Memorandum

U.S. Department
of Transportation
Federal Transit
Administration

Subject: Recommendation to Advance the Final Environmental Impact Statement for the Honolulu High-Capacity Transit Corridor Project

Date: May 4, 2010

From: Raymond Sukys
Director, Office of Planning and
Program Development, TRO-IX

To: Leslie T. Rogers
Regional Administrator, TRO-IX

Summary

This memorandum documents FTA consideration of two design refinements to the alignment of the Honolulu High-Capacity Transit Corridor Project (Project) at or near the Honolulu International Airport (HNL) for the purpose of determining whether the changes require preparation of a supplement to the draft environmental impact statement (draft EIS). The design refinement will move the project substantially out of the Runway Protection Zone (RPZ) of the HNL and is consistent with FTA's practice of refining the location of a project's alignment to mitigate impacts identified between the publication of the draft EIS and the final EIS. An analysis of the environmental impacts caused by the airport design refinements has been prepared by the City and County of Honolulu (City) in accordance with 23 CFR § 771.130(c) and reviewed by FTA. Based on this review and FTA's independent review, which included a site visit by FTA staff, as well as consultations among the agencies involved, I conclude that the impacts associated with these changes are not themselves significant, and occur in an Project area that was addressed in the DEIS, and therefore, do not require a supplement to the draft EIS prior to issuance of a Final EIS.

Description of Refinements

There are two locations for refinement of the design on or near HNL. Near the planned Mauka Terminal, the alignment will no longer be adjacent to H1 as described in the draft EIS. The alignment will now elevate over H1 with a median support to allow it to arc over the freeway to provide sufficient clearance for the planned Mauka Terminal (see Figure 1).

The second change is near the eastern end of HNL (see Figure 2). The alignment will no longer continue down Aolele Street as described in the draft EIS. Instead, heading in an easterly direction (toward Koko Head) from the Honolulu Airport Station, the alignment follows Aolele Street on the "mauka" side (toward the mountain) approximately 5,000 feet until it begins a transition across six parcels (all partial takes owned by HDOT) to Ualena Street. This parallel shift of approximately 200 feet toward Ualena (which is the approximate length of the parcels), places the rail alignment on a

course to avoid all but a short non-central edge of the RPZ for runway 4R/22L. The alignment continues on Ualena to the newly located Lagoon Drive Station which takes two full parcels, four partial parcels, and three businesses. East of Lagoon Drive the street name changes to Waiwai Loop and takes two full parcels, one partial parcel, and one business to enter Ke'ehi Lagoon Park. Within Ke'ehi Lagoon Park the alignment travels about 1,200 feet until it intersects the alignment described in the 2008 draft EIS. Overall, the shift to Ualena shortens the amount of alignment in the park by 800 feet from the 2,000 feet described in the 2008 draft EIS and nearly completely avoids the RPZ.

Background

In January 2009, Honolulu City Council Resolution 08-261 identified the Airport Alternative as the preferred alternative for the development of a final EIS rather than the Salt Lake alignment as described in the draft EIS.. On June 30, 2009, however, FTA's Project Management Oversight consultant (PMOC) advised the City that the project alignment intruded into two runway protection zones (RPZ) for HNL runways 4L/22R and 4R/22L.[1] At a meeting on October 19, 2009, and in numerous informal consultations, representatives from FTA, the City, Federal Aviation Administration (FAA), and the Hawaii Department of Transportation – Airports Division (HDOT) conferred on the best course of action to ensure compatibility between airport operations and the Project.

On November 3, 2009, the City proposed to shift Runway 4R/22L and the associated taxiway several hundred feet to the south and lower Runway 22R's declared landing distance to indicate use of this runway by slower aircraft in Aircraft Approach Category A and B. The City's intent was to allow the Project alignment to be outside of the central portions of the RPZ.

