2.0 ALTERNATIVES

This chapter describes the alternatives being studied for the approximately 130 mile long portion of the Coast Rail Corridor between Salinas and San Luis Obispo, California, as shown in **Figure 2-1**. This Program EIS/EIR evaluates two alternatives: a Build Alternative and a No Build Alternative. The Build Alternative includes a list of potential physical improvements to the railway and expanded passenger rail service (Coast Daylight). Some, all, or none of these improvements may eventually be constructed in order to facilitate the addition of up to two round trip Coast Daylight trains per day (four train trips in all) between San Francisco and Los Angeles.

The No Build Alternative assumes the continuation of existing passenger and freight operations in the corridor with no new physical improvements.

The San Luis Obispo Council of Governments (SLOCOG), the Transportation Agency for Monterey County (TAMC), the California Department of Transportation Division of Rail and Mass Transportation (Caltrans DOR), and the Coast Rail Coordinating Council (CRCC), along with the Federal Railroad Administration (FRA) developed alternatives through an iterative process that incorporated design and analysis completed by other government agencies, independent planning and feasibility studies, and the scoping process. This chapter describes all alternatives considered by the above agencies, including those rejected from further consideration in the Program EIS/EIR and the basis for rejection.

The Chapter is organized into the following sections:

- Section 2.1 describes the background and planning context.
- Section 2.2 includes a description of the alternatives that were considered but later eliminated.
- Section 2.3 includes a description of the alternatives that were carried forward and included in this Program EIS/EIR analysis.

2.1 BACKGROUND AND PLANNING

2.1.1 CALIFORNIA PASSENGER RAIL SYSTEM 20-YEAR IMPROVEMENT PLAN

In March 2001, the National Railroad Passenger Corporation (Amtrak) completed the California Passenger Rail System 20-Year Improvement Plan (Amtrak 20-Year Plan). The Amtrak 20-Year Plan identifies and prioritizes rail improvements within the statewide rail network intended to achieve the greatest return on investment in terms of improving capacity and reliability. The Amtrak 20-year plan lists specific improvements for each intercity rail corridor in California (i.e., Capitol Corridor, Pacific Surfliner, San Joaquin, and Coast Corridor). The Amtrak 20-Year Plan serves as a statewide rail blueprint that assists in guiding future planning and investment decisions in the near- and long-term by outlining the 20-year vision of each corridor in terms of service expansion, increased speeds, trip time, operational reliability, capacity, and ridership.[1]

Amtrak developed the improvements in close consultation with a Corridor-specific task force. The Corridor-specific task force provided recommendations that took a number of factors into account, including consideration of state-wide rail system objectives, benefits and trade-offs in terms of economic and environmental factors, and key sensitivities of the entities that manage/operate corridor services.

The Amtrak 20-Year Plan identifies a number of potential improvement opportunities to the Salinas to San Luis Obispo portion of the Coast Corridor. Although the Amtrak 20 Year-Plan was finalized in 2001, Caltrans considers the recommended improvement opportunities for the Coast Corridor to still be valid because activity levels on this portion of the Coast Corridor have generally remained stable since 2001.

The May 2013 Coast Corridor Service Development Plan (SDP) lists a number of potential infrastructure improvements for the Coast Corridor, aggregated from the Amtrak 20-Year Plan and from the Union Pacific Railroad's (UPRR) recommendations, and is discussed in greater detail below.

[1] National Railroad Passenger Corporation, 2001, pp. 1-4

2.1.2 UNION PACIFIC RAILROAD

The UPRR owns the railroad infrastructure and operates most freight rail services along the Coast Corridor.[2] These services include long-haul and local freight trains.

Long-haul freight trains are those that travel across the entire Corridor or a significant portion of it. Local freight trains operate over short segments of the corridor, usually less than 50 miles.

In a 2011 presentation to Caltrans and SLOCOG (included as **Appendix B**), UPRR identified several additional physical improvements it deemed necessary in order to accommodate the proposed Coast Daylight service in addition to the proposed improvements identified in the Amtrak 20-Year Plan. UPRR has identified improvements for the entirety of the Coast Corridor, but this Program EIS/EIR addresses only those physical improvements that would be located between Salinas and San Luis Obispo.

2.1.3 COAST CORRIDOR SERVICE DEVELOPMENT PLAN

The May 2013 Coast Corridor SDP is an element of the California State Rail Plan (CSRP) that sets priorities and implementation strategies for improved intercity passenger rail service in the Coast Corridor. The SDP is included as **Appendix C**. The SDP proposes improved and expanded rail services and rail infrastructure investments needed to support projected growth and future capacity constraints to mainline operations. Accordingly, the SDP considers rail capacity capital improvements, operational and maintenance costs, and ridership revenue.

The Caltrans Division of Rail prepared the SDP in coordination with key stakeholders including the FRA, Amtrak, California High-Speed Rail Authority (Authority), UPRR, SLOCOG, and TAMC.

[2] Caltrans Division of Rail, 2013b, p. 1-1

2.2 ALTERNATIVES

The slate of physical and service improvements comprising the Build Alternative was developed from previous planning efforts, most notably the Amtrak 20-Year Plan and the SDP for the Coast Corridor. In addition to the improvements identified in these documents, the Build Alternative also includes additional improvements recommended by the UPRR.

Thus the Build Alternative consists of a comprehensive list of desired near, medium, and long-term improvements to rail service along the Coast Corridor in order to understand the potential environmental effects of the entire program of improvements that have been contemplated in the Coast Corridor from more than 15 years of planning efforts. At this time, there is disagreement as to the extent of physical improvements needed in order to accommodate increased passenger service (the reinstitution of the Coast Daylight) without unduly affecting freight rail services. Because this document is a program-level evaluation, the Build Alternative includes all potential physical improvements that have been considered in the previous planning documents and studies. SLOCOG, TAMC, and Caltrans DOR assume that further discussion, separate from this environmental document, will be required with the railroad owner, UPRR, to ultimately determine which if any improvements that make up the Build Alternative must be in place before passenger service is expanded.

