


is undesirable based on existing conditions involving seasonal periods of heavy surf which could damage the new bridges and adjoining segment of the highway, and pose increased and unnecessary risk to public safety.

3.5 DESIGN ALTERNATIVE 4 – REPLACE BRIDGES WITHIN MAUKA REALIGNED HIGHWAY

This alternative is similar to Design Alternative 3, with the exception that Farrington Highway would be realigned from its present location and moved further mauka from the shoreline. Construction activities would involve the major realignment of Farrington Highway as well as replacement of the existing bridge structures with wider structures, construction and removal of a temporary detour road, relocation of utilities, and installation of pavement markings.

 **WRONG - No Temporary road is needed! (saving \$ millions)**

Shouldn't this be a primary criteria for the project?

 The primary benefit of this alternative is that a portion of Farrington Highway would be relocated away from tidal influences during winter and heavy surf conditions. It would increase the width of the travelway in both directions of traffic and increased space would be made available on the bridge shoulders for pedestrians and bicyclists. The replacement bridges would be constructed to meet current design standards for bridge structures, but would require major effort to realign only a relatively short segment of Farrington Highway.

The following arguments ignore everything related to the Makaha Beach Master Plan

This Design Alternative would also require the need to identify and acquire new DOT right-of-way. Properties that adjoin the existing project site include residential, private, and governmental land. Depending on the final alignment properties that could be impacted include multiple single-family residences, the Mākaha Beach Park owned by the City and County of Honolulu, two parcels owned by telecommunications utilities (AT&T and Pacific LightNet Inc.), and other undeveloped parcels.

The process for acquisition of new DOT right-of-way would be similar to Design Alternative 3 and would also involve major impacts to landowners because of loss of all or a portion of their existing properties. As previously identified, the factors that would need to be considered include:

- Design and engineering effort would be required for the portion of the new alignment that will need to connect the northwest end of Mākaha Bridge No. 3A and the southeast end of Mākaha Bridge No. 3 with Farrington Highway;
- Design and engineering effort for a new highway segment between the proposed new bridges along the highway;
- Negotiation and determination of costs associated with compensation to landowners for acquisition of property. This would include administrative costs for negotiation, property appraisal, and processing and coordination of legal documentation necessary to complete the land transactions; and
- Depending on the proposed realignment of the highway there will be potential for additional environmental impacts to land and social impacts to landowners that would require further evaluation and assessment. This would include potential for the filing of environmental/land use permit applications beyond those identified for Alternative No. 2, as described in this document.

The time, effort, and projected expense required for Design Alternative 4 would exceed that of all other alternatives considered. A preliminary estimate is that several years would be required to: (1) obtain major new funding for a highway realignment that includes compensation for acquisition of new property as well as construction of two new bridges; (2) coordinate the design and engineering of a realigned segment of Farrington Highway with adjoining and affected property owners and governmental agencies; (3) acquire and record property for new highway right-of-way by negotiation or condemnation; and (4) identify, prepare, file, and process major environmental entitlements and studies such as an Environmental Impact Statement (EIS)/EA and environmental and land use permits. Construction costs would involve not only the expense for two new replacement bridges, but the added expense for a new segment of highway.

While this alternative meets the stated purpose and need of the proposed project, it is similarly not considered a viable nor feasible alternative and is also rejected from further consideration due to: (1) the need for acquisition of new highway right-of-way is undesirable because of potential for major economic and social disruption to property owners; (2) when considered in light of the Preferred Design Alternative 2, this alternative would unnecessarily exceed the

stated purpose of the proposed project which is to replace two existing deficient bridges (e.g., structurally deficient and functionally obsolete); and (3) this alternative as well as Design Alternative 3, would require not only the replacement of the existing bridges, but the major realignment of Farrington Highway for only a relatively short segment along the area of the Mākaha Beach Park.

3.6 BY-PASS ROAD ALIGNMENT ALTERNATIVES

Mauka or makai alignment alternatives for the by-pass road were also considered by HDOT. The mauka alternative was rejected for the following reasons:

- A coastal estuarine pond (*muliwaʻi*) exists along the mauka side of Bridge 3A. Construction of a by-pass road on the mauka side of the project area would result in significant adverse effects to the *muliwaʻi*; and
- An existing residence located mauka of the western end of the project site, next to Bridge 3, is situated approximately 30 feet away from the existing right-of-way. This narrow width cannot accommodate a temporary by-pass road without causing significant property, noise, and traffic impacts to the homeowner, as well as interfering with construction of the proposed bridge structure.

Because of these existing conditions that encumber the possibility of a by-pass road along the mauka-side of the project area, the only alternative available is a temporary by-pass road built along the makai side of the project site.

These are the ONLY two reasons a by pass road has to go onto the beach an encroach the certified shoreline????