Monterey Bay Area Network Integration Study
Future Service Vision Appendices

September 2020
This document is intended to serve as a technical appendix to TAMC’s Monterey Bay Area Network Integration Study Service Vision Memo. It documents the technical outputs of the service design process and provides documentation of the phased implementation strategy and identifies required high-level technical considerations for delivering the future integrated network.

This document also serves as a technical guide for stakeholders and for providing inputs to the implementation planning process.
Agenda

1. Stringlines
2. Train Performance Calculations
3. Minimum Equipment Requirements
4. Minimum Infrastructure Requirements
Technical Service Planning
Phased Service – Hourly Service to Salinas

- Passing Siding Needed
- CAHSR Infrastructure

SAN JOSE (HSR) $0.1
GILROY (HSR) $30.0
PAJARO/WATSONVILLE $97.2
CASTROVILLE $107.0
SALINAS $114.9
SOLEDAD $140.2
KING CITY $160.3
PASO ROBLES $212.9
SAN LUIS OBIPO $240.7

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Technical Service Planning
Vision Service - Regional

Miles

SANTA CRUZ $ 19.7
CAPITOLA 38 AVE $ 16.5
CAPITOLA $ 15.5
APTOS $ 12.4
WATSONVILLE DOWNTOWN $ 1.2
PAJARO/WATSONVILLE $ 0.7
CASTROVILLE $ 0.0
MARINA $ 6.6
SAND CITY $ 11.9
MONTEREY $ 15.1

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Agenda

1. Stringlines
2. Train Performance Calculations
3. Minimum Equipment Requirements
4. Minimum Infrastructure Requirements
Train Performance
Phased/Vision Service to Salinas

Max Authorized Speed
Train Performance

Engine(s): Flirt-BMU 4x2v, 99.41910 mph, Train weight: 0, Total length: 81.1, Brakes: R, Braking = 147%

[1]
Train Performance
Phased/Vision Service to SLO

Max Authorized Speed
Train Performance

Engine(s): Fint-BMU-E 4c2o, 39.4\(\times\)39 mph, Train weight: 0, Total length: 81.1, Brake: R, Braking = 147%
Train Performance
Regional Service
Agenda

1. Stringlines
2. Train Performance Calculations
3. Minimum Equipment Requirements
4. Minimum Infrastructure Requirements
Minimum Equipment Requirements

Initial Service

- Min No. of equipment set: 3
- Equipment overnight: 3 at Salinas
- Conventional equipment
Phased

- Min No. of equipment set: 6*
- Equipment overnight
  1) 1 at San Luis Obispo
  2) 3 at Salinas
  3) 2 at San Jose / SF
- Bi-mode equipment

* Turntime at Salinas is short (15 minutes).
Minimum Equipment Requirements
Vision Service - Intercity

Vision

- No. of equipment set: 7
- Equipment overnight
  1) 3 at San Luis Obispo
  2) 1 at Salinas
  3) 3 at San Jose / SF
- Bi-mode
Minimum Equipment Requirements
Vision Service - Regional

Vision
- No. of equipment set: 4
- Equipment overnight
  1) 3 at Monterey
  2) 1 at Santa Cruz
- DMU
Agenda

1. Stringlines
2. Train Performance Calculations
3. Minimum Equipment Requirements
4. Minimum Infrastructure Requirements
Pajaro – Initial

Service

- 3 directional service per day
- Island platform avoids relocating Lewis St east of the junction
- Island platform required for connectivity in future service phases
Pajaro/Watsonville – Phased

Service

- Hourly San Jose – Salinas service with one train to San Luis Obispo every four hours
Pajaro – Phased

Service

- Hourly San Jose – Salinas service with one train to San Luis Obispo every four hours
Pajaro – Vision

Service

- Hourly San Jose – Salinas service with one train to San Luis Obispo every two hours
- Hourly Monterey – Santa Cruz
Pajaro – Vision

Service

- Hourly San Jose – Salinas service with one train to San Luis Obispo every two hours
- Hourly Monterey – Santa Cruz
- Pulsed schedule is planned for bidirectional transfer
Pajaro – Vision

Service

- Hourly San Jose – Salinas service with one train to San Luis Obispo every two hours
- Hourly Monterey – Santa Cruz
Pajaro – Vision

Service

- Hourly San Jose – Salinas service with one train to San Luis Obispo every two hours
- Hourly Monterey – Santa Cruz
Pajaro – Vision

Service

- Hourly San Jose – Salinas service with one train to San Luis Obispo every two hours
- Hourly Monterey – Santa Cruz
Pajaro – Vision

Cross platform transfer is possible with an additional crossover

To San Jose

To Salinas

To Santa Cruz
## Transfer at Pajaro

<table>
<thead>
<tr>
<th>Route</th>
<th>No additional crossover</th>
<th>With additional crossover</th>
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</thead>
<tbody>
<tr>
<td>Santa Cruz line to San Jose</td>
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<tr>
<td>San Jose to Santa Cruz line</td>
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<tr>
<td>Santa Cruz line to Salinas/SLO</td>
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<tr>
<td>Salinas/SLO to Santa Cruz line</td>
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<tr>
<td>San Jose to Monterey</td>
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<tr>
<td>Monterey to San Jose</td>
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</tbody>
</table>

- **Yellow**: Over ped bridge
- **Green**: Cross platform
- **Light Green**: Over bridge (or cross platform at Castroville)
Castroville – Initial

Service
- 3 directional service per day
- Single platform would be required
Castroville – Phased

**Service**

- Hourly San Jose – Salinas service with one train to San Luis Obispo every four hours
- No new infrastructure required from Initial Stage since no train meet at Castroville
Castroville – Vision

Service

- Hourly San Jose – Salinas service with one train to San Luis Obispo every two hours
- Hourly Monterey – Santa Cruz
- Connection track, branch line reactivation to Monterey would be required
- No new platform required
Salinas – Initial

Service

- 3 directional services per day
- Need to accommodate three equipment sets staying overnight
Salinas – Phased

Service

- Hourly San Jose – Salinas service with one train to San Luis Obispo every four hours
- Need to use three tracks to store trains as there would be two trains at Salinas at the same time during operation, three at night
Salinas – Vision

Service

- Hourly San Jose – Salinas service with one train to San Luis Obispo every two hours
- Trains turn at Salinas for 15 minutes every two hours
Monterey – Vision

Service

- Hourly Monterey – Santa Cruz
- Single track / single platform required
- Need storage tracks for three trains overnight

28 min turntime
Santa Cruz – Vision

Service

- Hourly Monterey – Santa Cruz
- Single track / single platform required
- One train stays overnight at Santa Cruz

To Pajaro / Monterey

45 min turn time
Marina / Capitola – Vision

Service

- Hourly Monterey – Santa Cruz
- A siding and an island platform required for train meets

Trains meet at Capitola

Trains meet at Marina