2.2.1 ALTERNATIVES CONSIDERED BUT DISMISSED FROM FURTHER ANALYSIS

The list of proposed physical improvements comprising the Build Alternative originated from several previous planning efforts, discussed above in **Subsection 2.1**. These earlier efforts, including the Amtrak 20-Year Plan and the SDP, took into account factors of overall feasibility and constructability, but were intended to yield a comprehensive list of near, medium, and long-term improvements to rail service along the Coast Corridor. These earlier studies excluded alternative modes of transportation along the Coast Corridor, such as express buses or increased air travel. Such alternative modes would be inconsistent with the purpose and need for the proposed action (improving intercity rail through the Salinas to San Luis Obispo area, ultimately providing improved passenger rail service between San Francisco and Los Angeles) and are accordingly not given further consideration in this document. These earlier planning efforts also suggested maintaining conventional rail systems and discounted major changes in locomotive technology, such as electrification or conversion of the Coast Corridor to a high-speed rail corridor.

Earlier efforts also screened out the potential inclusion of additional passenger rail stations beyond those proposed for Soledad and King City. Soledad and King City are the two largest cities in population along the corridor not currently served by passenger rail. Other communities along the corridor were assumed to have insufficient population to support a passenger station or were in relatively close proximity to existing or proposed rail stations. For instance, Atascadero has a population close to that of Paso Robles (about 29,000 people as of 2013). However, Atascadero is roughly equidistant (about 15 miles) from existing stations in Paso Robles and San Luis Obispo.

Many of the proposed improvements are conceptual in nature. For instance, no design or engineering data is available for the proposed curve realignments and second mainline elements of the Build Alternative other than the limits of these improvements based on mileposts. Exact locations on the ground for these and similar Build Alternative improvements have not been determined at this time. However, in order to evaluate the general environmental effects of these elements of the Build Alternative, certain assumptions regarding the potential physical footprint of various proposed improvements was necessary. For example, assumptions made for the purposes of this environmental document included that no new curve realignment, siding extension, or new siding would result in a new crossing of the Salinas River or US 101.

2.2.2 NO BUILD ALTERNATIVE

The No Build Alternative offers a basis for comparison with the Build Alternative and is included per CEQA guidelines §15126.6.

The No Build Alternative represents the continuation of existing passenger and freight rail operations upon the existing physical components of the railroad system. Existing passenger operations consist of one daily roundtrip of the Coast Starlight passenger train through the Salinas to San Luis Obispo area. Existing freight operations consist of two daily long-haul trains (80 cars or more) traveling all or the vast majority of the distance between Salinas and San Luis Obispo to points beyond. Local trains are assumed to travel 50 miles or less of the distance between Salinas and San Luis Obispo with origins or destinations within the corridor. The SDP estimates that an average of two long-haul freight trains traverse the corridor daily (year 2012) and estimates this number to increase to four daily trains by 2020. The SDP does not estimate the number of local trains.

For the purposes of this Program EIS/EIR whose purpose and need is limited to potential physical rail system improvements and expansion of passenger rail service,

the No Build Alternative would include known (funded) rail improvement projects set to take place between Salinas and San Luis Obispo.

Only two such rail improvements projects are slated for the Salinas to San Luis Obispo corridor. TAMC is proposing a series of rail capital improvements, including station, platform, rail yard, and parking improvements between San Jose and Salinas so that commuter rail service can be extended to Salinas. TAMC has also designated funding for the operating costs of this commuter rail extension.

The No Build Alternative also assumes the future installation of a positive train control system (PTC) along the Coast Corridor in compliance with requirements of the Rail Safety Improvement Act of 2008. According to FRA, PTC systems are integrated command, control, communications, and information systems that allow for control of train movement in order to improve safety, security, precision, and efficiency.[3] PTC sends up-to-date visual and audible information to train crew members about areas where the train needs to be slowed or stopped. This information includes the status of approaching signals, the position of approaching switches, speed limits at approaching curves and other reduced-speed locations, speed restrictions at approaching crossings and speed restrictions at areas where work is being performed on or near the tracks. PTC communicates with the train's onboard computer, allowing it to audibly warn the engineer and display the train's safe braking distance based on the train's speed, length, width, weight, and the grade and curvature of the track. If the engineer does not respond to the ample audible warning and screen display, the onboard computer will activate the brakes and safely stop the train.[4]

PTC systems vary widely in complexity and sophistication based on the level of automation and functionality being implemented. Most components of a PTC system are internal to a train, including communications equipment and connections to a train's braking system. Some PTC systems, however, also include external elements, such as antennas and modifications to signaling equipment.

Since PTC is a requirement for existing operations, this document assumes funding of PTC would be borne by the owner of the railroad, with potential cost-sharing by Amtrak.

[3] https://www.fra.dot.gov/Page/P0152, accessed August 8, 2014.

[4] http://www.metrolinktrains.com/agency/page/title/ptc, accessed August 8, 2014.

2.2.3 BUILD ALTERNATIVE

The Build Alternative is comprised of a program of potential physical improvements, signal upgrades, equipment purchases, and operational changes intended to meet the identified purpose and need.

