SAN JOSE TO MERCED
PROJECT SECTION

Staff-Recommended State’s Preferred Alternative
Morgan Hill-Gilroy Community Working Group Meeting
Wednesday, July 10, 2019
Morgan Hill, CA
» Introductions & Agenda Review
» Refining the Alternatives: Collaboration with Partner Agencies, Stakeholders, and Members of the Public
» Characteristics of Alternatives
» Identifying a Preferred Alternative
» Discussion of Staff-Recommended State’s Preferred Alternative
» Outreach Update
» Public Comment
MEETING OBJECTIVES

• Share **staff-recommended State’s Preferred Alternative** and process for selecting the State’s Preferred Alternative
• Provide CWG members with an opportunity to **discuss** the staff recommendation
• Collect **CWG feedback** on the staff-recommended State’s Preferred Alternative

Staff will summarize the comments received at today’s meeting and report to the Authority Board for consideration with the recommended State’s Preferred Alternative on September 17, 2019.

Identifying the State’s Preferred Alternative does not approve or adopt a preferred alternative for final design or construction.
REFINING THE ALTERNATIVES: Collaboration with Partner Agencies, Stakeholders, and Members of the Public
BACKGROUND

• There are differences between the four alternatives and the staff recommendation is based on stakeholder input and analyses completed to date.

• All alternatives will be analyzed at an equal level of detail and described in the published Draft EIR/EIS.
ALTERNATIVES DEVELOPMENT PROCESS

2009
CEQA/NEPA NOI/NOP/SCOPING

2010
Preliminary Alternatives Analysis

2011
Supplemental Alternatives Analyses

2014
Checkpoint B Addendum

2016-2017
Alternatives Refinement

2016
Public Outreach Agency and Stakeholder Outreach

2017
Checkpoint B Addendum

2017
Public Outreach Additional Agency and Stakeholder Outreach

2019
Checkpoint B Addendum

REFINING THE ALTERNATIVES: Collaboration with Partner Agencies, Stakeholders, and Members of the Public
SAN JOSE TO MERCED COMMUNITY OUTREACH
2016 – 2019

- Community Working Groups (24)
- Technical Working Groups (14)
- Open Houses (11)
- Community, Stakeholder & Environmental Justice Outreach (450+)

REFINING THE ALTERNATIVES: Collaboration with Partner Agencies, Stakeholders, and Members of the Public
Board Meeting September 2019
<table>
<thead>
<tr>
<th>AGENCY</th>
<th>ALIGNMENTS</th>
<th>WATER MANAGEMENT</th>
<th>WILDLIFE CROSSINGS</th>
<th>TRANSPORTATION/ROADS</th>
<th>ENGINEERING/DESIGN</th>
<th>LAND USE</th>
<th>JOINT OUTREACH</th>
<th>BUSINESS PLAN</th>
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<tbody>
<tr>
<td>California Highway Patrol</td>
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<td>California Strategic Growth Council</td>
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<td>Caltrans Districts 4, 5, and 10</td>
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<td>Floodplain Administrators and Managers</td>
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<td>Metropolitan Transportation Commission</td>
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<td>Mineta San Jose International Airport</td>
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<td>Pathways for Wildlife</td>
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<td>Peninsula Open Space Trust</td>
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<td>Santa Clara County Planning Department</td>
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<td>Santa Clara County Roads &amp; Airports</td>
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<td>Santa Clara Valley Habitat Agency</td>
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<td>Santa Clara Valley Open Space Authority</td>
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<td>Santa Clara Valley Transportation Authority</td>
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<td>Santa Clara Valley Water District</td>
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<tr>
<td>The Nature Conservancy</td>
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</tbody>
</table>

**REFINING THE ALTERNATIVES:** Collaboration with Partner Agencies, Stakeholders, and Members of the Public
KEY ISSUES IDENTIFIED DURING OUTREACH