FAA evaluated the Project alignment options at HNL, including the City's proposal to shift Runway 4R/22L, and briefed the City, HDOT, and FTA over the course of several meetings. See, *Federal Aviation Administration Input for the Federal Transit Administration Honolulu High-Capacity Transit Corridor, An Evaluation of the HNL Rail Transit Alignment Options, April 7, 2010*, attached. As expressed in the evaluation, FAA generally does not support lowering declared landing or takeoff distances of runways as a means to mitigate adverse impacts caused by the introduction of a new penetration of the RPZ. Nonetheless, FAA undertook an analysis of the City's proposed mitigation of shifting the runway and lowering of declared distances. These potential impacts would have included relocating expensive visual and electronic navigational equipment, critical power and communication cables, and runway lights, and would have required the development of new approach and departure procedures. Some key permanent and temporary airport impacts that could also affect sensitive ecological resources, other Federal operations, and surrounding communities are outlined below and described further in the FAA evaluation.

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[1] FAA Advisory Circular (AC) 150/5300-13, *Airport Design*, Paragraph 212, indicates the RPZs' function is to enhance the protection of people and property on the ground. The runway protection zone is trapezoidal in shape and centered about the extended runway centerline. AC 150/5300-13 provides the required dimensions for a runway protection zone, which is a based on the type of aircraft using the runway and the approach visibility minimum associated with that runway end.

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During construction at the airport, Runway 4R would be out of commission for an extended period of time. This would affect the airport's ability to maintain the safe flow of traffic and would remove from service one of the two runways at the airport with an instrument landing system that is needed when visual landings cannot be conducted. Runway 4R is also one of two runways for which the U.S. Air Force maintains a Barrier Arresting Kit-12/14 system that is used for emergency recovery of high performance military aircraft. During Project construction, if there were a military aircraft emergency, the U.S. Air Force would have to rely on the same runway that all passenger and cargo arrivals and departures use, resulting in substantial delays and potential diversions of airport traffic. The U.S. Air Force would also be without a backup arresting barrier system.

Runway 4R also serves as the main arrival runway at HNL during night-time hours in order to reduce adverse noise impacts to noise sensitive land uses to the west of the airport. Shifting the traffic to other runways at night during construction would increase the number of residential communities exposed to adverse noise impacts and would add to airport traffic delays in arrivals at the airport.

A Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) extends approximately 2,400 feet beyond the end of Runway 4R. Shifting the runway south toward the lagoon would mean that new runway light stations would be required in the environmentally sensitive lagoon. This area is designated by the State of Hawaii as conservation land and any use would need a conservation use permit and potentially a U.S. Army Corps permit and Clean Water Act permit. The use of conservation lands is regulated by the State of Hawaii, Board of Land and Natural Resources. In addition, consultation with the U.S. Fish and Wildlife Service regarding any federally listed threatened and endangered species and any Coastal Zone development issues would likely be required.

Substantial further analysis would be required to determine whether any of these changes would be feasible at HNL and what the full effect of potentially significant environmental and financial impacts would be. FAA and HDOT estimated that the airport-related costs from shifting the runway and use of declared distances could range between $102.2 million and $127.8 million and would require two to three years of additional safety and environmental analysis.

Due to the complex nature of operations at HNL, refining the proposed alignment was determined to be the least impacting choice. In a meeting at the FAA on January 13, 2010, the City presented three possible RPZ avoidance refinements: 1) Aolele transitioning to Ualena, 2) Under the access ramps to Koapaka Street, and 3) Makai H1 or adjacent to H1 on the sea side of H1. Initially, upon this early screening, it appeared that Koapaka Street would be the least impacting choice based on a review of impacts that included property acquisitions, relocations, traffic, access and constructability. As more information was obtained, especially related to property access/parking takes and utility relocations, it became increasingly clear that Aolele transitioning to Ualena would be a better choice to mitigate impacts to the RPZ and HNL. Koapaka Street has businesses and utilities on both sides of the street in much of the alignment which reduce options for locating the alignment. Greater costs may arise from longer construction durations, utility relocations and access mitigations. Ualena Street has utilities mostly on one side of the street and does not have as many access issues, especially in areas that are under an airport lease that will eventually revert to an airport use. Also, Koapaka Street requires a difficult under freeway ramp approach which is not present with Ualena Street. Koapaka

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and Ualena Streets have similar land uses and can be characterized as urban warehouse areas, and the transition to Ualena street results in a much shorter intrusion into this area.