Trains cannot operate at maximum allowable speeds in mixed-use settings (passenger and freight) if the underlying infrastructure is substandard. The UPRR has made and continues to make infrastructure upgrades consistent with FRA standards. However, the existing Coast Corridor is characterized by single-track operations, short sidings (or no sidings), manually-thrown switches, and an inefficient (automatic block system or ABS) signaling system, each of which individually and all of which collectively result in lower travel speeds and substandard operating conditions.

Various components of the Build Alternative are intended to remedy these conditions and otherwise better enable both existing and proposed future passenger and freight rail services to utilize the corridor.

Table 2-2 identifies the several corridor-wide proposed improvements. **Table 2-3** lists specific improvements by location. Both corridor-wide and specific area improvements are further discussed below.

- **Corridor-wide Track Upgrades:** Track improvements intended to improve performance are proposed along the entire rail alignment between Salinas and San Luis Obispo. Proposed corridor-wide track upgrades include replacement of existing rail with continuous welded rail (CWR), track structure realignment, track resurfacing, tie replacement, replacing or upgrading ballasting, rehabilitation of existing sidings, and replacement of existing turnouts. CWR reduces the number of joints and thus enables trains to move more quickly and with less friction and noise.

  Figure 2-2 illustrates a typical rail section. Rail ties lay perpendicular to the railroad tracks to keep tracks upright and in place. The rail ties sit on top of ballast, composed of coarse gravel or rock to provide stability to the railway and balance the weight load of the train. Most rail ties currently used in North America are made of timber materials that degrade overtime and decrease the maximum potential speed of trains. Proposed rail tie improvements would replace warped timber rail ties with continuously welded metal rail ties. Subgrade stabilization and ballasting is also proposed along the corridor to improve strength and integrity.

Both track upgrades and curve realignments (further described below) have the potential to increase maximum allowable train speeds. **Table 2-4**, at the end of this section, identifies existing maximum and potential future maximum speeds along existing sections of the rail alignment and in proposed curve realignment areas. (No other physical improvements within the Build Alternative have the potential to result in an increase in maximum speed).

- **Signal System Upgrades:** Rail signal systems communicate vital safety information to train conductors. Conductors rely on clear signals regarding maximum allowable speeds, when to slow down or stop, track obstructions, and the like. The existing signal scheme is a mix of older and newer systems.

  The remainder of the corridor is under an ABS that uses train warrant control (TWC). This requires a dispatcher to communicate directly with each train crew before the train can obtain authority to proceed through "blocks." At the end of each block, the train must wait for permission to go forward once again.

  CTC is also managed centrally but also uses remotely controlled signals and switches. CTC reduces the amount of time trains must spend waiting for dispatching instructions. Caltrans estimates that about 40 percent of all delays experienced in the Coast Corridor are related to signaling issues.[5]

  The Build Alternative proposes that CTC be introduced in two locations: 1) from Salinas to Soledad, via the extension of an existing CTC system to the north and 2) an "island" CTC over 27 miles of the railroad between San Lucas and Bradley (both unincorporated communities in southern Monterey County).

  Equipment associated with train control systems is largely on-board trains and at dispatching stations. Related physical equipment that would have a footprint on the ground includes signals that would be placed at yet undefined control points along the railroad. These signals can be mounted on poles approximately 10-12 feet in height or on overhead structures. **Figure 2-3** shows some typical signaling equipment associated with CTC.

  CTC also requires direct wired connections to train switches. Such connections are usually underground and trenched. (The Build Alternative includes a number of new powered switches; see below for details).

[5] Caltrans Division of Rail, 2013b, p. 9-7

- **New powered switches:** Powered switches are mechanical devices within a railroad track that guide trains from one track to another - such as a siding, or a second mainline. Switching mechanisms include sensors placed on rails/ties and control boxes placed immediately alongside the railroad within the railroad right of way. Powered switches are generally considered an upgrade over manually thrown switches insofar as they facilitate the speed of transition from one track to another. **Figure 2-4** shows a photo of a typical powered switch.

- **Siding extensions/new siding:** A siding is a short section of track adjacent to a main track used for passing and dwelling purposes in single track systems. At present, the sidings in the Salinas to San Luis Obispo portion of the corridor are generally one mile in length or shorter. Freight trains often exceed one mile in length and thus sometimes cannot be accommodated in the existing sidings. The proposed siding extensions are generally located within the railroad ROW and would lengthen existing sidings so that each would be at least 10,000 feet in length. **Figure 2-5** shows a diagram of a typical siding extension.

  While the SDP identifies the sidings to be extended, no entity (neither SLOCOG, Caltrans, or the UPRR) has to date promulgated any precise layout plans. Given the general north-to-south orientation of the existing railroad alignment and the parallel sidings, sidings could potentially be extended on either their northern or southern ends. For the purposes of this environmental review, extensions to existing sidings are contemplated on both their northern and southern ends. The extension lengths are such that either the northern or southern extension area would provide sufficient space to increase the siding to the requisite 10,000 feet in length. (To this end, impacts relative to siding length/acreage reported in this document are likely overstated).

  In addition to several siding extensions, the Build Alternative also includes entirely new sidings at Chalone Creek near Soledad (MP 147 to MP 149), San Lucas (MP 167.2 to MP 190.4), and Wellsona (MP 205 to MP 207.6).

- **New second mainline:** A second main track is contemplated from South Santa Margarita toward the Cuesta Grade (MP 233 to MP 235), terminating just north of the first tunnel between Cuesta Grade and San Luis Obispo. At present, train speeds through this portion are some of the slowest for the entire alignment - ranging between 25 and 35 mph. Slow speeds here are considered to be related to track curvature and deficient train control systems. A second mainline here would significantly expand mobility. For the purposes of this environmental review, it is assumed that the second mainline would consist of a standard track running within a 60 foot new right-of-way immediately adjacent to the existing rail alignment.

