2 REVISED PROJECT DESCRIPTION AND REVISED IMPACT ANALYSES: SAN JOSE TO GILROY

This chapter provides a revised description of the proposed location of HST tracks between San Jose and Gilroy as required by the court judgment. Based on the revised project description, this chapter then provides a revised discussion of land use impacts between San Jose and Gilroy , a new discussion of impacts on the Monterey Highway and impacts on certain trees along Monterey Highway that qualify as an historical resource, and a clarification of visual impacts. Finally, this chapter includes revised Appendix 2-D plan and profile sheets and revised Appendix 2-E cross sections for San Jose to Gilroy (included after section 2.7). The revised plan and profile sheets and revised cross sections provide additional detail regarding the proposed horizontal location and vertical profile of HST tracks between San Jose and Gilroy. A new discussion of impacts on UPRR freight operations between San Jose and Gilroy are addressed in Chapter 4 of this document. The 2008 Final Program EIR impacts analyses for other resource areas are not affected by the revised project description for San Jose to Gilroy. Review of the Final Program EIR identified that the only areas requiring revisions are land use, traffic, aesthetics and visual resources, and cultural resources (Parsons internal comm. 2010a).

The 2008 Final Program EIR divided the Bay Area to Central Valley study area into six corridors. The HST alignment between San Jose and Gilroy is within the San Jose to Central Valley corridor. These revisions therefore refer to the San Jose to Central Valley corridor; however, the revisions are limited to the alignment between San Jose and Gilroy.

2.1 Revised Project Description: San Jose to Gilroy

The following revised description of the alignment alternatives between San Jose and the Central Valley replaces the description in the 2008 Final Program EIR, Chapter 2, page 2-40. Changes to text in the Revised Draft Program EIR are shown with a bar in the margin; added text is noted with underlining and deleted text is noted with strikeout.

San Jose to Central Valley

The alignment alternatives and station location options in this corridor carried forward for further consideration are illustrated in Figure 2.5-7 (in the 2008 Final Program EIR) and discussed below.

Alignment Alternatives Carried Forward

Pacheco Pass Alignments

- Caltrain/Gilroy/Henry Miller Avenue: This alignment alternative would extend south along the Caltrain/UPRR rail corridor through the Pacheco Pass and then the San Joaquin Valley. From San Jose to Lick (a point near Pullman Way in San Jose), the alignment would be located within the Caltrain-owned right-of-way. From Lick to Gilroy, the alignment would be located adjacent to and on the east side of UPRR's mainline right-of-way, using portions of the Monterey Highway right-of-way between San Jose and north of Morgan Hill. From north of Morgan Hill to Gilroy, the alignment would be adjacent to and on the east side of the UPRR mainline right-of-way. Station location options include the existing San Jose (Diridon) Station and Gilroy (near the existing Caltrain Station) or Morgan Hill (near the existing Caltrain Station).
- Caltrain/Gilroy/GEA North/Merced: This alignment alternative would extend south along the Caltrain/UPRR rail corridor through the Pacheco Pass, pass through the northern portion of the Grasslands Ecological Area (GEA) and then across the San Joaquin Valley. From San Jose to Lick (a point near Pullman Way in San Jose), the alignment would be located in the Caltrain-owned right-of-way. From Lick to Gilroy, the alignment would be located adjacent to and on the east side of UPRR's mainline right-of-way, using portions of the Monterey Highway right-of-way

between San Jose and north of Morgan Hill. From north of Morgan Hill to Gilroy, the alignment would be adjacent to and on the east side of the UPRR mainline right-of-way. Station location options include the existing San Jose (Diridon) Station and Morgan Hill (near the existing Caltrain Station) or Gilroy (near the existing Caltrain Station).

2.2 Revised Land Use Analysis: San Jose to Gilroy

The following is a revised land use analysis for the alignment alternative between San Jose and the Central Valley, in response to the court ruling. This discussion replaces the discussion for the Pacheco alignment alternative in the 2008 Final Program EIR, Chapter 3.7, pages 3.7-33 and 3.7-34 (Parsons internal comm. 2010b). Changes to text from the Revised Draft Program EIR are shown with a bar in the margin; added text is noted with underlining and deleted text is noted with strikeout. The 2008 Final Program EIR identified the HST system's land use impacts as significant for purposes of CEQA and identified mitigation strategies to be carried forward into project-level EIRs to address land use compatibility, communities and neighborhoods, property, and environmental justice impacts. There are no changes to the CEQA significance conclusions or mitigation strategies for the land use analysis based on these revisions for the San Jose to Gilroy portion of the discussion.

Regulatory Requirements and Methods of Evaluation (page 3.7-1)

No revisions or additions required for Regulatory Requirements or Methods of Evaluation. The methods, however, are provided below for ease of reference.

The analysis was conducted using U.S. Census 2000 block group information/data compiled in a geographic information systems (GIS) format, local community general plans or regional plans, and land use information provided by the planning agencies in each of the regions. Existing and future conditions were described for the No Project Alternative by documenting existing information for existing and planned future land use policy near HST Alignment Alternatives and potential station location options, development patterns for employment and population growth, demographics, communities and neighborhoods, housing, and economics. The No Project Alternative was compared to the planned uses reflected in general plans and regional plans to see if it may result in potential effects on future development. The general and regional plans consulted for this section are listed in Chapter 14, "Sources Used in Document Preparation" in the Final Program EIR.

The ranking systems described below were used to evaluate potential impacts for the HST Alignment Alternatives for land use changes, land use compatibility, and property. Potential impacts on communities and neighborhoods were also considered. The presence of minority populations and low-income populations in the study area for an alignment alternative was identified to consider potential environmental justice issues. Because this is a programmatic environmental review, the analysis of these potential impacts was performed on a broad scale to permit a comparison of relative differences among the alignment alternatives. Further evaluation of potential impacts would occur at the project-level environmental review.

Land Use Compatibility

Future land use compatibility is based on information from general plans and other regional and local transportation planning documents. These documents were examined to assess an alignment alternative's potential consistency with the goals and objectives defined therein. An alignment alternative is considered highly compatible if it would be located in areas planned for transportation multi-modal centers or corridor development, redevelopment, economic revitalization, transit-oriented development, or high-intensity employment. Compatibility would be considered low if an alignment alternative would be potentially inconsistent with local or regional planning documents. For example, homes and schools are more sensitive to changes that may result in increased noise and vibration (see Section 3.4, "Noise and Vibration" in the Final Program EIR) or increased levels of traffic congestion (see Section 3.1, "Traffic, Transit, Circulation, and Parking" in the Final Program EIR).

Industrial uses, however, are typically less sensitive to these types of changes because they interfere less with normal industrial activities. Because in this analysis an area's sensitivity or compatibility is based on the presence of residential properties, low, medium, and high levels of potential compatibility are identified based on the percentage of residential area affected, the proximity of the residential area to facilities included in an alignment alternative, and the presence of local or regional uses (such as parks, schools, and employment centers). For highway corridors (under the No Project Alternative) and for proposed alignment alternatives, land use compatibility was assessed using GIS layers (or aerial photographs where available) to identify proximity to housing and population and to determine whether the alignment alternatives would be within or outside an existing right-of-way in the study area. Potential impacts are considered low if existing land uses within a potential alignment, station, or maintenance facility area are found to be compatible with the land use changes that may result from the alignment alternative. The type of improvement that would be associated with the alignment alternative would also affect the level of potential impact. Improvements such as potential widening of an existing right-of-way or the need for new right-of-way were considered to have a low compatibility with agricultural land. Conversely, if the improvement would be contained within the existing right-of-way or within a tunnel, the alignment alternative was considered compatible with agricultural land.

Table 2-1 summarizes the potential compatibility rating of existing and planned land use types with the potential HST Alignment Alternatives and station location options. Therefore, where potential compatibility would be rated low, the potential for adverse impacts would be higher, and where potential compatibility would be rated high, the potential for adverse impacts would be lower.

Table 2-1
Unchanged Table 3.7-1—Compatibility of Land Use Types

Low Compatibility	Medium Compatibility	High Compatibility
Single-family residential, neighborhood and community parks, habitat conservation area, elementary/middle school, agricultural (widened or new right-of-way needed)	Multifamily residential, high schools, low-intensity industrial, hospitals	Business park/regional commercial, multifamily residential, existing or planned transit center, high intensity industrial park, service commercial, commercial recreation, college, transportation/utilities, high-intensity government facilities, airport or train station, agricultural (tunnel or no new right-of-way needed)

Communities and Neighborhoods

A potential impact on a community or neighborhood was identified if an alignment alternative would create a new physical barrier, isolating one part of an established community from another and potentially resulting in a physical disruption to community cohesion. Improvements to existing transportation corridors, including grade separations, would not generally result in new barriers.

Property

Assessment of potential property impacts is based on the types of land uses adjacent to the particular proposed alignment alternative, the amount of right-of-way potentially needed due to the construction type, and the land use sensitivity to potential impacts. Impacts include potential acquisition, displacement and relocation of existing uses, or demolition of properties.

In some instances, relatively minor strips of property would be needed for temporary construction easements or permanent right-of-way for the proposed HST Alignment Alternatives. In other instances, development of proposed facilities could result in acquisition, displacement, and/or relocation of existing structures. The types of property impacts that could occur include displacement

of a residence or business or division of a farm or other land use in a way that makes it harder to use. Mitigation may also be required to maintain property access. Potential property impacts were ranked high, medium, or low, as summarized below in Table 2-2 (see Table 3.7-A-1 in Appendix 3.7-A in the Final Program EIR for more detail).

Table 2-2
Unchanged Table 3.7-2—Rankings of Potential Property Impacts

	Type of Development						
	Residential			Nonresidential			
Facility Requirements	**Rural/ Suburban**	**Suburban/ Urban**	**Urban**	**Rural Developed**	**Suburban Industrial/ Commercial**	**Urban Business Parks/ Regional Commercial**	**Rural Undeveloped**
No additional right-of-way needed (also applies to tunnel segments for HST Alignment Alternatives)	Low	Low	Low	Low	Low	Low	Low
Widening of existing right-of-way required	Medium	Medium	High	Low	Medium	High	Low
New corridor (new right-of-way required; includes aerial and at-grade arrangements)	High	High	High	Medium	Medium	High	Low to medium

To determine potential property impacts, the land uses within 50 ft of either side of the existing corridor or within 50 ft of both sides of the centerline for new HST alignments were characterized by type and density of development. Densities of structures, buildings, and other elements of the built environment were generally higher in urbanized areas. *Rural/suburban residential* refers to low-density, single-family homes. *Suburban/urban residential* refers to medium density, multifamily housing, such as townhouses, duplexes, and mobile homes. *Urban residential* refers to high-density multifamily housing, such as apartment buildings. *Rural developed nonresidential* uses typically occur in nonurbanized areas and often include developed agricultural land, such as vineyards and orchards. *Suburban industrial/commercial* refers to medium density nonresidential uses and includes some industrial uses, as well as transportation, utilities, and communication facilities. *Urban business parks/regional commercial* refers to nonresidential uses that occur in urbanized areas and includes such uses as business parks, regional commercial facilities, and other mixed use/built-up uses. *Nonrural undeveloped land* includes cropland, pasture, rangeland, and few structures. The classification of development type was based on land use information provided by the planning agencies in each of the regions.

Environmental Justice

This analysis is based on identifying the presence of minority populations and low-income populations in the study area (0.25 mi from a potential alignment), and generally in the counties crossed by the alignment alternatives. The assessment was done using U.S. Census 2000 information and alignment information to determine if minority or low-income populations exist within the study areas, and if they do, whether the alignments would be within or adjacent to an existing transportation right-of-way (lower potential for impacts) or a new alignments (higher potential for impacts).

The analysis was used to determine whether:

- At least 50% of the population in the study area may be minority or low income.
- The percentage of minority or low-income population in the study area is at least 10% greater than the average generally in the county or community.

The assessment of potential for impacts on minority and low-income populations considered the size and type of right-of-way needed for the alignment alternatives. For example, if an alignment alternative would be within an existing right-of-way, the potential for adverse impacts would be lower. If the alignment alternative would be on new right-of-way, the potential for adverse impacts may be higher. The potential alignment alternatives, however, have been identified and described to largely use or be adjacent to existing transportation rights-of-way to avoid or reduce potential impacts on natural resources and existing communities to the extent feasible and practicable (see Chapter 2, "Alternatives" in the Final Program EIR). In some cases, the minority and low-income thresholds identified above were met or exceeded, but the geographic area (of the block group) was large and sparsely populated. In these areas, the minority and/or low income populations are distant from the proposed alignment alternative. For these areas, the environmental justice impacts were considered as low, given the distance between the environmental justice populations and the HST line.

Because this is a program-level document, the analysis considers the alternatives on a broad scale. The Statewide Program EIR/EIS concluded that the overall system would not result in a disproportionate impact on minority or low-income populations. Additional analysis would take place during project-level analysis to consider potential localized impacts.

A. CRITERIA FOR DETERMINING CEQA SIGNIFICANCE

Under CEQA, two types of potential impacts are considered in the determination of significance for the land use evaluation; namely, the potential for the project to:

- Physically divide an established community or be incompatible with adjacent land uses in the short or long term.
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

The evaluation methods described above provide for the review of these types of potential impacts.

Affected Environment (page 3.7-5)

No revisions or additions required.

Environmental Consequences, High-Speed Train Alternative (page 3.7-33)

San Jose to Central Valley Corridor

Land Use Compatibility

Alignment Alternatives

Pacheco: The Pacheco alignment alternative would be highly compatible with the existing Caltrain rail corridor between San Jose and Gilroy. However, as the alignment alternative veers from the existing rail corridor east of Gilroy, it would potentially be incompatible as it proceeds through agricultural land and parkland. Overall, this alignment alternative would have a medium compatibility with surrounding land uses.

Station Location Options

San Jose (Diridon): The proposed San Jose (Diridon) station location option would be highly compatible with the existing San Jose Diridon Caltrain station and the surrounding industrial and high-density residential uses. The station location option would be consistent with the *San Jose Downtown Strategy Plan* that promotes redevelopment of the downtown toward the west and closer to the station location option.

Morgan Hill: The Morgan Hill station location option would be highly compatible with the existing Caltrain station and nearby commercial/service oriented and other urban uses. The station location option would be consistent with the *City of Morgan Hill General Plan* policies that support the expansion of alternative transportation systems, as well as the development of a multi-modal transit transfer center.

Gilroy: The Gilroy station location option would be highly compatible with the existing Caltrain station and adjoining commercial uses; however, it would be incompatible with the adjacent single-family residential uses. The proposed station would be consistent with the policies and actions stated in the *Gilroy General Plan* that place a high priority on strengthening and restoring the downtown area, including the development of an active multi-modal transit center. Although the proposed station location option would be incompatible with the existing low-density residential uses, the general plan promotes the future development of higher-density residential and mixed uses in close proximity to the Caltrain station and the multi-modal transit center.

Communities and Neighborhoods

Pacheco: This alignment alternative traverses the dense urban city of San Jose but also travels through small rural cities and unincorporated areas such as Coyote, Morgan Hill, Gilroy, San Martin, and San Felipe, which consist of small single-family residential neighborhoods and farmsteads. In northern San Felipe, the alignment alternative has a low potential to impact farmsteads; however, there would be no loss of community or neighborhood cohesion as a result. In other locations where this alignment alternative would create a new transportation corridor (east of Gilroy), the alignment alternative would primarily pass through agricultural or open space lands and would not result in community cohesion impacts on neighborhoods.

Property

Pacheco: Between the proposed Diridon station and Lick, the right-of-way is owned by the Peninsula Corridor Joint Powers Board (PCJPB or Caltrain). The HST would be built largely within the existing rail right-of-way. The potential for property impacts is between low and medium. From Lick to Morgan Hill (where Monterey Highway is immediately adjacent to the mainline UPRR right-of-way), the HST would be built within the right-of-way of the existing Monterey Highway. Generally, north of Bernal Road, in the City of San Jose, the existing highway right-of-way is sufficient to accommodate both a reconfigured roadway and the HST facilities. South of Bernal Road, Monterey Highway would be shifted to the east of the existing roadway in places to accommodate the HST facilities. This shift would vary from 0 to approximately 60 feet, depending on location. As the existing land use in this

area is largely agricultural, the potential property impacts would be low. Between Morgan Hill and south of the proposed Gilroy station location, the HST would run adjacent to the UPRR right-of-way. The HST would require a 50- to 60-foot right-of-way for either at-grade or aerial alignments. Development in this area is a mix of low-density residential and industrial uses and agriculture, yielding a potential property impact ranking between low and medium, depending on location. In addition, grade separations along the alignment alternative could entail the conversion of residential and nonresidential property at selected locations. However, the alignment would create new right-of-way within existing transportation corridors. The proposed San Jose to Central Valley Corridor would require new right-of-way east of the City of Gilroy. Overall, potential for property impacts is between low and medium (Table 2-3).

Environmental Justice

The study area for the San Jose to Central Valley corridor includes a variety of neighborhoods and a diverse multiethnic population. All four alignment alternatives have environmental justice populations that exceed the thresholds. Where the alignment alternatives use existing rail rights-of-way (i.e., along the Caltrain Corridor from San Jose to Lick), they would not be expected to result in disproportionate impacts on environmental justice communities. From Lick to Gilroy, the alignment would be located adjacent to and on the east side of the UPRR right-of-way, using portions of the Monterey Highway right-of-way between San Jose and north of Morgan Hill. From north of Morgan Hill to Gilroy, the alignment would adjacent to and on the east side of the UPRR mainline right-of-way. From Lick to Gilroy the alignment would not be expected to result in disproportionate impacts on environmental justice communities. The environmental justice population(s) percentages exceed the thresholds east of Gilroy in the open space and more rural areas, but these populations are sparse and distant from the alignment alternatives.