On April 5, 2010, the City proposed the refined Airport design from Aolele transitioning to Ualena, to avoid the impacts associated with encroachment into the central portion of the runway protection zones for Runways 4R/22L and 4L/22R.

Review of Potential Impacts Related to Refinements

Mauka Terminal

The change near the proposed Mauka Terminal is very minor. The alignment will elevate above the freeway, approximately 45 feet, which will make it visually noticeable but not affect airport or highway operations. Some new construction impacts may occur possibly with a lengthening of construction duration which may cause traffic delays. The construction mitigations that are identified for the project will negate the effects of this refinement. The Federal Highway Administration (FHWA), FAA, and HDOT support this change, which will be documented in the FEIS. This change in itself does not affect growth or land use; does not relocate any individual or business; does not affect any cultural, recreational, historic, or other resource; does not involve significant air, noise, or water quality impacts; does not have significant impacts to travel patterns; and does not individually or cumulatively have any significant impacts. The terms of the Programmatic Agreement will satisfy Section 106 requirements and apply to the location of excavations and, if necessary, to the disposition of recoveries.

Aolele Street Transitioning to Ualena Street

FTA, FAA, HDOT Airports Division, and the City evaluation of a range of options to avoid the RPZ concluded that the proposed airport design refinement to transition from Aolele to Ualena Street for a short distance at HNL is the option with the fewest impacts. To determine whether the redesign would require supplementation and recirculation of the draft EIS, FTA has considered whether the new design results in significant changes to the environmental impacts addressed in the draft EIS and whether the public had fair notice of the potential impacts. Both FAA and the City analyzed these impacts. See attached *Summary of Supporting Documentation Honolulu High-Capacity Transit Corridor Project Final EIS Refinement of Airport Alternative (Aolele Street Transition to Ualena Street) as presented in Draft EIS, November 2008 (April 29, 2010).*

Additional acquisitions of commercial real estate will be required than identified in the draft EIS. The Airport design refinement will require the acquisition of 4 full parcels and 11 partial parcels and include 5 business displacements. The Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs Act will apply. HDOT has noted that they have several vacant properties in the vicinity and that the vacancy rate is high in this area. These impacts were addressed in the draft EIS discussion of the Ualena alternative at Chapter 5-12.

Overall, the Airport Alternative presented in the Draft EIS covers a larger area than the design refinement area adjacent to HNL. The Airport Alternative would have had moderate noise impacts at 6 areas and the FEIS will be revised to have moderate noise impacts at 8 areas. None of these impact areas are located within the immediate vicinity of the Airport design refinement areas.

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There will be no significant transportation effects to parking and freight traffic. There will be impacts related the effects of construction activity on local streets and new property acquisitions, but the City will mitigate these impacts with further community input prior to the scheduling of construction activity. Community or business input could determine the best scheduling window for heavy construction activity, but this must be done when the construction schedule becomes clear after the award of a construction contract. Since this is not a residential area, further mitigation could occur by working at night, which would have the effect of reducing or minimizing access issues.

The design refinement from Aolele Street to Ualena Street shortens the amount of alignment in Ke'ehi Lagoon Beach Park by approximately 800 feet from the 2,000 feet described in the draft EIS and places the alignment primarily in the parking lot. The Project will enter the Park mauka of the main entrance from Waiwai Loop and will be elevated over approximately 1 acre of the park. There will be temporary impacts during construction and mitigation consistent with other parts of the corridor. The refined design will not change the overall effect on community services and facilities. The changes to the Park will be documented in Chapter 5 of the Final EIS (Section 4(f) Evaluation).

