California High-Speed Rail Authority

Bakersfield to Palmdale Project Section

Draft Project Environmental Impact Report/Environmental Impact Statement

Appendix 2-C: Operations and Service Plan

November 2017

CALIFORNIA High-Speed Rail Authority

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being or have been carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the Federal Railroad Administration and the State of California.

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APPENDIX 2-C: OPERATIONS AND SERVICE PLAN

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California High-Speed Rail Authority

Statewide

Operations and Service Plan

Initial Release: February 7, 2017
Revised: February 14, 2017

CALIFORNIA
High-Speed Rail Authority

U.S. Department of Transportation
Federal Railroad Administration

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ACRONYMS AND ABBREVIATIONS

AB	(California) Assembly Bill
Authority	California High-Speed Rail Authority
BMP	best management practice
C.F.R.	Code of Federal Regulations
Caltrans	California Department of Transportation
EIR	environmental impact report
EIS	environmental impact statement
Fed. Reg.	*Federal Register*
FRA	Federal Railroad Administration
HSR	high-speed rail
PMT	Program Management Team
RC	Regional Consultant
SB	(California) Senate Bill
SR	State Route
U.S.C.	United States Code

1 INTRODUCTION

This summary provides background information on the intended service and operations of the California High-Speed Train (HST) System to provide sufficient detail for the environmental assessment of proposed HST operations. Recognizing that the California system is still at a relatively early stage of the planning process, and that many operational issues remain to be resolved, this section summarizes how the system is envisioned to operate at this point in project planning.

Inspired by successes of high-speed train systems around the world, California has been planning a statewide high-speed rail line that will serve as a backbone and a needed alternative to the state's existing transportation network. The system will interface with and complement other modes of transportation – commercial airports, mass transit, the state's highway network, bike paths and pedestrian traffic. It will be capable of 220 mph revenue operating speed. It will interconnect with other modes of transportation and provide an environmentally friendly alternative to vehicle and air travel.

The updated phasing strategy for the California HST System will initiate revenue service between San Jose in the Silicon Valley and north of Bakersfield in the Central Valley in 2025. In the event that some additional funding can be made available this initial service may be extended to operate between San Francisco 4^{th} and King Station, Merced and Bakersfield.

Phase 1 will be realized in 2029 with the expansion of the system to Los Angeles and Anaheim (See Table 1-1).

Proven train technologies similar to those used in other countries with established high-speed train systems (e.g., Japan, France, Germany, Great Britain, Spain, Korea and China) will be used. This technology includes steel-wheel-on-steel-rail, entirely electric power, state-of-the-art safety and signaling systems, and automated train control. This technology, although new to North America, was introduced in Japan in 1964, France in 1981, and in many other countries within the past two decades.

The HST will operate primarily on exclusive (dedicated) track with portions of the route shared with other existing passenger rail operations. The route (alignment) will be constructed either at-grade, in an open trench, in a tunnel, or on an elevated guideway, depending on the terrain, physical constraints, environmental impacts and community input along each section. The system will predominately be within, or adjacent to, existing rail or highway right-of-way to reduce potential environmental impacts and minimize land acquisition.

Table 1-1 Summary of Phased Implementation

Section	Length (Approx.)	Endpoints	Service Description	Planning Schedule
Valley to Valley	250 miles	San Jose and north of Bakersfield	▪ One-seat ride from San Jose to north of Bakersfield ▪ Begins with construction of up to 130 miles of high-speed rail track and structures in Central Valley. ▪ Private sector operator. ▪ Ridership and revenues sufficient to attract private capital for expansion. ▪ Connects with enhanced regional/local rail for blended operations with common ticketing.	2025

Valley to Valley (extended)	300 miles	San Francisco to Bakersfield and Merced	▪ One-seat ride between San Francisco and Bakersfield and Merced ▪ Shared use of electrified/upgraded Caltrain corridor between San Jose and San Francisco 4th and King station.	2025
Phase 1	500 miles	San Francisco to Los Angeles/Anaheim	▪ One-seat ride between San Francisco and Los Angeles/Anaheim.[1] ▪ Dedicated high-speed rail infrastructure between San Jose and Burbank Station. ▪ Shared use of electrified/upgraded Caltrain corridor between San Jose and San Francisco Transbay Transit Center, and between Burbank and Anaheim ▪ Upgraded Metrolink corridor from LA to Anaheim, including remodeled Los Angeles Union Station (delivered by the Link US program)	2029

[1] One-seat ride means that passengers do not need to switch trains, even if the train operates over two systems (e.g., moving north on dedicated high-speed rail infrastructure and then moving onto Caltrain tracks at San Jose, assuming electrification of Caltrain corridor by 2019 as proposed by Caltrain)

2 SERVICE PLAN OVERVIEW

2.1 Implementation Phasing

Valley to Valley (V2V) - The implementation of the High-Speed Rail System will be accomplished in phases beginning with an initial section that extends from San Jose in the Silicon Valley to a temporary terminal north of Bakersfield in the Central Valley. Expected to be completed by 2025, this 250-mile section will support the operation of 44 train runs a day.

