



U.S. Department
of Transportation
**Federal Transit
Administration**

Memorandum

Subject: Recommendation to advance the Final Environmental Impact Statement for the Honolulu High-Capacity Transit Corridor Project Date: April 28, 2010

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

To: Leslie T. Rogers
Regional Administrator

Summary

This memorandum documents the Region 9 Office of Planning and Program Development's review of whether to supplement the November 2008 draft Environmental Impact Statement (EIS) for the Honolulu High-Capacity Transit Corridor Project (Project) due to refinements of the alignment at or near the Honolulu International Airport (HNL) stemming from security and Runway Protection Zone (RPZ) issues. The City and County of Honolulu (City) developed an analysis of the environmental impacts caused by the refinement specifically associated with the RPZ in accordance with 23 CFR § 771.130(c). Based on FTA's own independent assessment of the City's analysis, which included a site review by several FTA staff, and numerous discussions among the agencies involved, I recommend that there is no need to supplement the draft EIS prior to issuance of a final EIS. These changes are consistent with FTA practice of refining the location of a project's alignment to mitigate impacts identified during the draft EIS phase.

Description of Refinements

At HNL there are 2 locations where the alignment is being shifted. Near the planned Mauka Terminal, the alignment will no longer be adjacent to H1 as described in the draft EIS. In response to HDOT and FAA comments about clearance requirements, the alignment will now elevate over H1 with a median support to allow it to arc over the freeway which provides sufficient clearance for the planned Mauka Terminal, see figure 1.

This memorandum will concentrate on the second change which is near the eastern end of the airport, 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 (which means 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 and four partial parcels and three businesses. East of Lagoon Drive the street name changes to Waiwai Loop and takes one partial and two full parcels 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 the City identified the Airport Alternative as the preferred alternative for the development of a final EIS through Honolulu City Council Resolution 08-261. This preferred alignment in the vicinity of HNL would enter airport property on the northwest section of HNL, would continue east and cross onto Aolele Street where it would run along the mauka side of the road, and continue through HNL property until it reached Lagoon Drive.

The City was formally notified by FTA's Project Management Oversight consultant on June 30, 2009, that the project alignment intruded into two runway protection zones (RPZ) for HNL, runways 4L/22R and 4R/22L.¹ This discovery spurred numerous discussions between the City and FTA. On October 19, 2009, representatives from FTA, the City, Federal Aviation Administration (FAA), and the Hawaii Department of Transportation – Airports Division (HDOT) met at HNL to determine the best course of action to ensure compatibility between airport operations and the Project. This meeting and subsequent discussions generally identified the many substantial impacts of the alignment that the City was then proposing.

To help mitigate the impact of the preferred alternative rail alignment on the runway protection zones, among other suggestions, the City proposed in a letter to FTA dated November 3, 2009 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 for the proposed mitigation was to allow the preferred alignment to remain outside of the central portions of the runway protection zones.

In response, FAA verbally shared some of their concerns with the City, HDOT, and FTA over the course of several discussions. FAA prepared and transmitted to FTA on April 9, 2010 an evaluation of the HNL rail transit alignment options. (*Federal Aviation Administration Input for the Federal Transit Administration Honolulu High-Capacity Transit Corridor*, April 7, 2010) As expressed in the evaluation, FAA generally does not support lowering declared landing or takeoff distances of runways that currently meet FAA design standards as a means to mitigate adverse impacts caused by the introduction of a new penetration of the runway safety area or runway protection zone.

¹ FAA Advisory Circular (AC) 150/5300-13, *Airport Design*, Paragraph 212, indicates the runway protection zone's 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 based on the type of aircraft using the runway and the approach visibility minimum associated with that runway end.

Although FAA does not support the use of declared distances for the placement of new facilities, 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 require the development of new approach and departure procedures. Some key identified 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.

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.

Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) extend 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, coordination with the U.S. Fish and Wildlife Service regarding any federally listed threatened and endangered species and any Coastal Zone development issues would need to be addressed.

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 cost of 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. Based on the discussions among the agencies and prior to the submission of FAA's evaluation document, the City sent a letter on April 5, 2010 to FTA's Administrator Peter Rogoff proposing a shift in the alignment to avoid 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 proposed near the proposed Mauka Terminal is very minor. The alignment will elevate above the freeway, approximately 70 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. 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

The change to avoid the RPZ at HNL has been the subject of very active discussion since the summer of 2009. Early efforts focused on mitigating the impacts to the RPZ at HNL by moving the runways. Due to the complex nature of operations at HNL, it became increasingly clear in 2010, that an off-site mitigation would 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. Later, as more information was obtained especially related to property takes and relocations, it became increasingly clear that Aolele transitioning to Ualena would be better choice to mitigate impacts to the RPZ and HNL.

There will be new impacts related the effects of construction activity on local streets and new property acquisitions. The City can mitigate these impacts with further community input just 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.

Additional acquisitions of commercial real estate will be required. The acquisition of 4 full parcels and 11 partial parcels will be required which will include 5 business displacements. The Federal Uniform Relocation Assistance and Real Property Acquisition Policies 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.

The FTA has amended the Area of Potential Effects (APE) to reflect this design refinement. The revised APE follows the approach that FTA established with the Hawaii State Historic Preservation Officer (SHPO) in December 2007. The revised 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. The FTA has determined that there are no historic resources eligible for listing on the National Register of Historic Places within the revised APE. Eligibility forms for each pre-1969 property within the revised APE are attached to this letter. Because no new eligible resources are present within the revised APE, the project would have no effect on historic properties within this new area, and the refinement of the proposed alignment would not change the adverse effect determination 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. However, 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 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*. See FTA letter dated April, 2010.

Additionally, this refinement does not change any of the resources addressed in or commitments made in the Section 106 Programmatic Agreement; therefore, the FTA does not intend to propose any changes to the Programmatic Agreement therefore will continue proceed with the execution of the current Programmatic Agreement. 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.

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

On March 16, 2010, I personally conducted a site review with City staff and consultants, Region 9's Counsel and FTA's Director, Office of Human and Natural Environment. The FAA and the City developed environmental reviews analyzing the environmental effects of Aolele transitioning to Ualena. Based on the site review in combination with the FAA's and City's reviews, I did not identify impacts that would require further environmental analysis through supplementation.

The impacts related to the transition from Aolele Street to Ualena Street are themselves not significant. Most environmental impacts remain 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.

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 refinements of alignment at Honolulu International Airport which include the area near the Mauka Terminal and the transition from Aolele Street to Ualena Street be incorporated in the final EIS and that FTA invite public comment in that document.

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 small shift 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 would 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 Discussions

Regional Counsel’s analysis of relevant case law

Leslie T. Rogers

Regional Administrator

CONCUR: _____

NON-CONCUR: _____

COMMENTS: _____

DATE: _____

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-Profile 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 – 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 21, 2010, - City of Honolulu draft evaluation of the Refinement of Airport Alternative (Aolele Street Transition to Ualena Street) presented in Draft EIS, November 2008 [Refinement of Airport Alternative FEIS, April 2010.pdf]

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

Regional Counsel's analysis of relevant case law