Environmental impacts in the areas of economic activity, and neighborhoods, environmental justice communities, visual and aesthetic conditions, air quality, energy, hazardous waste, ecosystems, water, and street trees have remained substantially the same for the Airport Alternative presented in the Draft EIS compared to the design refinement.

Overall, the Airport Alternative identified in the DEIS would have had adverse effects on 33 historic resources and effects on five cultural resources (this includes an additional resource per HRS § 343-2). There are no cultural resources in the vicinity of the design refinement.

On April 28, 2010, FTA has proposed an amended Area of Potential Effects (APE) to reflect the design refinement. The revised APE would follow the approach that FTA established with the Hawaii State Historic Preservation Officer (SHPO) in December 2007. A map showing the new proposed APE in this area is included as an attachment to this letter. The FTA has surveyed all built resources constructed prior to 1969 within the revised APE. In addition, architectural historians who meet the Secretary of the Interior's Standards for Professional Qualifications assessed each property for National Register of Historic Places eligibility. FTA has made an initial determination that there are no historic resources eligible for listing on the National Register of Historic Places within the area proposed to be added to the APE. Eligibility forms for each pre-1969 property within the revised APE were attached to the letter. Because FTA has made an initial determination that no new eligible resources are present within the revised APE, FTA does not expect that the project will have any effect on additional historic properties within this new area, and the refinement of the proposed alignment would not change the adverse effect determinations for the overall project.

The design refinement would bring the alignment closer to the National Register eligible Hawaii Employers Council Building's (HECB) setting, feel, and association. Ground vibration from construction activities is not likely to reach a level that could damage this structure. But the new proximity of the rail alignment to the HECB is within a range such that, as a precautionary measure, FTA would require further study on construction-related vibration during final design. This evaluation would be included in the Noise and Vibration Mitigation Plan already specified in Stipulation X of the current draft of the Programmatic Agreement. The Noise and Vibration Mitigation plan would contain numeric limits, monitoring measures, and mitigation based on FTA's 2006 *Transit Noise and Vibration Guidance*.

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Additionally, this refinement does not change any of the resources addressed in or commitments made in the current draft of the Section 106 Programmatic Agreement; therefore, the FTA does not intend to propose any changes to that document related to the design refinement. The terms of the draft Programmatic Agreement, once signed, will satisfy Section 106 requirements and apply to the location of excavations and, if necessary, to the disposition of recoveries.

FTA's PMOC has reviewed the Airport redesign area during the business and during evening off-peak hours for the potential of impacts and any constructability issues not noted in the studies by the City. FTA's PMOC did not identify any impact concerns other than those noted above.

On March 16, 2010, I personally conducted a site review with City staff and consultants, FTA legal counsel and FTA's Director, Office of Human and Natural Environment. Based on the site review in combination with the material presented in the FAA's and City's reviews, I did not identify impacts that would require further environmental analysis through supplementation.

Thus, the impacts related to the transition from Airport design refinement from Aolele Street to Ualena Street are themselves not significant. The change affects a small area of impact relative to the overall project. The area of the design refinement is described in the draft EIS and its resources identified. The public had notice and a fair opportunity to comment on the impacts. Most environmental impacts remain substantially unchanged or are lessened when compared to the alternative that was described in the draft EIS. This change in itself does not induce significant impacts to growth or land use; does not relocate significant numbers of individuals or businesses; does not have a significant impact to any cultural, recreational, historic, or other resource; does not involve significant air, noise, or water quality impacts; does not have significant impacts to travel patterns; or does not otherwise, either individually or cumulatively, have any significant impacts. The effects are similar to the airport alignment presented in the draft EIS. Finally, the redesign causes no change to the overall cumulative effects of the Project.

Conclusion and Recommendation

Based on review of the information submitted by the City, discussions with multiple agencies involved, and independent review, FTA staff has made an initial determination, pursuant to 23 CFR § 771.130(b) (2), that "changes to the proposed action . . . [will] result in a lessening of adverse environmental impacts evaluated in the EIS without causing other environmental impacts that are significant and were not evaluated in the EIS."

