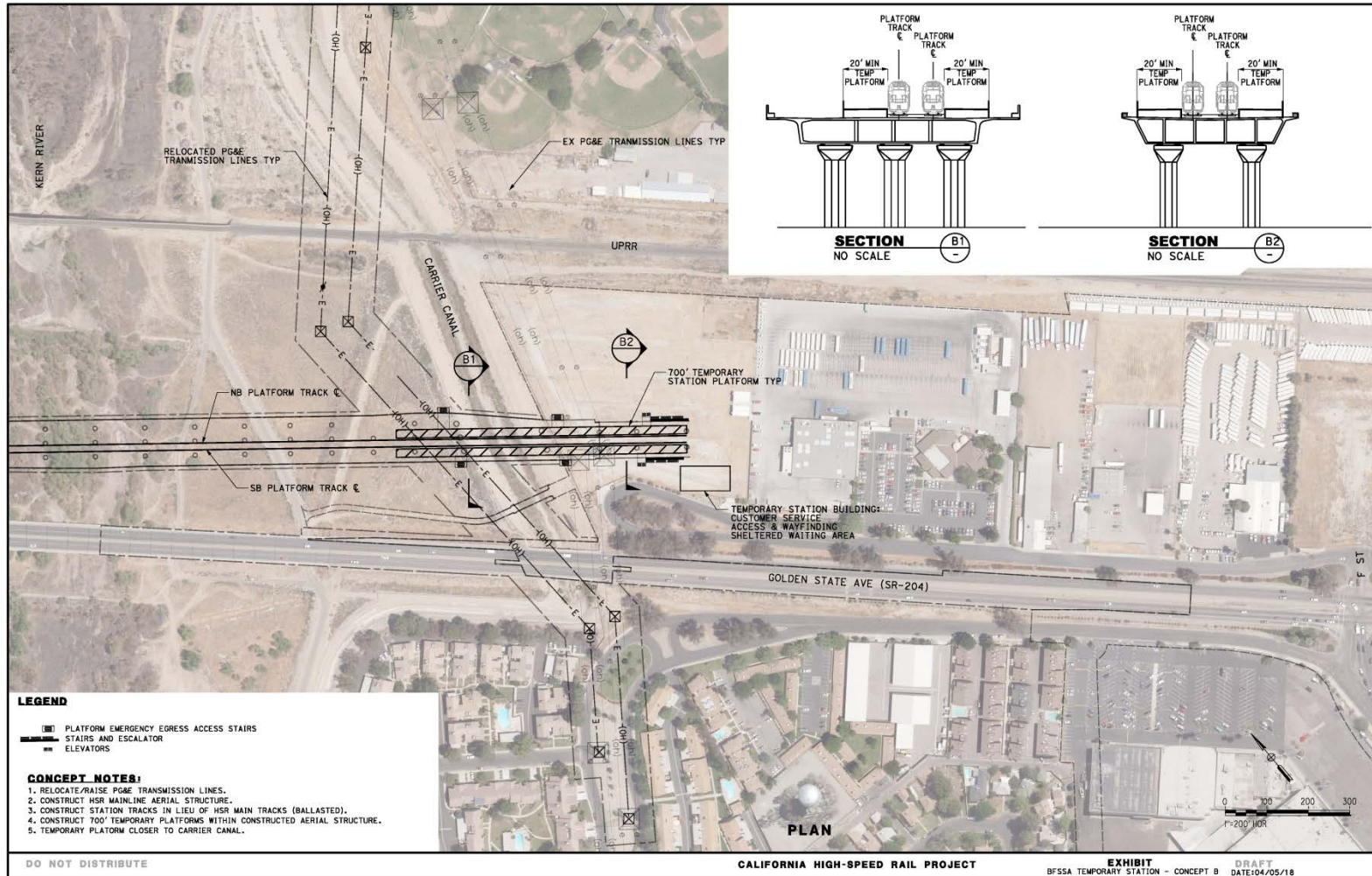


Figure 2-1-2 Interim Terminal Station Concept B

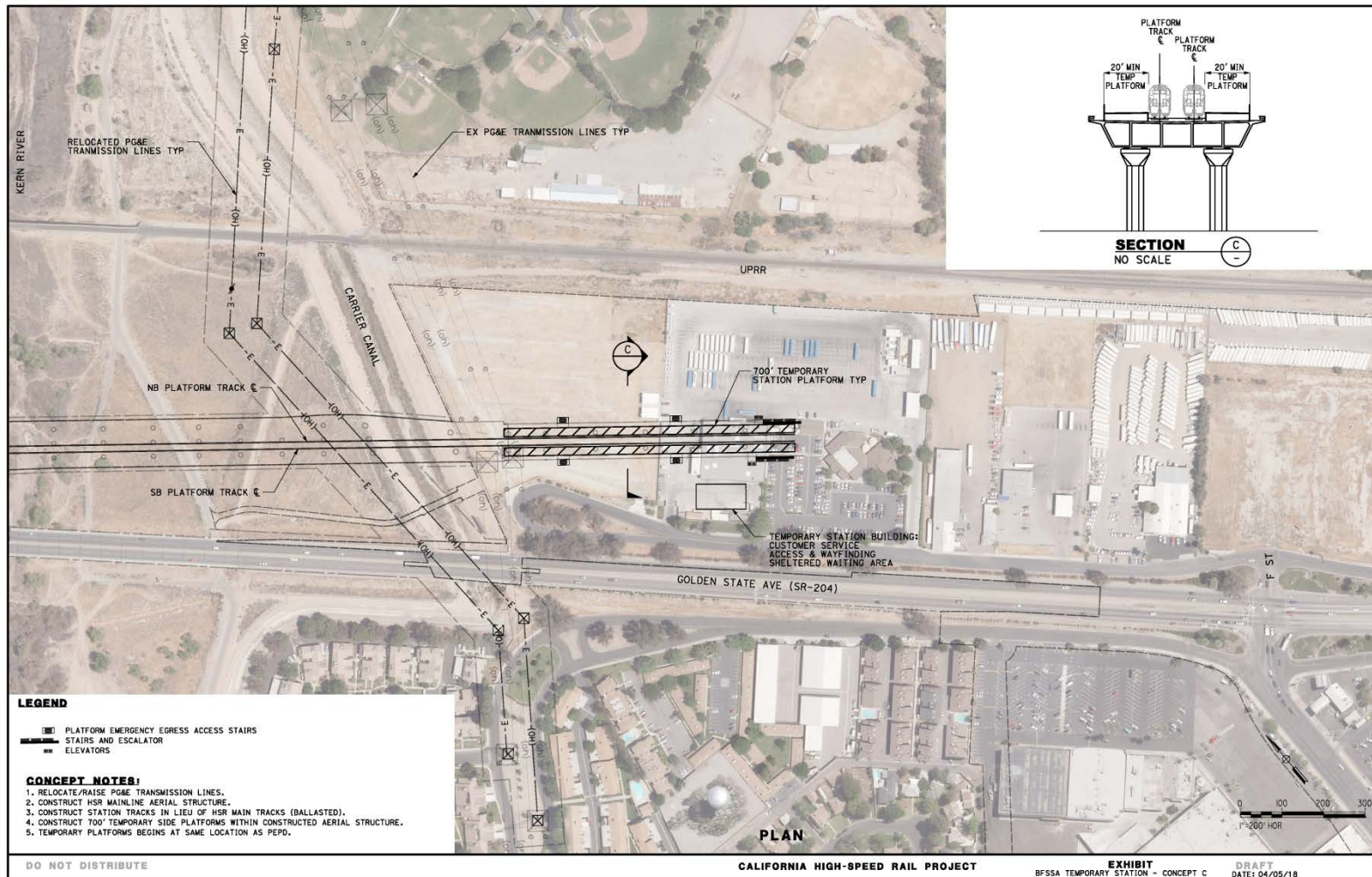


Figure 2-I-3 Interim Terminal Station Concept C

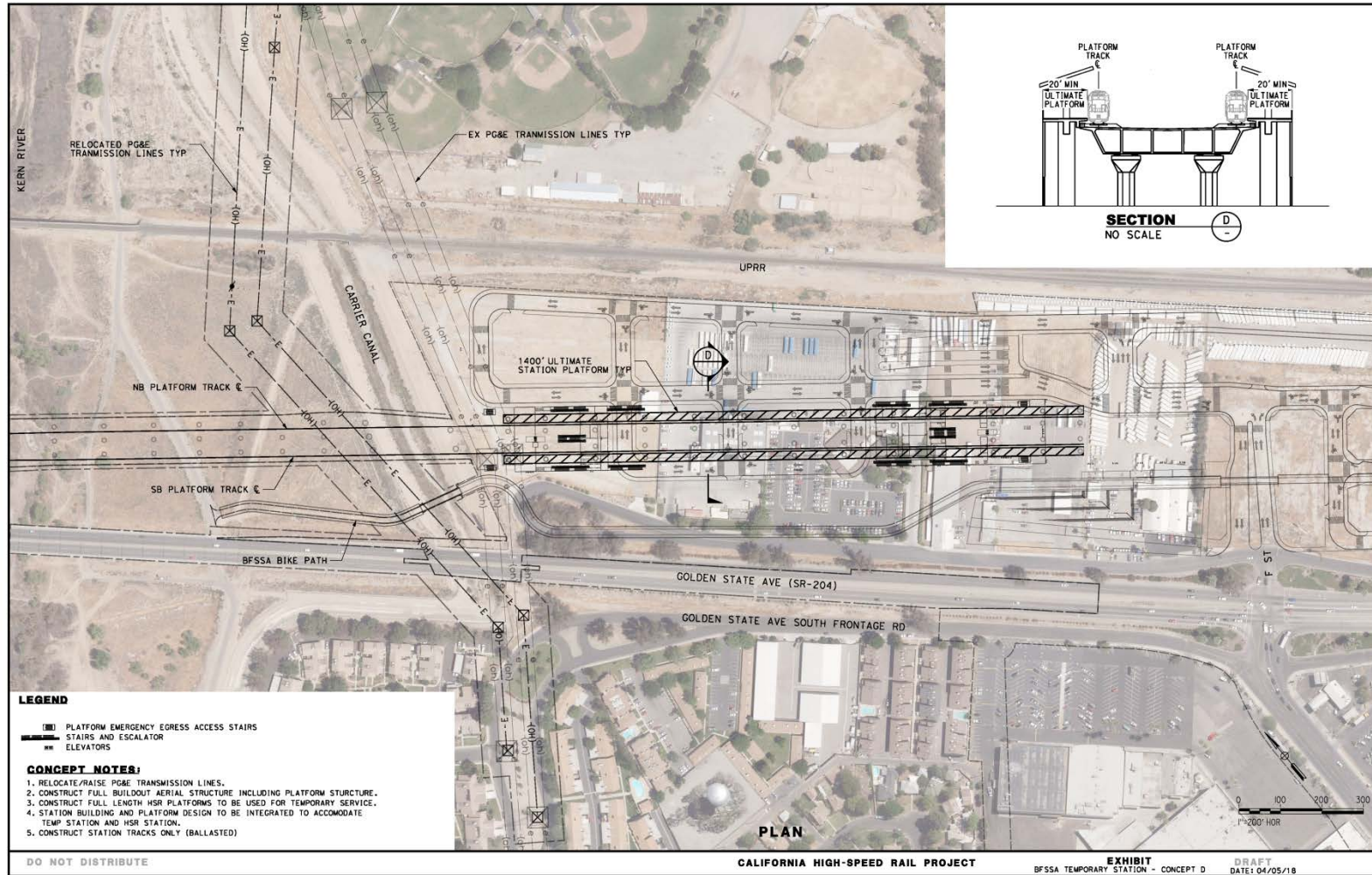


Figure 2-1-4 Interim Terminal Station Concept D

Regardless of the interim terminal station concept the Authority may select for development, the interim station may be in operation for up to 15 years depending on how land use and redevelopment patterns evolve in the surrounding neighborhoods. Planned redevelopment surrounding the F Street site as described in the Bakersfield Vision Plan may influence the need to construct the full buildout station.