• Aesthetic and visual quality
• Biological resources, wetlands and other waters of the U.S., and wildlife movement
• Community cohesion
• Cultural and tribal resources
• Disruption/loss of parks, recreation, open space, agricultural lands/operations
• Environmental justice
• Flooding and floodplains
• Noise and vibration
• Residential and business displacements
• Safety and security
• Traffic

REFINING THE ALTERNATIVES: Collaboration with Partner Agencies, Stakeholders, and Members of the Public
<table>
<thead>
<tr>
<th>STATE’S PREFERRED ALTERNATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STEP ONE</strong></td>
</tr>
<tr>
<td>Range of Alternatives</td>
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<tr>
<td><strong>STEP TWO</strong></td>
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<tr>
<td>Evaluation of Alternatives</td>
</tr>
<tr>
<td><strong>STEP THREE</strong></td>
</tr>
<tr>
<td>Authority collects stakeholder feedback on staff-recommended State’s Preferred Alternative</td>
</tr>
<tr>
<td>Board Identification of the State’s Preferred Alternative</td>
</tr>
</tbody>
</table>

**REFINING THE ALTERNATIVES:** Collaboration with Partner Agencies, Stakeholders, and Members of the Public
CHARACTERISTICS OF ALTERNATIVES
SAN JOSE TO MERCED RANGE OF ALTERNATIVES

- **San Jose to Merced Project Section**
- **4 end-to-end alternatives**
- **Some alternatives are the same for a part of the route**

CHARACTERISTICS OF ALTERNATIVES

LEGEND

- San Jose to Merced Proposed Alignments
  - Aerial
  - Embankment
  - Tunnel
  - Trench
  - At-Grade

- San Francisco to San Jose Alignments
  - Central Valley Wye Alignments
  - Proposed HSR Stations
  - Proposed Maintenance Facility
TYPICAL CROSS SECTIONS

Viaduct
Two high-speed rail tracks on an aerial structure

Embankment
Two high-speed rail tracks on an earthen embankment

Dedicated At-Grade
Two high-speed rail tracks at ground level adjacent to existing freight tracks

Blended At-Grade
Two electrified, blended passenger tracks (with Caltrain) and one non-electrified freight track at ground level

Tunnel
Twin bore tunnel through the Pacheco Pass
SAN JOSE DIRIDON STATION APPROACH

• **Alternative 1**
  » Short Viaduct to I-880
  » Aerial Diridon Station

• **Alternatives 2 and 3**
  » Long Viaduct to Scott Blvd.
  » Aerial Diridon Station

• **Alternative 4**
  » At-grade alignment predominantly in existing railroad right-of-way
  » At-grade Diridon Station

**LEGEND**

San Jose to Merced Alignments
- Aerial
- Embankment
- At-Grade
- Tunnel
- Trench

○ HSR Stations
**MONTEREY CORRIDOR**

- **Alternatives 1 and 3**
  - Viaduct in median of Monterey Road
  - Narrowing of Monterey Road

- **Alternative 2**
  - Grade-separated embankment between UPRR and Monterey Road
  - Narrowing of Monterey Road

- **Alternative 4**
  - At-grade predominantly in existing railroad right-of-way

**CHARACTERISTICS OF ALTERNATIVES**
MORGAN HILL TO SAN MARTIN

- Alternatives 1 and 3
  - Viaduct
  - Bypass downtown Morgan Hill
- Alternative 2
  - Grade-separated embankment
  - Through downtown Morgan Hill
- Alternative 4
  - At-grade
  - Predominantly in existing UPRR right-of-way
SAN MARTIN TO GILROY

- **Alternative 1** – Downtown Gilroy
  - Viaduct
- **Alternative 2** – Downtown Gilroy
  - Grade-separated embankment
- **Alternative 3** – East Gilroy
  - Viaduct to grade-separated embankment
- **Alternative 4** – Downtown Gilroy
  - At-grade
  - Predominantly in existing UPRR right-of-way