Role of Design Practices in Avoiding and Minimizing Effects (page 3.7-41)

No revisions or additions required.

Mitigation Strategies and CEQA Significance Conclusions (page 3.7-42)

No revisions required. Land use impacts between San Jose and Gilroy are considered significant under CEQA.

Subsequent Analysis (page 3.7-44)

No revisions or additions required.

Table 2-3
Revised Table 3.7.3—Land Use Summary Data Table for Alignment Alternatives and Station Location Option Comparisons

Corridor	Possible Alignments	Alignment Alternative	Land Use Compatibility (H,M,L)	Community Cohesion Impacts (Y/N)	Potential For Property Impacts (H,M,L)	Environmental Justice (EJ) Impacts (H,M,L)
San Jose to Central Valley: Pacheco Pass	1 of 1	Pacheco	M Highly compatible with existing Caltrain Corridor between San Jose and Gilroy. Low compatibility with agricultural land and open space, east of Gilroy.	N	L / M Alignment within existing Caltrain Corridor between Diridon station and Lick. Lick to Morgan Hill within Monterey Highway right-of-way. Between Morgan Hill and Gilroy adjacent to UPRR right-of-way. East of Gilroy, alignment within agricultural and open space.	M Alignment within existing Caltrain Corridor between Diridon station and Lick. Lick to Morgan Hill within Monterey Highway right-of-way. Between Morgan Hill and Gilroy adjacent to UPRR right-of-way. New alignment east of Gilroy. Although the EJ percentage thresholds are exceeded east of Gilroy, the EJ populations are sparse and distant from the HST line.
	1 of 3	Henry Miller (UPRR Connection)	M Highly compatible with existing Henry Miller Road between Santa Nella and Elgin Avenue. New alignment right-of-way would be incompatible with agricultural uses east of Elgin Avenue.	N	L Alignment would be built through agricultural land. Impacts would be minimal.	L Alignment alternative would create new transportation right-of-way. Although the EJ percentage thresholds are exceeded, the populations are sparse and distant from the HST line.
		Henry Miller (BNSF Connection)	M Highly compatible with existing Henry Miller Road between Santa Nella and Elgin Avenue. New alignment right-of-way would be incompatible with agricultural uses east of Elgin Avenue.	N	L Alignment would be built through agricultural land. Impacts would be minimal.	L Alignment alternative would create new transportation right-of-way. Although the EJ percentage thresholds are exceeded, the populations are sparse and distant from the HST line.

Corridor	Possible Alignments	Alignment Alternative	Land Use Compatibility (H,M,L)	Community Cohesion Impacts (Y/N)	Potential For Property Impacts (H,M,L)	Environmental Justice (EJ) Impacts (H,M,L)
		GEA North	L Incompatible with agricultural uses.	N	L Alignment would be built through agricultural and open space. Impacts would be minimal.	H Alignment alternative would create new transportation right-of-way. Percentages of EJ populations exceed thresholds.
San Jose (Diridon)			H Compatible with San Jose Diridon Caltrain station and industrial uses. Consistent with plans for downtown redevelopment.	N	L Station would be located at the current Caltrain station site.	L Percentage of EJ populations is lower than the thresholds.
Morgan Hill (Caltrain)			H Compatible with Morgan Hill Caltrain station and commercial uses. Consistent with plans for development of multi-modal transit transfer center.	N	L Station would be located at the current Caltrain station site.	L Percentages of EJ populations are lower than the thresholds.
Gilroy (Caltrain)			M Highly compatible with existing Gilroy Caltrain station and commercial uses. Low compatibility with single-family residential use. Consistent with policies for development of a multi-modal transit center.	N	L / M Station would be located ~~at~~ near the current Caltrain station site.	M Station constructed ~~at~~ near existing Gilroy Caltrain Station. Percentages of EJ populations within station area exceed thresholds.

2.3 Revised Traffic Analysis: San Jose to Gilroy

The following is an additional traffic analysis that resulted from the revised description of the alignment alternatives between San Jose and the Central Valley. This discussion adds to the 2008 Final Program EIR, Chapter 3.1, pages 3.1-18, 3.1-23, 3.1-31, 3.1-37, and 3.1-39. Changes to text from the Revised Draft Program EIR are shown with a bar in the margin; added text is noted with underlining and deleted text is noted with strikeout.

Regulatory Requirements and Methods of Evaluation (page 3.1-1, 2008 Final Program EIR)

No revisions or additions required.

Affected Environment, Study Area Corridors and Potential High-Speed Train Stations (page 3.1-18, 2008 Final Program EIR)

San Jose to Central Valley Corridor

Monterey Highway is a segment of El Camino Real, the original trail developed by Spanish missionaries to link the California missions in the 18th and 19th centuries. As California developed, so did Monterey Highway. This history is reflected in its design.

Monterey Highway was the original route of US 101 and some portions carried this designation until the early 1980s. Until the late 1940s, US 101 followed Monterey Highway all the way from Gilroy to downtown San Jose. In the late 1940s, a bypass of San Jose was built, starting at what is now Blossom Hill Road. In the early 1970s, a bypass was built from south of Gilroy to Cochrane Road in Morgan Hill. In the early 1980s, US 101 was completed between Blossom Hill Road and Cochrane Road and widened to its present eight lanes in the 1990s.

Each of the US 101 projects diverted traffic off Monterey Highway, so that in 2009, the highway carried much less traffic than it was originally designed to support. The existing peak hour roadway level of service (LOS) along Monterey Highway, between Southside Drive in southern San Jose and Bailey Road near Morgan Hill, varies mostly between A and C, showing uncongested conditions even during peak hours in most locations.[1] However, in a few locations, the LOS degrades to LOS D during peak hours, denoting delays and some traffic backup.

No portion of Monterey Highway exists as a freeway; therefore, travel speeds are limited. US 101, which runs parallel to Monterey Highway, tends to provide a faster north/south travel alternative, even during peak travel times, and hence serves to divert some traffic from Monterey Highway.

Environmental Consequences, No Project Alternative (page 3.1-23, 2008 Final Program EIR)

As discussed above in the Affected Environment, peak hour roadway LOS along Monterey Highway in the San Jose to Central Valley Corridor shows mostly uncongested (LOS A and C) conditions, with a few locations at LOS D, denoting delays and some traffic backup. Preliminary projections for year 2035 evening peak-hour volumes along Monterey Highway, between Southside Drive and Bailey Road, indicate that traffic volumes are expected to be higher in the southbound direction, leading to LOS E or F, showing congested travel conditions in the corridor. In the northbound direction, approximately 60%of the Monterey Highway corridor is projected to operate under LOS C or better, showing mostly uncongested travel conditions.

[1] City of San Jose (data collected between 2007 and 2009).

Environmental Consequences, High-Speed Train Alternative (changes from 2010 Revised Program EIR Material)

San Jose to Central Valley Corridor

As discussed above in the Affected Environment, Monterey Highway in the San Jose to Central Valley Corridor is six lanes wide for approximately six miles from Hollywood Avenue ~~Southside Drive~~ to south of Blossom Hill Road, and four lanes wide south of Blossom Hill Road. For the HST project, ~~segments of~~ Monterey Highway from approximately Southside Drive ~~Umbarger Road~~ to south of Blossom Hill Road (approximately 3.3 miles) ~~Metcalf Road (near Bailey Road) are~~ is proposed to be narrowed from six lanes to four lanes to provide a cost-effective right-of-way corridor for HST by minimizing property acquisition along the HST alignment. On June 22, 2009, the Task Force managing development of a comprehensive update to the City of San Jose's General Plan unanimously endorsed the reduction of Monterey Highway from six to four lanes for the purpose of accommodating the HST project. In addition, the City and Caltrans are pursuing relinquishment of portions of Monterey Highway (State Route 82) in San Jose, from the jurisdiction of Caltrans to the City of San Jose, to further facilitate any corridor modifications necessitated by the ongoing development of the HST project.

With the reduction of lanes on a portion of Monterey Highway and with HST, traffic congestion is projected to increase slightly in both directions, as shown in Table 2-4. The preliminary information provided in this table is from the City of San Jose's long-range planning process and represents preliminary evaluation of LOS in the Monterey Highway corridor using the City's traffic model. The assumptions of this forecast consider a base scenario with Monterey Road being six lanes from Umbarger to south of Blossom Hill Road, and a project scenario with four lanes on Monterey Highway for this section ~~from Blossom Hill Road~~. The forecast does not incorporate the mode shift to HST, and therefore represents a conservative scenario.

Table 2-4
Traffic Conditions on Monterey Highway With and Without the Project During Evening Peak Period (Year 2035)

MONTEREY HIGHWAY SEGMENT		Northbound						Southbound					
		6 LANES – BASE CASE			4 LANES – WITH HST PROJECT *			6 LANES – BASE CASE			4 LANES – WITH HST PROJECT *		
From	To	Peak Hr Vol	V/C	LOS	Peak Hr Vol	V/C	LOS	Peak Hr Vol	V/C	LOS	Peak Hr Vol	V/C	LOS
Southside	Capitol	1,791	0.629	B	1,490	0.784	C	2,753	0.966	E	1,880	0.989	E
Capitol	Senter	2,101	0.737	C	1,504	0.792	C	2,894	1.015	F	1,907	1.004	F
Senter	Branham	2,114	0.742	C	1,593	0.839	D	2,790	0.979	E	1,853	0.975	E
Branham	Chynoweth	2,330	0.818	D	1,746	0.919	E	2,727	0.957	E	1,835	0.966	E
Chynoweth	Blossom Hill	2,574	0.903	E	1,947	1.025	F	2,637	0.925	E	1,885	0.992	E
Blossom Hill	Bernal	1,807	0.623	B	2,004	0.691	B	3,252	1.121	F	3,019	1.041	F
Bernal	Metcalf	3,081	1.027	F	3,153	1.051	F	3,148	1.049	F	2,919	0.973	E
Metcalf	Bailey	2,800	0.933	E	2,869	0.956	E	3,071	1.024	F	2,846	0.949	E

Source: San Jose Department of Transportation 2010.
Peak Hr Vol = peak hour volume.
V/C = volume-to-capacity ratio.
*Does not account for trips that would be diverted from auto to high-speed rail

In the northbound direction, degradation of LOS in the evening peak hour by one level of service for four northbound segments between Southside Drive and Capitol (LOS B to LOS C) and between Senter and Blossom Hill (LOS C to E, D to E, and E to F) are anticipated based on the preliminary evaluation of reduction from six to four lanes of Monterey Highway. The other portions of Monterey Highway in the northbound direction are projected to see a slight increase in congestion, with an associated slight reduction in LOS. In the southbound direction, all road segments are projected to operate at LOS E or F. Congestion would decrease for five of the eight segments and an increase in LOS between Bernal and Bailey (from LOS F to LOS E), while the remaining three segments would have a slight increase in congestion.

The information in Table 2-4 above indicates that the narrowing of lanes on Monterey Highway, when viewed in isolation, would result in a diversion of traffic onto other major and more local roadways in the vicinity. The potential for traffic diversion will be examined in detail in a project-level EIR if a network alternative that includes the Monterey Highway narrowing is selected. This examination will include consideration of mode shifts from auto trips to the High-Speed Train, which is discussed in section 3.1 of the 2008 Final Program EIR.

The City of San Jose Department of Transportation has provided a letter to the Authority supporting the reconstruction of Monterey Highway to enable the construction of the HST in this corridor (Appendix B). Pending more detailed evaluation at the project level, a potentially significant traffic impact would occur where the northbound four-lane Monterey Highway LOS degraded to LOS D or worse between Senter and Blossom Hill. The reduction of travel lanes on Monterey Highway and the addition of HST would not be anticipated to result in a significant impact for the southbound segments based on a preliminary evaluation by the City of San Jose Department of Transportation.

Role of Design Practices in Avoiding and Minimizing Effects (page 3.1-37, 2008 Final Program EIR)

No revisions or additions required.

Mitigation Strategies and CEQA Significant Effects (page 3.1-37, 2008 Final Program EIR)

The degradation of LOS for three northbound segments (between Southside Drive and Senter and between Blossom Hill and Bernal) of a four-lane Monterey Highway between Southside Drive and Bailey Road will require that a Transportation Impact Analysis be prepared at the project-level to evaluate specific impacts and identify mitigation measures. At the program level, mitigation strategies may include:

- Optimizing signal timings (for the revised traffic volumes and capacity)
- Synchronizing signals (Coordinating the timing of the signals between successive intersections, and automatically adjusting the traffic signals to facilitate the movement of vehicles through the intersections. This will help in reducing overall stops and delays. This works well if the distance between adjacent signals is a quarter of a mile or less).
- Selectively adding new turn lanes at intersections. (For example, adding two left-turn lanes instead of an existing single left-turn lane. The traffic analysis will show which intersections would require additional turn lanes. Adding turn lanes would be much more economical/affordable than adding whole lanes.)
- Promoting more transit usage in the corridor by increasing frequency of popular transit services.

Sufficient information is not available at this programmatic level to conclude with certainty that the above mitigation strategies would reduce impacts for the three northbound segments of a four-lane Monterey Highway to a less-than-significant level in all circumstances. This document therefore

concludes that traffic impacts on these segments may be significant, even with the application of mitigation strategies.

Subsequent Analysis (changes from 2010 Revised Program EIR Material)

A transportation impact analysis will be conducted at the project-level, which will include a detailed evaluation of traffic, parking, pedestrian, bicycle, transit, construction and cumulative transportation impacts of the proposed HST project. This information will identify: (1) Changes in traffic volumes on regional roadways that result from HST construction and operations (2) Changes in traffic volumes on local streets that result from passengers accessing/leaving HST stations, from project construction, and from other HST related roadway changes, and the effect of these changed volumes on roadway operations and critical intersections. (3) The analysis of number of parking spaces required and the placement of the parking facilities will be evaluated. Potential parking impacts will be evaluated based on the existing and future parking supply and the projected parking demand. Parking demand will be based upon the patronage and mode of access forecasts at each proposed station, including parking and related circulation impacts for adjacent neighborhoods. (4) potential impacts to transit including potential for inadequate capacity of feeder bus service, potential for traffic congestion from project to disrupt or delay bus service that serve or run near stations or other transit operations. Potential impacts of project construction on transit service will also be evaluated in detail. (5) The project-level traffic impact analysis study will also evaluate the effect of the project and project construction on existing and planned pedestrian and bicycle facilities. Potential impacts on pedestrian and bicycle connections to and across HST facilities will be analyzed. Detailed information and analysis of potential traffic impacts including impacts to pedestrian and bike facilities and feasible mitigation measures will be included in project-level EIR/EIS. (6) Cumulative potential traffic impacts due to the proposed project. Detailed information and analysis of impacts and feasible mitigation measures will be included in project-level EIS/EIR.

2.4 Revised Aesthetics and Visual Resources Analysis: San Jose to Gilroy

The following is a clarification of the aesthetics and visual resource analysis that resulted from the revised description of the alignment alternatives between San Jose and the Central Valley. This discussion adds to the 2008 Final Program EIR, Chapter 3.9, pages 3.9-19 through 3.9-23. The revised project description does not affect the conclusions in Chapter 3.9 of the 2008 Final Program EIR, that stated that the alignment alternatives would have potentially significant impacts on aesthetics from the introduction of the HST system into the visual landscape. Changes to text from the Revised Draft Program EIR are shown with a bar in the margin; added text is noted with underlining and deleted text is noted with strikeout.

Regulatory Requirements and Methods of Evaluation (page 3.9-1)

No revisions or additions required.

Affected Environment (page 3.9-2)

No revisions or additions required.

Environmental Consequences, High-Speed Train Alternative (page 3.9-19)

San Jose to Central Valley Corridor

Visual Impacts

Implementation of HST in this corridor would require a dedicated pair of tracks. The corridor begins at Diridon station in San Jose. The HST would be accommodated by building a concourse and up to six HST tracks and three platforms above the existing platforms. The proposed platforms for HST would be located at 45 ft above grade. The platforms would extend more than 1,400 ft, with additional length at either end for the track fans (switches and trackwork to allow the two-track

mainline to serve all six station tracks). A canopy covering the HST platforms would extend the building height to 70 ft. The City of San Jose is planning for an intensification of land uses in and around the Diridon station, so the expanded HST station would constitute a medium visual impact, given that it would be a much longer and taller structure than the existing station building but in a setting that is proposed to have many larger buildings developed in the area.

The line would run on an elevated structure up to 45 ft tall until it crosses I-280, where it would descend to a retained fill section alongside the existing UPRR and Caltrain's Gilroy service. It would pass through a traditional small urban neighborhood before passing over SR-87 and ascending to an aerial alignment past the Tamien station. The retained fill and aerial sections would be a low visual impact on the surrounding landscape, creating shadow impacts on residential areas immediately adjacent to the right-of-way.

Just north of Almaden Expressway, the line returns to an at-grade alignment alongside the UPRR as it passes through the urban suburban landscape of South San Jose. A view of the current Caltrain/UPRR railway as it runs alongside Monterey Highway is provided in Figure 3.9-11—Caltrain/UPRR along Monterey Highway (Figure 2-1). The proposed configuration would continue all the way through Morgan Hill and Gilroy. New roadway grade separations would carry roadways either over or under the UPRR and HST tracks. Because the HST would be placed ~~in~~ adjacent to ~~along~~ an existing rail ~~right-of-way~~ corridor, the visual impact would be ~~low~~ medium (Table 2-5).

