Capitol Corridor Joint Powers Authority
Board Meeting | February 21, 2024 | 10:00 AM

Pledge of Allegiance
IV. Consent Calendar

1. Approve Minutes of the November 15, 2023 Meeting

2. Authorize the CCJPA and El Dorado County Transit Authority Bus Service Agreement

3. Authorize CCJPA to Enter an Affordable Housing Sustainable Communities (AHSC) Grant for Agnew Siding Capital Funding

4. Authorize CCJPA to Contract with HDR for Completion of National Environmental Policy Act (NEPA) Documentation for the Sacramento to Roseville Third Mainline Track (Phase One) Project

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Item V.1

Caltrans District 3 (D3) Mitigation Plan for Capitol Corridor Support

- D3’s Managed Lanes will create a VMT increase & CEQA requires mitigation
- D3 sought CCJPA for a suite of potential Capitol Corridor system enhancements as mitigation
  - Fare reductions
  - Go to full service
- Board resolution authorizes CCJPA staff to negotiate a suitable participation in a mitigation plan for Capitol Corridor service
**Item V.2**

Sacramento to Roseville 3rd Main Track: Supplemental EIR (SEIR)

- SEIR: Supplements the November 2015 EIR
  - CCJPA Board adopted
- Two Locations Changed:
  - Elvas Railroad Bridge Crossings
  - Capitol Corridor Layover Yard
- SEIR decision; prepared to make previously certified EIR adequate as revised
- CCJPA lead agency for CEQA
- Comment letters (from agencies) got required responses

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SR3T: Map of Full Project Extent

- Areas of modification for SEIR
Elvas Rail Bridge Changes

Capitol Corridor Roseville Layover Facility
Environmental Findings under CEQA

- No new significant effects caused by these new project modifications that are not already covered under the mitigation requirements from the original EIR.
- As before, CCJPA remains required to establish a mitigation monitoring program, which is required by State CEQA Guidelines Section 15091(d).
  - This would be considered and adopted by the CCJPA Board in conjunction with any project approval.

Actions for CCJPA Board

Two ordered actions for the CCJPA Board to comply with CEQA:

1. Draft SEIR must first be certified complying with CEQA (thus becoming a Final SEIR - action #1)
2. Decision to approve the revised Project as modified in these two new ways (action #2), including, certifying:
   - That the Final SEIR was completed in compliance with CEQA's requirements
   - That it was reviewed and considered by the CCJPA Board
   - That it reflects its independent judgment and analysis.
   - Then, CCJPA would then be required to adopt findings of fact on the disposition of each significant environmental effect.
Item V.3
New Carquinez Crossing Study

Presentation Overview

**Goal:** Update CCJPA Board on Carquinez High-Level Crossing Study status

I. Study overview – Engineering Feasibility Analysis

II. Review Phase 1 Study (completed 2022) – 14 options reduced to 4 options

III. Update on Phase 2 Study (current phase) – Examined 4 options; only one option seems viable

All maps and alignments shown in the presentation are conceptual and for evaluating engineering feasibility only
**Study Overview**

**Challenge:**
Bridge “lifts” for marine traffic at Benicia are the 2nd largest source of delay for CCJPA trains. Each lift causes about 20 minutes’ delay and trains are forced “out of slot”.

**Study Goal:**
Identify and develop conceptual options for high-level rail bridge that doesn’t need to lift for marine traffic.

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**Study Overview: Phase 1**

14 “Representative Route Options” Initially Considered

- Evaluated 14 “Representative Route Options”
- First-level screening: narrowed 14 options to 4 remaining options to cover in Phase 2
Study Overview: Phase 1
Results of Screening - Summary

- 6 Routes screened
- 4 Routes selected for further study:
  - Vallejo Route
  - Interstate 80 Route
  - Benicia Martinez West Route (Shoreline)
  - Benicia Martinez East Route (Mococo)

Study Overview: Phase 2 (In Progress)
Four Route Options Currently Under Consideration