Alternatives converge at 1.6-mile Tunnel 1 west of Casa De Fruta
PACHECO PASS

- All alternatives have the same alignment
  » 13.5-mile Tunnel
  » Embankment
  » Viaduct
SAN JOAQUIN VALLEY

• All alternatives have the same alignment
  » Embankment
  » Viaduct
IDENTIFYING A PREFERRED ALTERNATIVE
PREFERRED ALTERNATIVE CRITERIA

System Performance, Operations, & Costs
- Alignment Length
- Operational Speed
- Proximity to Transit Corridors
- Travel Time
- Capital Costs
- Operations & Maintenance Costs

Community Factors
- Displacements
- Agricultural Lands
- Aesthetics and Visual Quality
- Land Use and Development
- Noise
- Traffic
- Emergency Vehicle Access/Response Time

Environmental Factors
- Biological Resources and Wetlands and Other Waters of the U.S.
- Parks and Recreation Areas
- Built Environment Historic Resources

IDENTIFYING A PREFERRED ALTERNATIVE
IDENTIFYING A PREFERRED ALTERNATIVE

ALTERNATIVE 4 – Staff-Recommended State’s Preferred Alternative

San Francisco to San Jose Alignments
Central Valley Wye Alignments
HSR Stations
Maintenance-of-Way Facilities
### System Performance, Operations, and Costs

**Bold text** in tables indicates best-performing alternative(s).

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>ALT 1</th>
<th>ALT 2</th>
<th>ALT 3</th>
<th>ALT 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alignment length (miles)</td>
<td>89</td>
<td>89</td>
<td>87</td>
<td>89</td>
</tr>
<tr>
<td>Operational speed (mph) — San Jose to Gilroy</td>
<td>Up to 175</td>
<td>Up to 195</td>
<td>Up to 175</td>
<td>Up to 110</td>
</tr>
<tr>
<td>Operational speed (mph) — Gilroy to Central Valley Wye</td>
<td></td>
<td>Up to 220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximity to existing transit corridors (miles)</td>
<td>43</td>
<td>50</td>
<td>35</td>
<td>50</td>
</tr>
<tr>
<td>Peak hour average representative travel time between San Jose and Gilroy (minutes)(^1)</td>
<td>17-18</td>
<td>17-18</td>
<td>16-17</td>
<td>23</td>
</tr>
<tr>
<td>Proposition 1A service travel time compliance</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Estimated capital costs (2017$ billions)(^2)</td>
<td>$20.5</td>
<td>$17.7</td>
<td>$20.8</td>
<td>$13.6</td>
</tr>
<tr>
<td>Estimated annual operations and maintenance costs (2017$ millions)(^3)</td>
<td></td>
<td></td>
<td>$162</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Times include Gilroy stop. East Gilroy station for Alt. 3 is approximately one mile further north than the Downtown Gilroy station for Alts. 1, 2, and 4.

\(^2\) Conceptual cost estimates prepared for the project alternatives were developed by utilizing recent bid data from large transportation projects in the western United States and by developing specific, bottom-up unit pricing to reflect common HSR elements and construction methods with an adjustment for Bay Area and Central Valley labor and material costs.

\(^3\) Based on level of design sufficient to analyze potential environmental impacts.
### DISPLACEMENTS

**Bold text** in tables indicates best-performing alternative(s) (fewest community impacts).

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>ALT 1</th>
<th>ALT 2</th>
<th>ALT 3</th>
<th>ALT 4</th>
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</thead>
<tbody>
<tr>
<td>Residential displacements (# of units)</td>
<td>147</td>
<td>603</td>
<td>157</td>
<td>68</td>
</tr>
<tr>
<td>Commercial displacements (# of businesses)</td>
<td>217</td>
<td>348</td>
<td>157</td>
<td>66</td>
</tr>
<tr>
<td>Agricultural displacements (# structural improvements)</td>
<td>49</td>
<td>53</td>
<td>49</td>
<td>40</td>
</tr>
<tr>
<td>Community or public facilities displacement (# of units)</td>
<td>7</td>
<td>8</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Commercial displacements (square footage)</td>
<td>411,000</td>
<td>1,800,000</td>
<td>994,000</td>
<td>448,000</td>
</tr>
<tr>
<td>Agricultural structure displacements (square footage)</td>
<td>407,000</td>
<td>1,206,000</td>
<td>1,489,000</td>
<td>542,000</td>
</tr>
</tbody>
</table>