The traditional small urban community landscapes south of the highly urbanized San Jose area and through the small rural towns of Morgan Hill and Gilroy are characterized by mixed residential, commercial, and institutional uses in early to mid–20th century contiguous buildings, with average heights of 2 to 3 stories, minimal setbacks from streets, mature landscaping, and pedestrian-oriented streetscapes. Dominant visual features are historic architecture, mature street trees, and the surrounding distant mountainous ridgelines.

A station location option for the HST could be provided in either Morgan Hill or Gilroy. In either location, the station would consist of four tracks, two for non-stopping trains and two to serve outside platforms for stopping trains. At either location, Morgan Hill or the historic Gilroy station, the HST facilities would be elevated, and the visual impact would be medium.

South of Gilroy, the HST parallels the UPRR until Carnadero Junction, where it leaves the rail right-of-way to cross the valley towards San Felipe. The landscape is rural agricultural as the line crosses the Pajaro River and Tequisquita Slough and passes near San Eligo Lagoon. In this landscape, the line has a medium visual impact, introducing a new transportation corridor to a rural agricultural area.

Figure 2-1
Revised Figure 3.9-11—Caltrain/UPRR along Monterey Highway (May 2008)

Table 2-5
Revised Table 3.9.1—Visual Impacts Summary Data Table for Alignment Alternatives and Station Location Option Comparisons

Corridor	Possible Alignment	Alignment	Change	Visual Impact Ranking	Alignment Visual Impact Ranking
San Jose to Central Valley: Pacheco Pass	1 of 1	Pacheco	Elevated facilities at Diridon San Jose station	Medium	Medium
			Elevated facilities south of Diridon station	Low and shadowing impacts	
			Highway grade separations	Low	
			~~Expansion of existing railway~~ Addition of HST corridor adjacent to UPRR mainline right-of-way ~~along Monterey Highway~~	Medium	
			New transportation corridor between Gilroy and Pacheco Valley	Medium	
			Elevated crossing of SR-152 in Pacheco Valley	High	
			Cut and fill sections over Pacheco Pass	Medium	
Station Location Options					
San Jose (Diridon)			Elevated concourse/platforms at San Jose Diridon station	Medium	
Morgan Hill (Caltrain)			Elevated station	Medium	
Gilroy (Caltrain)			Elevated station	Medium	

The coastal valley landscape consists of flat or rolling landscapes ringed with low hills and mountains in the background. Dominant visual elements are vistas of agricultural bottomland and wetlands framed by background views of green hills, ridges, and mountains.

At San Felipe, the line crosses SR-152 and enters a short tunnel to pass into the Pacheco Creek Valley. This is shown in the Final Program EIR in Figure 3.9-12—HST Crossing South of Gilroy. Once in the Pacheco Creek Valley, the line runs north of SR-152 along a series of cuts and fills until passing over the highway near Bell station.

The natural open space landscapes along SR-152 in Pacheco Creek Valley east of Gilroy are characterized by coastal mountains and mountain valley topography typified by rolling to steep-sloped grassland with shrubs, clusters of oaks and other native tree species, and wooded bottomland. Much of this area is part of the Henry Coe State Park and Mount Hamilton Project Area of The Nature Conservancy (described in Section 3.15, Biological Resources and Wetlands), which is designed to preserve the rich natural habitats in a 780–sq mi area of the Diablo Range. Small farms or ranches (in bottomlands), isolated roadside businesses (e.g., Casa de Fruta), and widely dispersed small communities characterize the landscape.

A simulation of the crossing of SR-152 in the Pacheco Creek Valley is provided in the Final Program EIR in Figure 3.9-13—HST Viaduct in Pacheco Creek Valley. South of the highway, the line would enter a series of tunnels and cut and fill sections, passing back to the north side of the highway in a cut just west of the pass. The line would curve north of the San Luis Reservoir and Cottonwood Bay, again partially in tunnels and partially on cut and fill sections. The visual impact of this section of the line over the pass varies from none where the line is in a tunnel, to a medium impact where there are deep cuts or fills, to a high impact where the line crosses above the highway on a viaduct. North of San Luis Reservoir, the line can diverge to one of three alignment alternatives: GEA North, Henry Miller (UPRR Connection), and Henry Miller (BNSF Connection).

The GEA North alignment alternative would cross Romero Creek and enter a series of tunnels and cut and fill sections to reach the edge of the Central Valley near the Pat Brown Aqueduct and I-5. It would turn north on an embankment to pass around the town of Gustine. The landscape transitions from the parks and open space of the Pacheco Pass to the rural agriculture of the western Central Valley. This would have a high visual impact where it crosses I-5. It would introduce a new transportation infrastructure crossing from the hills to the valley on an embankment over the freeway. I-5 in this area is a designated state scenic highway.

Passing west and north of Gustine, the line would turn toward the east and run north of SR-140. Landscape in this area is a mixture of rural agriculture and wetlands open space. The line passes near the Great Valley Grasslands State Park and the Fremont Ford State Recreation Area. It would cross wetlands on low-level elevated structures. The introduction of the HST to the open space and parklands would be a medium visual impact because the line would be low to the ground and blend with the horizontal landscape.

The GEA North alignment alternative would continue across the rural agricultural landscape of the Central Valley to meet the Central Valley BNSF mainline between the communities of Atwater and Merced. As the line approaches the urbanized area, the landscape shifts to a mix of urban suburban and rural agricultural.

The GEA North alignment alternative would split south of Livingston and curve to the north, eventually parallel to Arena Way. The introduction of the railway to a new alignment across the agricultural landscape would have a low visual impact. Near the existing BNSF railway, the line would cross the Merced River on a new alignment. This new river crossing would have a medium visual impact to the riparian landscape along the river.

Both the BNSF and UPRR Henry Miller alignment alternatives would run across the Central Valley just north of Henry Miller Avenue. The line would exit the hills east of Pacheco Pass and follow Romero Creek. This takes the line past the San Joaquin National Cemetery in a trench, where the line would have a medium visual impact, introducing a major transportation facility to an open landscape designated for reflection and quiet. This area is shown in the Final Program EIR in Figure 3.9-14—Romero Creek from San Joaquin National Cemetery. The alignment alternative would also pass the O'Neill Forebay of the California Aqueduct and the San Luis Reservoir State Recreation Area.

The line would pass through the roadside community of Santa Nella and cross I-5, which is a designated state scenic highway in this area. The impact of the highway crossing is low because the railway crosses in an area where the landscape comprises highway-commercial uses and an existing roadway overcrossing.

East of Santa Nella, the line would traverse a landscape of rural agriculture and wetlands open space, including a number of state and federal wildlife areas. The alignment alternative would be placed on a low structure to cross the wetland areas. A simulation of this is shown in the Final Program EIR in Figure 3.9-15—HST Viaduct along Henry Miller Avenue. The introduction of the HST to the open

space and parklands would be a medium visual impact because the line would be low to the ground and would blend with the horizontal landscape. The line would be visible from the Volta Wildlife Area and Los Banos Wildlife Area.

West of the city of Chowchilla, the Henry Miller (UPRR Connection) and Henry Miller (BNSF Connection) alignment alternatives would partially split. The leg connecting to the UPRR northbound would turn north from the alignment and cross agricultural lands to meet the Central Valley UPRR N/S alignment alternative north of the city of Chowchilla. The Henry Miller (UPRR Connection) southbound leg would continue east before turning south to meet the Central Valley UPRR N/S alignment alternative near the town of Fairmead. This alignment alternative, both the north and south legs, would have a low visual impact because it would run at grade.

The Henry Miller (BNSF Connection) alignment alternative would pass to the south of the city of Chowchilla. After crossing SR-99, the line divides into two legs to connect with the Central Valley HST line (BNSF alignment alternative) near the Valley State Prison for Women. The two legs would have a low visual impact because they would run at grade.

Historic Buildings, Neighborhoods, Landscapes

In San Jose, the HST is to be accommodated at the Diridon station by building a concourse and up to six HST tracks and three platforms above the existing platforms. The San Jose Diridon station is a designated historic property listed on the National Register of Historic Places. The station dates to 1935, with architectural features characteristic of that period. The proposed platforms for the HST would be located at 45 ft above grade. The platforms would extend more than 1,400 ft, with additional length at either end for the track fans (switches and trackwork to allow the two-track mainline to serve all six station tracks). A canopy covering the HST platforms would extend the building height to 70 ft. The City of San Jose is planning an intensification of land uses in and around the Diridon station, so the expanded HST station location option would constitute a medium visual impact, given that it would be a much longer and taller structure than the existing station building but in a setting that is proposed to have many larger buildings developed in the area.

The San Jose to Central Valley corridor south of the urbanized areas of San Jose traverses a largely rural and agricultural landscape. Historic buildings, like the 21-Mile House in Morgan Hill, no longer exist. The Gilroy Caltrain station would be visually affected by the HST, but the impact can be minimized though careful and thoughtful design. The traditional small town landscape present at the core of Morgan Hill and Gilroy has coexisted with the railway for all of their histories. The visual impact of the HST project is medium, compared with the contrast of recent commercial and residential suburban growth.

In this corridor, most of the visual impact would be from adding new transportation infrastructure into an undeveloped rural landscape. The historic character of Monterey Highway, immediately adjacent to the UPRR and proposed HST alignment, would be affected by the removal of mature trees (including the Keesling Shade Trees discussed below in Section 2.5) that visually separate the highway from the railroad. This is shown in the context of the urban suburban landscape of South San Jose in Figure 3.9-10. In many places, the trees are denser and older than the surrounding landscape. Their removal to expand the rail corridor to accommodate HST would have a medium visual impact on the views along much of the Monterey Highway.

To pass from the UPRR right-of-way to the SR-152 corridor, the HST would develop a new transportation corridor across agricultural and open space, not aligned with any existing grid of roads or natural features. This would have a medium visual impact on the existing landscape, but that impact can be lessened by keeping the HST at grade and planting native flora along the right-of-way.

Through the Pacheco Creek Valley, the railway would follow the existing highway corridor. The major visual landmarks along the highway, such as Elephant Head (a large rock outcropping), would not be visually affected by the railway. As the valley narrows, the railway would be mostly out of sight, running in tunnels.

East of Pacheco Pass, the HST would follow Romero Creek past the San Joaquin Valley National Cemetery. The alignment would be in trench as it passes the cemetery, crossing northeast of the entry road to the cemetery. This would have a medium visual impact on the landscape and the cemetery's remote and quiet setting.

The three alignment alternatives across the valley would pass through similar landscapes, including grasslands and wetlands. The HST infrastructure would have an impact on these open landscapes, but the impact can be minimized by running at grade and planting native flora along the line.

Affected Views from State Scenic Highways

There are a number of state scenic highways in the corridor. Designated state scenic highways, as of November 2006, include I-5 in Stanislaus County and north of SR-152 in Merced County and SR-152 in Merced County west of I-5. State highways eligible but not officially designated as scenic include SR-152 in Santa Clara County east of SR-156. All of these highways, both designated and eligible, are considered in this analysis.

The crossing of I-5 could take place in one of two locations. The GEA North alignment alternative would create a high visual impact because it would take place in an open landscape where the elevated crossing would be visible from a great distance along the freeway. The Henry Miller alignment alternatives would cross at an existing roadway overcrossing in the highway-commercial landscape of Santa Nella. This crossing would have a low visual impact because the landscape is dominated by the existing highway overcrossings and the commercial landscape along the freeway.

The line would be visible from many points along SR-152 in Santa Clara and Merced County, especially in the Pacheco Creek Valley. The visual impact of the line would vary from low to high, relative to the specific location. Where the line parallels the highway, it would have a low visual impact, with hills continuing to dominate the landscape. At the locations where the line passes over the highway, the elevated crossing would dominate the view from the highway, having a high visual impact. In other locations, where the railway runs on a high fill, the line would have a medium visual impact, lessening over time as the embankment is engulfed by the local flora.

Photo Simulations of Alternatives in Selected Scenic Areas (page 3.9-36)

No revisions or additions required.

CEQA Significance Conclusions and Mitigation Strategies (page 3.9-36)

No revisions or additions required.

Design Practices (page 3.9-37)

No revisions or additions required.

Subsequent Analysis (page 3.9-38)

No revisions or additions required.

2.5 Revised Cultural Resources and Paleontological Resources Analysis: San Jose to Gilroy

The following is additional cultural resource analysis that resulted from the revised description of the alignment alternatives between San Jose and the Central Valley. This discussion adds to the 2008 Final Program EIR, Chapter 3.12, pages 3.12-5, 3.12-10, 3.12-18, and 3.12-27. Changes to text from the Revised Draft Program EIR are shown with a bar in the margin; added text is noted with underlining and deleted text is noted with strikeout.

Regulatory Requirements and Methods of Evaluation, Historic-era Properties and Historical Resources (page 3.12-5)

The method used to predict potential effects and impacts of the alignment alternatives on Heritage Trees is based on a field review of trees occurring in the proposed alignment and general observation of the condition of the trees. (ICF 2009.)

Affected Environment, Historic-era Properties and Historical Resources (page 3.12-10)

By far, the largest concentrations of historic buildings, structures, objects, sites, districts, and cultural landscapes (or potential historic properties/historical resources) in this region are in the urban centers of San Jose, San Francisco, and Oakland, but resources of all types appear throughout the region. A certain number of properties/resources appear in other towns, and to a lesser extent, in the rural countryside of the Santa Clara and Central valleys. Towns that were important local trade centers in the late nineteenth century, like Stockton and Merced, exhibit concentrations of historical resources along the project alignment alternatives. Rural historic properties and historical resources that appear along the HST Alignment Alternatives include farm and ranch complexes and infrastructure elements (such as water conveyance systems, bridges, industrial complexes, and rail stations). Other rural elements include trees planted along transportation routes such as a group of California black walnut (*Juglans californica, also referred to as Juglans hindsii*) trees located along Monterey Highway that may qualify as "Heritage Trees" as designated by the Santa Clara County Historical Heritage Commission. The Heritage Trees, also known as "Keesling's Shade Trees," were planted along Monterey Highway during the early 20th Century, by traveler Horace G. Keesling between 1900 and 1911 (Santa Clara County 1998, Hatch 2007, California Parks 2009, ECV1850 Plaque 2010).

Environmental Consequences, High-Speed Train Alternative (page 3.12-18)

San Jose to Central Valley Corridor

Pacheco Alignment Alternative

This alignment alternative roughly follows Highway 152 through the Pacheco Pass. Little development has taken place in this area. In total, five recorded architectural and historic resources were found to be located within the project APE (Table 2-6). Of these, two are historic canals, ~~and~~ one is a bridge, and one is the group of black walnut trees (Keesling's Shade Trees) occurring along the alignment alternative adjacent to Monterey Highway. The black walnut trees were listed as a State of California Point of Historical Interest in 1985. There are also likely historic resources in the Santa Clara Valley, including Morgan Hill and Gilroy. Seven previously recorded archaeological resources are located within the APE. Three of them are small prehistoric sites that typically include midden and lithic debitage. Though little archaeological work has been conducted in this area, it is known to be highly sensitive for prehistoric archaeological resources. Overall, this alignment alternative has medium sensitivity for cultural resources. No traditional cultural properties were identified within the APE.

Table 2-6
Revised Table 3.12-1—Cultural Resources Summary Data Table for Alignment Alternatives and Station Location Option Comparisons

Corridor	Possible Alignments	Alignment	Number of Recorded Archaeological Resources	Number of Recorded Architectural/ Historic Resources	Traditional Cultural Properties	Cultural Resources Ranking (High, Medium, Low)	Paleontology Sensitivity (High, Medium, Low)
San Jose to Central Valley: Pacheco Pass	1 of 1	Pacheco	7	~~4~~ 5	No	Medium (heritage trees)	Low
San Jose (Diridon)			0	1	No	Medium	Low
Morgan Hill (Caltrain)			0	0	No	Low	Low
Gilroy (Caltrain)			0	0	No	Low	Low

This alignment alternative extends through areas mapped as Franciscan ultramafic rocks and Quaternary terrace and alluvium, all ranking low in paleontological sensitivity. A portion of the alignment alternative near Gilroy passes through Plio-Pleistocene alluvial deposits similar to those which have yielded vertebrate fossils elsewhere and is assigned high sensitivity. The remaining portion falls on nonsensitive lower and upper Cretaceous marine rocks. Overall, this alignment alternative was identified to have a low sensitivity for paleontological resources.

San Jose to Central Valley Corridor Station Location Options: Only the San Jose Diridon station location option within this corridor has a recorded architectural resource that is within the APE or directly adjacent to the APE. No traditional cultural properties were identified within the APE.

The overall paleontological sensitivity for each of the station location options is low. Specific impacts to paleontological resources associated with construction of the station location options require additional information concerning exact locations and subsurface geology. Additional paleontological resources assessment would take place at the project level after the station designs are more fully defined.

This alignment alternative extends through areas mapped as Franciscan ultramafic rocks and Quaternary terrace and alluvium, all ranking low in paleontological sensitivity. A portion of the alignment alternative near Gilroy passes through Plio-Pleistocene alluvial deposits similar to those which have yielded vertebrate fossils elsewhere and is assigned high sensitivity. The remaining portion falls on nonsensitive lower and upper Cretaceous marine rocks. Overall, this alignment alternative was identified to have a low sensitivity for paleontological resources.

San Jose to Central Valley Corridor Station Location Options: Only the San Jose Diridon station location option within this corridor has a recorded architectural resource that is within the APE or directly adjacent to the APE. No traditional cultural properties were identified within the APE.

