Statewide High-Speed Train System

Connecting from Merced to:
- San Francisco Bay Area
- Los Angeles
- Orange County
- San Diego
- Inland Empire
- San Jose
- Central Valley
- Sacramento

California High-Speed Train Concept
Merced HST Station Planning Area Conceptual Site Design

Potential Station Area Development
View toward Merced Station Entrance
Potential Station Area Development

1. Lofts or Apartments
2. Podium-style Apartments
3. Hotel & Conference Center
4. Ground Floor Retail, Office and Residential Lobbies
5. Mixed-Use Station Development
6. Station Arrival Plaza

View Looking Southeast to Merced Station

Merced HST Station Planning Area Conceptual Site Design
Merced HST Station Planning Area Conceptual Site Design

View Along the 16th Street Gateway Corridor

View of Residential Infill South of Highway 99

1. Podium-style Office Site
2. Use and Activate Spaces Below the Train Tracks
3. Station Area Mixed-Use Site
4. Attached Townhomes
5. Detached Townhomes on a Paseo
6. Common Green

Potential Station Area Development

[Images of different areas and examples of site designs]
Merced HST Station

Principles and Prototypes

Typical HST Station Platform Configurations

Dual Side Platforms
- Most likely possibility for Merced
- Local trains (brown) on outside tracks stop at station
- Each direction has its own platform
- Express trains (red) pass through on inside tracks and do not stop at station

Single Center Platform
- Local trains (brown) on inside tracks stop at station
- Both directions use same platform
- Express trains (red) pass through on outside tracks and do not stop at station

Roles of a High Speed Train Station

<table>
<thead>
<tr>
<th>Transportation:</th>
<th>Land Use:</th>
</tr>
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<tbody>
<tr>
<td>Station as part of the High Speed Train system:</td>
<td>Role 1: Facilitate access to HST and transfers with alternate modes</td>
</tr>
<tr>
<td>Station as part of the Community:</td>
<td>Role 2: Provide goods and services tailored to passengers</td>
</tr>
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<td>Role 3: Encourage local use of HST and public transit</td>
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<tr>
<td>Role 4: Stimulate and support sustainable urban development</td>
<td></td>
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</tbody>
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Typical HST Station “Footprint”

1380 feet
150 feet (typical minimum right-of-way)
125 feet (typical width)

125 feet (typical)

125 feet (typical width)

Express Tracks
Wind Screen
Platform Canopy
Station Track
Boarding Platform
Station House & Concourse
Entry Plaza
Vertical Circulation
U.S. Department of Transportation
Federal Railroad Administration
California High-Speed Rail Authority
Merced HST Station

Site Analysis and Conceptual Planning

Downtown station sites – North alternative
- Reinforces and supports Downtown redevelopment

Downtown station sites – South alternative
- Direct access to Downtown commercial core

Conceptual site plan of Downtown HST station at North site alternative
- Approximate area of HST station and associated facilities is six downtown Merced city blocks
Conceptual Layout Diagram
• Essential link between Site Plan and Functional Relationships diagram

Functional Relationships Diagram
• Basic organization, including circulation, public areas, and operational spaces

Station Cross-Section
• Study of essential clearances over street and railway corridors, taken along Public Concourse

Station Concourse Plan
• Conceptual layout of station elements and circulation below Platform level
Merced HST Station

Alternative Parking Scenarios

Parking Scenario 1
• Under the initial phase of HST in the Central Valley, Merced Station is the northern terminus, serving passengers from as far north as Sacramento and beyond. The parking capacity of 7700 spaces reflects this drive-in market.
• Under Scenario 1, all parking is provided in garages adjacent to the station.
• The parking capacity drops to 2000 spaces after HST is extended to Sacramento, leaving the garages with an excess capacity of 5700 spaces.

Parking Scenario 2
• Under Scenario 2, only the future parking capacity of 2000 spaces is provided in a garage. All other spaces are provided by interim parking at other locations:
  - 700 spaces in a station surface lot
  - 2310 spaces in other surface lots within a half mile of the station
  - 500 spaces in shared parking facilities within a half mile of the station
  - 2190 spaces in remote parking facilities, served by parking shuttle buses
Examples of HST Stations

Station Entrance

Taiwan High Speed Rail Station

Trainsheds

Saint Pancras Station

Waterloo Train Station
Examples of HST Stations

Station Platforms

Spain High Speed Train Station

Beijing South Railway Station
Examples of HST Stations

Station Concourse

German Intercity Express, Train Stations

Berlin Central Station
Examples of HST Stations

Express Train Separation
Examples of HST Stations

Commercial Activities under the Trackway

Berlin Savignyplatz Railway Station