Example: overlay of footprint in rural area

Example: overlay of footprint in urban area

**IDENTIFYING A PREFERRED ALTERNATIVE**
**AGRICULTURAL LANDS**

**Bold text** in tables indicates best-performing alternative(s) (fewest community impacts).

<table>
<thead>
<tr>
<th>CRITERION</th>
<th>ALT 1</th>
<th>ALT 2</th>
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</thead>
<tbody>
<tr>
<td>Permanent conversion of Important Farmland (i.e. Prime Farmland, Farmland of State Importance, and Farmland of Local Importance (acres))</td>
<td>1,036</td>
<td>1,181</td>
<td>1,193</td>
<td>1,033</td>
</tr>
</tbody>
</table>

Alternatives 1 and 3 traction power facility on agricultural land
AESTHETICS AND VISUAL QUALITY

**Bold text** in tables indicates best-performing alternative(s) (least community impacts).

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<th>CRITERION</th>
<th>ALT 1</th>
<th>ALT 2</th>
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<tbody>
<tr>
<td>Visual Quality Effects</td>
<td>• Viaduct</td>
<td>• Embankment and Viaduct</td>
<td>• Viaduct</td>
<td>• At-Grade Alignment</td>
</tr>
<tr>
<td></td>
<td>• Elevated Stations</td>
<td>• Elevated Stations</td>
<td>• Elevated Stations</td>
<td>• Existing Railroad Right-of-Way</td>
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<td></td>
<td></td>
<td>• Roadway Grade Separations</td>
<td>• Alignment in Rural Area</td>
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<td></td>
<td></td>
<td></td>
<td>(East Gilroy)</td>
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**Alternatives 1 and 3: Viaduct**

**Alternative 4: At-Grade**
**LAND USE AND DEVELOPMENT**

**Bold text** in tables indicates best-performing alternative(s) (least community impacts).

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<tbody>
<tr>
<td>Consistency with City of Gilroy General Plan policy to encourage transit-oriented development (TOD) in downtown</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**IDENTIFYING A PREFERRED ALTERNATIVE**

Planned Land Use (Current Zoning)

- **Downtown Gilroy Station**
- **East Gilroy Station**
**NOISE**

**Bold text** in tables indicates best-performing alternative(s) (fewest community impacts).

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<th>CRITERIA</th>
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</thead>
<tbody>
<tr>
<td>Severe noise impacts with noise barrier mitigation (# of sensitive receptors)</td>
<td>231</td>
<td>194</td>
<td><strong>173</strong></td>
<td>275</td>
</tr>
<tr>
<td>Severe noise impacts with noise barrier mitigation and if local municipalities implement quiet zones (# of sensitive receptors)</td>
<td>223</td>
<td>194</td>
<td><strong>173</strong></td>
<td>179</td>
</tr>
</tbody>
</table>

The Sound of High-Speed Train Travel

Typical Maximum Noise Levels Before Mitigation

*A-weighted decibels (dBA) are an expression of the relative loudness of sounds in air as perceived by the human ear.*
**Bold text** in tables indicates best-performing alternative(s) (fewest community impacts).