Transportation

The Draft Supplemental EIR/EIS evaluated the traffic-related impacts associated with a fully operational station at the F Street site. The Authority may elect to develop the station in a phased approach depending on the anticipated ridership at the time of initial operation. As the 2018 Business Plan identifies, it is expected that the high-speed rail system will open in phases. This could mean that a Bakersfield station would become operational associated with a Central Valley Line first. It would serve more riders as the Silicon Valley to Central Valley Line becomes operational. The final configuration would be completed as further expansion of Phase 1 service occurs between San Francisco to Los Angeles and Anaheim.

During the early stages of operation ridership of the HSR is anticipated to be lower because HSR service may be limited. However, as full HSR service is provided in the future, including service to San Francisco and Los Angeles, ridership is expected to ramp up. Station parking facilities at the outset of operation would be developed consistent with the anticipated ridership, as they become financially viable. Likewise, the full buildout roadway network surrounding the station may not be required to support early operations. However, to provide a conservative environmental analysis, the interim terminal station evaluated in this Technical Appendix assumes full buildout of the roadway network surrounding the F Street Station (consistent with the Draft Supplemental EIR/EIS analysis).

Construction Impacts. Construction-related traffic impacts associated with development of the interim terminal station at F Street would be somewhat less than those reported in Section 3.2 of the Draft Supplemental EIR/EIS because the extent of development at the proposed station site would be less involved and smaller in scale than the full buildout station, resulting in a shorter construction period. For example, the Authority would construct parking features commensurate with the level of ridership that is expected for the interim terminal station and would not construct the full buildout parking facilities until warranted by the ridership numbers. However, most heavy construction, which would cause the greatest number of temporary road closures and detours, is associated with clearing the HSR right-of-way, constructing the system foundation, structures, railroad bed, installing the rails, and constructing the HSR stations. The construction of track work north of the proposed F Street Station site would be the same whether servicing an interim terminal station or not. Therefore, construction-related traffic impacts for development of the interim terminal station at F Street would be similar to the construction-related impacts identified in Section 3.2.4.3 (Impact #5) the Draft Supplemental EIR/EIS. Under the interim terminal station scenario, construction-related traffic impacts are anticipated to be less than significant under CEQA.

Operational Impacts. Train operations and use of the interim terminal station would require roadway modifications including road terminations, rerouting, and overcrossings/undercrossings. Appendix 2-A in the Draft Supplemental EIR/EIS provides a list of roadways that would be affected by the F-B LGA from Shafter to Bakersfield and the type of modification that would be necessary to operate the HSR. Because the interim terminal station scenario would not require the immediate development of track work south and east of the F Street Station site, it is anticipated that not all of the Appendix 2-A roadway modifications south and east of the interim terminal station would be required. Changes in vehicle movements and flow and property access as a result of the Appendix 2-A roadway modifications are described in Section 3.2 in the Draft Supplemental EIR/EIS. These impacts (operations of the roadway network) all relate to construction of the rail alignment, which would be the same for the interim terminal station option as those described for operation of the full buildout station because the same infrastructure would be used. As for the F Street Station, traffic from passengers arriving at/departing from the interim terminal station would be less than the full buildout station at the same location because of

anticipated lower ridership than evaluated in the Draft Supplemental EIR/EIS.⁴ Related, benefits from reduced regional congestion as inter-regional trips divert from auto to the HSR also would be lower under the interim terminal station scenario, similar to the lower benefits that would be achieved during the early stages of full HSR service as ridership ramps up. Under the interim terminal station scenario, operation-related traffic impacts are anticipated to be less than significant under CEQA with the implementation of applicable mitigation measures. Transportation mitigation measures are listed in Section 3.2.6 of the Draft Supplemental EIR/EIS.

Air Quality and Global Climate Change

The Draft Supplemental EIR/EIS evaluated the air quality and global climate change impacts associated with a fully operational station at the F Street site. The Draft Supplemental EIR/EIS analysis considered the full Fresno to Bakersfield Section, with the F-B LGA (including the full buildout F Street Station) as a component of the full section. Under the interim terminal station scenario, station development would occur at a smaller scale than envisioned for the full buildout of the F Street Station, with the track south and east of the F Street Station location not being immediately constructed.

Construction Impacts. Construction of the interim terminal station at F Street would require the use of various diesel fueled off-road construction equipment, trucks associated with material hauling, workers commuting to the project site, and fugitive dust emissions associated with construction activities. These emissions are a subset of the construction emissions estimated for the Fresno to Bakersfield Section of the HSR System because operation of the interim terminal station at the F Street site would not require the construction of track south and east of the interim terminal station. Consistent with the mitigation measures outlined in Section 3.3.8 of the Draft Supplemental EIR/EIS, efforts would be made to reduce the emissions from operation of the construction equipment and material hauling. Any remaining emissions above the thresholds after implementation of reductions to the equipment and vehicles would be offset to net zero through a Voluntary Emission Reduction Agreement entered into with the San Joaquin Valley Air Pollution Control District to offset the emissions within the San Joaquin Valley Air Basin in the same year that they occur. As described in the Draft Supplemental EIR/EIS, the greenhouse gas emissions resulting from the F-B LGA and full buildout F Street Station construction would be offset in less than 12 months of the HSR operations because of car and plane trips removed in the Fresno to Bakersfield area. The interim terminal station at F Street would similarly remove car and plane trips. Therefore, construction-related air quality and global climate change impacts for development of the interim terminal station at the F Street location would be similar to the construction-related impacts identified in the Draft Supplemental EIR/EIS. Under the interim terminal station scenario, construction-related air quality impacts are anticipated to be less than significant under CEQA with the implementation of applicable mitigation measures. Air quality and global climate change mitigation measures are listed in Section 3.3.8 of the Draft Supplemental EIR/EIS.