Valley to Valley extended (V2VE) – this option, which is subject to securing additional funding, will see the system expanded north to San Francisco and south into Bakersfield. This 300-mile system is also expected to operate at a level of 44 train runs per day with additional service between San Jose and Merced.

Phase 1 – The system will expand to 500 miles and include service between San Francisco to Anaheim at a level of 196 revenue service train runs a day.

3 SERVICE PLANS

Concept level rail operations and service plans have been developed to serve several purposes:

- Confirm the level of service assumptions (travel times and service frequencies between station pairs) used to develop the estimates of system ridership and revenue.
- Validate the operational feasibility of the desired level of service at a conceptual level.
- Identify operable patterns of train service, particularly the general requirements for non-stop or limited-stop trains to pass slower trains that need to make a greater number of (local) stops along the route (i.e., the locations and frequencies of occurrence of these "overtakes" at various times of day).
- Provide a basis for an order of magnitude estimate of the number of train sets and overall rolling stock fleet requirements for the full build-out.
- Provide a basis for estimating platform track and storage track capacity to support operations at the end terminal stations.
- Provide a basis for sizing train storage and maintenance facilities throughout the HST System.
- Provide a basis for planning passenger-handling operations at HST stations, which can be used to help size and configure station facilities.

The HST System ridership and revenue estimates are used in developing the operations and service plans so the level of service that would be provided at each station is generally equivalent to the level of service assumed in developing the ridership and revenue estimates for the HST System. Weekday ridership demand is assumed to reach peak levels during a three-hour period in the morning and again in the afternoon. Train service density would be greatest during these periods, reverting to a slightly lower level of service during the remainder of the day.

Currently, the proposed mix of services would offer regular clock-face patterns, with each service type leaving passenger stations at the same time each hour, with relatively limited exceptions. Slightly more service is assumed during the three hour peak periods in the morning and late afternoon than during off-peak hours, consistent with expected ridership peaking.

Trains would run in diverse patterns between various terminals. Three basic service types are envisioned:

- Express trains, which would serve major stations only, providing fast travel times.
- Limited-stop trains, which would stop at selected stops along a route to provide faster service between stations served.
- All-stop trains, which would focus on regional service and connection from/to faster trains.

In early phases of revenue service, the service is generally structured with all-stop trains. As the system expands, limited-stop and express trains are introduced. In Phase 1, the vast majority of trains would provide express services or limited-stop service and offer a relatively fast run time between the largest metropolitan areas while connecting various intermediate stations by all-stop service. Stations with higher ridership demand potential would generally be served by more trains than those with lower estimated ridership demand.

The service plan provides direct train service between most station pairs at least once per hour. Certain routes may not always be served directly, and some passengers would need to transfer from one train to another at an intermediate station, such as Fresno Station and Los Angeles Union Station, to reach their final destination.

These service plans provide a useful initial estimate of the level of service that matches projected long-range demand on the HST System. As the HST System is implemented and both the operating plan and the ridership estimates are refined, it will be possible to make informed benefit and cost tradeoffs to develop the most appropriate mix of limited, express and all-stop services, which will affect the trip times between stations and the frequency of service offered at each station for each route.

3.1 Valley to Valley and Valley to Valley Extended (2025)

Both of these scenarios for the train service would include trains operating over a subset of the routes listed later for the Phase 1 network. Figure 3-1 provides an illustration of the types of service and the number of trains of each type of stopping patterns that would operate under the V2VE option in the year 2025. If only V2V were adopted, then the service would start at San Jose and terminate at a temporary station just north of Bakersfield. The service level for both would be limited to one train per hour in each direction throughout the day with a second train per hour during the peak periods. A service diagram can be found below for illustrative purposes only.

