

APPENDIX H

**State Route 37 Corridor Planning and
Environmental Linkages Study
Level 3 Evaluation Criteria
Screening Memorandum**

Memorandum

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Subject: **STATE ROUTE 37 CORRIDOR PLANNING AND ENVIRONMENTAL LINKAGES STUDY
LEVEL 3 EVALUATION CRITERIA SCREENING MEMORANDUM**

This memorandum summarizes work by the California Department of Transportation (Caltrans) District 4 as part of the *State Route 37 Corridor Planning and Environmental Linkages Study* (SR 37 PEL Study). It documents how the PEL Study Project Management Team (PEL Study Team) engaged the three Technical Working Groups (TWGs) in applying Level 3 Evaluation Criteria to the alternatives carried forward after application of Level 2 Evaluation Criteria. It further documents how the PEL Study Team iterated the results of that screening through the TWGs, the Stakeholder Working Group (SWG), and ultimately the Executive Steering Committee (ESC).

For additional background, please refer to previous memoranda on Evaluation Criteria, Alternatives, Level 1 Evaluation Criteria Screening, and the Level 2 Evaluation Criteria Screening. These memos are incorporated by reference.

At each level of screening, a determination is made as to whether an alignment or alternative is carried forward in the SR 37 PEL Study, and if so, how it is carried forward (core concept or supplemental element) according to the following parameters.

- **Carried forward as a Core Concept**—Standalone improvement that directly meets the PEL Study's Purpose and Need.
- **Carried forward as a Supplemental Element**—Additional improvement that does not fully meet the Purpose and Need on its own but improves the core concepts.
- **Eliminated**—Core concept or supplemental element that does not meet the Purpose and Need identified for the PEL Study.

- **Not Recommended**—Core concept or supplemental element that will not be evaluated further in the PEL Study because of comparatively negligible benefits or higher impacts than other concepts/elements.

1. RESULTS OF LEVEL 2 SCREENING

Prior to starting Level 3 screening, the PEL Study Team recapped for the TWGs the decisions that had been made in Level 2. These decisions are summarized in the list below.

Included among the decisions in Level 2 was the introduction of Alternative 10. Alternative 10 was conceived as a more feasible compromise option relative to stakeholder concerns expressed regarding Alternatives 7 and 9.

- **Alternatives Carried Forward as Core Concepts**
 - Alternatives 5/6, 8, 9, and 10
- **Alternatives and Design Concepts Eliminated**
 - Alternatives 1, 4, and 7
 - All six-lane design options
 - Tunnel
- **Modal Choices Carried Forward**
 - Vehicles
 - Bike/Pedestrian (as part of core concepts)
 - Ferries (as a supplemental element)
 - Rail (as a supplemental element)
- **Design Concepts Carried Forward**
 - Primarily causeway design, with the majority of roadway proposed on causeway
 - Four-lane design options
 - Shoulder running lane

As the final step in the Level 2 screening process, the PEL Study Team delivered its Level 2 screening recommendations to the SR 37 ESC, who concurred with the PEL Study Team findings on July 6, 2022.

2. INITIATION OF LEVEL 3 SCREENING

Prior to the Level 3 screening, the PEL Study Team clarified that Alternative 5/6 would be renamed as simply Alternative 5.ⁱ Alternatives 8, 9, and 10 were also carried forward into Level 3 screening, as described above.

In July 2022, the PEL Study Team asked the TWGsⁱⁱ to apply the Level 3 Evaluation Criteria to the alternatives. In the TWG meetings, the PEL Study Team reminded all participants of the alternatives carried forward for review from Level 2 screening, and then focused on how the Level 3 Evaluation Criteria appeared to show differentiation among alternatives. As set forth in the Evaluation Criteria memo, Level 3 criteria were primarily focused on transportation and environmental factors, including vehicle miles traveled (VMT),ⁱⁱⁱ wildfire risk, recreation access, Equity Priority Communities,^{iv} farmland conversion, indirect and direct land conversion, and several habitat-related metrics. The presentation also included information on construction footprints, construction cost, , modal options, and design. Refer to the July TWG Presentation (Appendix A) for additional detail. Questions and discussion from the TWG meeting were recorded and included in the meeting record (Appendix A).

3. SYNTHESIZING TECHNICAL WORKING GROUP INPUT; INITIAL LEVEL 3 SCREENING RECOMMENDATIONS

Following the July TWG meeting, the PEL Study Team assessed all TWG feedback. For greater clarity and to foster decision-making, the PEL Study Team compiled a summary matrix (Appendix B), which organized input and considerations of how each alternative met, partially met, or did not meet Level 3 Evaluation Criteria.