Operational Impacts. The operational air quality analysis documented in Section 3.3 of the Draft Supplemental EIR/EIS considered the full Fresno to Bakersfield Section, with the F-B LGA as a component of the full section. Implementation of the full buildout Fresno to Bakersfield Section HSR project is predicted to have a beneficial effect on (i.e., reduce) statewide emissions of CO, NO_x, ROG, SO_x, PM₁₀, PM_{2.5}, and greenhouse gases (expressed in terms of CO₂e). The entire Fresno to Bakersfield Section with the inclusion of the F-B LGA would have a beneficial effect on (i.e., reduce) statewide emissions of all applicable pollutants, as compared to the existing conditions. Similarly, operation of the interim terminal station at the F Street location would have a beneficial effect on statewide emissions, when compared to the existing conditions; however, it is anticipated that the benefits associated with the interim terminal station at F Street would not reach the level of benefit of the full buildout F Street Station because ridership of the HSR is

⁴ The Draft Supplemental EIR/EIS evaluates impacts based upon a level of HSR ridership that is higher than the interim service ridership.

anticipated to be lower during the early stages of operation and ramp up as full HSR service is provided. Under the interim terminal station scenario, operation-related air quality impacts are anticipated to be less than significant under CEQA.

Noise and Vibration

The Draft Supplemental EIR/EIS evaluated the noise and vibration impacts associated with a fully operational station at the F Street site. The frequency of train operation under the interim terminal station scenario may be less frequent than under full buildout. For example, the Authority would construct parking features commensurate with the level of ridership that is expected for the interim terminal station and would not construct the full buildout parking facilities until warranted by the ridership numbers. However, to provide a conservative environmental analysis, the interim terminal station evaluated in this Technical Appendix assumes the frequency of train operation (and resultant noise and vibration impacts) would be consistent with the full buildout scenario (as evaluated in the Draft Supplemental EIR/EIS).

Construction Impacts. Construction-related noise and vibration impacts would be the same as described in Section 3.4 (Noise and Vibration) of the Draft Supplemental EIR/EIS except the duration of construction noise would be shorter since the extent of development at the proposed station site would be less involved than under the full buildout station scenario. Therefore, construction-related noise and vibration impacts for development of the interim terminal station at F Street would be similar to the construction-related impacts identified in the Draft Supplemental EIR/EIS. Under the interim terminal station scenario, construction-related noise and vibration impacts are anticipated to be less than significant under CEQA with the implementation of applicable mitigation measures. Noise and vibration mitigation measures are listed in Section 3.4.6 of the Draft Supplemental EIR/EIS.

Operational Impacts. Operational noise impacts associated with the interim terminal station at the F Street location would be similar to those impacts identified in the Draft Supplemental EIR/EIS. Operations at the interim terminal station would have the potential to result in moderate or severe noise impacts on noise-sensitive receivers in the vicinity of the interim terminal station. Therefore, Noise Barrier No. 5 (refer to Table 3.4-27 and Figure 3.4-10 in the Draft Supplemental EIR/EIS) would be constructed to the southern terminus of the temporary platform to mitigate for operational noise impacts associated with the interim terminal station. Operation of the interim terminal station scenario may result in severe noise impacts following implementation of mitigation measures; however, operational impacts at the interim terminal station are not anticipated to result in more severe noise impacts than what will occur with full buildout of the F Street Station. Under the interim terminal station scenario, project noise impacts with the implementation of mitigation measures may still remain significant under CEQA.

Other operational noise impacts related to ridership, such as noise from vehicle travel to and from stations, would be less under the interim terminal station scenario than as evaluated in the Draft Supplemental EIR/EIS. The noise analysis for the F-B LGA included an assessment of impacts caused by vehicles traveling to and from the F Street Station. As described in Section 3.4 of the Draft Supplemental EIR/EIS, those impacts were found to be less than significant under CEQA. Because there would be fewer passengers accessing the interim terminal station when compared to the full buildout station at the F Street location, the noise impacts caused by vehicle traffic related to the interim terminal station would be less than those reported in the Draft Supplemental EIR/EIS. Under the interim terminal station scenario, operation-related traffic noise impacts are anticipated to be less than significant under CEQA.

Operational vibration impacts at the interim terminal station would be similar to those identified in the Draft Supplemental EIR/EIS for the full buildout station at the F Street location. Like the full buildout station, the interim terminal station would not generate vibration levels as no vibration-generating track equipment would be used. Under the interim terminal station scenario, there would be no operational vibration impacts under CEQA.

Electromagnetic Fields/Electromagnetic Interference

The Draft Supplemental EIR/EIS evaluated electromagnetic field/electromagnetic interference levels within a geographical area dependent on the project footprint. The interim terminal station would be located within the same disturbance footprint that was evaluated in the Draft Supplemental EIR/EIS.

Construction Impacts. Construction impacts from electromagnetic fields (EMF) and electromagnetic interference (EMI) would be the same for construction of the interim terminal station, as described in Section 3.5 of the Draft Supplemental EIR/EIS, except the duration of construction-related EMF/EMI impacts would be shorter. Under the interim terminal station scenario, construction-related EMF/EMI impacts are anticipated to be less than significant under CEQA.

Operational Impacts. Operation of the interim terminal station at F Street would result in similar impacts to those identified in the Draft Supplemental EIR/EIS (Section 3.5.4). No sensitive receptors were identified within 1,000 feet of the F-B LGA; and because the interim terminal station would be constructed within the full buildout F Street Station footprint, the interim terminal station would not be closer to sensitive receptors than the full buildout F Street Station. Under the interim terminal station scenario, operation-related EMF/EMI impacts are anticipated to be less than significant under CEQA.

Public Utilities

The Draft Supplemental EIR/EIS evaluated impacts on public utilities based on the project footprint and anticipated utility demands associated with a fully operational station at the F Street site. The interim terminal station would be located within the same disturbance footprint that was evaluated in the Draft Supplemental EIR/EIS.

Construction Impacts. The construction impacts on public utilities and energy for the interim terminal station at the F Street location are the same as or less than the impacts described within Section 3.6 of the Draft Supplemental EIR/EIS. The types of impacts for an interim use on public utilities and energy would not differ from the types disclosed in the Draft Supplemental EIR/EIS because utility interference and relocation impacts are related to the construction footprint. Similar to the analysis included in the Draft Supplemental EIR/EIS, overhead electricity transmission towers are located in the vicinity of the interim terminal station. Under Concepts B, C, and D, towers would need to be relocated, similar to the analysis in the Draft Supplemental EIR/EIS where towers would require relocation and an increase in height to maintain clearance. Similar to the analysis in the Draft Supplemental EIR/EIS (Section 3.6.4), construction of the interim terminal station may require upgrades to existing PG&E infrastructure to meet the projected power demands of the HSR system.