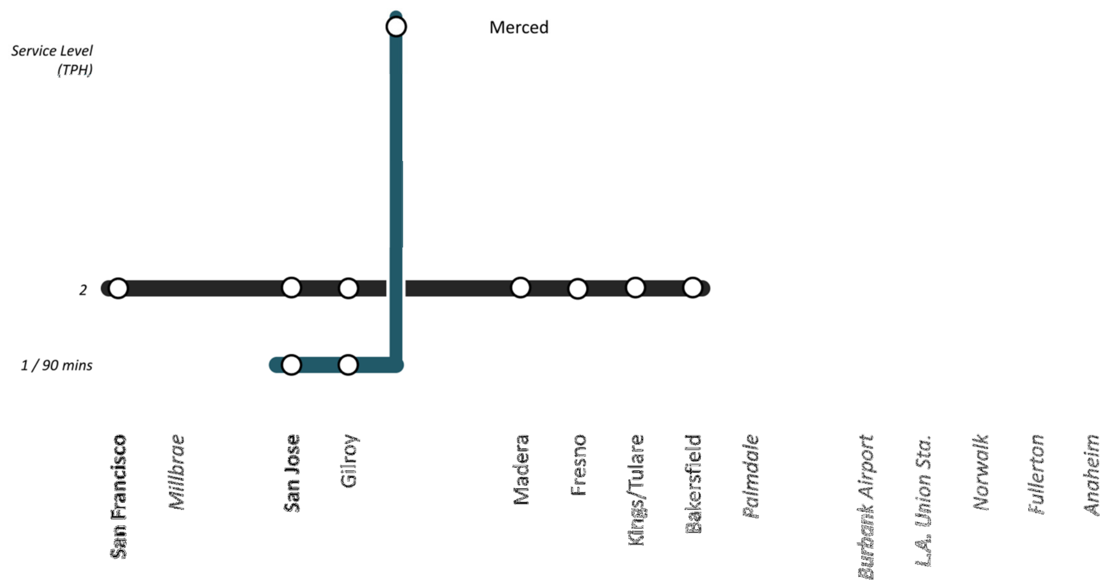

Figure 3-1 Valley to Valley Extended Train Stopping Patterns (2025: Peak Period Service)

3.2 Phase 1 (2029)

The service plan concept for Phase 1 estimates that the main HST line through the Central Valley would have eight trains per hour in each direction during the peaks, and five trains per hour during the off-peaks. Due to capacity constraint coming from the shared-use operations between Caltrain regional rail service and the high-speed rail service, the level of high-speed rail service along the Peninsula Corridor would be limited at four trains per hour in each direction throughout the day.

In the peak periods, the base level of service would include:

- Two trains per hour between San Francisco and Los Angeles
- Two trains per hour between San Francisco and Anaheim
- Two trains per hour between San Jose and Los Angeles
- One train per hour between Merced and Los Angeles
- One train per hour between Merced and Anaheim

Trains between the same terminal stations would have varying end-to-end stopping patterns. For example, one of the San Francisco to Anaheim trains would be all-stop and the other would be limited stop.

During off-peak periods, the base level of service would include three trains per hour between San Francisco and Los Angeles, one train per hour between San Francisco and Anaheim, and one train per hour between Merced and Anaheim in each direction.

Figure 3-2 shows potential stopping patterns for Phase 1, for illustrative purposes only.

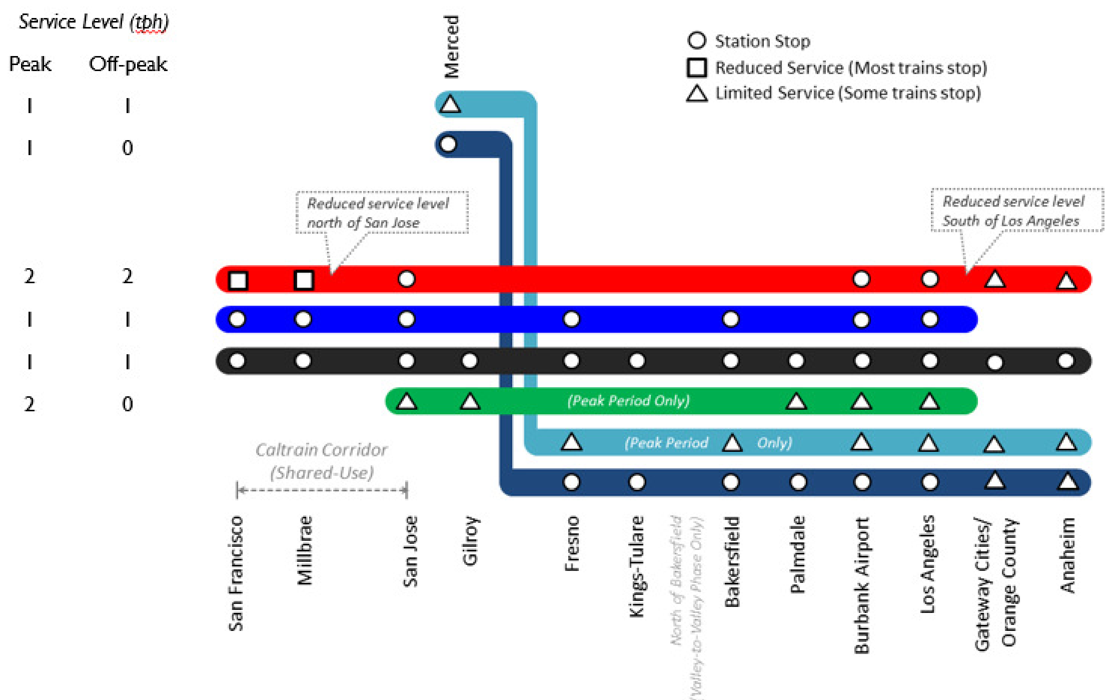

Figure 3-2 Phase 1 Train Stopping Patterns (2029)

4 PASSENGER STATION OPERATIONS

The Phase 1 service plan encompasses 13 passenger stations, including eight intermediate stations and five terminal stations. The V2V service plan (expected to be operational in 2025), envisions three intermediate and two terminal stations. The V2VE service plan, if adopted, envisions five intermediate stations and three terminal stations.