ⁱ Alternative 5 and Alternative 6 both follow the existing SR 37 alignment, but Alternative 5 is a causeway option with limited embankment while Alternative 6 is an option using levee systems. The causeway option was preferred by the TWG members because it would have substantially fewer impacts on existing resources, and the alternatives were combined into Alternative 5/6, which had just the causeway system. However, to clarify the naming, the PEL Study Team decided to rename Alternative 5/6 as Alternative 5 going forward.

ⁱⁱ While prior TWG meetings had been held with one separate meeting for each TWG, the July 2022 meeting was held for all three TWGs at one time.

ⁱⁱⁱ The VMT analysis shared in this presentation included results from new modeling conducted for each alternative.

^{iv} Equity Priority Communities, as identified by the Metropolitan Transportation Commission, are census tracts with a "significant concentration of underserved populations."

The PEL Study Team presented preliminary recommendations to the SWG in August 2022 (Appendix C). From careful consideration of the summary matrix and SWG feedback on the preliminary recommendations, the PEL Study Team made screening recommendations following the scheme established for the PEL Study (see Section 1 above).

3.1 ALTERNATIVES TO BE CARRIED FORWARD AS CORE CONCEPTS

Based on a review of all analysis and feedback, the PEL Study Team observed that Alternative 5 was the sole alternative that met the Level 3 Evaluation Criteria to an acceptable degree. Accordingly, the PEL Study Team recommended that this alternative be carried forward as a core concept. There was broad support from the TWGs and the SWG to carry forward this alternative.

Key aspects leading to this recommendation are summarized below. For further detail, please refer to Appendix B.

- Alternative 5 would facilitate adaptation to sea-level rise and natural processes, despite having some impacts on tidal marsh and aquatic transition zones.
- Because Alternative 5 would primarily be on a causeway, it would not interrupt terrestrial or aquatic migration.
- Alternative 5 would allow opportunities to access existing recreational facilities.
- Alternative 5 would not impede existing or planned restoration projects. Stormwater treatment can be provided onsite, but there would be added expense to convey stormwater from the causeway to an appropriate treatment location.
- Alternative 5 would not convert any Prime Farmland and only about 1 acre of Unique Farmland to non-agricultural use.
- Alternative 5 would likely require some forms of noise abatement; such abatement would be needed in the same areas affected by noise from the current SR 37.
- Alternative 5 would conform to existing regional travel patterns and maintain access routes to key destinations for Equity Priority Communities.
- Alternative 5 would convert the least amount of land to transportation use since it would follow the same alignment as the current SR 37.
- Alternative 5 would not induce VMT in the long term and would be best in terms of maintaining regional travel patterns.

- Only 2 miles of Alternative 5 would cross a moderate fire risk area, and the elevated causeway design would minimize the potential for a wildfire emergency-related closure.

The following three alternatives were recommended to be eliminated for not meeting Level 3 Evaluation Criteria to an acceptable degree. Key aspects leading to this recommendation are summarized below for each alternative. For further detail, please refer to Appendix B.

Key aspects leading to elimination of Alternative 8 from further consideration included:

- Alternative 8 would affect habitat areas because it would be on grade and would require a substantial amount of cut and fill and construction in undisturbed areas, while other alternatives would be largely on causeway, reducing their impacts on habitat.
- Alternative 8 would require the most land to transition to a transportation use, including the conversion of substantial amounts of Prime Farmland and Unique Farmland. It is the only alternative that would convert both types of Important Farmland to transportation use.
- Alternative 8 would require new noise abatement for about 15 miles of the alignment.
- Alternative 8 would not increase regional VMT but would be the least effective alternative for reducing regional VMT and would have a high potential to result in substantial changes in traffic patterns, particularly for trips originating in Vallejo and southern Sonoma County with destinations in Marin County.
- Alternative 8 would substantially change how people in all project area Equity Priority Communities reach key destinations. It would be most susceptible to closures from wildfires because half of its length is in areas with moderate to high fire risk, it is the alternative.
- Alternative 8 had limited SWG support for carrying it forward.

Key aspects leading to elimination of Alternative 9 from further consideration included:

- While the causeway design for Alternative 9 would have relatively lower habitat impacts among the alternatives and allow for restoration projects and sea-level rise adaptation, the extensive lengths of causeway and bridge structures would have to be built across the bay in areas where the geomorphology is not as well-known and understood. Such uncertainty

increases the potential risk and thus the potential for cost escalation to address.

- Stormwater treatment could be accomplished for Alternative 9 but it would be extremely expensive and difficult to carry the stormwater to an appropriate treatment location due to the mostly causeway design.
- Alternative 9 would also require new noise abatement, particularly around Bel Marin Keys.
- Visual impacts would result from creating a new crossing in the San Pablo Bay, which currently does not contain significant bridges or elevated crossing structures.
- While Alternative 9 would maintain/improve crossbay access for people in Vallejo Equity Priority Communities to reach Marin County, people in other Equity Priority Communities in Napa/Sonoma would see their access routes to key destinations substantially modified.
- Alternative 9 would involve conversion of a substantial amount of existing land to a transportation use.
- Alternative 9 would reduce regional VMT but would alter travel patterns substantially due to elimination of the intersections with Lakeville Highway and SR 121.
- Alternative 9 would allow minimal or no access to existing recreational areas.
- Alternative 9 would require a new bay crossing; with potentially viable alternatives considered upland (e.g. Alternatives 5 and 8), this would face permitting challenges (particularly from BCDC).