- **Curve or other track realignments:** The existing Coast Corridor alignment includes some sharp curves that require trains to slow down to reduce the risk of derailment. The Build Alternative contemplates several curve realignments intended to reduce track curvature. If constructed, curve realignments would allow for increased speeds, enhance safety, and reduce trip times. Such realignments typically result in less wear and tear to tracks, reducing the frequency of repair or maintenance.

  Most of the curve realignments were initially identified as part of the Amtrak 20-Year Plan. These descriptions identified milepost-to-milepost starts and stops of curve realignment areas and further contemplated the potential for each curve realignment to reduce track curvature. For the purposes of this programmatic evaluation, highly generalized and spatially generous curve realignment areas have been identified to enable a better understanding of the type and magnitude of any environmental effects that may result from their construction. This provides a conservative basis for this environmental analysis.

  Curve realignments would in effect relocate the entire railroad right of way some distance from the existing right of way. The average width of the railroad right of way is about 60 feet. For the purposes of this evaluation, a curve realignment area width of 100 feet has been assumed along with surrounding buffer areas of 200 feet on each side. Given the relative narrowness of the existing right of way, every curve realignment considered here would require the acquisition of land not currently in the railroad right-of-way or in transportation use. In many cases, a single named curve realignment will consist of multiple, discontinuous sections of realigned track but are collectively considered part of the same curve realignment.

  It might also be possible to convert currently existing tracks into sidings or to formally abandon existing tracks. This analysis takes a conservative approach and assumes new curve realignments requiring new infrastructure and potentially, new right-of-way.

- **New passenger stations:** There are currently three passenger train stations between Salinas and San Luis Obispo: 1) Salinas, 2) Paso Robles, and 3) San Luis Obispo. The Salinas Redevelopment Agency acquired the Salinas Station in 1998, the City of Paso Robles owns the Paso Robles Station, and the UPRR owns the San Luis Obispo Station. However, Amtrak is the sole passenger rail user at all of these stations.

  The Build Alternative contemplates two new passenger stations in Soledad and King City. The existing Coast Corridor alignment passes through the downtowns

of each city. Currently, Coast Starlight passenger trains travel through the downtown areas of each city but do not stop. The proposed Coast Daylight train service may include stops in one or both of these cities.

As detailed below, in anticipation of the possible future Coast Daylight service, both Soledad and King City have set forth conceptual station area plans as elements of larger plans related to the revitalization of their downtown areas.

In the event one or both stations are selected for construction it is anticipated that each city would be responsible for land acquisition and station planning.

- **Soledad Station:** The City of Soledad's proposed Downtown Specific Plan includes a conceptual diagram for a station area along Front and Main Streets. The station area comprises approximately 1.9 acres of the full 200 acre Specific Plan area. The station would consist of a passenger boarding platform, ticket depot, bus pull outs, and pedestrian and bike connections. The station is distinct and independent from the proposed development of Soledad's so-called "Railroad Parcels," a 12-acre area on the west or opposite side of the tracks from the majority of the city. The Downtown Specific Plan contemplates the possible future buildout of these parcels as well as one or more new crossings of the railroad to improve access. However, construction and operation of a Soledad passenger rail station is not contingent on the development of or construction on the "Railroad Parcels."
- **King City Station**: The City of King has developed a conceptual plan for a new passenger station near the intersection of First Street and Broadway in downtown King City. The city included a conceptual plan for a multi-modal transportation center in two recent plans: the First Street Corridor Master Plan and the Historic Corridor Revitalization Plan. The city's conceptual plans call for a 1,200-foot train platform alongside the existing tracks, a station building for ticket sales and restrooms, on-street bus pullout areas, and an off-street parking lot.

  In the longer term, the City of King may implement a third plan, the "Downtown Addition Plan" which would extend Broadway from its current terminus at First Street across both the street and the railroad tracks, effectively creating a new at-grade crossing area. This extension would require the demolition of an existing warehouse building. However, the development of a King City station and the implementation of the Downtown Addition Plan are separate projects with independent utility.

- **Grade Crossing and Mobility Improvements: Table 2-1** identifies all existing at-grade railroad crossings of ***public, paved*** roads between Salinas and San Luis Obispo. In addition to these crossings of public, paved roads, the 130-mile stretch of the existing railroad crosses scores of mainly private dirt roads/driveways. Safety provisions at existing crossings of public, paved roads range from passive warning devices (static wood/metal signage) to more active warning devices (e.g., flashing lights and gates).

Table 2-1 Existing At-Grade Crossings of Public, Paved Roads between Salinas and San Luis Obispo Stations

Monterey County	San Luis Obispo County
John Street, Salinas	14th Street, San Miguel
Harkins Road, Salinas	11th Street, San Miguel
Somavia Road, between Salinas and Chualar	Wellsona Road, Paso Robles
Main Street, Chualar	21st Street, Paso Robles
Foletta Road, Gonzales	16th Street, Paso Robles
Katherine Street, Gonzales	13th Street, Paso Robles
Gonzales River Road, Gonzales	12th Street, Paso Robles
Lanini Road, Gonzales	10th Street, Paso Robles
Elm Avenue/G16, Greenfield	Marquita Avenue, Templeton
Spreckels Road, King City	Phillips Road, Templeton
East San Antonio Drive, King City	Chico Road, Atascadero
Lyons Street, King City	Curbaril Avenue, Atascadero
East Pearl Street, King City	Halcon Road, Atascadero
Lonoak Road, King City	Santa Clara Road, Atascadero
Wildhorse Road, south of King City	Asuncion Road, Atascadero
Hare Canyon Road, south of Bradley	State Route 58/Estrada Avenue, Santa Margarita
	Encina Avenue, Santa Margarita
	Wilhelmina Avenue, Santa Margarita
	Foothill Boulevard, San Luis Obispo
	Marsh Street, San Luis Obispo

Source: Circlepoint 2013

The MP 172 curve realignments has the potential to create a single new at-grade crossing of an existing public, paved road at Cattlemen Road, about 10 miles south of King City.