Station platforms are assumed to be 800 feet long. In accordance with Code of Federal Regulations (CFR) regulations that require that platform design meet the Americans with Disabilities Act (ADA) Accessibility Guidelines, the HST platforms will be designed to allow for level boarding.

4.1 Intermediate Stations and Platform Tracks

All the intermediate stations in the exclusive, dedicated sections of the high speed system incorporate platform tracks for stopping trains. Stations are spaced about 50 miles apart in rural areas and approximately 15 miles apart in metropolitan areas, with overall average spacing about 30 miles.

Because the Los Angeles high speed rail station is both a terminal station and intermediate station in Phase 1, and a high-volume station, it has a special layout that incorporates intermediate and terminal station features. Full details of the layout of Los Angeles Union Station are still in development by the Link US program being led by Metro in which HSR is an active partner.

The typical intermediate station will have the configuration shown in Figure 4-1 and Figure 4-2, with platform tracks on the outside flanked by side platforms. The platforms will be high-level, tangent and will cover the full length of an 820 foot train, permitting level boarding through all train doors.

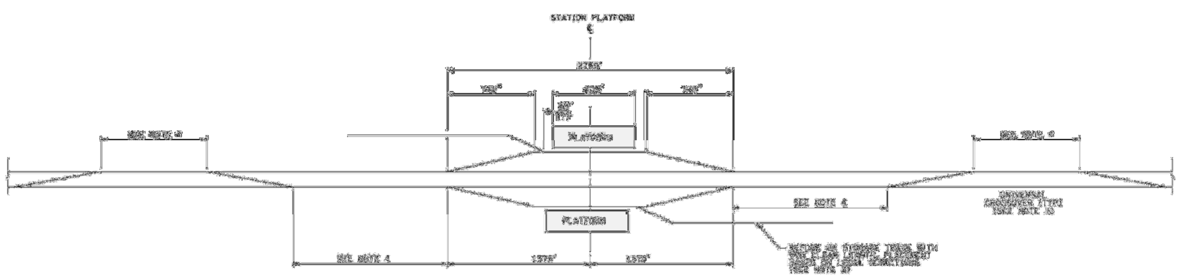

Figure 4-1 Intermediate Station Typical Configuration

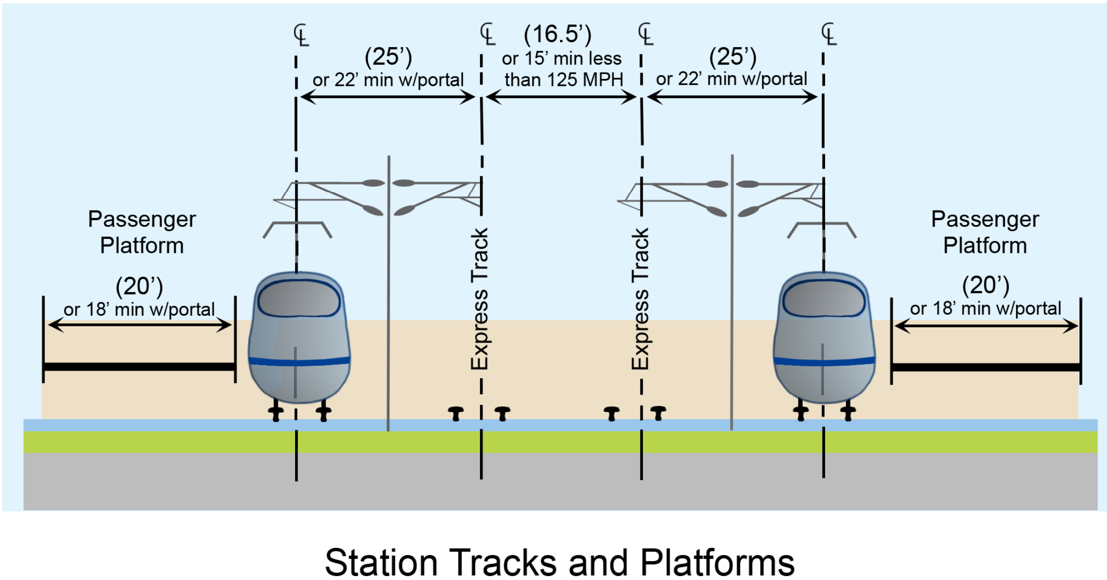

Figure 4-2 Intermediate Station Typical Cross-Section

4.2 Terminal Stations

Terminal stations are envisioned to have island platforms serving tracks on both sides and be able to accommodate train cleaning, restocking with on board food service, mandatory train inspection and as-needed maintenance and repair of trainset components – along with the alighting and boarding of passengers. The track and platform configurations at terminal stations vary based on the level of projected train service, local physical constraints, and requirements for other (non-HST) train services that would be located adjacent to the HST facilities. Figure 4-3 and Figure 4-4 show typical configurations for a four-track and six-track terminal.