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</thead>
<tbody>
<tr>
<td>Increase in 2040 peak travel time on Monterey Road</td>
<td>NB–8/20</td>
<td>NB–27/5</td>
<td>NB–8/20</td>
<td>NB–0/5</td>
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<tr>
<td>(northbound — AM/PM, southbound — AM/PM, minutes)</td>
<td>SB–6/12</td>
<td>SB–16/17</td>
<td>SB–6/12</td>
<td>SB–1/8</td>
</tr>
<tr>
<td>Permanent road closures — San Jose to Gilroy</td>
<td>10</td>
<td>19</td>
<td><strong>8</strong></td>
<td><strong>8</strong></td>
</tr>
<tr>
<td>Permanent road closures — Gilroy to Carlucci Rd</td>
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</table>

Alternatives 1, 2, and 3: Simulated view of I-280 in San Jose
**EMERGENCY VEHICLE ACCESS/RESPONSE TIME**

*Bold text* in tables indicates best-performing alternative(s) (lowest level of mitigation required).

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<th>CRITERIA</th>
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</thead>
<tbody>
<tr>
<td>Areas of potential delay to emergency vehicle response times</td>
<td>Monterey Corridor due to Monterey Road narrowing</td>
<td>Monterey Corridor, Morgan Hill, Gilroy due to gate-down time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Types of mitigation needed to minimize emergency vehicle delays</td>
<td>Vehicle detection equipment</td>
<td>Vehicle detection equipment, additional emergency equipment for existing fire stations, new fire stations, and potentially additional ambulance services</td>
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</tbody>
</table>

![Fire Truck Image](image-url)
**ENVIRONMENTAL JUSTICE**

**Bold text** in tables indicates best-performing alternative(s) (fewest community impacts).

<table>
<thead>
<tr>
<th>CRITERIA (within low-income or minority communities)</th>
<th>ALT 1</th>
<th>ALT 2</th>
<th>ALT 3</th>
<th>ALT 4</th>
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</thead>
<tbody>
<tr>
<td>EJ proportion of total significant and unavoidable impacts on local views(^1)</td>
<td>50%</td>
<td>N/A(^2)</td>
<td>67%</td>
<td>N/A(^2)</td>
</tr>
<tr>
<td>EJ proportion of total residential displacements</td>
<td>60%</td>
<td>66%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>EJ proportion of total business displacements</td>
<td>87%</td>
<td>92%</td>
<td>82%</td>
<td>83%</td>
</tr>
<tr>
<td>Amount of mitigation required to address effects on emergency vehicle response times (lower number is less mitigation needed)</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>EJ proportion of total moderate and severe noise impacts(^3)</td>
<td>49%</td>
<td>65%</td>
<td>45%</td>
<td>76%</td>
</tr>
</tbody>
</table>

\(^1\)As indicated by impacts on visual landscape units.

\(^2\)These alternatives have no significant and unavoidable impacts on visual landscape units.

\(^3\)Noise impacts after noise barrier mitigation.
### IDENTIFYING A PREFERRED ALTERNATIVE

**Bold text** in tables indicates best-performing alternative(s) (fewest environmental impacts).

<table>
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<tr>
<th>CRITERIA</th>
<th>ALT 1</th>
<th>ALT 2</th>
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<th>ALT 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent impacts on jurisdictional waters and wetlands (acres)</td>
<td>104</td>
<td>111</td>
<td>116</td>
<td>101</td>
</tr>
<tr>
<td>Permanent impacts on habitat for listed plant species (non-overlapping acres)</td>
<td>1,171</td>
<td>1,178</td>
<td>1,183</td>
<td>1,146</td>
</tr>
<tr>
<td>Permanent impacts on habitat for listed wildlife species with the most impacts overall (California tiger salamander, acres)</td>
<td>2,273</td>
<td>2,329</td>
<td>2,470</td>
<td>2,146</td>
</tr>
<tr>
<td>Wildlife corridor impacts</td>
<td>Avoids east Gilroy; fewer Soap Lake floodplain impacts</td>
<td>Avoids east Gilroy; fewer Soap Lake floodplain impacts</td>
<td>Impacts east Gilroy; more Soap Lake floodplain impacts</td>
<td>Avoids east Gilroy; fewer Soap Lake floodplain impacts</td>
</tr>
<tr>
<td>Permanent impacts on conservation areas (acres)</td>
<td>427</td>
<td>432</td>
<td>481</td>
<td>427</td>
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</table>
### CRITERIA