The Build Alternative would install as-yet undefined signal, signage, and other related improvements at as-yet unspecified existing at-grade crossings (potentially public and private).

- **Coast Daylight Service and new rolling stock**: The SDP contemplates the reinstitution of *Coast Daylight* passenger rail service, which was discontinued in 1971. The SDP proposes initial service of one daily southbound and one daily northbound train between San Francisco and Los Angeles, requiring two full trainsets for 2020 service and two additional trainsets for 2040 service. Preliminary proposed schedules indicate trains leaving San Francisco and Los Angeles in the early morning (approximately 7 a.m.), and arriving at their respective destinations between 6:30 p.m. and 7 p.m. Future expanded service would see the addition of one additional daily southbound and northbound departure. This expanded service would be overnight, leaving San Francisco or Los Angeles in the early evening and arriving at the respective destination early the following morning.

  Coast Daylight trains would stop at existing Amtrak stations in the Coast Corridor and potentially also at proposed new stations identified in the Service Development Plan (Soledad and King City). The proposed Coast Daylight service would require the acquisition of locomotives and passenger railcars.

The Build Alternative improvements are analyzed at the existing level of conceptual design appropriate for a program-level review. Detailed designs for curve realignments, new sidings/siding extensions, or a proposed segment of a second mainline have not yet been developed. The SDP identified milepost areas in which such improvements would occur but no further specific area of disturbance.

In order to meaningfully analyze such features in this Program EIS/EIR, analysts identified appropriate buffer areas for review where such improvements would be developed within the noted mileposts. In doing so, this analysis avoided creating any new curve realignments or siding extensions that would have either resulted in the need for a new crossing of the Salinas River or substantial excavation or tunneling. Creating new river crossings or new tunnels would represent infeasible development costs and additional environmental impacts. Therefore, the areas identified for curve realignments and sidings discussed in this analysis omit any river crossing/tunneling/major excavation scenarios given likely constraints related to technical feasibility, environmental impact, and cost.

Table 2-2 Summary of Build Alternative Proposed Improvements – Corridor-Wide

Location	Improvement Type
Corridor-Wide	Extend Centralized Traffic Control (CTC) from Salinas to Soledad; install island CTC from San Lucas to Bradley
Corridor-Wide	Grade crossing safety and mobility enhancements
Corridor-Wide	Tie replacement, installation of continuous welded rail (CWR), ballasting, track surfacing, track structure realignment, rehab existing Salinas and Soledad sidings; replace turnouts.
Corridor-Wide	Rolling stock purchases

Source: Caltrans Division of Rail, 2013b

Table 2-3 Summary of Build Alternative Proposed Improvements – Site Specific

Mile Post (MP)	Location	Improvement Type	Approximate Length/Acreage of Proposed Improvement[6]
Monterey County			
114.9	Existing Salinas siding	New powered switch	NA
121 - 123.4	Spence	New siding	1.89 miles; 19.3 acres
130	Existing Gonzales siding	New powered switch	NA
140	Existing Soledad siding	New powered switch	NA
140	Soledad	New station	1.9 acres
143.9 -151.3	Harlem to Metz	Curve/track realignment	3.43 miles; 41.6 acres
147 – 149	Chalone Creek	New siding	1.89 miles 14.9 acres

[6] Reported acreages and lengths of proposed siding extensions take a conservative approach and likely overstate actual values. As described in Subsection 2.2.2 above, no specific siding extension plans have been developed to date. All existing sidings could potentially be extended to 10,000 feet by adding track at either their north or south ends. For a more conservative basis of analysis, siding extensions areas developed for this EIS/EIR contemplate extensions on both north and south ends. For example, an existing 5,000 foot long siding could be extended to 10,000 feet with a 5,000 foot addition on either end. The siding extensions examined here include both extensions. Therefore, generally speaking, likely siding extension lengths and acreages could be computed by dividing in half the numbers reported in the table above.

Mile Post (MP)	Location	Improvement Type	Approximate Length/Acreage of Proposed Improvement[6]
154.3 - 154.7	Coburn	Curve/track realignment	2.27 miles; 27.5 acres
160	Existing King City siding	Siding extension	2.41 miles; 25.1 acres
160.3	King City	New station	3.4 acres
160.3	Existing King City siding	New powered switch	NA
165	South of King City	Curve/track realignment	1.06 miles; 12.8 acres
167.2 -190.74	San Lucas	New siding	1.89 miles; 22.9 acres
172	South of San Lucas	Curve/track realignment	2.07 miles; 25.1 acres
177 -179	Existing San Ardo siding	New powered switch	NA
181.5 – 191	Getty to Bradley	Curve/track realignment	1.50 miles; 18.2 acres
190 -192	Existing Bradley siding	Siding extension	2.68 miles; 50.2 acres
190 -192	Bradley	New powered switch	NA
San Luis Obispo County			
200 – 207	McKay to Wellsona	Curve/track realignment	2.06 miles; 24.9 acres
200 -203	Existing McKay Siding	New powered switch	NA
205 - 207.6	Wellsona	New siding	1.89 miles; 22.8 acres
208.3 - 216.7	Wellsona to Paso Robles	Curve/track realignment	0.43 miles; 5.2 acres
217 - 218.59	Templeton	Siding extensions	2.78 miles; 46.8 acres
218-223	Templeton to Henry	Curve/track realignment	0.47 miles; 5.7 acres
229-232	Henry to Santa Margarita	Curve/track realignment	2.19 miles; 26.5 acres
226 - 228	Existing Santa Margarita siding	New powered switch	NA
233 - 235.62	Cuesta	New second mainline	1.89 miles; 25.8 acres