Consequently, I recommend that the information and impacts associated with the design refinements at Honolulu International Airport which include the area near the Mauka Terminal and the transition from Aolele Street to Ualena Street at HNL be incorporated in the final EIS and that FTA invite public comment in that document. Thus, there is no need to issue a supplement to the draft EIS for the design refinements documented in this memorandum.

In addition, I recommend that FTA continue to engage in the necessary consultation under Section 106 of the National Historic Preservation Act in order to assess the effect of the design refinements in the alignment on properties that are eligible for or may be eligible for the National Register of Historic Properties. Through the course of that consultation, FTA will reconsider this determination if new information relevant to environmental concerns is discovered.

Attachments:

Figure 1 – Alignment near Mauka Terminal

Figure 2 – Transition from Aolele Street to Ualena Street

Supporting Documents and Discussion Dates

Leslie T. Rogers

Regional Administrator

CONCUR: Leslie Rogers 5/4/10

NON-CONCUR: _____

COMMENTS: _____

DATE: 5/4/10

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Figure 1 – Alignment near proposed Mauka Terminal

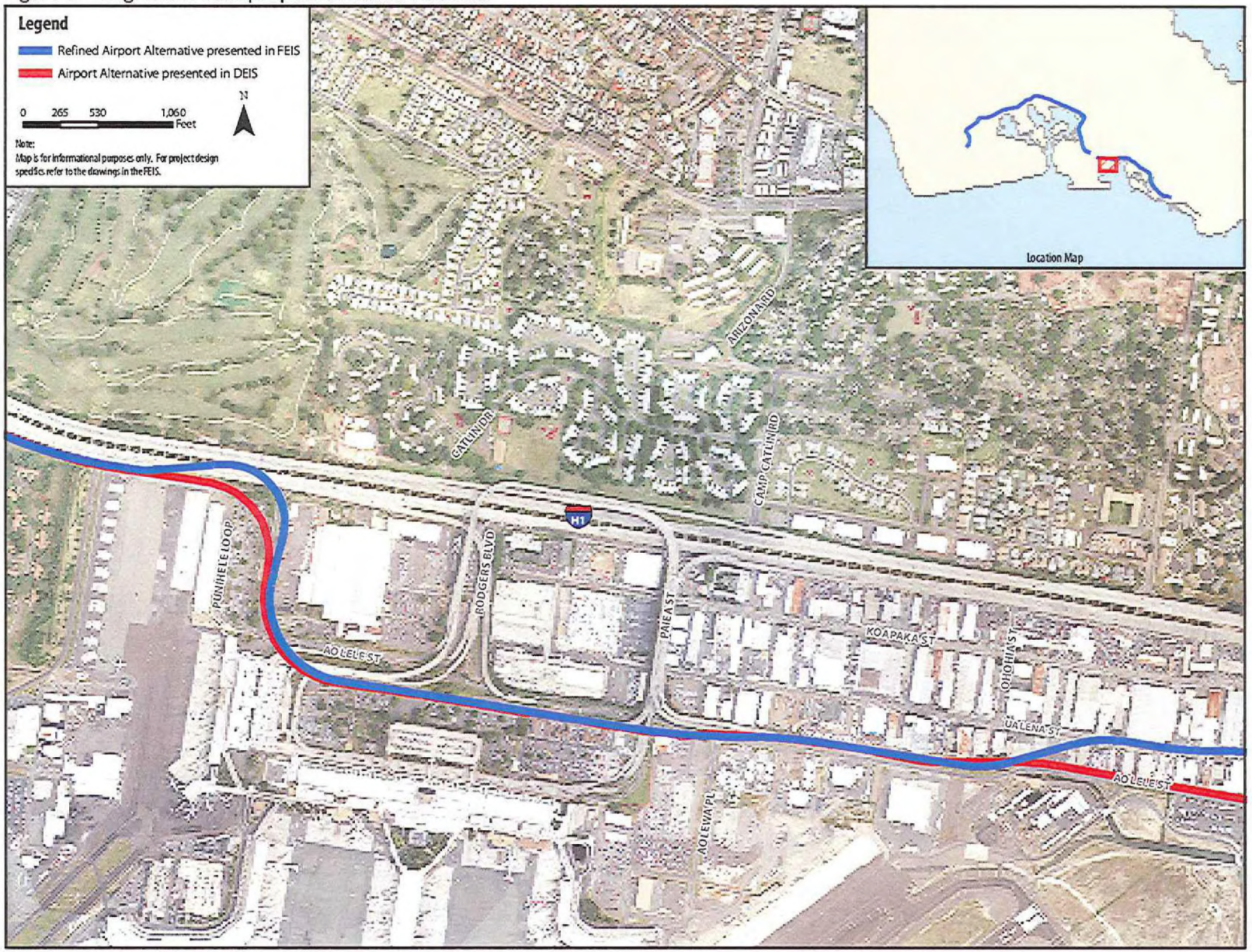

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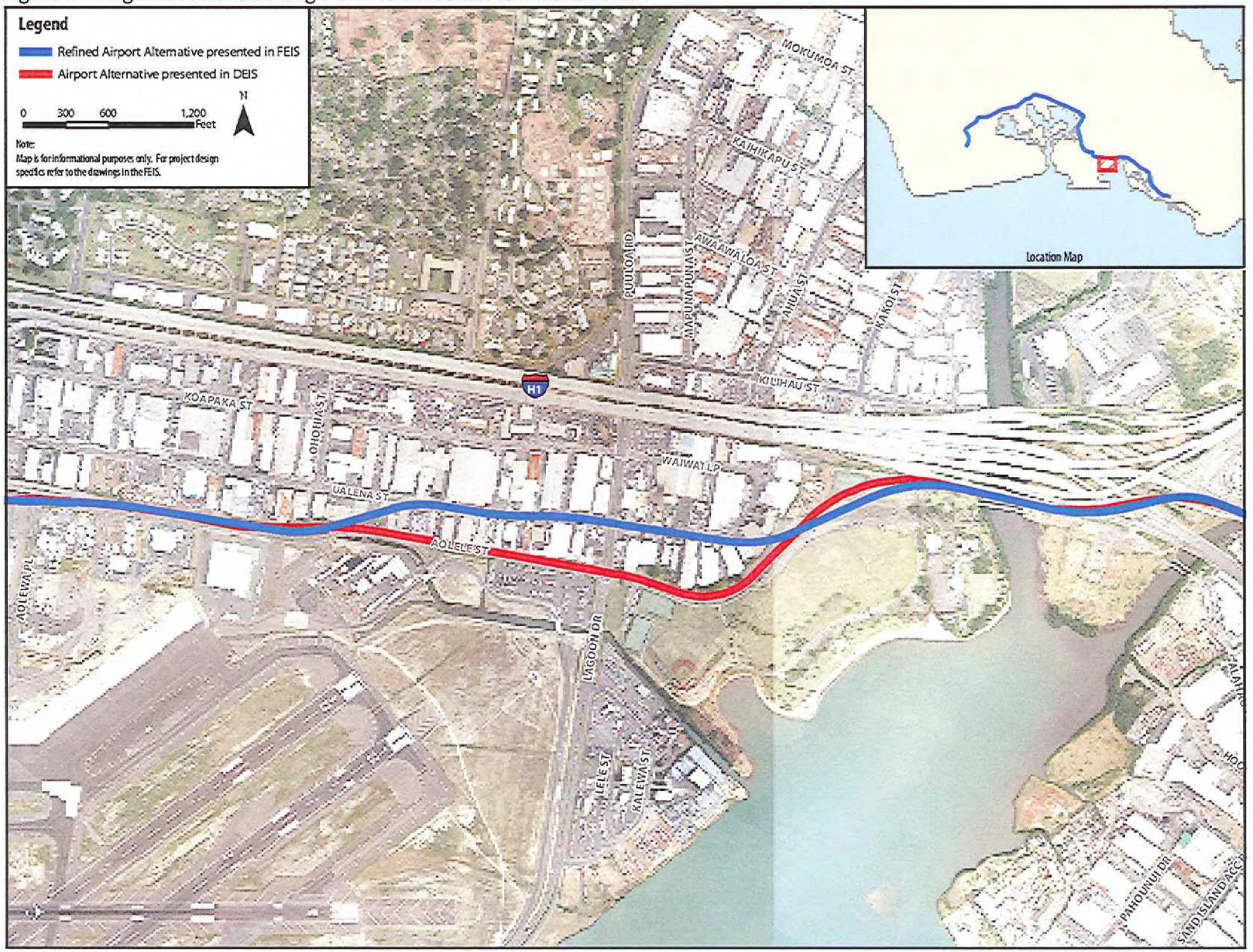
Figure 2 – Alignment transitioning from Aolele Street to Ualena Street