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>ALT 1</th>
<th>ALT 2</th>
<th>ALT 3</th>
<th>ALT 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent use of 4(f)/6(f) park resources (#) (acres)</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td><strong>3</strong></td>
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<tr>
<td>(acres)</td>
<td>4.8</td>
<td>7.4</td>
<td>5.0</td>
<td><strong>1.4</strong></td>
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</tbody>
</table>

**Bold text** in tables indicates best-performing alternative(s) (fewest environmental impacts).
**BUILT ENVIRONMENT HISTORIC RESOURCES**

**Bold text** in tables indicates best-performing alternative(s) (fewest environmental impacts).

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>ALT 1</th>
<th>ALT 2</th>
<th>ALT 3</th>
<th>ALT 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of permanent adverse effects on NRHP-listed/eligible resources (# of resources)</td>
<td>8</td>
<td>9</td>
<td>7</td>
<td>5</td>
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<tr>
<td>Number of permanent significant impacts on CEQA-only historic resources (# of resources)</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>1</td>
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</tbody>
</table>

Photo simulation of massing at San Jose Diridon Station (Alt. 1, 2, 3)

Photo simulation of massing at San Jose Diridon Station (Alt. 4)
### SUMMARY OF ALTERNATIVES EVALUATION – SYSTEM PERFORMANCE, OPERATIONS, & COSTS

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>ALT 1</th>
<th>ALT 2</th>
<th>ALT 3</th>
<th>ALT 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alignment length</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Operational Speed — San Jose to Gilroy</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Operational Speed — Gilroy to Central Valley Wye</td>
<td></td>
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<td></td>
<td>No difference</td>
</tr>
<tr>
<td>Proximity to existing transit corridors</td>
<td></td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Travel time — San Jose and Gilroy</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Proposition 1A service travel time compliance</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Estimated capital costs</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Estimated annual operations and maintenance costs</td>
<td></td>
<td></td>
<td></td>
<td>No difference</td>
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</tbody>
</table>

- Best-performing alternative
<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>ALT 1</th>
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<th>ALT 3</th>
<th>ALT 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential displacements</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Commercial displacements (#)</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Agricultural displacements (#)</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Community or public facilities displacements</td>
<td></td>
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<tr>
<td>Commercial displacements (square footage)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural structure displacements (square footage)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Permanent conversion of important farmland</td>
<td></td>
<td></td>
<td>○</td>
<td></td>
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<tr>
<td>Visual quality effects</td>
<td></td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistency with Gilroy General Plan</td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noise impacts with noise barrier mitigation/and quiet zones</td>
<td></td>
<td></td>
<td>○</td>
<td></td>
</tr>
</tbody>
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<th>ALT 3</th>
<th>ALT 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in 2040 peak travel time on Monterey Road (NB — AM/PM, SB — AM/PM)</td>
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<tr>
<td>Permanent road closures</td>
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<tr>
<td>Amount of mitigation needed to minimize emergency vehicle delays</td>
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<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>EJ proportion of total impacts on local views</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>EJ proportion of total residential displacements</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>EJ proportion of total business displacements</td>
<td></td>
<td>○</td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Amount of mitigation required to address effects on emergency vehicle response times (EJ)</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>EJ proportion of total noise impacts</td>
<td></td>
<td>○</td>
<td>○</td>
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</table>

○ Best-performing alternative (fewest environmental impacts)
### SUMMARY OF ALTERNATIVES EVALUATION – ENVIRONMENTAL FACTORS