Similar to the analysis provided in the Draft Supplemental EIR/EIS, if high-risk utilities related to petroleum, natural gas, and electrical facilities have to be relocated for the construction of the HSR infrastructure, the Authority would work with utility owners to identify the most suitable relocation procedures for pipelines, power lines, and electrical substations. In compliance with state law (California Government Code Section 4216), the construction contractor would use a utility locator service and manually probe for buried utilities within the construction footprint prior to initiating ground-disturbing activities. This would avoid accidental disruption of utility services.

Consistent with standard practice, utility-related facilities would be relocated prior to the disconnection of the original facility to alleviate the potential for service disruptions. Where overhead transmission lines cross the alignment, the Authority and the utility owner may determine that it is best to place the line underground. In this case, the utility would be placed in a conduit. Where existing underground utilities, such as gas and petroleum pipelines, cross the alignment, these utilities would be placed in a protective casing.

Water and energy demand as well as waste generation during construction of the interim terminal station would be lower than projected in the Draft Supplemental EIR/EIS, given the reduced footprint and density of development at the site.

Under the interim terminal station scenario, construction-related public utilities and energy impacts are anticipated to be less than significant under CEQA.

Operational Impacts. Operational impacts would generally be the same as discussed in the Section 3.6 of the Draft Supplemental EIR/EIS with regards to potential for conflicts with, and reduced access to, existing utilities. Like the full buildout F Street Station, the interim terminal station would use water from the municipal systems of Bakersfield; however, the demand for water at the interim terminal station site would be substantially less than for the full buildout F Street Station given the reduced footprint and density of development at the site. There would also be a commensurate reduction in the amount of wastewater generated at the site. Waste generation and energy consumption would also be reduced as a result of the reduced size and density of development at the interim terminal station site when compared to the F Street Station at full buildout. Under the interim terminal station scenario, operation-related public utilities and energy impacts are anticipated to be less than significant under CEQA.

Biological Resources and Wetlands

Section 3.7 of the Draft Supplemental EIR/EIS evaluated the potential for direct and indirect impacts on biological resources based on the project footprint. The interim terminal station would be located within the same disturbance footprint that was evaluated in the Draft Supplemental EIR/EIS.

Construction Impacts. The construction impacts on biological resources and jurisdictional waters for the interim terminal station at F Street are the same or less than as described in Section 3.7 of the Draft Supplemental EIR/EIS for the full buildout F Street Station. Biological and jurisdictional waters impacts are related to the construction footprint, and the interim terminal station footprint would be developed within the full buildout F Street Station footprint. For completeness, however, those footprint impacts for the interim terminal station are discussed below.

Impacts to Habitats. The habitats impacted by construction of the full buildout station at the F Street location include urban and barren habitats. The urban and barren habitats provide suitable habitat for the following special-status wildlife species (Table 3.7-7 in the Draft Supplemental EIR/EIS):

- Golden eagle
- Swainson's hawk
- White-tailed kite
- American peregrine falcon
- Bald eagle
- Nelson's antelope squirrel
- Tipton kangaroo rat
- San Joaquin kit fox
- Western burrowing owl
- American badger
- Pallid bat
- Western mastiff bat
- Western red bat

The interim terminal station at the F Street location would be of reduced size compared to the full buildout station; therefore, impacts to habitats that have the potential to support special-status species under the interim terminal station scenario would be less than under the full buildout scenario. Under the interim terminal station scenario, construction-related impacts to habitats are anticipated to be less than significant under CEQA with the implementation of applicable mitigation measures. Biological resources mitigation measures are listed in Section 3.7.5 of the Draft Supplemental EIR/EIS.

Habitats of Concern. Habitats of concern include special-status plant communities, critical habitat for protected species, essential fish habitat, and conservation areas. There is no critical habitat for protected species or essential fish habitat within the full buildout F Street Station footprint. The

interim terminal station at the F Street location would be developed within the full buildout station footprint; therefore, the interim terminal station would not impact habitats of concern, similar to the full buildout F Street Station. Under the interim terminal station scenario, there would be no construction-related impacts to habitats of concern under CEQA.

Wildlife Movement Corridors. The major linkage identified in the F-B LGA is associated with the Kern River. The Kern River is located immediately north of but outside of the full buildout F Street Station footprint. Although the infrastructure would not impede movement of aquatic species, under the full buildout scenario construction activities associated with the track north of the station site could obstruct wildlife movement and migration through the Kern River linkage for between two to five consecutive years, resulting in greater impacts to wildlife using the linkage. Implementation of Mitigation Measure BIO-MM-#52, Construction in Wildlife Movement Corridors, would reduce impacts in wildlife movement corridors to less than significant under CEQA. It is anticipated that the construction of the interim terminal station at the F Street Station location would be of shorter duration than the full buildout station so impacts should be of shorter duration; however, construction of track work accessing the interim terminal station would require implementation of Mitigation Measure BIO-MM-#52. Under the interim terminal station scenario, construction-related impacts to wildlife movement corridors are anticipated to be less than significant under CEQA with the implementation of applicable mitigation measures. Biological resources mitigation measures are listed in Section 3.7.5 of the Draft Supplemental EIR/EIS.

Operational Impacts. As described above, all impacts to biological resources and jurisdictional waters for both HSR infrastructure and interim terminal station at the F Street location relate to construction. There are no operational biological resources and wetlands impacts associated with operation of the interim terminal station.

Hydrology and Water Resources

Section 3.8 of the Draft Supplemental EIR/EIS evaluated the potential for hydrology and water quality impacts based in part on the project footprint and construction methods. The interim terminal station would be located within the same disturbance footprint that was evaluated in the Draft Supplemental EIR/EIS, and construction activities would be required to adhere to the same permits and regulatory requirements as the implementation of a fully operational station at the F Street site.

Construction Impacts. Impacts of construction of the interim terminal station at the F Street location on water resources would be the same (or less) compared to the full buildout station because the development footprint evaluated in Section 3.8 of the Draft Supplemental EIR/EIS considers the full buildout and interim terminal station footprint. Similar to the fully operational F Street Station evaluated in the Draft Supplemental EIR/EIS, the Kern River is the only major watercourse that would be crossed by the track servicing the interim terminal station.