- Vallejo Route: mostly follows existing rail corridors, new bridge next to I-80
- I-80 Route: entirely new route, including new bridge next to I-80
- B/M West Route: follows and upgrades existing rail route, new bridge west of existing I-680 bridges
- B/M East Route: similar to Shoreline route, new bridge east of existing I-680 bridges
- Assumptions: These options could accommodate two trains per hour, or more, each direction, per the State Rail Plan
Challenges with the Vallejo Options

- Massive and heavy bridge structure required to clear navigation channels
- Accommodating freight trains would require an additional bridge along the Vallejo shoreline
- Extensive tunneling on both sides with Vallejo side beneath developed areas
- Grade separations (rail above or below roadway) could be extensive and disruptive within Vallejo – even more so including freight

Challenges with the Vallejo Options: Maritime Navigation and Bridge Design

- Possible crossing locations dictated by:
  - Navigational requirements
  - Structural constraints for long-span bridges
Challenges with the Vallejo Options: Bridge Design: Key Points for Long Span Bridges

Forces in many directions from wind, wave, and other loadings, including rail infrastructure loads and the trains themselves can all work against a bridge being stable...

In a squared relationship the farther the stretch between spans needs to be even stronger to resist forces than can work in harmony to make it unstable

In response - build it bigger, and stronger but then the bridge is even struggling to hold up its own weight...so it gets bigger still...and more costly

Challenges with the Vallejo Options: Bridge Types Suitable for Various Span Situations

Cable Stay: Suitable for Long Spans (Crockett-Vallejo - 1000’+):

Steel Truss: Suitable for Shorter Spans (Martinez-Benicia ~650’):

Concrete Segmental: Suitable for Shorter Spans (Martinez-Benicia ~650’):
Challenges with the Vallejo Options: Bridge Length vs. Complexity and Cost

CROCKETT – VALLEJO BRIDGE:
Few options: Cable Stayed, Suspension, or “Massive” Truss

MARTINEZ–BENICIA BRIDGE:
Multiple Options:
- Continuous Truss
- Simple Truss
- Segmental Concrete

Challenges with the Vallejo Options: Potential Negative Community Impacts

See detail on following slide
Challenges with the Vallejo Options: Carquinez Heights Tunnel Considerations

Practical Considerations for Tunnels (“Rules of Thumb”):

- To attenuate noise and vibration, need ~ two tunnel diameters vertical clearance above tunnel crown.
- Tunnel approaches (less than 1 diameter cover) require open cut or cut-and-cover.
Challenges with the Vallejo Options: Potential Grade Separation Locations

Blue Circles Show Locations of Arterial Grade Separations

Georgia Street: Example grade separation

Broadway & Redwood Street: Example grade separation

~60' Wide Corridor (UPRR-owned)

Summary of Challenges with the Vallejo Options

- Massive and heavy bridge structure
- Freight accommodation an additional challenge
- Tunneling impacts in Vallejo
- Grade separations (rail above or below roadway) are themselves disruptive to communities
Comparison of Benicia-Martinez Options

- Option west of I-680:
  - Must be built to accommodate width of two navigation channels thus more complex bridge type
  - Is potentially more disruptive to the city of Martinez
  - Potentially has conflicts with freeway infrastructure on the Benicia side of bridge touchdown
- Option east of I-680 could have potential impacts on wetland areas, but does not have as many challenges as the option west of I-680

Makeup of Benicia-Martinez Options

Two components:

1. Improvements to Shoreline corridor – common to both options
   - Individual shoreline sections can be implemented independently or bundled together, with or without bridge phase
2. New bridge between Martinez & Benicia (West and East Option)
Common Benicia-Martinez Options: Shoreline Focus - Engineering Pros and Cons

- **Pros:**
  - Concept of dedicated freight and passenger tracks – add 2 new passenger dedicated tracks
  - Higher speeds via curve re-alignments, Sea Level Rise resiliency, more capacity

- **Cons:**
  - Some key “built-infrastructure” community disruptions associated with curve re-alignments
  - Challenge of stabilization of slopes

Common Benicia-Martinez Options: Potential for Phased Implementation Along Shoreline

Potential Independent Project Components Shown in Blue
Common Benicia-Martinez Options: Constraints & Opportunities