Source: Caltrans Division of Rail, 2013b

Table 2-4 Potential Maximum Speed Increases for Build Alternative Components

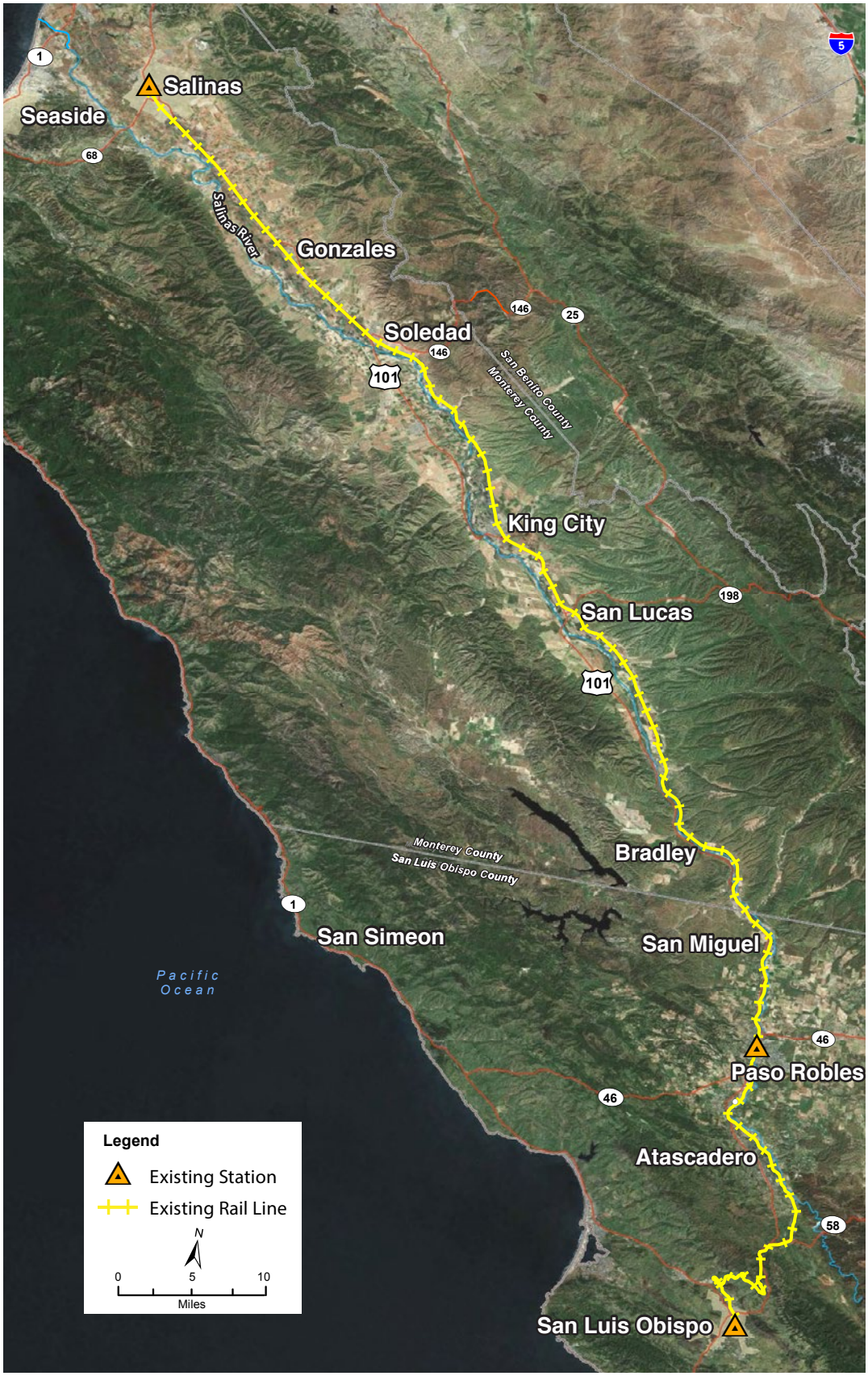
Build Alternative Components	Current Maximum Speed Range (mph)	Future Maximum Speed Range (mph)
Upgrades to Existing Alignment Section #1	60-70	90
Upgrades to Existing Alignment Section #2	35-40 and 60-70	60 and 90
Upgrades to Existing Alignment Section #3	35-40 and 60-70	60 and 60-70 (no change to latter zone)
Coburn Curve Realignments	35-40	60
Upgrades to Existing Alignment Section #4	60-70	90
MP 165 Curve Realignment	60-70	90
Upgrades to Existing Alignment Section #5	40-55 and 60-70	70 and 90
MP 172 Track Realignment	60-70	90
Upgrades to Existing Alignment Section #6	40-55	70
Upgrades to Existing Alignment Section #7	40-55	70
McKay/ Wellsona Curve Realignments	40-55	70
Upgrades to Existing Alignment Section #8	40-55	70
Wellsona/ Paso Robles Curve Realignments	40-55	70
Templeton/ Henry Curve Realignments	40-55	70
Upgrades to Existing Alignment Section #9	35 and 40-55	70
Henry/Santa Margarita Curve Realignments	35 and 40-55	No Change
Cuesta Second Main Track	20-30	No Change
Upgrades to Existing Alignment Section #10	20-30	No Change

Source: Caltrans Division of Rail, 2013b

Phasing Potential

The SDP provides rough cost estimates for all of the proposed physical improvements. The full list of improvements and equipment purchases are estimated to cost several hundred millions of dollars to design and implement.