Construction of the interim terminal station at the F Street location would adhere to the requirements set forth by the Construction General Permit as required by Avoidance and Minimization Measure HYD-AM #3; therefore, construction-related hydrology and water resources impacts associated with the interim terminal station would be the same or less than the construction of the full buildout station at F Street. Under the interim terminal station scenario, construction-related hydrology and water resources impacts are anticipated to be less than significant under CEQA with the implementation of applicable mitigation measures. Hydrology and water resources mitigation measures are listed in Section 3.8.5 of the Draft Supplemental EIR/EIS.

Operational Impacts. There would be no impacts to hydrology and water resources resulting from operation of the interim terminal station at the F Street location.

Geology, Soils, Seismicity, and Paleontological Resources

Section 3.9 of the Draft Supplemental EIR/EIS evaluated the potential for impacts associated with geologic resources, soils, geologic hazards, and paleontological resources based on the project

footprint. The interim terminal station would be located within the same disturbance footprint that was evaluated in the Draft Supplemental EIR/EIS.

Construction Impacts. Impacts of construction and operations of the interim terminal station at the F Street location related to geologic resources, soils, the effects of geologic hazards, and paleontological resources would be the same as described in Section 3.9 of the Draft Supplemental EIR/EIS. The impacts in this resource area all relate to construction of the HSR infrastructure which is the same (or less because of the reduced footprint) for the interim terminal station scenario. Under the interim terminal station scenario, construction-related geology, soils, seismicity, and paleontological resources impacts are anticipated to be less than significant under CEQA.

Operational Impacts. There are no impacts to geologic resources, soils, and paleontological resources resulting from operation of the interim terminal station at the F Street Station location.

Hazardous Materials and Wastes

Section 3.10 of the Draft Supplemental EIR/EIS evaluated impacts associated with hazardous materials and waste based on the ground disturbance area and the anticipated use, storage, and disposal of hazardous materials and wastes within the project area. The interim terminal station would be located within the same disturbance footprint that was evaluated in the Draft Supplemental EIR/EIS.

Construction Impacts. Potential construction impacts to hazardous materials and waste are linear in nature and tied to the amount and length of construction. Therefore, the potential impacts of the construction of the interim terminal station at the F Street site would be less than the construction impacts as described within Section 3.10 of Draft Supplemental EIR/EIS. Construction of the interim terminal station would affect 0 medium-risk and 1 high-risk site of potential environmental concern (PEC). Standard best management practices (BMP) and avoidance measures would be incorporated during design and construction of the interim terminal station, in coordination with regulatory agencies. PEC sites would also be further investigated as necessary before right-of way acquisition and would be remediated to the extent necessary before interim terminal station construction.

The construction of the interim terminal station would also result in a temporary increase in the transportation, use, and storage of hazardous materials. Cleanup of PEC sites and demolition of existing structures, if needed, would result in a temporary increase in waste disposal. The project could also encounter unknown hazardous materials during construction. Routine transport, use, storage, and disposal of hazardous materials are governed by numerous laws, regulations, and ordinances. The anticipated routine use and disposal of hazardous materials and wastes during construction and the potential for accidental releases would be similar (but reduced) for the interim terminal station as described within Section 3.10 of the Draft Supplemental EIR/EIS. Demolition of any temporary structures associated with the interim terminal station would comply with standard BMPs and avoidance measures as identified in Section 3.10.5 of the Draft Supplemental EIR/EIS. Under the interim terminal station scenario, construction-related hazardous materials and wastes impacts are anticipated to be less than significant under CEQA with the implementation of applicable mitigation measures. Hazardous materials and wastes mitigation measures are listed in Section 3.10.6 of the Draft Supplemental EIR/EIS.

Operational Impacts. Operational impacts of the interim terminal station at the F Street site would be the same as those described in Section 3.10 of the Draft Supplemental EIR/EIS. Under the interim terminal station scenario, operation-related hazardous materials and wastes impacts are anticipated to be less than significant under CEQA.

Safety and Security

Section 3.11 of the Draft Supplemental EIR/EIS analyzed potential safety issues related to the construction and operation of the F-B LGA and full buildout F Street Station, which would be similar for the interim terminal station at F Street.

Construction Impacts. The construction-related impacts for safety and security for the interim terminal station at F Street are the same impacts as disclosed in the Draft Supplemental EIR/EIS for the full buildout station at F Street. See Section 3.11 of the Draft Supplemental EIR/EIS. Under the interim terminal station scenario, construction-related safety and security impacts are anticipated to be less than significant under CEQA.

Operational Impacts. The safety and security operation impacts for the interim terminal station at the F Street location would be similar to those identified in Section 3.11.4 of the Draft Supplemental EIR/EIS for the full buildout station. The interim terminal station would be monitored and surveilled similar to the full buildout station at the F Street location. Given the lower ridership expected during early operation, the potential for undesirable activities at the interim terminal station site could arise posing an increased chance for vandalism or security threats. Implementation of access control and security monitoring systems and the presence of security personnel (as discussed in Impact S&S-#16 in the Draft Supplemental EIR/EIS) would reduce successful criminal activities at the interim terminal station. Therefore, operational safety and security impacts at the interim terminal station are anticipated to be less than significant under CEQA.

Socioeconomics and Communities

Section 3.12 of the Draft Supplemental EIR/EIS evaluated the potential for community impacts and economic effects based on the project footprint. Many of these impacts are related to the displacement and relocation of residences, businesses, agricultural operations, and community facilities as a result of property acquisitions for the F-B LGA and the full buildout F Street Station. The interim terminal station would be located within the same disturbance footprint that was evaluated in the Draft Supplemental EIR/EIS.

Construction Impacts. As the interim terminal station would be constructed in the same footprint as the full buildout station, construction impacts would be the same as described in the Draft Supplemental EIR/EIS. Construction of the interim terminal station would affect property tax revenues by converting private land to public uses, but these reduced tax revenues would be offset by the increase in sales tax revenues due to project spending. Because of the reduced footprint of the interim terminal station, the interim terminal station would result in fewer construction jobs and would be less disruptive to the loss of tax revenue than construction of the full buildout station. Under the interim terminal station scenario, construction-related socioeconomics and communities impacts are anticipated to be less than significant under CEQA.