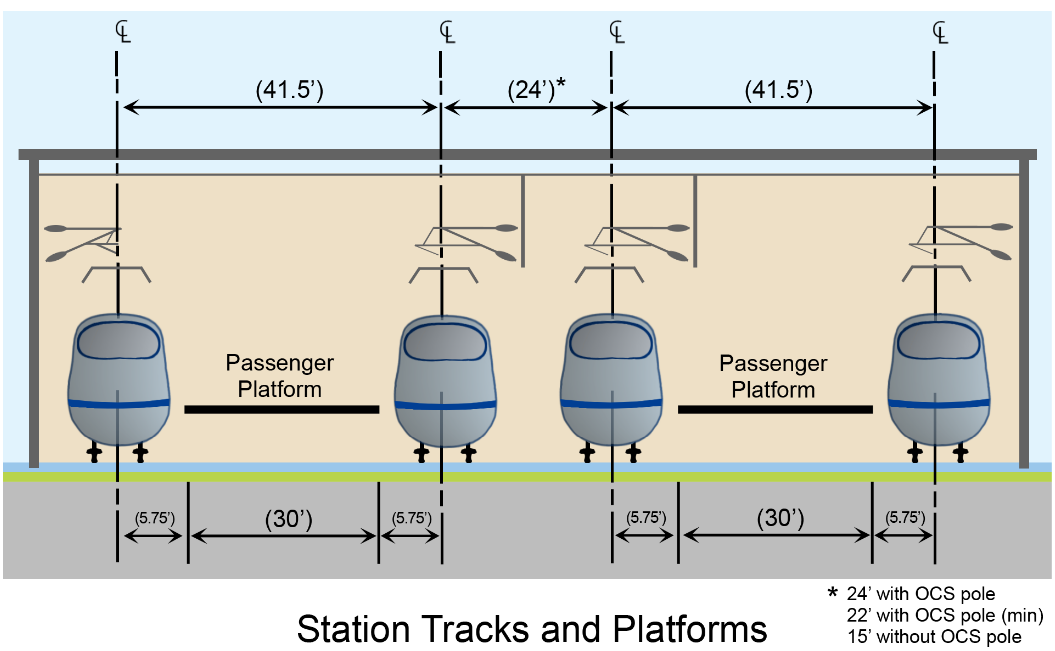

Figure 4-3 Terminal Station—4 Track Terminal and 2 Island Platforms

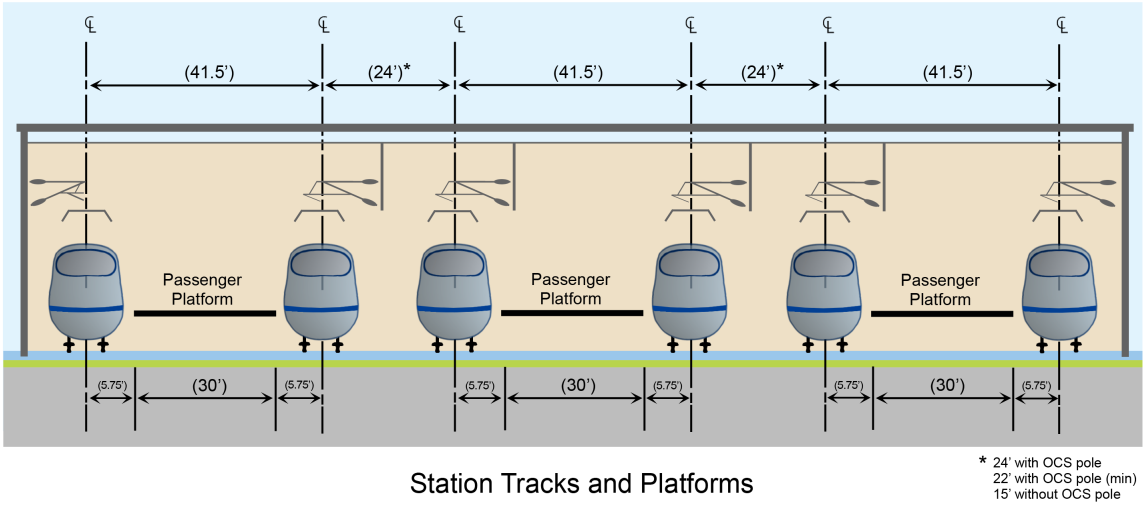

Figure 4-4 Terminal Station—6 Track Terminal and 3 Island Platforms

4.2.1 Passenger Boarding

There are several different ways in which passenger boarding could be managed at HST terminal stations. The HST project has not finalized the preferred methods for passenger-handling system wide, and the HST sponsors and operator likely will want consistent passenger handling practices across the entire system. Passenger-handling requirements affect the design and configuration of the physical facilities used for passenger-processing, waiting, queuing and horizontal and vertical circulation.