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Supporting Documents and Discussions

FTA has independently reviewed numerous documents, drawings and e-mails that provide information on the environmental impacts associated with the proposed Ualena Street realignment. A non-inclusive list of those documents is provided here, all of which are attached:

- June, 17, 2009 – Memorandum to Dave Chamberlain and John Englert of Jacobs Engineering from Heath Marsden and Steve Berardo of Jacobs Engineering on the Honolulu High Capacity Transit Project near HNL Runways 22L/22R [HNL HHCTOP Memo 09-06-23.pdf]
- March 31, 2010 – Initial City of Honolulu submittal containing information on impacts along Ualena Street [Ualena Option.doc; UalenaAlternative.pdf; UalenaEligibilityForms.pdf; App B Plan-Prfile Ualena.pdf; Appendix C ROW sheets for Ualena.pdf; historic resources.pdf; Original APE from DEIS.pdf; Visual Simulation Keehi Lagoon Beach Park (with Aolele to Ualena St. transition).pdf]
- April 6, 2010 – Subsequent City of Honolulu submittal containing information on impacts along Ualena Street and information request by FTA [Response Airport Options.doc; Alignment Info.xls]
- April 7, 2010 - Federal Aviation Administration Input for the Federal Transit Administration Honolulu High-Capacity Transit Corridor, An Evaluation of the HNL Rail Transit Alignment Options
- April 7, 2010 – Email from Timothy Mantych (PMOC) to Nadeem Tahir (FTA) and Raymond Sukys (FTA) containing the PMOC's analysis of potential impacts along Ualena Street and possible mitigation
- April 21, 2010 – Email from Elizabeth Zelasko (FTA) to Christopher Van Wyk (FTA) and Carl Bausch (FTA) concerning the proximity of the Ualena Street alignment to the Hawaii Employers Council Building
- April 29, 2010, - Summary of Supporting Documentation Honolulu High-Capacity Transit Corridor Project Final EIS Refinement of Airport Alternative (Aolele Street Transition to Ualena Street) as presented in Draft EIS, November 2008 (April 29, 2010)

As part of its review, FTA also engaged in numerous discussions over the relative levels of environmental impacts from the minor variation in alignment. A non-inclusive list of those meetings is provided here:

- October 19, 2009 – FTA, HDOT, FAA and the City at the FAA's office in HNL
- December 10, 2009 – Teleconference with FAA, City, HDOT, and FTA
- December 21, 2009 –Teleconference with FAA, DTS, HDOT, and FTA
- January 13, 2009 – City and FAA at FAA Western Pacific Region
- February 26, 2010 – FAA and FTA at FTA HQ, Washington, DC
- March 3, 2010 – FAA and FTA at FTA Region IX
- March 9, 2010 – FTA and Council Members of City/County of Honolulu in Washington, DC
- March 16, 2010 – FTA site visit to review various alignments including Ualena Street alignment in Honolulu
- March 17, 2010 – FTA, FAA, City, and HDOT in Honolulu
- April 20, 2010 – FTA and Mayor of Honolulu in Washington, DC