Operational Impacts. The operational impacts from the interim terminal station would be similar to those of the full buildout station at F Street. The effects on property and sales tax revenues would be similar because the same commercial and industrial business relocations would be required at the station site. In addition, only a few maintenance jobs would be created for operation of the interim terminal station leading to very limited job-creation. Under the interim terminal station scenario, operation-related socioeconomics and communities impacts are anticipated to be less than significant under CEQA.

Station Planning, Land Use, and Development

Impacts to land use from the construction and operation of the interim terminal station at the F Street location would generally be the same as disclosed in Section 3.13 of the Draft Supplemental EIR/EIS for the full buildout F Street Station. The interim terminal station would permanently convert the same types of land uses because it is within the current F-B LGA footprint, but would reduce the overall acreage of land converted for the station given the smaller footprint. Impacts to adjacent land uses would generally be the same as for the full buildout F

Street Station, given that the interim terminal station would serve the same use as an HSR Station, despite its reduced size.

Regardless of the interim terminal station concept the Authority may select for development, the interim station may be in operation for up to 15 years depending on the availability of project funding and the level of land use development in the surrounding communities.

The May 2018 City of Bakersfield High-Speed Rail Station Area Plan (Vision Plan) lays the groundwork for future development in Downtown Bakersfield using a phased development approach over a 30-year timeline. The first 10-year period (2015-2025) focuses on strengthening the historic core of Downtown and connecting it to the Mill Creek Entertainment District. The second 10-year period (2025-2035) focuses on preparing the Downtown area to connect to and develop a new node of activity around the future HSR station. The multimodal infrastructure proposed during the first and second development phases would improve access and connectivity to and from the station area, regardless of whether the interim station or the F Street Station is in operation at the time of build-out of the Vision Plan.

The third and final 10-year period (2035-2045) for implementing the Vision Plan is intended to coincide with the full build-out of the HSR system. The third phase focuses on responding to continued growth around the HSR station and spreading its economic and other benefits equitably across Downtown and its adjacent neighborhoods. The construction and placement of the Interim Terminal Station and the Vision Plan will require careful planning, coordination, and collaboration to optimize and implement sustainable and resilient growth in Downtown Bakersfield. Redevelopment surrounding the F Street site as identified in the Vision Plan may influence the need to construct the full buildout station sooner. Implementation of the Vision Plan could also influence the ultimate station configuration.

Under the interim terminal station scenario, construction-related and operation-related station planning, land use, and development impacts are anticipated to be less than significant under CEQA.

Agricultural Lands

Section 3.14 of the Draft Supplemental EIR/EIS evaluated the potential for impacts on agricultural resources based on the project footprint and its location relative to agricultural lands. The interim terminal station would be located within the same disturbance footprint that was evaluated in the Draft Supplemental EIR/EIS.

Construction Impacts. The interim terminal station would be located in an urbanized area of the City of Bakersfield; therefore, under CEQA there would be no impacts to agricultural land resulting from construction of the interim terminal station at the F Street Station location.

Operational Impacts. The interim terminal station would be located in an urbanized area of the City of Bakersfield; therefore, under CEQA there are no impacts to agricultural land resulting from operations of the interim terminal station at the F Street Station location.

Parks, Recreation, and Open Space

Section 3.15 of the Draft Supplemental EIR/EIS evaluated the potential for impacts associated with parks, recreation, and open space based on the project footprint and its location relative to these land uses. The interim terminal station would be located within the same disturbance footprint that was evaluated in the Draft Supplemental EIR/EIS.

Construction Impacts. The Kern River Parkway is the only park, recreation, or open space facility that would be directly impacted by the interim terminal station footprint. Since the interim terminal station at the F Street site would be located within the F-B LGA footprint analyzed in the Draft Supplemental EIR/EIS, indirect impacts from construction of the interim terminal station would be the same or less than those analyzed in Section 3.15 of the Draft Supplemental EIR/EIS given the lower intensity of construction required for the interim terminal station. No school recreational facilities would be directly or indirectly affected by interim terminal station construction. The types of construction impacts would be the same as those described in Section 3.15 of the Draft

Supplemental EIR/EIS and include temporary and localized impacts to access, noise, dust, and air quality and visual quality degradation.

Permanent effects and impacts include the acquisition of parklands. For the interim terminal station construction and operation, 0.66 acre of Kern River Parkway would have to be acquired. Mitigation for this significant impact is described in Section 3.15 of the Draft Supplemental EIR/EIS. Under the interim terminal station scenario, construction-related parks, recreation, and open space impacts are anticipated to be less than significant under CEQA with the implementation of applicable mitigation measures. Parks, recreation, and open space mitigation measures are listed in Section 3.15.6 of the Draft Supplemental EIR/EIS.

Operational Impacts. Operational characteristics of the interim terminal station at the F Street site would not have noise, air quality or other issues or impacts greater than the full buildout F Street Station, as evaluated in the Draft Supplemental EIR/EIS, that would negatively affect parks or school recreation facilities. Under the interim terminal station scenario, operation-related parks, recreation, and open space impacts are anticipated to be less than significant under CEQA with the implementation of applicable mitigation measures. Parks, recreation, and open space mitigation measures are listed in Section 3.15.6 of the Draft Supplemental EIR/EIS.

Aesthetics and Visual Resources

Section 3.16 of the Draft Supplemental EIR/EIS evaluated impacts associated with aesthetics based on the proposed design for the F-B LGA, including the full buildout F Street Station, and its location relative to key viewpoints (KVP). The interim terminal station would involve similar design features as the full buildout F Street Station and would be located within the same Landscape Units, as described below.

Construction Impacts. Construction impacts on aesthetics and visual resources associated with the interim terminal station at F Street would be the same as for construction of the HSR as described within Section 3.16 of the Draft Supplemental EIR/EIS. These construction impacts would be temporary in nature and relate to sources of light, glare, and visual nuisance, which would be avoided and minimized by construction specifications and practices. Under the interim terminal station scenario, construction-related aesthetics and visual resources impacts are anticipated to be less than significant under CEQA with the implementation of applicable mitigation measures. Aesthetics and visual resources mitigation measures are listed in Section 3.16.6 of the Draft Supplemental EIR/EIS.