Examples of potential variations in passenger-handling procedures and required facilities encompass the following:

Advance staging of boarding passengers

- Retain all boarding passengers at concourse level until cleaning/servicing is substantially complete and the train is ready for boarding
- Permit boarding passengers to descend to platform level as soon as the load of detraining passengers has cleared the platform (passengers and service personnel and equipment would occupy the platform level simultaneously)

Number and location of boarding concourse points

- Board from a single concourse location
- Board from dual locations
- Board from multiple locations spread along a mezzanine or longitudinal concourse situated above or below the platform level, with multiple vertical circulation connections to the platforms

Reserved seat policy

- Open seating, where passengers select the car that they will board
- Reserved seating (similar to most European and Asian high-speed rail systems), where passengers are assigned to a seat in a particular car, and where the time required to board the train can be minimized by pre-positioning passengers either on the platform or at concourse level close to where their seat will be located.

These options have differing implications in terms of required facilities, the configuration of concourse and vertical circulation elements, and the station operating costs associated with managing the boarding process.

4.2.2 Train Cleaning and Servicing

At terminal stations, train servicing would be done using the passenger platforms. Because of space constraints at the proposed terminal sites, dedicated service platforms are not envisioned. To maximize passenger safety, servicing operations efficiency, and achieve predictable layover (train parking) times, normal operating procedures would plan for providing temporal separation between the passenger unloading and loading processes and train servicing activities at the terminal platforms.

To attract and keep a dedicated passenger clientele it is important to establish and maintain a cleanliness standard aboard the train consists. This service is accomplished by cleaning techniques implemented at selected times in a service day. Two types of cleaning are envisaged.

- “Normal” (Lay-up) Cleaning – This service is performed at a train storage and maintenance facility, and is generally done when a train is parked for a sufficient time to receive a thorough interior cleaning of the passenger areas to include seats and bathrooms. It is usually scheduled daily and is completed prior to a train entering revenue service in the morning. All trash is removed, seats and floors cleaned, and bathrooms sanitized.
- “Light” (Pick-up) Cleaning – When a train turns around (i.e. the rear end of the train arriving at the station becomes the front end of the train departing) in a terminal station or on a storage track with insufficient opportunity for a full normal cleaning, this service is performed to return the interior to an acceptable condition.

Cleaning toilets (and emptying the “holding” tanks) would occur during the overnight layup period at maintenance facilities and would not occur in the terminals during the turnaround time.

4.2.3 Train Layover Times at Terminal

Because the terminals are stub-ended, all HST trains will change directions (turnaround with rear end of the arriving train becoming the front end of the departing train) at terminal stations. Three types of train turnaround will occur in terminal stations:

- Revenue to Non-Revenue: Revenue trains (with passengers) arrive, with the equipment turning around and going to the maintenance facility for storage or servicing, without passengers.
- Non-Revenue to Revenue: Trains enter the terminal from the maintenance facility (without passengers), departing passengers board (the train), and the train departs as a revenue train (with passengers).
- Revenue to Revenue: Revenue trains (with passengers) arrive and passengers unload, the train would park at the platform while it is inspected, cleaned and restocked with bathroom and food service supplies, departing passengers board the train, and the train departs as a revenue train (with passengers).

Estimating the time required to carry out the various terminal turnaround train servicing and passenger processing functions, and identifying which functions can proceed in parallel with each other and which depend upon the prior completion of other activities, allows definition of a “critical path” of activities that governs the minimum time necessary between an inbound train arrival and the subsequent outbound train departure. The required sequence that must be followed for four basic processes that occur during the turnaround layover period are as follows:

- Passenger alighting and boarding
- Re-stocking of food and beverage service items
- Coach cleaning and re-stocking of bathroom supplies (critical path item)

- Train safety system pre-departure preparation
- In addition, minor equipment repairs that can be accomplished during the layover (parking) period will be addressed.

Facilities would need to be provided at the terminals to support the food service provisioning (commissary), coach cleaning and railroad mechanical department (equipment maintenance and repair). These facilities would need to be located in proximity to the HST platforms, to minimize the time required to access a train when it arrives at the terminal. Direct service elevator access would be required between these facilities and the HST platforms, separate from the elevators and access points used by passengers.

The HST scheduled terminal station turnaround time is composed of four primary "critical path" factors: Passenger alighting, interior cleaning, passenger boarding, and a "Recovery Time Factor." The following table summarizes HST assumptions for the minimum exception and minimum standard scheduled turnaround times (based on an 820 foot train).

Table 4-1 Time Required for Terminal Layover Activities (HST Planning Assumptions, Revenue Train to Revenue Train)[2]

Critical Path Activity	Minimum Exception	Minimum Standard
Passenger Alighting	5 minutes	5 minutes
Cleaning, Restocking, Servicing & Provisioning	5 minutes	10 minutes
Passenger Boarding "Window"	5 minutes	5 minutes
Total Scheduled Turnaround Time Assumption	15 minutes	20 minutes

[2] Train safety system preparations can be accommodated within time windows available for alighting, cleaning and boarding.

5 ROLLING STOCK STORAGE AND MAINTENANCE

5.1 Fleet Requirements

In 2040, 78 train sets will be required to operate the 196 daily revenue service train runs envisioned for the full build revenue service plan.[3] Each train set is approximately 650 feet long and seats approximately 500 passengers in the initial formation. The train could be potentially extended to 820 feet long and seats approximately 650 passengers.