The overall paleontological sensitivity for each of the station location options is low. Specific impacts to paleontological resources associated with construction of the station location options require additional information concerning exact locations and subsurface geology. Additional paleontological resources assessment would take place at the project level after the station designs are more fully defined.

Conclusion (page 3.12-25)

No revisions or additions required.

Design Practices (page 3.12-25)

No revisions or additions required.

Mitigation Strategies and CEQA Significance Conclusions, Historic Properties/Resources (page 3.12-27)

The Keesling's Shade Trees are a California Point of Historical Interest, which would qualify them as a historical resource under CEQA, and the removal of the trees for HST construction would be considered a significant impact. For the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act, an evaluation would be made about whether or not the trees are eligible for the National Register of Historic Places, and gain State Historic Preservation Office (SHPO) concurrence with that finding. Because the trees are a linear resource with gaps, they would be evaluated as a historic district; however, certain segments may lack the necessary integrity to be National Register eligible. If a grouping or groupings are found eligible for the National Register, an analysis would be conducted to determine whether the project would have an adverse effect (36 CFR § 800.5). If adverse, Section 106 would require SHPO consultation to mitigate the effects. Mitigation might be avoidance through project design, or possibly filling in gaps where specimens have died or are dying that are avoided by the project, in exchange for the removal of specimens in the way of the project.

Sufficient information is not available at this programmatic level to conclude with certainty that the above mitigation strategies would reduce the impact for the removal of these trees to a less-than-significant level. This document therefore concludes that the impacts on the Keesling Shade Trees may be significant, even with the application of mitigation strategies.

Subsequent Analysis (page 3.12-29)

No revisions or additions required.

2.6 Revised Appendix 2-D Plan and Profiles: Pacheco Pass Alignment

Plan and profile sheets for the Pacheco Pass Alignment between San Jose and Gilroy and contained in Appendix 2-D of the 2008 Final Program EIR have been revised. The replacement pages for 2-D-25, 2-D-26, 2-D-27, 2-D-28, and 2-D-29 are provided as Figure 2-2.

2.7 Revised Appendix 2-E Cross Sections: San Jose to Central Valley

Cross sections for the San Jose to Central Valley Corridor and contained in Appendix 2-E of the 2008 Final Program EIR have been revised as Figure 2-3. The replacement pages listed below are provided following this section:

- Figure PP-S1 on page 2-E-63.
- Figure PP-S2 on page 2-E-64.

- Figure PP-6 on page 2-E-53.
- Figure PP-7 on page 2-E-54.
- Figure PP-8 on page 2-E-55.
- Figure PP-9 on page 2-E-56.
- Figure PP-10 on page 2-E-57.
- Figure PP-11 on page 2-E-58.
- Figure PP-12 on page 2-E-59.
- Figure PP-13 on page 2-E-60.
- Figure PP-14 on page 2-E-61.

FIGURE 2-2 PLAN & PROFILES

Figure Name

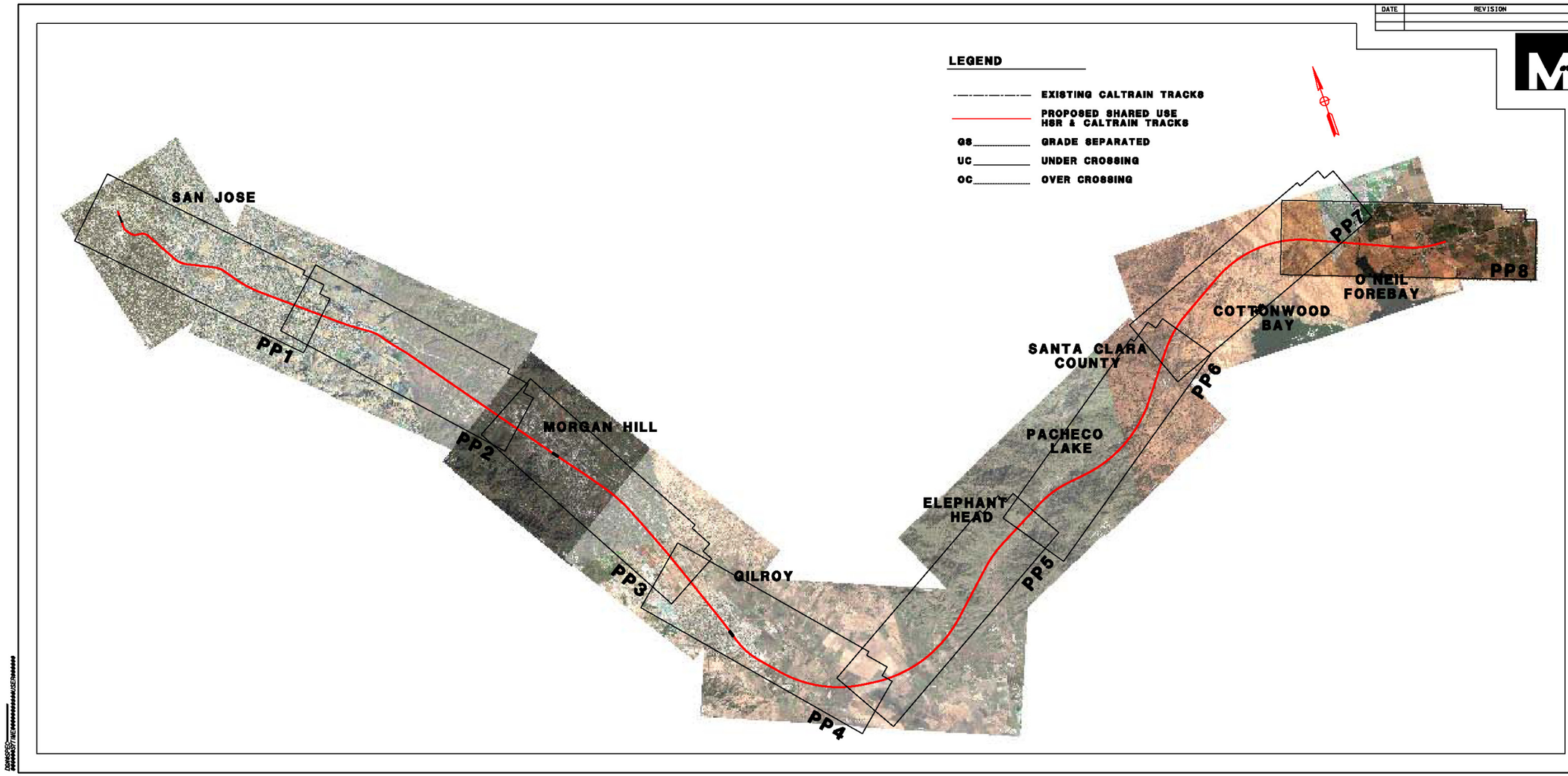
PP Index Pacheco Pass Plan & Profiles: Page 2-D-25

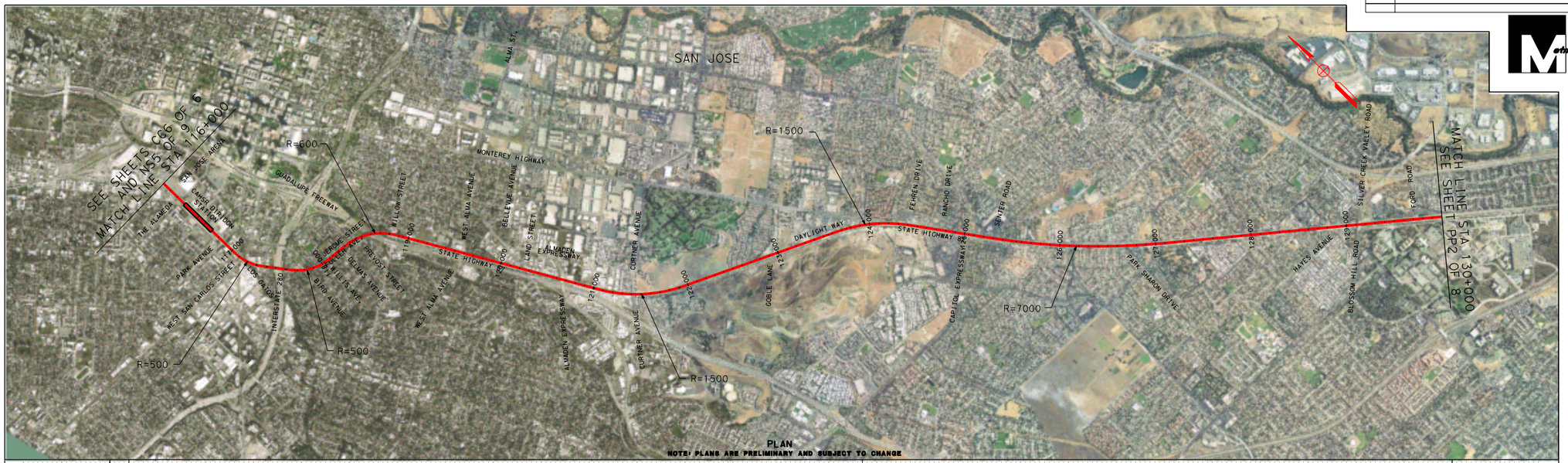
PP1 of 8 Pacheco Pass Plan & Profiles: Page 2-D-26

PP2 of 8 Pacheco Pass Plan & Profiles: Page 2-D-27

PP3 of 8 Pacheco Pass Plan & Profiles: Page 2-D-28

PP4 of 8 Pacheco Pass Plan & Profiles: Page 2-D-29


LEGEND
EXISTING CALTRAIN TRACKS
PROPOSED SHARED USE HSR & CALTRAIN TRACKS
GS GRADE SEPARATED
UC UNDER CROSSING
OC OVER CROSSING
SAN JOSE
PP1
PP2
MORGAN HILL
PP3
GILROY
PP4
SANTA CLARA COUNTY
PP5
PACHECO LAKE
ELEPHANT HEAD
PP6
PP7
COTTONWOOD BAY
O'NEIL FOREBAY
PP8
DATE
REVISION
SHEET PP INDEX
DATE 05-04-07
BAY AREA - CENTRAL VALLEY EIR/EIS
PACHECO PASS
CALIFORNIA HIGH-SPEED TRAIN PROGRAM ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL IMPACT STATEMENT
U.S. Department of Transportation Federal Railroad Administration



DATE | REVISION

SHEET PP1 OF 8
REVISED DRAFT 1
DATE 10-12-00

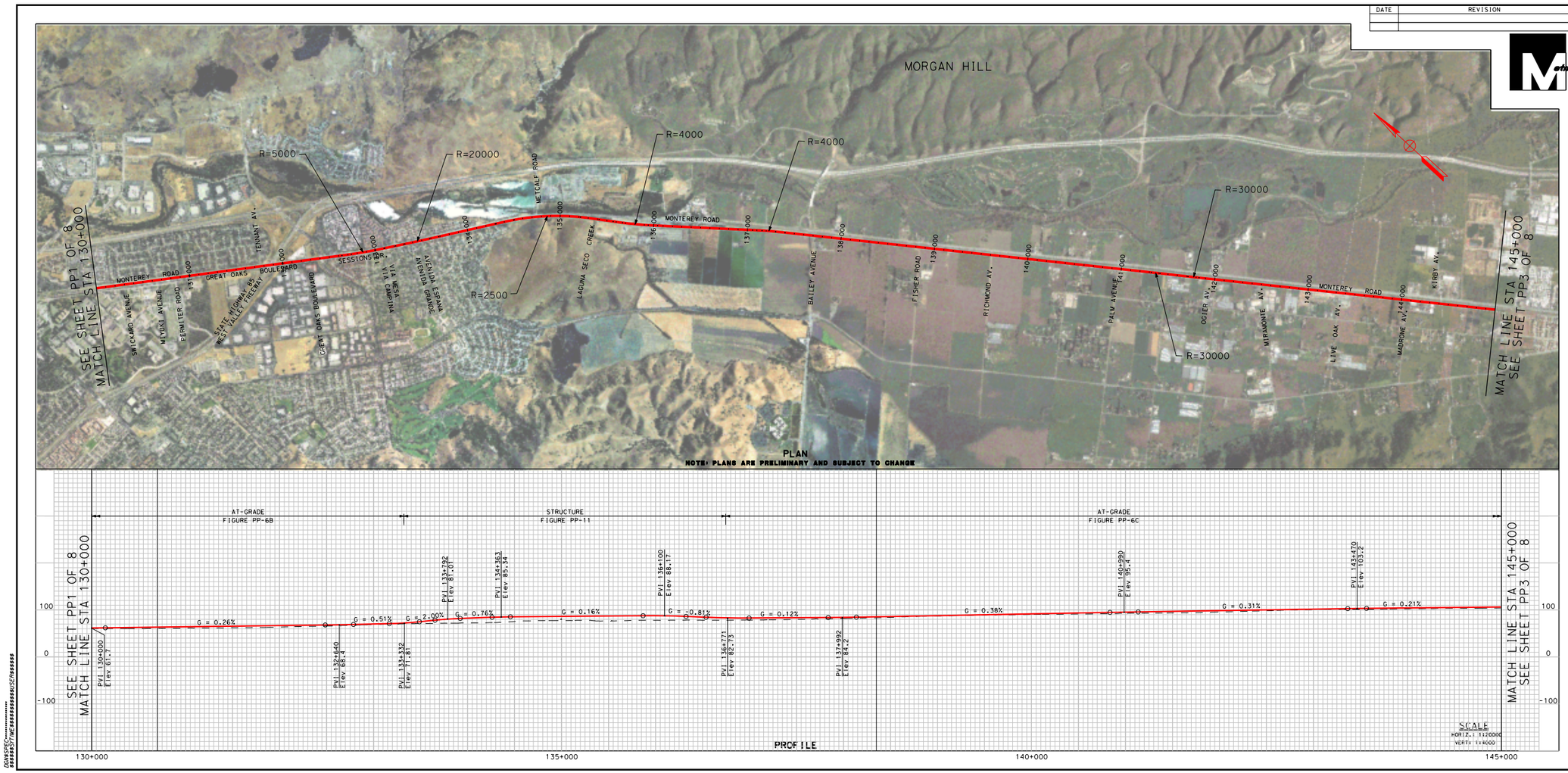
GRAPHIC SCALE: 1:20000

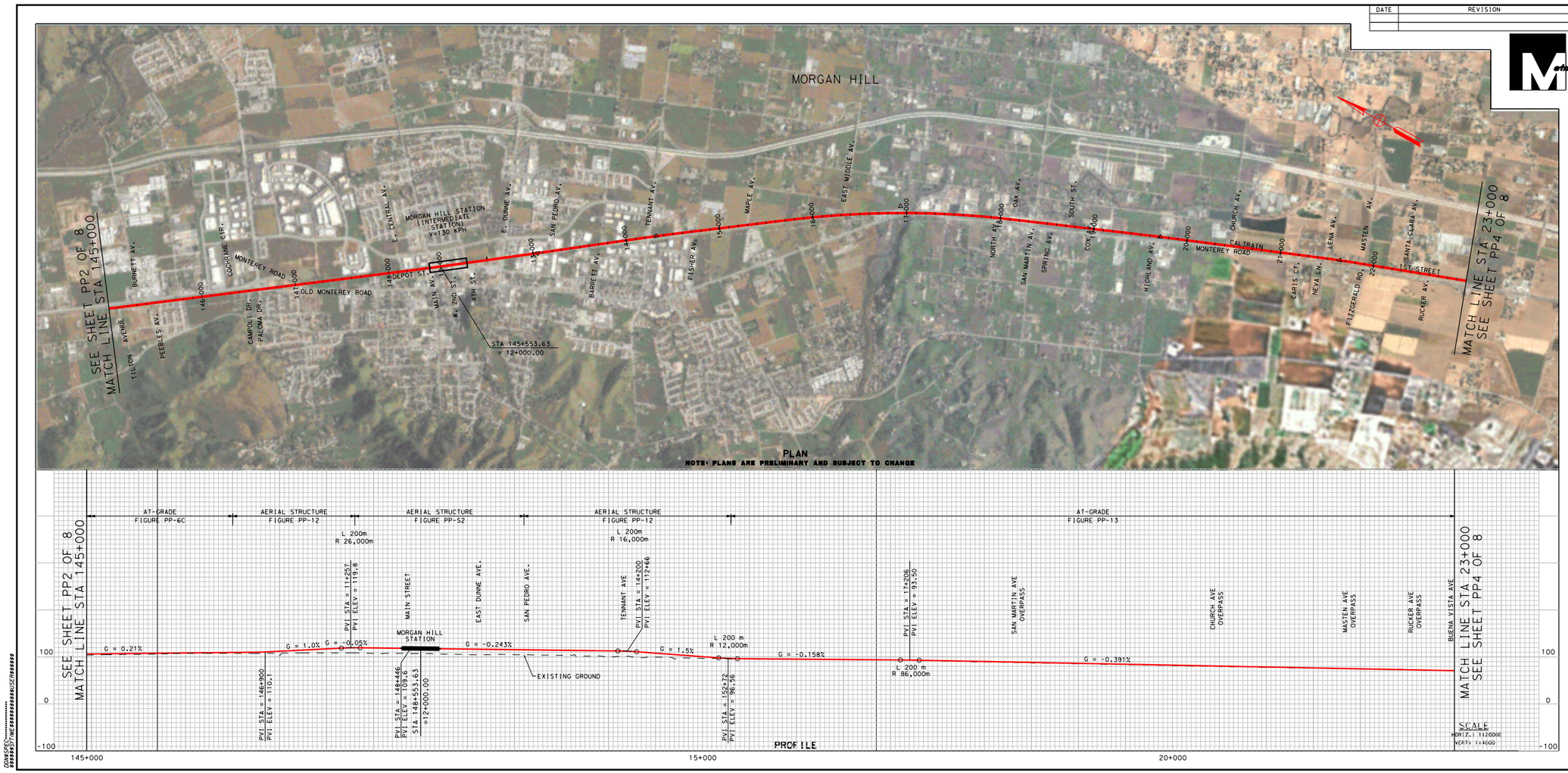
BAY AREA - CENTRAL VALLEY EIR/EIS
PACHECO PASS