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</tr>
</thead>
<tbody>
<tr>
<td>Waters and wetlands</td>
<td></td>
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<tr>
<td>Habitat for listed plant species</td>
<td></td>
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<td>•</td>
</tr>
<tr>
<td>Habitat for listed wildlife species (California tiger salamander)</td>
<td></td>
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<td>•</td>
<td>•</td>
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<tr>
<td>Wildlife corridor impacts</td>
<td>•</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Conservation areas</td>
<td>•</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Permanent use of 4(f)/6(f) park resources</td>
<td></td>
<td></td>
<td>•</td>
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<td>Permanent adverse effects on NRHP-listed/eligible resources</td>
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<td>•</td>
<td>•</td>
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<tr>
<td>Permanent significant impacts on CEQA-only historic resources</td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

- **Best-performing alternative (fewest environmental impacts)**
ALTERNATIVE 4 – Staff-Recommended State’s Preferred Alternative

Conclusions of Technical Analysis

Identification of Technical Analysis

Fewest displacements

Fewest road closures

Fewest impacts on wetlands and habitats

Good access to transit systems and services

Fewest impacts on natural resources

Fewest visual impacts

Marginal increase in system travel time

More noise (if no quiet zones)

Lowest capital cost

Allows for extension of electrified Caltrain service to Gilroy
IDENTIFYING A PREFERRED ALTERNATIVE

ALTERNATIVE 4 – Staff-Recommended State’s Preferred Alternative

SAN JOSE DIRidon STATION APPROACH

MONTEREY CORRIDOR

SAN JOAQUIN VALLEY

MORGAN HILL AND GILROY

PACHECO PASS

IDENTIFYING A PREFERRED ALTERNATIVE

SAnta Clara County

Central Valley Wye Alignments

HSR Stations

Maintenance-of-Way Facilities

LEGEND

Aerial

Embarkment

Trench

At-Grade

San Francisco to San Jose Alignments

Central Valley Wye Alignments

HSR Stations

Maintenance-of-Way Facilities
DISCUSSION OF THE STAFF-RECOMMENDED STATE’S PREFERRED ALTERNATIVE
OUTREACH UPDATE
**NEXT STEPS**

**2019**

- **July**: CWG Meetings
- **August**: Open Houses on Staff-Recommended State’s Preferred Alternative
- **Sept.**: Board Meeting
  - Identification of State’s Preferred Alternative
- **Dec.**: Publish Draft EIR/EIS
  - CWG Meetings

**2020**

- **Jan.**: Close of 45-day Public Comment Period
- **Feb.**: Draft EIR/EIS Communications
  - Open Houses
  - Public Hearings
- **Nov.**: Complete and Certify EIR/EIS
  - Community Open Houses & Briefings
  - Project Approval by Authority Board of Directors

**OUTREACH UPDATE**
UPCOMING OPEN HOUSES

South Peninsula Open House
August 6, 5:00 to 8:00 p.m.
Adrian Wilcox High School
Santa Clara, CA

San Francisco Open House
August 12, 5:00 to 8:00 p.m.
Bay Area Metro Center
San Francisco, CA

San Mateo Open House
August 19, 5:00 to 8:00 p.m.
Sequoia High School
Redwood City, CA

Gilroy Open House
August 8, 5:00 to 8:00 p.m.
Gilroy Portuguese Hall
Gilroy, CA

San Jose Open House
August 15, 5:00 to 8:00 p.m.
City Hall Council Chambers
San Jose, CA

Los Banos Open House
August 21, 5:00 to 8:00 p.m.
Los Banos Community Center
Los Banos, CA
Please share the information presented today with your communities and give us your feedback.

- Comments will be accepted through August 22, 2019
- Comments can be submitted via email to San.Jose_Merced@hsr.ca.gov or via mail to:
  Northern California Regional Office
  California High-Speed Rail Authority
  100 Paseo De San Antonio, Suite 300
  San Jose, CA 95113
- Share feedback in person at an upcoming Open House or at the Authority Board meeting in San Jose on September 17th
PUBLIC COMMENT
• Public comment is intended for the CWG members and staff to hear from the public

• Comments will be captured in meeting summaries

• Staff will be available after the meeting to respond to questions, as necessary

• 2 minute time limit

• Please be respectful and follow CWG meeting guidelines