Operational Impacts. Many of the impacts to visual resources from interim service operations at the F Street location would result from elevated guideways or relocated transmission lines whose bulk and mass cannot be reduced; the impacts for the interim terminal station are the same as for the full buildout station described in the Draft Supplemental EIR/EIS because the impacts stem from the infrastructure and would be within the same Landscape Units (Kern River Landscape Unit and the Central Bakersfield Landscape Unit) as previously assessed. Table 2-I-1, below, provides a summary of visual quality changes and impacts at KVPs in the Kern River Landscape Unit and the Central Bakersfield Landscape Unit that would result from the construction and operation of the interim terminal station. Figure 3.16-12 in the Draft Supplemental EIR/EIS shows locations of representative and key views in the Kern River Landscape Unit, and Figure 3.16-14 shows locations of representative and key views in the Central Bakersfield Landscape Unit.

Table 2-I-1 Summary of Visual Quality Changes and Impacts at Key Viewpoints (KVP) Along the Interim Terminal Station

KVP Locations	Visual Quality Rating – Existing	Visual Quality Rating – With Interim Terminal Station	Viewer Response	CEQA Impacts
City of Bakersfield				
Kern River Landscape Unit				
Kern River Parkway Bike Trail (KVP 7)	Moderately High	Moderate	High	Significant
Central Bakersfield Landscape Unit				
KVP 8	Low	Moderately Low	Moderately High to High	No Impact

The interim terminal station’s visual impacts would be the same as or less than those evaluated in Section 3.16 of the Draft Supplemental EIR/EIS. The introduction of an elevated viaduct with an interim platform visible from KVP 7 on the Kern River Parkway Bike Trail, and the relocation of transmission lines, would reduce the intactness of the visual environment, causing visual quality to decline from moderately high to moderate. In an area with highly sensitive recreational viewers, the interim terminal station would have a significant impact under CEQA with implementation of the mitigation measures described in Section 3.16.6 in the Draft Supplemental EIR/EIS. The interim terminal station, depending on its exact location, also could alter views from KVP 8 along State Route 204. However, because this area currently has expansive surface parking lots, generic commercial architecture, and a vacant lot, its visual quality is low. Whereas the proposed F Street Station would introduce a building with distinctive and attractive architecture, improving visual quality to a moderate level, the interim terminal station would have a more basic and functional appearance. Nonetheless, it is expected that the interim terminal station would incrementally improve visual quality as seen from KVP 8 to moderately low. Therefore, similar to the proposed F Street Station, the interim terminal station would have no adverse impact under CEQA.

Cultural Resources

Section 3.17 of the Draft Supplemental EIR/EIS evaluated the potential for impacts on cultural resources based on the project footprint. The interim terminal station would be located within the same disturbance footprint that was evaluated in the Draft Supplemental EIR/EIS.

Construction Impacts. Construction of the interim terminal station would occur in the urbanized area of Bakersfield within the footprint identified for the full buildout station. The full buildout station footprint (which includes the interim terminal station footprint) has been evaluated for its potential to affect historic architectural resources and would have the potential to affect undisturbed prehistoric archaeological sites. See Section 3.17 of the Draft Supplemental EIR/EIS. Under the interim terminal station scenario, construction-related cultural resources impacts are anticipated to be less than significant under CEQA with the implementation of applicable mitigation measures. Cultural resources mitigation measures are listed in Section 3.17.6 of the Draft Supplemental EIR/EIS.

Operational Impacts. Operation of the interim terminal station would not impact archaeological resources. Operation of the interim terminal station could have the potential to result in impacts to built environment resources; however, none of the built environment resources identified in Section 3.17 of the Draft Supplemental EIR/EIS are located within the station footprint. Under the

interim terminal station scenario, operation-related cultural resources impacts are anticipated to be less than significant under CEQA.

Environmental Justice

Chapter 5 of the Draft Supplemental EIR/EIS evaluated the potential for the project to result in disproportionately high and adverse human health or environmental impacts on minority and low-income populations. The interim terminal station would be located within the same disturbance footprint that was evaluated in the Draft Supplemental EIR/EIS.

Construction Impacts. As discussed in Section 5.6.3.1 of the Draft Supplemental EIR/EIS, construction activities associated with the F-B LGA would not result in disproportionately high and adverse effects on minority and low-income populations. Construction activities associated with the interim terminal station would be of shorter duration and would occur within a smaller footprint than the full buildout station evaluated in the Draft Supplemental EIR/EIS. Therefore, due to a shorter construction window and a smaller construction footprint, construction of the interim terminal station would not result in disproportionately high and adverse effects on minority and low-income populations, consistent with the analysis contained in Chapter 5 of the Draft Supplemental EIR/EIS. A discussion of construction-related impacts by resource topic is provided in Section 5.6.3.1 of the Draft Supplemental EIR/EIS. Because the interim terminal station footprint would be located within the disturbance footprint that was evaluated in the Draft Supplemental EIR/EIS, construction of the interim terminal station would not result in construction-related environmental justice impacts.

Operational Impacts. As shown in Table 5-3 of the Draft Supplemental EIR/EIS, operation of the F-B LGA would result in disproportionately high and adverse noise and vibration, socioeconomics and communities, and aesthetics and visual resources effects on low income and minority populations. Although fewer trains may operate initially as ridership ramps up, to provide a conservative environmental analysis, the analysis in this Technical Appendix assumes that the same number trains would operate under the interim terminal station scenario and result in the same number of severe operational noise impacts as the full buildout station. The noise and vibration impacts evaluated in Chapter 5 of the Draft Supplemental EIR/EIS would be consistent between the full buildout station and the interim terminal station scenarios.

Neither the development of the full buildout nor the interim terminal station would result in residential displacements; therefore, disproportionately high and adverse operational socioeconomics and communities impacts would not occur due to development at the station site.

Section 5.6.3 of the Draft Supplemental EIR/EIS provides a discussion of the environmental justice impacts related to aesthetics and visual resources impacts associated with the F-B LGA. It is anticipated that the interim terminal station would be of smaller scale than the full buildout station; therefore, it is anticipated that the number of residential dwellings from which the interim terminal station would be visible would not exceed the number of dwellings from which the full buildout station would be visible.