CALIFORNIA HIGH-SPEED TRAIN PROGRAM ENVIRONMENTAL IMPACT REPORT / ENVIROMENTAL IMPACT STATEMENT

CALIFORNIA HIGH SPEED RAIL AUTHORITY

U.S.Department of Transportation Federal Railroad Administration


MORGAN HILL
SEE SHEET PP1 OF 8
MATCH LINE STA 130+000
MATCH LINE STA 145+000
SEE SHEET PP3 OF 8
MONTEREY ROAD
GREAT OAKS BOULEVARD
SESSIONS DR.
METCALF ROAD
LAGUNA SECO CREEK
BAILEY AVENUE
FISHER ROAD
RICHMOND AV.
PALM AVENUE
OGIER AV.
MIRAMONTE AV.
LIVE OAK AV.
MADRONE AV.
KIRBY AV.
TENNANT AV.
SWICKARD AVENUE
MILTON AVENUE
PERMITER ROAD
STATE HIGHWAY 85 / WEST VALLEY FREEWAY
VIA VISTA MESA
VIA CAMPINA
AVENIDA ESPANA
AVENIDA ORANGE
R=5000
R=20000
R=2500
R=4000
R=4000
R=30000
R=30000
PLAN
NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE
AT-GRADE
FIGURE PP-6B
STRUCTURE
FIGURE PP-11
AT-GRADE
FIGURE PP-6C
G = 0.26%
G = 0.51%
G = 2.00%
G = 0.76%
G = 0.16%
G = 0.81%
G = 0.12%
G = 0.38%
G = 0.31%
G = 0.21%
PVI 130+000
Elev 61.7
PVI 132+640
Elev 68.4
PVI 133+332
Elev 71.81
PVI 133+792
Elev 81.01
PVI 134+363
Elev 85.34
PVI 136+100
Elev 84.17
PVI 136+771
Elev 82.73
PVI 137+992
Elev 84.2
PVI 140+990
Elev 95.4
PVI 145+270
Elev 103.2
100
0
-100
130+000
135+000
140+000
145+000
PROFILE
SCALE
HORIZ.: 1:20000
VERT.: 1:4000
DATE
REVISION
SHEET PP2 OF 8
REVISED DRAFT 1
DATE 10-12-00
GRAPHIC SCALE: 1:20000
BAY AREA - CENTRAL VALLEY EIR/EIS
PACHECO PASS
CALIFORNIA HIGH-SPEED TRAIN PROGRAM ENVIRONMENTAL IMPACT REPORT / ENVIROMENTAL IMPACT STATEMENT
CALIFORNIA HIGH SPEED RAIL AUTHORITY
U.S.Department of Transportation Federal Railroad Administration



DATE | REVISION

SHEET PP3 OF 8
REVISED DRAFT 1
DATE 10-12-00

250m 0 250m 500m
GRAPHIC SCALE: 1:20000

BAY AREA - CENTRAL VALLEY EIR/EIS
PACHECO PASS

CALIFORNIA HIGH-SPEED TRAIN PROGRAM ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL IMPACT STATEMENT

CALIFORNIA HIGH SPEED RAIL AUTHORITY

U.S. Department of Transportation
Federal Railroad Administration

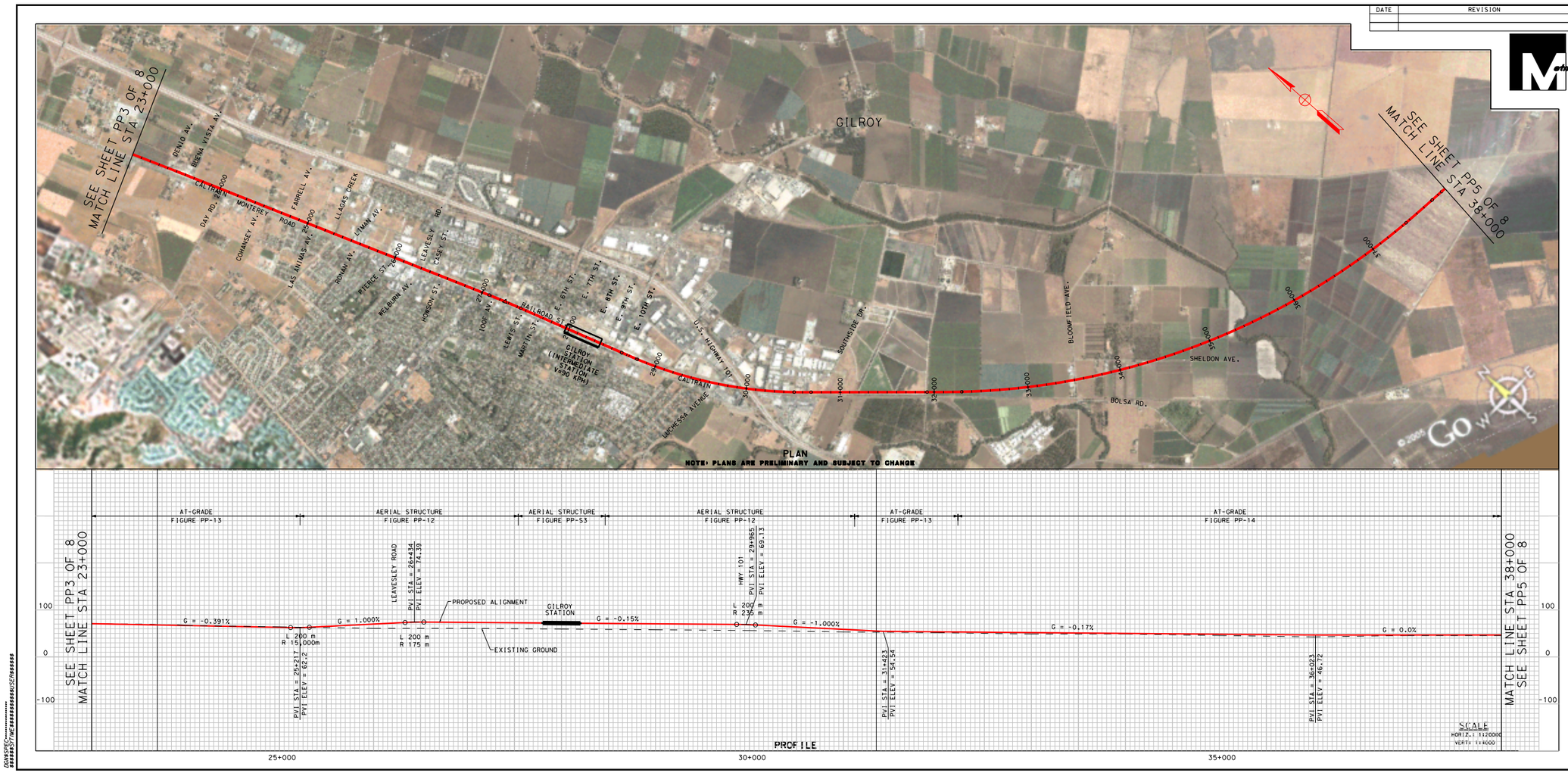

SEE SHEET PP3 OF 8
MATCH LINE STA 23+000
SEE SHEET PP5 OF 8
MATCH LINE STA 38+000
GILROY
DENIO AV.
BUENA VISTA AV.
CALTRAIN
DAY RD.
MONTEREY ROAD
FARRELL AV.
LLAGAS CREEK
COMANCHE AV.
LAS ANIMAS AV.
LIMAN AV.
LEAVESLEY RD.
CASEY ST.
ROMAN AV.
PIERCE ST.
WELBURN AV.
HOBSON ST.
TOOF AV.
LEWIS ST.
MARTIN ST.
RAILROAD ST.
GILROY STATION (INTERMEDIATE STATION V=90 KPH)
E. 6TH ST.
E. 7TH ST.
E. 8TH ST.
E. 9TH ST.
E. 10TH ST.
U.S. HIGHWAY 101
CALTRAIN
LUCHESSA AVENUE
SOUTHSIDE DR.
BLOOMFIELD AVE.
SHELDON AVE.
BOLSA RD.
PLAN
NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE
AT-GRADE FIGURE PP-13
AERIAL STRUCTURE FIGURE PP-12
AERIAL STRUCTURE FIGURE PP-53
AERIAL STRUCTURE FIGURE PP-12
AT-GRADE FIGURE PP-13
AT-GRADE FIGURE PP-14
SEE SHEET PP3 OF 8
MATCH LINE STA 23+000
MATCH LINE STA 38+000
SEE SHEET PP5 OF 8
LEAVESLEY ROAD
PVI STA = 26+434
PVI ELEV = 74.39
HWY 101
PVI STA = 29+965
PVI ELEV = 69.13
PROPOSED ALIGNMENT
GILROY STATION
EXISTING GROUND
L = 200 m
R = 15,000m
PVI STA = 25+217
PVI ELEV = 62.2
L = 200 m
R = 175 m
L = 200 m
R = 235 m
PVI STA = 31+423
PVI ELEV = 54.54
PVI STA = 36+023
PVI ELEV = 46.72
G = -0.391%
G = 1.000%
G = -0.15%
G = -1.000%
G = -0.17%
G = 0.0%
100
0
-100
PROFILE
SCALE
HORIZ.: 1:20000
VERT.: 1:4000
25+000
30+000
35+000
DATE
REVISION
SHEET PP4 OF 8
REVISED DRAFT 1
DATE 10-12-00
GRAPHIC SCALE: 1:20000
BAY AREA - CENTRAL VALLEY EIR/EIS
PACHECO PASS
CALIFORNIA HIGH-SPEED TRAIN PROGRAM ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL IMPACT STATEMENT
CALIFORNIA HIGH SPEED RAIL AUTHORITY
U.S. Department of Transportation
Federal Railroad Administration

FIGURE 2-3 CROSS SECTIONS: PACHECO PASS

Figure Name

PP-S1 Pacheco Pass: Dirdon Station

PP-S2 Pacheco Pass: Typical Intermediate Station on Aerial Structure

PP-S3 Pacheco Pass: Typical Intermediate Station on Aerial Structure

PP-6A Pacheco Pass: Typical At-Grade Section

PP-6B Pacheco Pass: Typical At-Grade Section

PP-6C Pacheco Pass: Typical At-Grade Section

PP-7 Pacheco Pass: Aerial Station

PP-8 Pacheco Pass: Aerial Structure

PP-9A Pacheco Pass: Typical Retaining Fill

PP-9B Pacheco Pass: Typical Retaining Fill

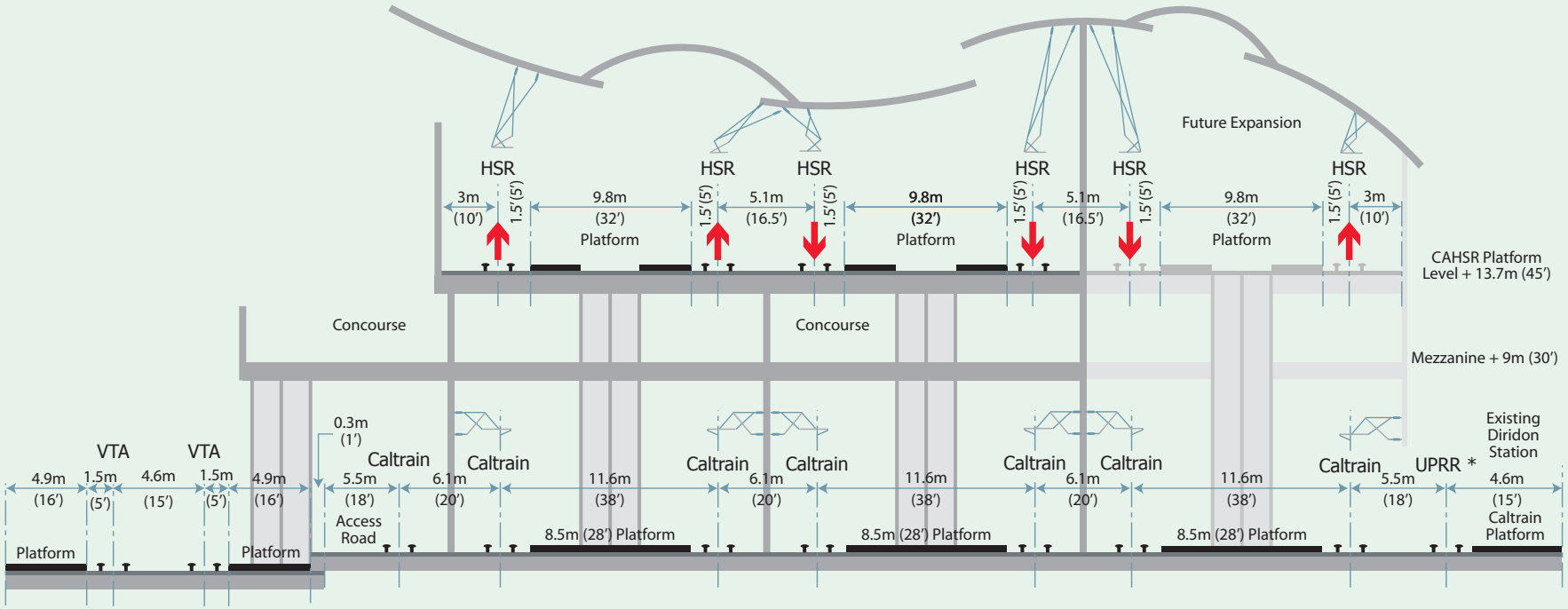
PP-10 Pacheco Pass: Aerial Structure

PP-11 Pacheco Pass: Aerial Structure

PP-12 Pacheco Pass: Aerial Structure

PP-13 Pacheco Pass: Typical At-Grade Section

PP-14 Pacheco Pass: Typical At-Grade Mainline Section (Undeveloped Areas)



SAN JOSE/DIRIDON STATION

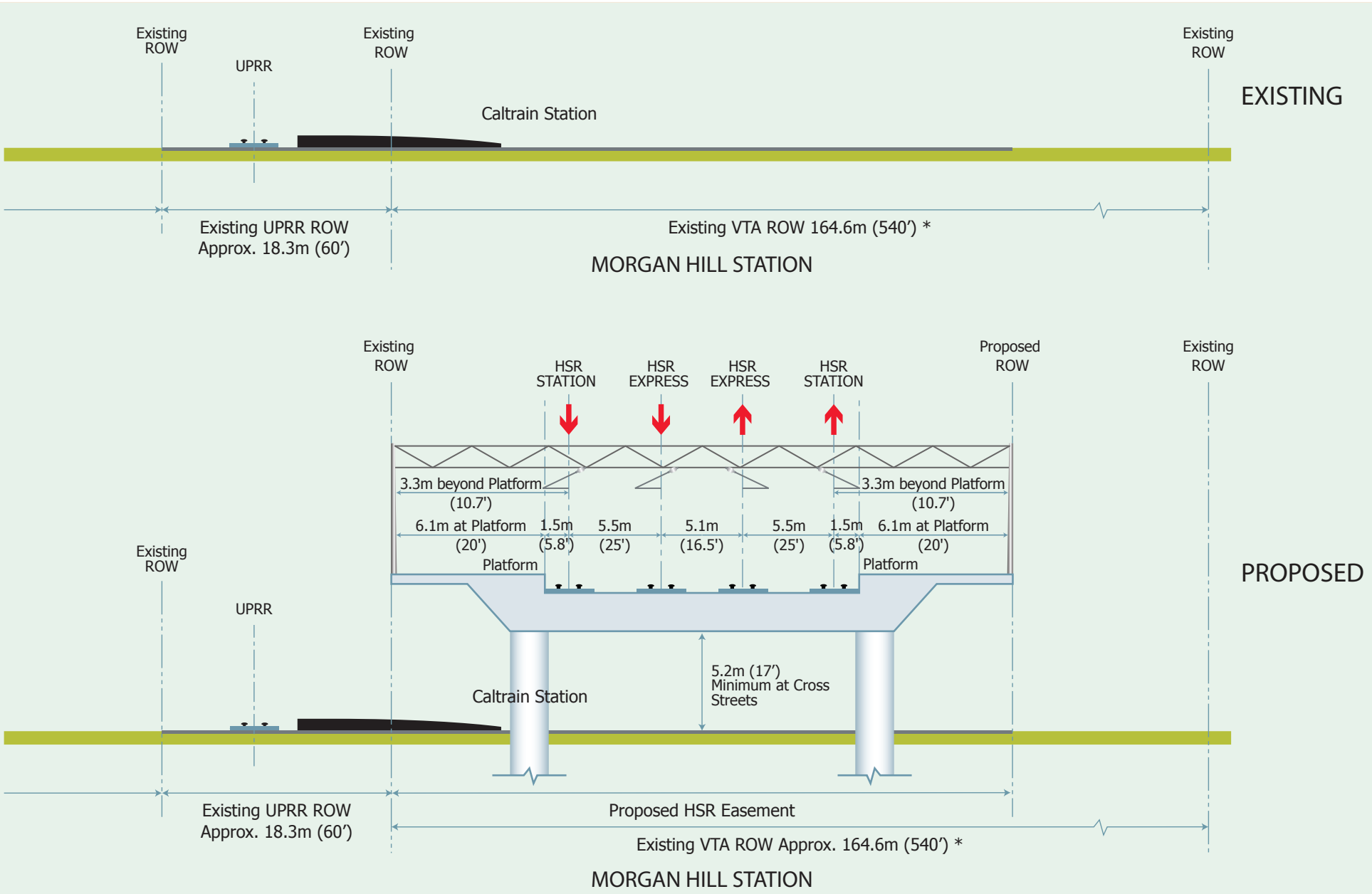
Future Caltrain
Electrification Not Shown