Table 5-1 Horizon Year 2040 (Phase 1) Service Plan. Revenue Train Sets Required at Each Terminal to Start Weekday Morning Train Service.

Terminal	Total Single Sets
San Francisco – Transbay	13
Mid-Peninsula (San Jose and Gilroy)	14
Central Valley (Merced, Fresno, and Bakersfield)	13
Los Angeles Basin (Palmdale, Burbank Airport, Los Angeles Union Station, and Anaheim)	31
Total Sets Required	**71**

The Horizon Year 2040 operations and service plan envisions the need for 71 revenue train sets. Also as indicated in Table 5-2, the estimated number of trainsets along with an allowance for spare train sets for maintenance and repair substitute and hot stand-by trainsets, and extra trainsets to accommodate higher demand on peak demand days, resulting in an overall fleet estimate of 78 total units. The 10% total spare ratio is the mid-range of spare ratios for U.S. and international intercity and high-speed rail fleets. The estimated fleet requirement numbers will be modified as the operating plan, demand projections, and maintenance plans are refined.

Table 5-2 Horizon Year 2040 (Phase 1) Train Fleet Requirements

Trainset Description	Trainsets Required
For Single-set Trains	71
For Double-set Trains	0
Subtotal Revenue Requirement	0
Hot Stand-by	2
Extra Trainsets for Peak Demand Days	2
Spare Equipment (Assume 10%)	3
Total Sets Required	**78**

5.2 Train Storage and Maintenance Facilities

Train storage yard facilities should be located as close as physically possible to the terminal stations.

Generally, the terminal stations are in heavily urbanized areas that do not have land available immediately adjacent to the terminal for new train storage yards. As a result, trains that are

[3] Please note that this total includes 76 daily trains operating between Los Angeles and Anaheim.

entering or leaving service at a terminal station will have to operate as non-revenue or "deadhead" train movements to and from the storage yards.

The overnight layup facilities are the basic facility at each of the terminal locations that provide overnight storage (parking) for the trainsets and daily inspections and cleaning. Layup facilities would be located close to Gilroy Station but be without a heavy maintenance capability. Yards including a periodic inspection facility (shop) would be located in northern California along the Peninsula Corridor at Brisbane near San Francisco and one in southern California, near Los Angeles Union Station. One Heavy Maintenance Facility (HMF) will be located in the center of the statewide system to provide all of the overhauls and component refurbishment capability. An example of a typical concept configuration for an overnight storage facility equipped with a shop to perform periodic inspections is shown in Figure 5-1.

The storage capacity of each facility is based on the number of trains estimated in the Full Build-

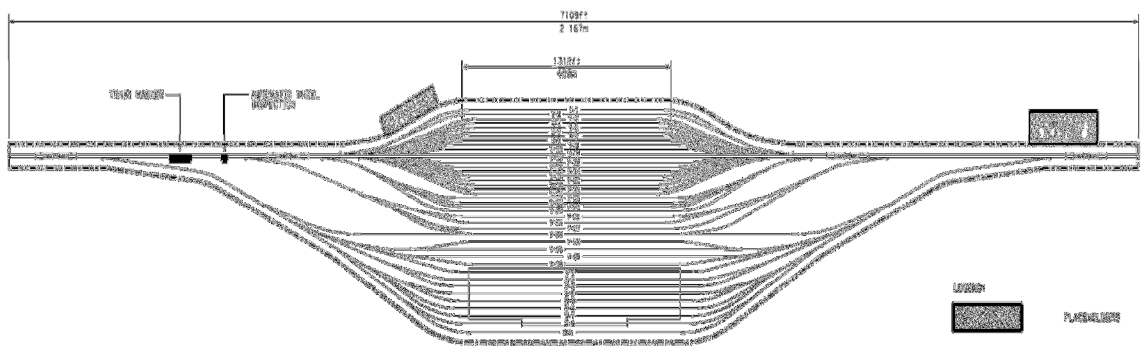

Figure 5-1 Example of Typical Concept Configuration for Overnight Storage Yard with Shop

Out Operations and Service Plan and is summarized in Table 5-3 below.

Table 5-3 Phase 1 Blended Service (2040) Storage/Layup Track Requirements

Location	Total Trains to be laid up at facility	Train capacity at each facility*
Brisbane	14	14-18
Gilroy	13	13-16
HMF	23	23-27
Southern California	28	28-35
Total	**78**	**78-96**

*Excess capacity will allow flexibility to move trains around in order to meet actual level of demand

5.3 Rolling Stock Maintenance Program

Consistent with international methods, the California high-speed train system is planned to provide five different levels of train maintenance activity:

- Level 1 – In-Service Monitoring: daily testing and diagnostics of certain safety sensitive apparatus on the train in addition to automatic on-board and on-ground monitoring devices.
- Level 2 – In-Service Examinations: inspections, tests, verifications and "quick" replacement of certain components on the train. Examples include inspection and maintenance tasks associated with the train's running gear, bogies, underbody elements and pantographs.