Key aspects leading to elimination of Alternative 10 from further consideration included:

- While the causeway design of Alternative 10 would have relatively lower habitat impacts among the alternatives and allow for restoration projects and sea-level rise adaptation, the extensive lengths of causeway and bridge structures would have to be built across the bay in areas where the geomorphology is not as well-known and understood. Such uncertainty increases the potential risk and thus the potential for cost escalation to address.
- Alternative 10 would require a new bay crossing; with potentially viable alternatives considered upland (e.g. Alternatives 5 and 8), this would face permitting challenges (particularly from BCDC).
- Additionally, stormwater treatment could be accomplished for Alternative 10 but would be extremely expensive and difficult to carry the stormwater to an appropriate treatment location due to the mostly causeway design.

- Alternative 10 would also require new noise abatement, particularly around Bel Marin Keys.
- Visual impacts would result from creating a new crossing in the San Pablo Bay, which currently does not contain significant bridges or elevated crossing structures.
- Alternative 10 would allow only some access to existing recreational areas.
- Alternative 10 had limited SWG support for carrying it forward.

3.2 MODAL RECOMMENDATIONS

The PEL Study Team reflected on the modal recommendations from Level 2 and how they may be incorporated into Alternative 5, and proposed the following recommendations for bringing forward three modes in addition to vehicles as the primary mode.

3.2.1 Bike and Pedestrian

The PEL Study Team assumes the bike and pedestrian pathway would be on the same structure as the roadway or on embankment for limited portions where the roadway is also on embankment, with design details to be determined later. It would not be at ground level because sea-level rise and removal of the existing roadway would limit its useful term of service.

3.2.2 Rail and Bus

Alternative 5 presents an opportunity for rail to be adjacent. However, the ultimate decision on rail would be made by Sonoma-Marín Area Rail Transit. Likewise, the alternative would enable reliable bus service between Marin and Solano Counties through a direct route.

3.2.3 Ferries

Similar to rail and bus, the ultimate implementation of ferry service lies with local ferry transit providers. Alternative 5 would not impede the implementation of ferry service.

3.3 DESIGN CONSIDERATIONS

The PEL Study Team reflected on the design recommendations from Level 2 and how they may be incorporated into Alternative 5 and proposed the following recommendations for design.

3.3.1 Embankment and Causeway

Alternative 5 would be primarily constructed on causeway, with limited embankment. Existing fill for SR 37 would be removed from sections built on causeway.

3.3.2 Number of Lanes and Shoulder Running Lane

Alternative 5 would have two lanes of travel in each direction, with a shoulder running lane for peak period use.

3.3.3 Access

Access would be provided through interchanges, intersections, and limited direct access points that would be fully determined later with detailed design.

4. FEEDBACK ON AND FINALIZATION OF LEVEL 3 SCREENING RECOMMENDATIONS

In September 2022, the PEL Study Team presented its Level 3 screening recommendations to the three TWGs (refer to Appendix D). The PEL Study Team sought feedback from these groups on concerns moving forward with the recommendations (principally, Alternative 5) to be documented in the SR 37 PEL Study (refer to Appendix D).

4.1 EXECUTIVE STEERING COMMITTEE BRIEFING REGARDING LEVEL 3 SCREENING RECOMMENDATIONS

As the final step in the Level 3 screening process, the PEL Study Team briefed the ESC and the Policy Committee on its Level 3 screening recommendations at the Policy Committee meeting on September 1, 2022.

4.2 NEXT STEPS

The Level 3 alternatives screening is the final step in the alternatives screening process. The PEL Study Team will continue with preparation of the SR 37 PEL Report and the Implementation Plan based on the following recommendations:

- **Alternative Carried Forward as a Core Concept**
 - Alternative 5
- **Modal Choices**

- Bike/pedestrian infrastructure to be included in design
- Ferries as a supplemental element that is in the jurisdiction of other agencies
- Rail to be accommodated/not impeded by design
- **Design**
 - Embankment and causeway design, with the majority of roadway proposed on causeway
 - Four-lane design, with peak period shoulder running lanes
 - Access provided through interchanges, intersections, and limited direct access points

5. APPENDICES

- A. July 2022 TWG Meeting Presentation, Notes, and Homework
- B. Summary Matrix
- C. September 2022 SWG Meeting Presentation
- D. September 2022 TWG Meeting Presentation and Notes