- Accommodates and separates freight & pax
- Hillside alignment / Sea Level Rise
  - Solution – new alignment on bench; have not considered encroaching into Bay at all in this phase of study
- Higher speeds ~ 70 MPH

Comparison of Benicia-Martinez Options: West Option Issues

- Bridge spans across two navigation channels
- Potential impacts in Martinez to refinery infrastructure and where aerial structure is needed to reach new bridge span
- Benicia-side I-680/780 freeway infrastructure
Comparison of Benicia-Martinez Options: 
East Option Bridge Location

- Martinez Station
- Benicia Industrial Park
- Approx. East Touchdown Point
- Wetland Area (off aerial overlay map)

Comparison of Benicia-Martinez Options: 
West and East of I-680 - Summary

- Option west of I-680:
  - (1) Spanning two navigation channels, (2) in Martinez disruptions to refinery and western starting point of new rail bridge, and (3) challenges getting rail through freeway maze in Benicia
- Option east of I-680 potentially avoids many of the challenges noted above but does impact wetlands on the south side
  - Concept allows for 2 freight tracks + 2 passenger tracks
  - Improvements allow speed increase (approx. 70 MPH) and travel time reduction.
  - Minimal impacts in downtown Martinez, 2 grade separations
- Common: Sea level rise resiliency improvements
- Common: Potential to phase implementation into several sub-projects, bundle projects to match available funding (e.g., sea level rise, goods movement, navigational improvement)
Comparing Both Vallejo and Both Benicia/Martinez Crossing Options

Using a relative scale of 1 (low) to 10 (high) where a low score is best

<table>
<thead>
<tr>
<th>Issues</th>
<th>Vallejo Route</th>
<th>I-80 Route</th>
<th>B/M West Route</th>
<th>B/M East Route</th>
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<tr>
<td>Bridge Complexity</td>
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<td>2</td>
<td>1</td>
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<tr>
<td>Approaches Complexity</td>
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<td>TBD (8??)</td>
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<td>Community Impacts</td>
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Next Steps

- Further review/investigation of "missing pieces"
  - Suisun wetlands
  - Jameson Canyon / Cordelia
  - Vallejo option via I-80 corridor (along I-80 from Hercules to Crockett)
  - Further Vallejo grade separation investigation
  - Geologic review along Shoreline
- Follow-up with Final Report
- Integration with Corridor ID effort after this study
Legislation and Funding Update

Item V.4

V.5 Managing Director’s Report

Performance Update

Customer Service

49ers Season Ridership

Welcome New Employee
FY 2024 Capitol Corridor Performance Year-to-Date (YTD)
October 2023 – December 2023

<table>
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<tr>
<th>Performance Measure</th>
<th>FY 24 YTD Actual</th>
<th>vs ABP Budget</th>
<th>vs FY 23 Prior year</th>
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<tr>
<td><em>Ridership</em></td>
<td>263,179</td>
<td>3%</td>
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<td><em>Revenue</em></td>
<td>$7.1M</td>
<td>8%</td>
<td>28%</td>
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<td>End-Point OTP</td>
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<td>Passenger OTP</td>
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<td><em>Farebox Recovery</em></td>
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<td>17%</td>
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*Source: Amtrak Billing Package*
Customer Service Report
Comments received via phone, online & email

Tickets Count and Average Per Day

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<th>Q3 FY 2023</th>
<th>Q4 FY 2023</th>
<th>Q1 FY 2024</th>
<th>Q2 FY 2024</th>
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<td>#Tickets</td>
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GTFS-Realtime provides real-time train status

- GTFS-RT feed launched on Capitol Corridor website - Developer Resources section
- Eg. "Transit" App now includes real-time train status info. for Capitol Corridor
### 2023 49ERS HOME GAME RIDERSHIP – 11,656

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<th>Date</th>
<th>Opponent</th>
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<td>vs. NY Giants</td>
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<tr>
<td>10/1/2023</td>
<td>vs. Cardinals</td>
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<tr>
<td>10/8/2023</td>
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<td>1/28/2024</td>
<td>vs. Lions (Conference)</td>
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### Meet Our New Team Member

**Wissem Bouali**  
Financial Analyst II