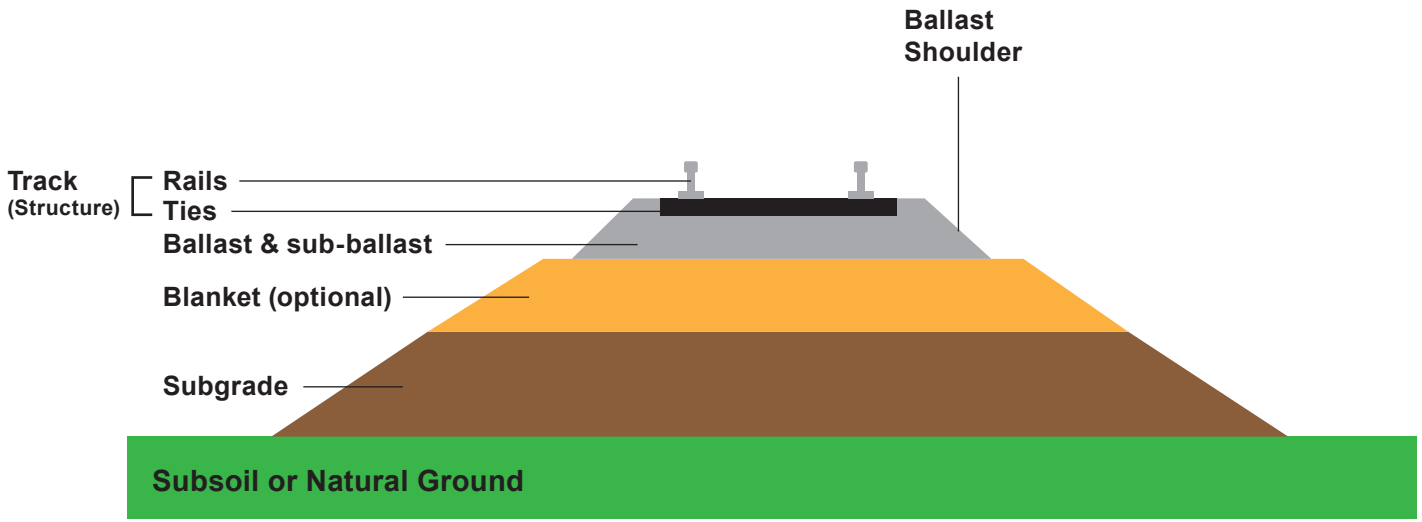
The SDP notes that the project partners have approximately $26 million available from STIP programming and funds received through Proposition 1B. Additionally, there is $25 million in Proposition 1B funding dedicated to the Coast Daylight, totaling $51 million in funding. As full funding for all improvements is not available at present, the most likely scenario is that proposed improvements would be constructed in phases. Exact phasing is contingent on what improvements are prioritized for further design and development, funding availability, and as warranted, any further environmental review.