* Caltrain operates on these tracks via track rights

California High-Speed Train Program EIR/EIS

San Jose to Los Banos
Pacheco Pass
San Jose/Diridon Station

Figure PP-S1



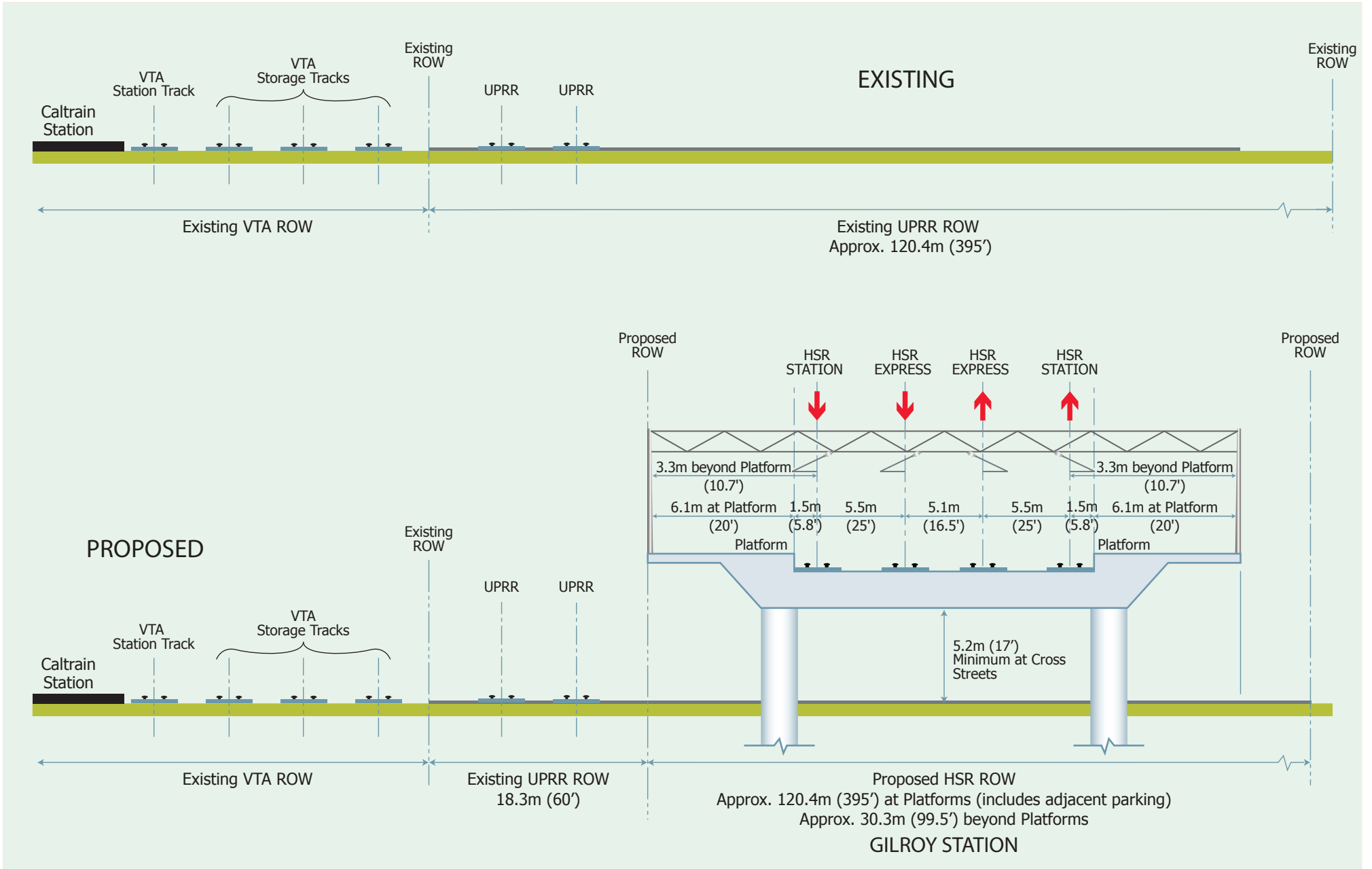
Future Caltrain
Electrification Not Shown

* Private Property Outside Station Limits

California High-Speed Train Program EIR/EIS

San Jose to Los Banos
Pacheco Pass
Typical Intermediate Station on Aerial Structure

Figure PP-S2

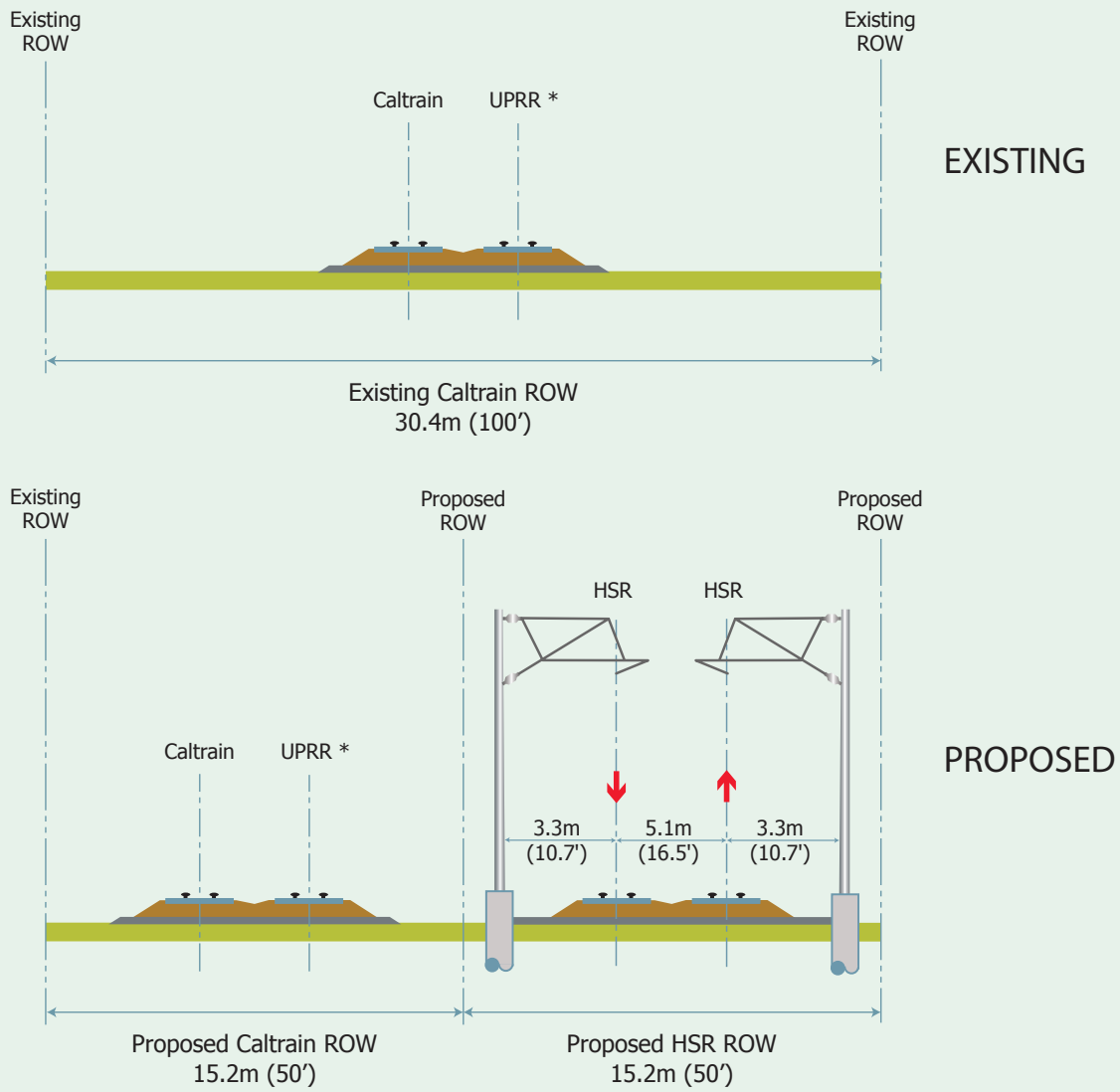


Future Caltrain
Electrification Not Shown

California High-Speed Train Program EIR/EIS

San Jose to Los Banos
Pacheco Pass
Typical Intermediate Station on Aerial Structure

Figure PP-S3



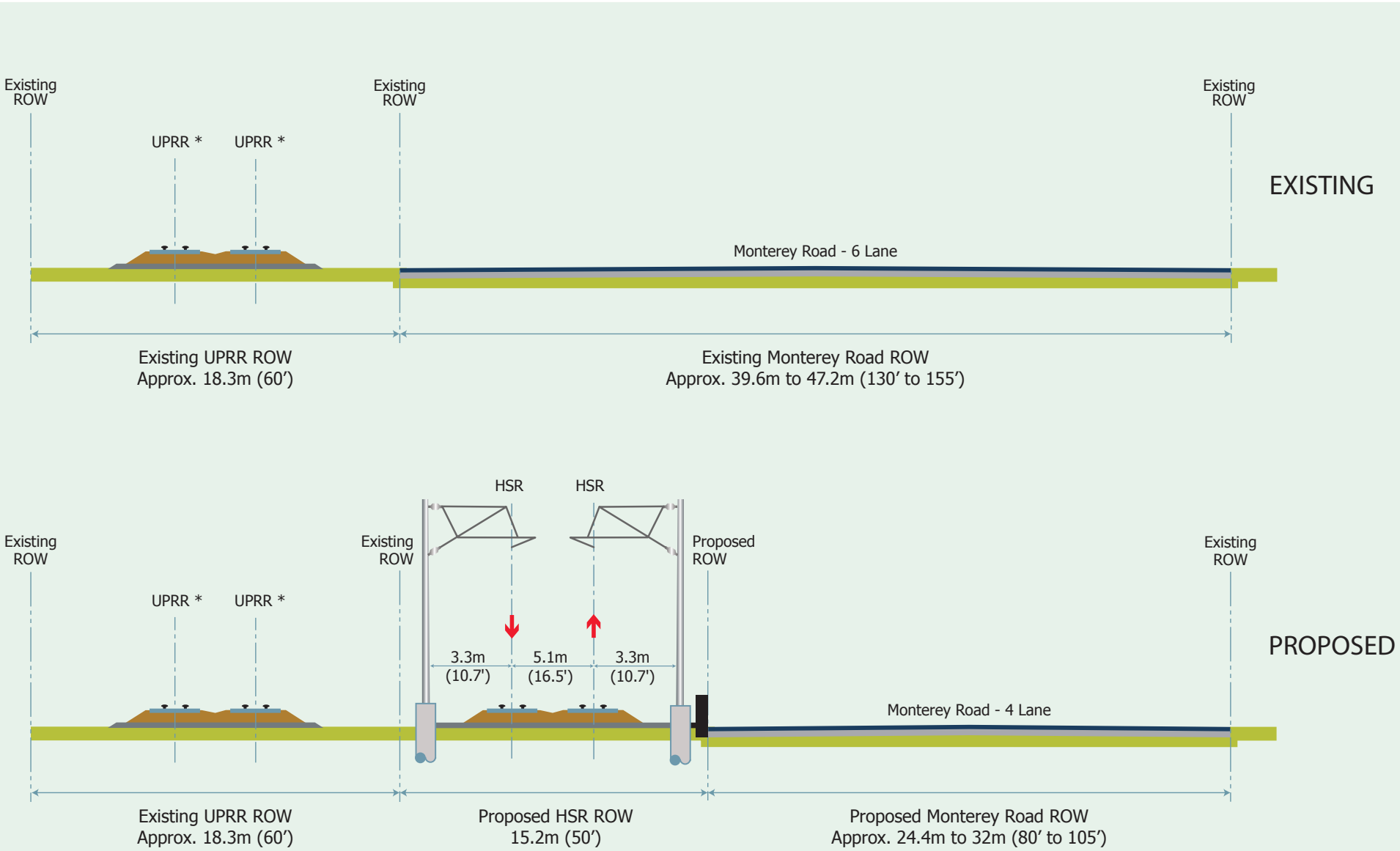
Future Caltrain
Electrification Not Shown

* Caltrain operates on these tracks via track rights

California High-Speed Train Program EIR/EIS

San Jose to Los Banos
Pacheco Pass
Typical At-Grade Section

Figure PP-6A



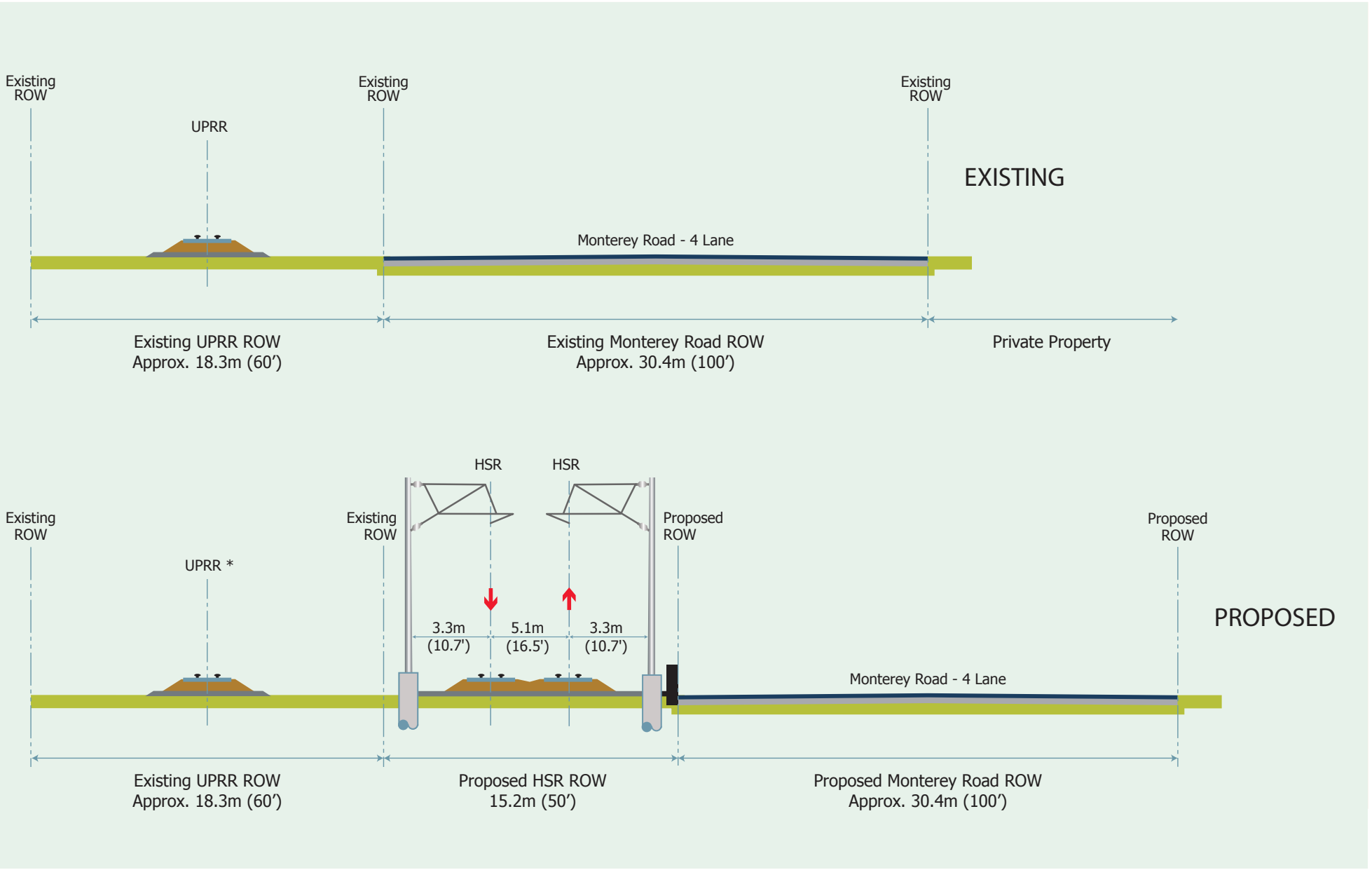
Future Caltrain
Electrification Not Shown