- Level 3 – Periodic Inspections: part of planned preventive maintenance program requiring specialized equipment and facilities. Examples include: a) examination of interior fittings and all parts of the train in the immediate environment of the passengers, b) in depth inspection of axles and underbody components, critical to train safety by identifying and repairing any condition in the running gear and connecting components, c) wheel condition diagnostics and re-profiling (wheel truing).
- Level 4 – Overhauls (HMF only): part of the planned life cycle maintenance program requiring a specialized heavy maintenance shop with specific heavy duty equipment. Activities include the complete overhaul of train components replaced during Level I, II and III. In addition, a full complement of heavy maintenance is completed on each trainset every 7 to 10 years (30 days per trainset) as well as mid-life overhauls which are performed on each trainset every 15 to 20 years (45 days per trainset).
- Level 5 – Rolling Stock Modifications & Accident Repair (HMF only): Activities to support installation of a major modification to the design of the trainset for purposes of improving safety, reliability and passenger comfort. In addition, this category includes repair to a trainset that has “suffered” significant damage.

The frequency with which these maintenance procedures are performed varies by level. To minimize cost, maximize flexibility and to address all of the levels of maintenance and inspections, these maintenance functions will be undertaken at a relatively small number of facilities spread across the HST network. The locations at which maintenance will occur can be broken into three groups:

- Overnight Layup Facility – Provides Levels 1 and 2 maintenance and inspections
- Periodic Inspection Facility – Provides Levels 1 to 3 maintenance and inspections
- Heavy Maintenance Facility – Provides Levels 1 to 5 maintenance and inspection, including overhauls and component refurbishment.

5.4 Facility Site Location Criteria

It is important that each of these facilities be located immediately adjacent to the HST main line tracks and connected directly to them with a turnout (switch) and two connecting tracks (i.e., “double track”) of approximately 3,696 feet on both ends of each facility. The connecting tracks will transition to become the slow speed (15 mph) lead tracks within each facility.

In addition to proximity and connectivity to the HST System main line tracks, the site of the Light Maintenance facilities should be such that the distance between the light maintenance facility and the Terminal Stations is minimized. The preferred distance is up to 1.5 miles, an acceptable distance is from 1.5 to 3.0 miles and anything further than 3.0 miles would be considered as an exception. Light Maintenance Facilities (LMF) are required for the terminus stations or end points of the system at San Francisco, Los Angeles, Anaheim and Merced for Phase 1, with additional LMFs at San Diego and Sacramento for the Full Build-Out. In addition, consideration is being given to a possible combined LMF for Los Angeles and Anaheim.

The desirable site for the Heavy Maintenance Facility (HMF) is that it be located centrally on the HST System between Merced and Bakersfield. The section between Merced and Bakersfield is in the “central part” of the system, is part of the trunk line (Anaheim-San Francisco), and has the ability to include a high-speed test track. No other part of the system meets these criteria. The required length of this test track is based upon current high-speed train manufacturers’ recommendations for testing and commissioning which includes a protocol for sustained running for ten minutes up to 242 mph. Train operations at these speeds require straight alignment of approximately 80 to 105 miles.

5.5 Estimated Site Requirements

Based on a conceptual rendering of these facilities they would require the following land parcel "footprints" range (depending on the shape of the land parcel), inclusive of buildings, outdoor service areas, storage, roadways and parking:

- Merced to Bakersfield Heavy Maintenance Facility Concept, 169 +/- Acres
- Los Angeles Storage Yard and Maintenance Facility Concept, 100 +/- Acres
- Brisbane Storage Yard and Maintenance Facility Concept, 100 +/- Acres
- San Jose/Gilroy Storage Yard and Maintenance Facility Concept, 42 +/- Acres

5.6 Commissioning of Rolling Stock

In addition to the in-service maintenance regimen, the HMF is assumed to be used during the pre-revenue service period (from 2020) for the assembly, testing, acceptance, and commissioning of the HST System new rolling stock fleet. Implementation of the testing, acceptance and commissioning activity would also require a main line test track between 80 and 105 miles in length connected directly to the HMF. The HMF would also be used for decommissioning or retirement of equipment from the system to make way for the next generation of rolling stock.

6 TRAIN DISPATCHING AND CONTROL

6.1 Operations Control Center

A train operations control center will be located in the Central Valley area. Space for employee parking, pedestrian access/egress and appropriate bathroom and lunchroom facilities has been accounted for. However, the operations control center can be located at any place along the system.

6.2 Communications with HST Stations

HST trains will be dispatched and controlled from a central control facility remote from the individual stations and terminals. A direct communications link will exist between the central control facility and the Terminal Operations Center or HST Passenger Services office at each HST station and terminal, to enable station staff of the HST System Operator (and the Terminal Operator, at facilities where the terminal is managed by a third party) to monitor the status of train operations on the rail network and respond to any unusual conditions that may arise.

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