Project Location Map

Figure 2-1

Source: Circlepoint, 2013



Typical Section of Rail

Figure 2-2

Source: Circlepoint, 2013

Typical Signal Tower

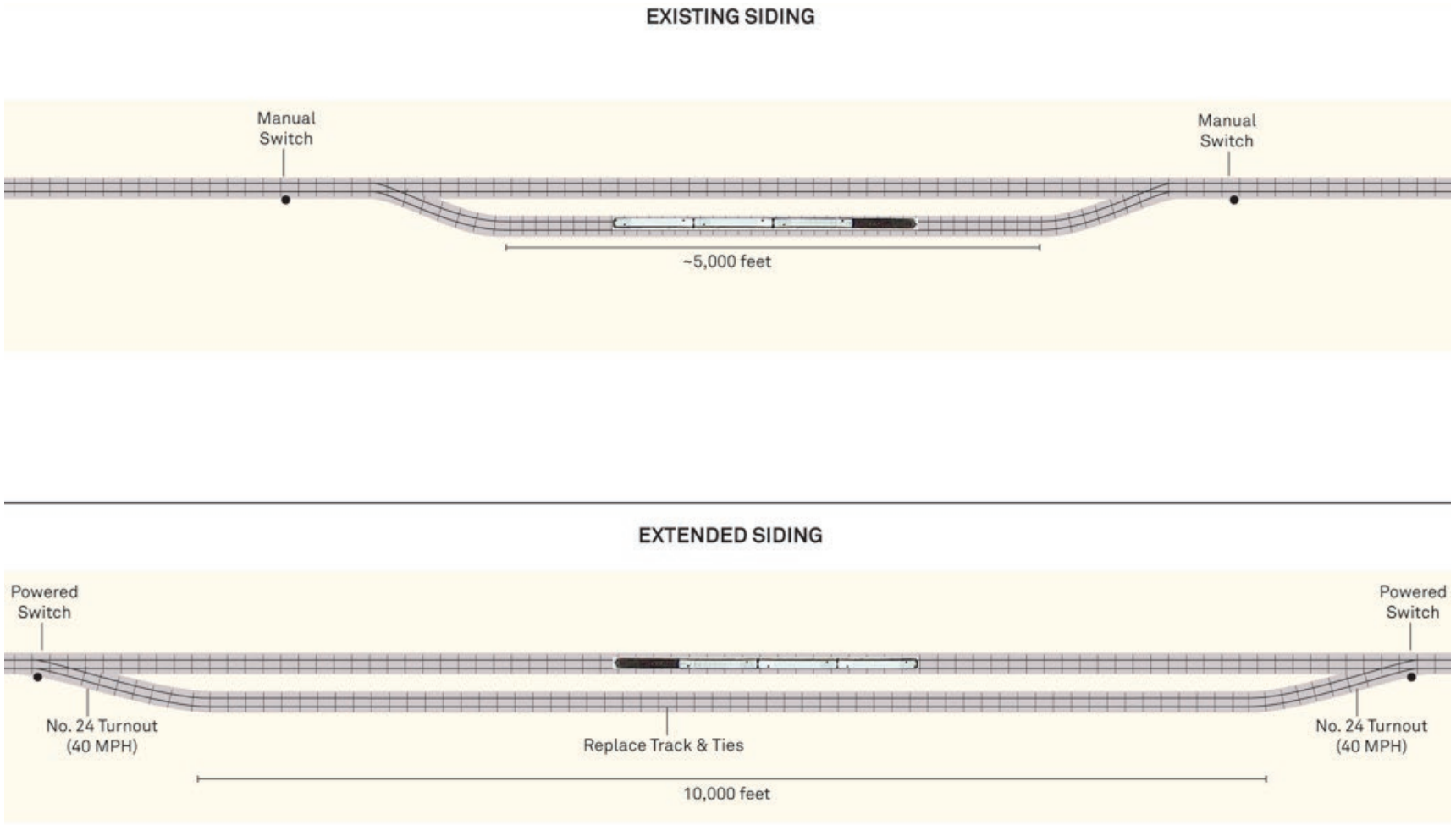
Figure 2-3

Source: Circlepoint, 2013

Typical Powered Switch

Figure 2-4

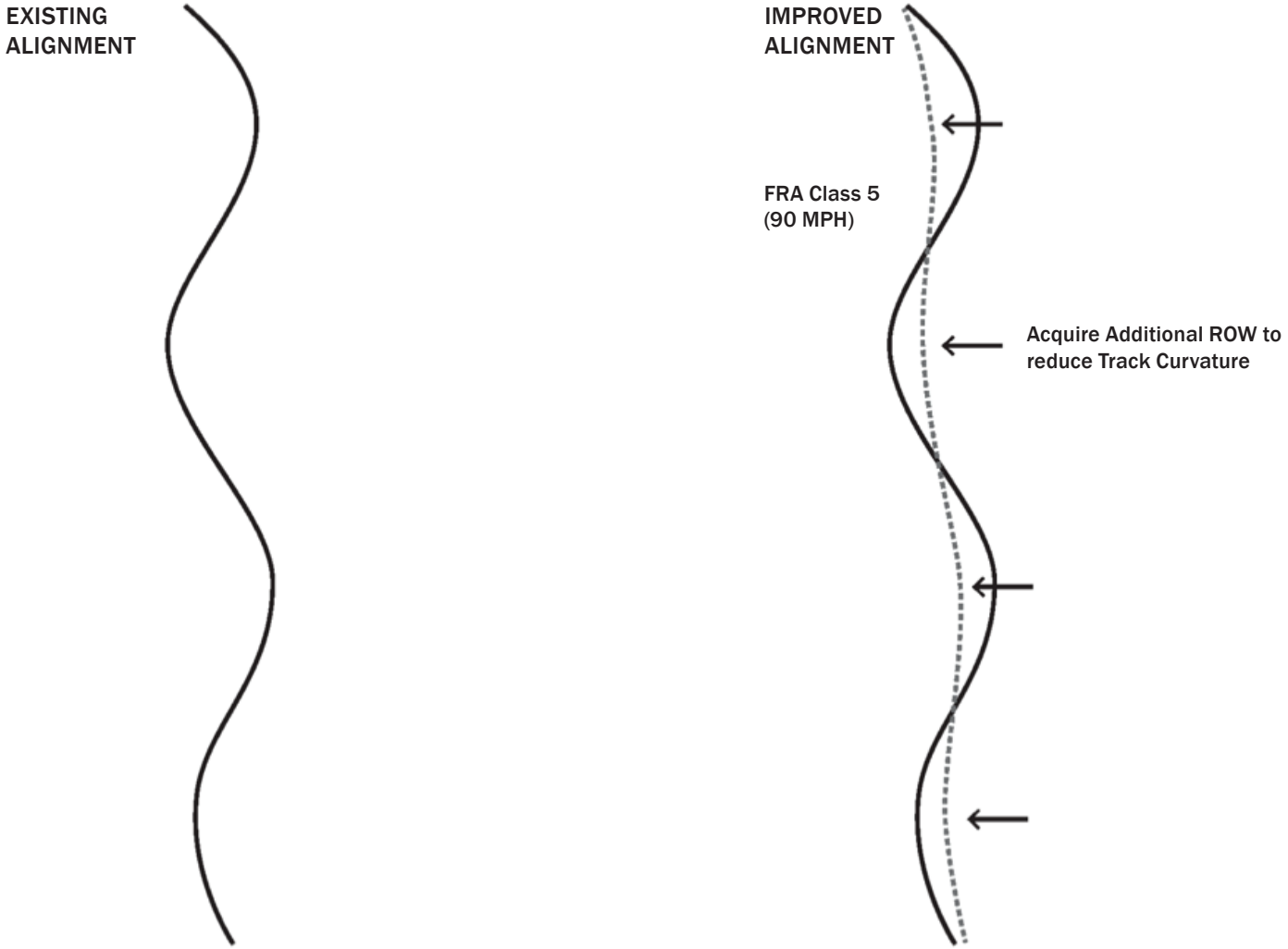
Source: Circlepoint, 2013



Siding Extension Diagram

Figure 2-5

Source: Coast Corridor Service Development Plan, May 2013



Curve Realignment Diagram

Figure 2-6

Source: Coast Corridor Service Development Plan, May 2013

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