* Caltrain operates on these tracks via track rights

California High-Speed Train Program EIR/EIS

San Jose to Los Banos
Pacheco Pass
Typical At-Grade Section

Figure PP-6B

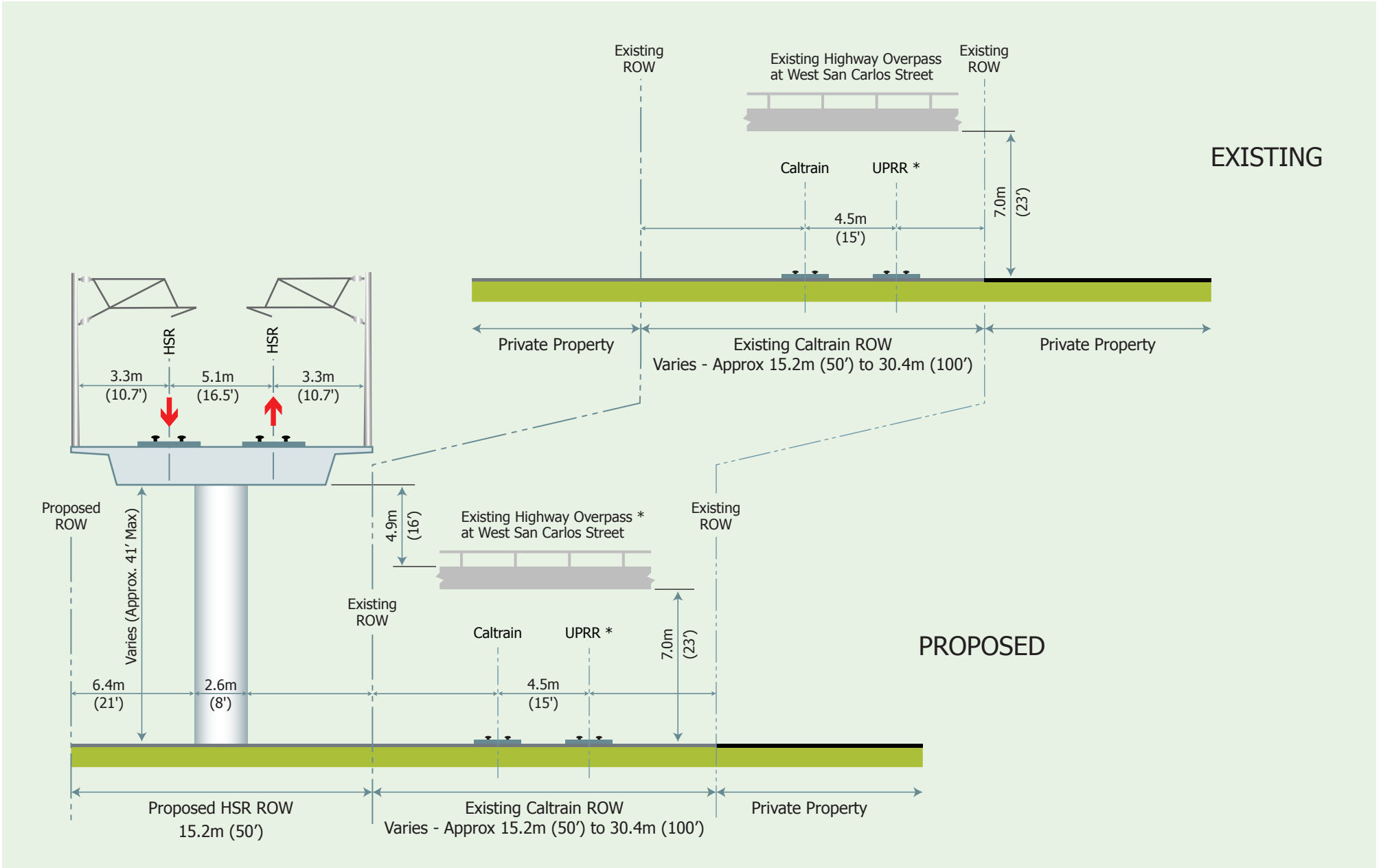


California High-Speed Train Program EIR/EIS

* Caltrain operates on these tracks via track rights

San Jose to Los Banos
Pacheco Pass
Typical At-Grade Section

Figure PP-6C



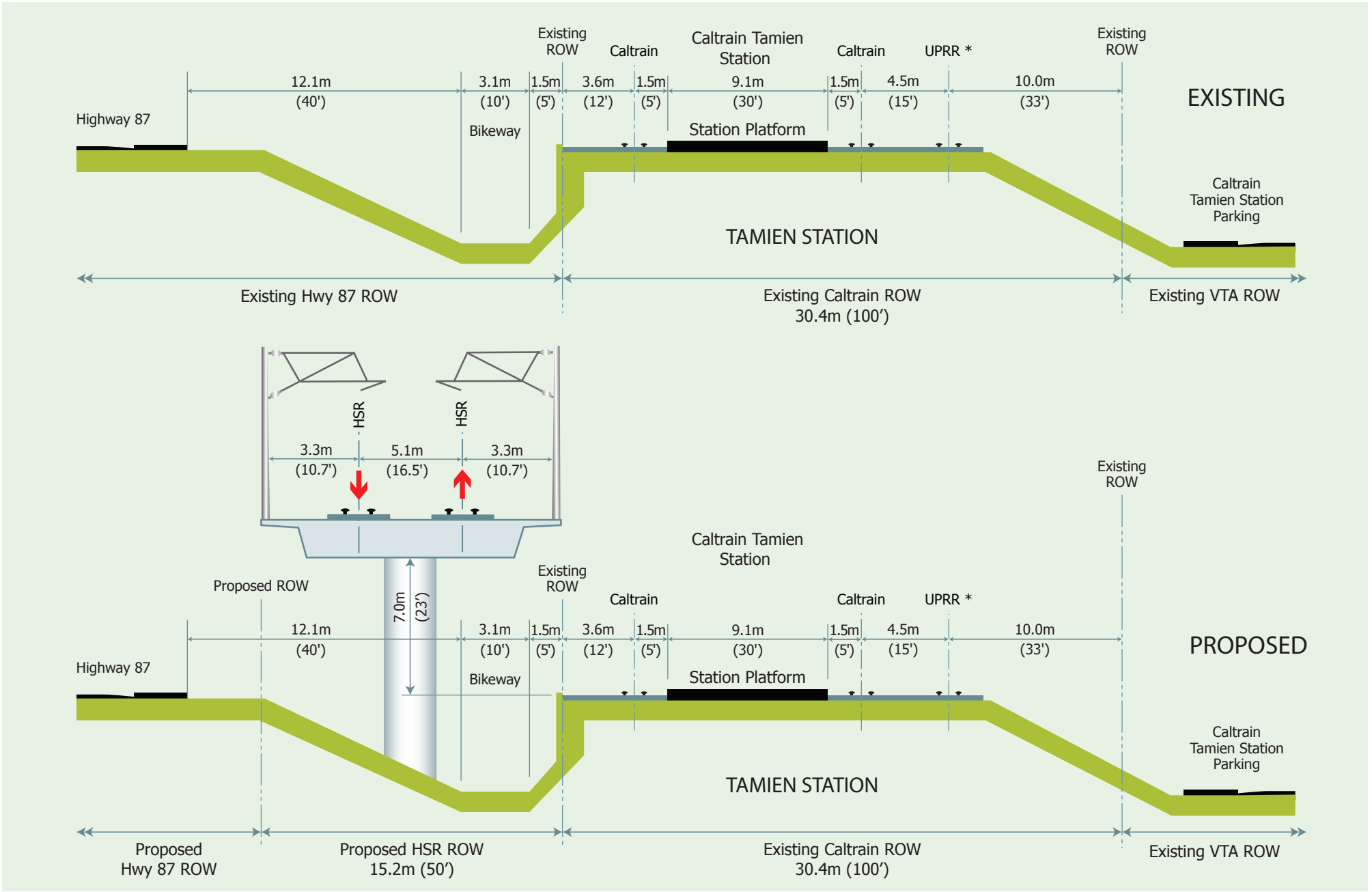
Future Caltrain
Electrification Not Shown

* Caltrain operates on these tracks via track rights

California High-Speed Train Program EIR/EIS

San Jose to Los Banos
Pacheco Pass
Aerial Structure

Figure PP-7



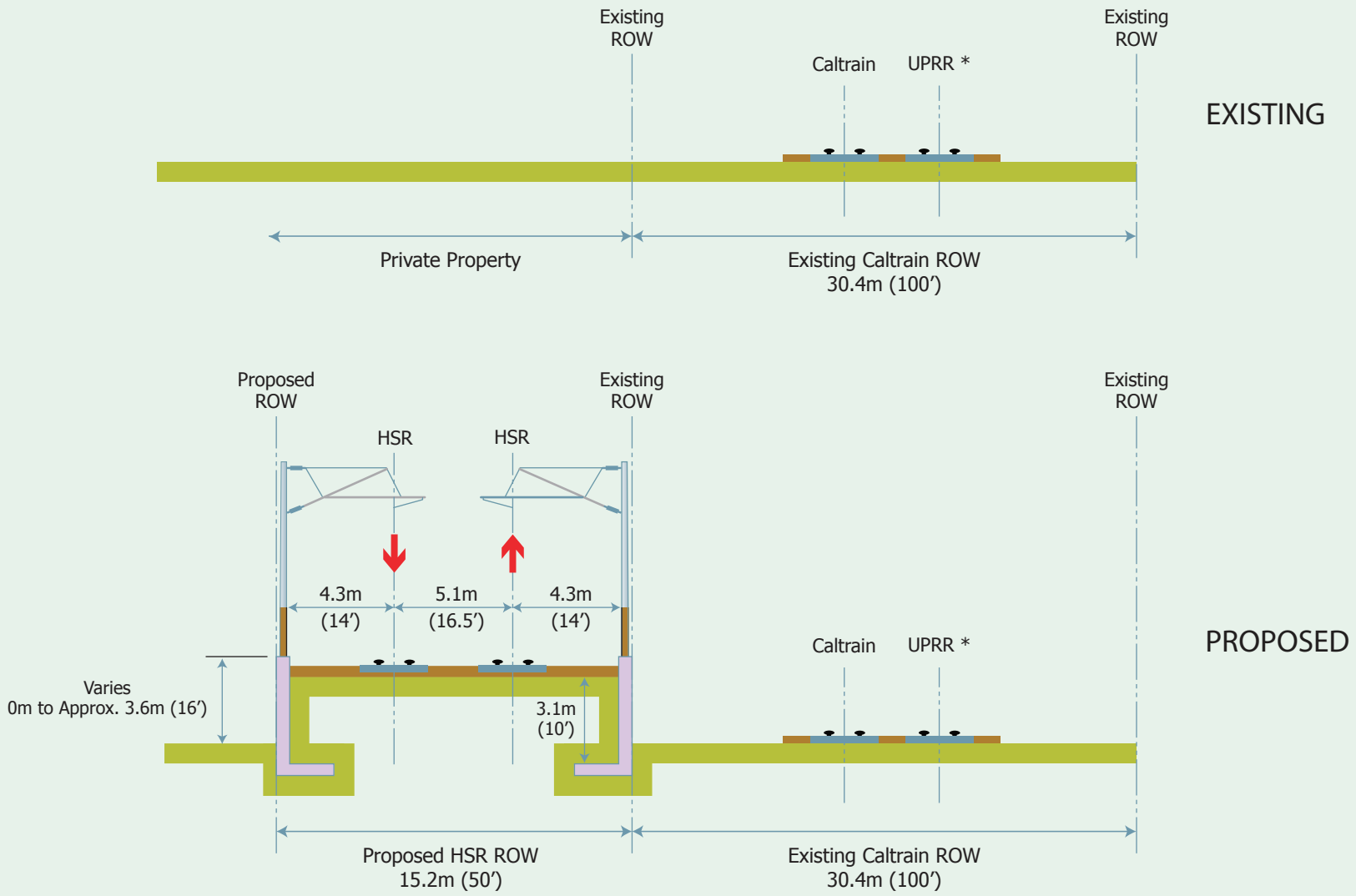
Future Caltrain
Electrification Not Shown

* Caltrain operates on these tracks via track rights

California High-Speed Train Program EIR/EIS

San Jose to Los Banos
Pacheco Pass
Aerial Structure

Figure PP-8



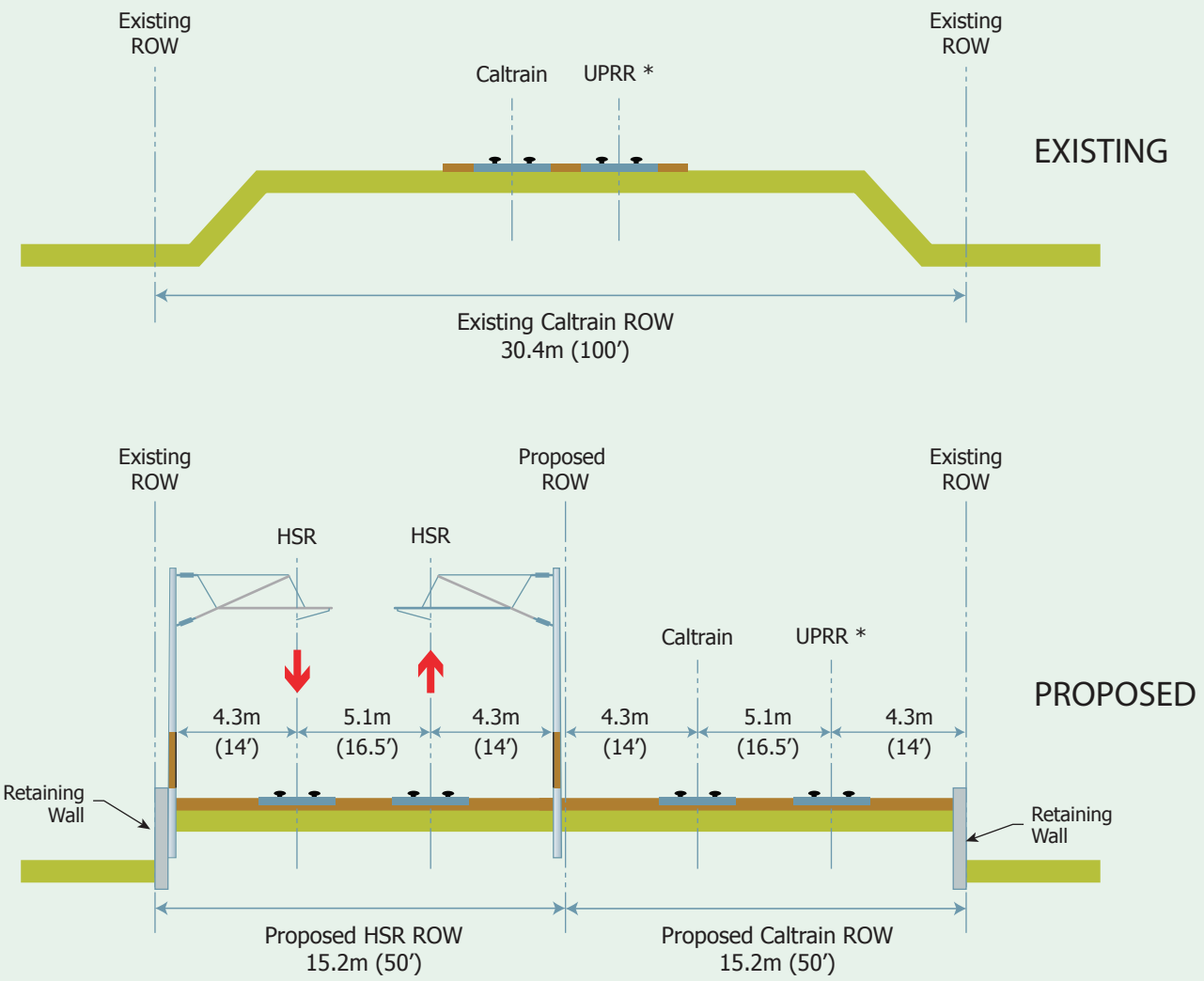
California High-Speed Train Program EIR/EIS

Future Caltrain
Electrification Not Shown

* Caltrain operates on these tracks via track rights

San Jose to Los Banos
Pacheco Pass
Typical Retained Fill

Figure PP-9A



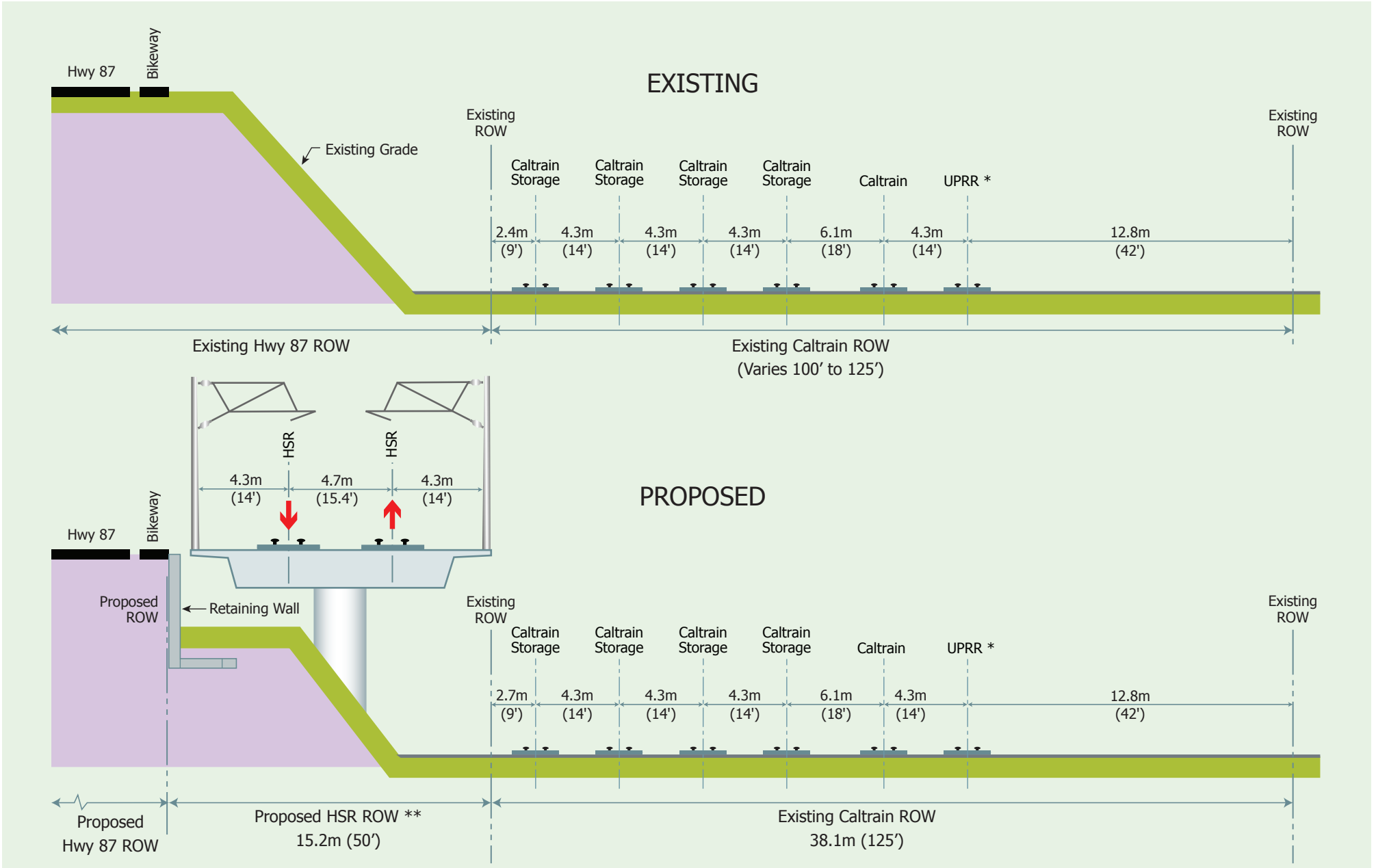
California High-Speed Train Program EIR/EIS

Future Caltrain
Electrification Not Shown

* Caltrain operates on these tracks via track rights

San Jose to Los Banos
Pacheco Pass
Typical Retaining Fill

Figure PP-9B



Future Caltrain
Electrification Not Shown

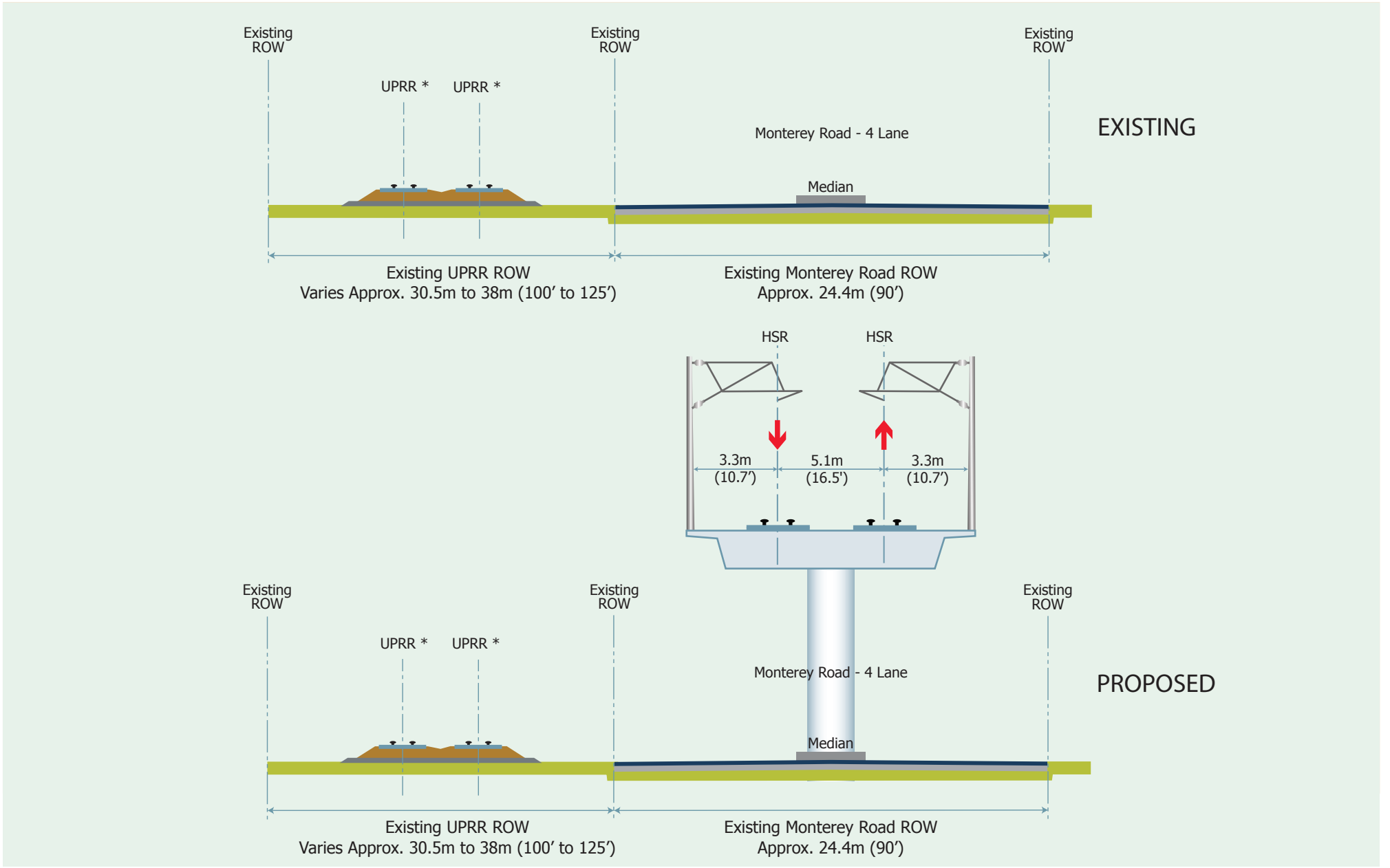
* Caltrain operates on these tracks via track rights

** In this section of the corridor HSR crosses over existing Caltrain and UPRR tracks on aerial structure to be on east side within existing Caltrain ROW.

California High-Speed Train Program EIR/EIS

San Jose to Los Banos
Pacheco Pass
Aerial Structure

Figure PP-10



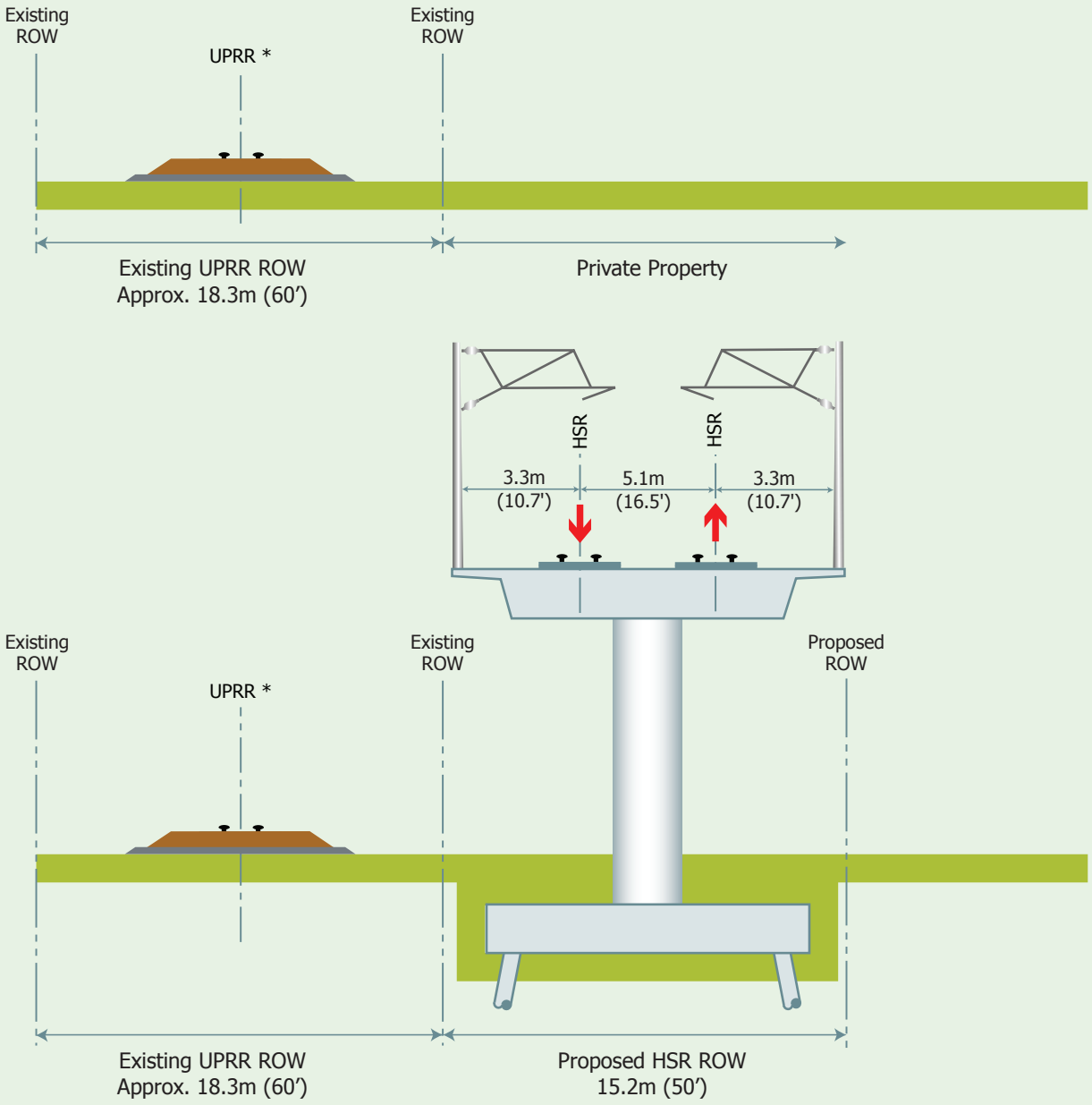
Future Caltrain
Electrification Not Shown

* Caltrain operates on these tracks via track rights

California High-Speed Train Program EIR/EIS

San Jose to Los Banos
Pacheco Pass
Aerial Structure

Figure PP-11



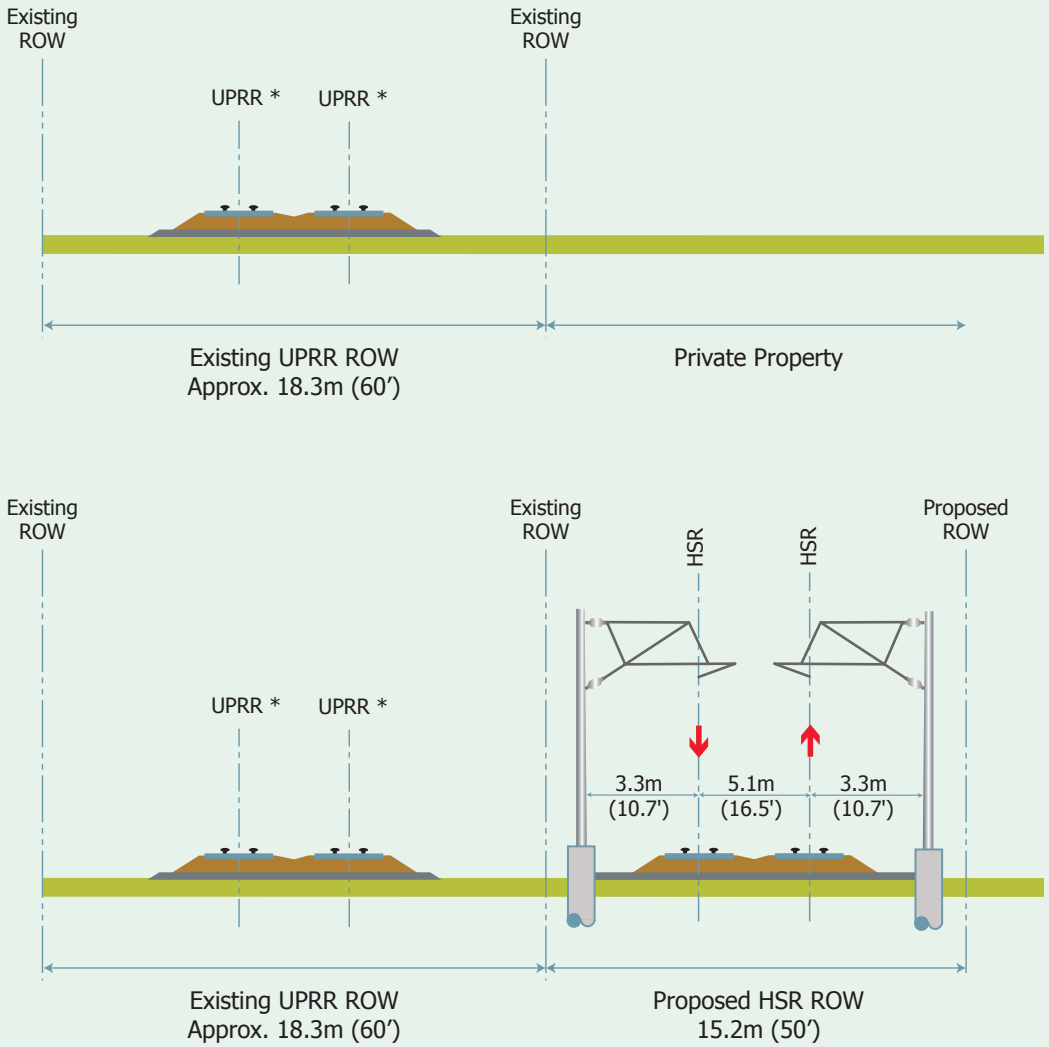
Future Caltrain
Electrification Not Shown

* Caltrain operates on these tracks via track rights from Gilroy Station to the north

California High-Speed Train Program EIR/EIS

San Jose to Los Banos
Pacheco Pass
Aerial Structure

Figure PP-12



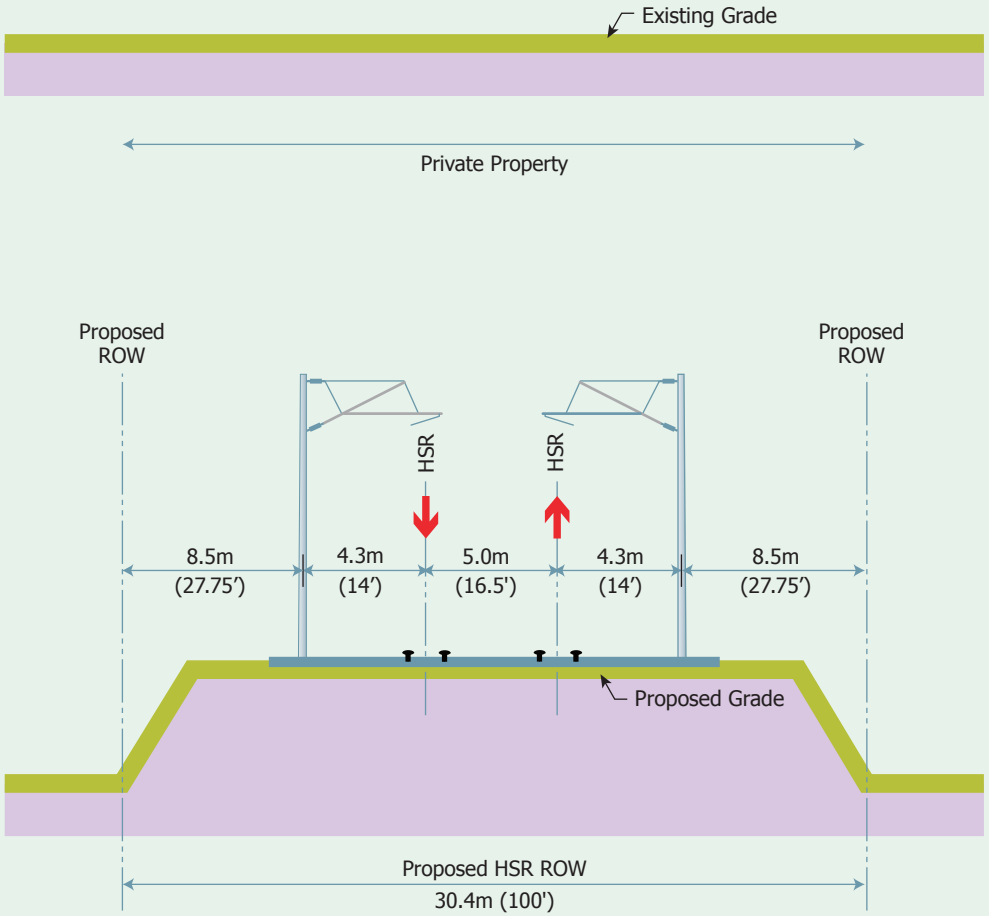
California High-Speed Train Program EIR/EIS

Future Caltrain
Electrification Not Shown

* Caltrain operates on these tracks via track rights

San Jose to Los Banos
Pacheco Pass
Typical At-Grade Section

Figure PP-13



EXISTING

PROPOSED

California High-Speed Train Program EIR/EIS

San Jose to Los Banos
Pacheco Pass
Typical At-Grade Mainline Section
(Undeveloped Areas)

Figure PP-14