STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Land Division
Honolulu, Hawaii 96813

February 24, 2023

Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

OAHU

Request for Concurrence with Temporary Occupation Exception, Ala Wai Bridge Project, Federal-Aid Project No. TAP-0300 (159), Honolulu, Oahu; Tax Map Key: (1) 2-3-037.

BACKGROUND:

The City and County of Honolulu (CCH) Department of Transportation Services (DTS), in partnership with the State of Hawaii Department of Transportation (HDOT) and the Federal Highway Administration (FHWA), is proposing a new pedestrian and bicycle bridge over the Ala Wai Canal on the Island of Oahu.

The proposed project consists of a new pedestrian and bicycle bridge that would span the historic Ala Wai Canal (which was added to the Hawaii Register of Historic Places in 1992), improving access for people traveling by foot or by bicycle across the Ala Wai Canal between Ala Moana Boulevard and the Manoa/Palolo Stream and would connect the Waikiki, McCully, and Moiliili neighborhoods; businesses; parks; schools; and recreational activities. The proposed project is consistent with numerous regional and area plans that have been developed in the last two decades, including the Honolulu Complete Streets Program, which implements projects to improve safety, accessibility, and comfort for all people walking, bicycling, accessing transit, and driving. The proposed project is needed to provide safe and comfortable pedestrian and bicycle access across the Ala Wai Canal, improve nonmotorized emergency evacuation from Waikiki, improve travel time and convenience, improve environmental and public health, and provide affordable access.

Some images from the Draft Environmental Assessment and Anticipated Finding of No Significant Impact for the subject project published on March 23, 2021 are attached as **Exhibits A1** to **A2** for the Board's reference. CCH anticipates the Final Environmental Assessment will be published later this year.

Section 4(f) of the U.S. Department of Transportation Act

Since the project is federally funded, consideration under Section 4(f) of the U.S. Department of Transportation Act of 1966 is required. The same Act stipulates that the

FHWA and other U.S. Department of Transportation agencies cannot approve the use of land from publicly owned parks, recreational area, wildlife and waterfowl refuges, public and private historic sites unless the following conditions apply:

- There is no feasible and prudent avoidance alternative to the use of land; and the action includes all possible planning to minimize harm to the property resulting from such use; or
- The Administration determines that the use of the property will have a *de minimis* impact.

FHWA prepared a detailed analysis and justifications, including different construction methods, and determined that that there is no direct use of the Ala Wai Canal. The precast method and cast-in-place method will respectively close portions of the canal for about 3 and 4.5 months. Upon completion of each phase of construction, the temporarily closed portions of the canal will be reopened. FHWA went further to determine that the noise, vibration, and visual effect of the proposed project would not result in a substantial impairment of the activities, features, or attributes of the Ala Wai Canal. The proposed bridge spanning and associated park and parking improvements would not result in an ecological intrusion in this urban area. Accordingly, there is no anticipated constructive use of the Ala Wai Canal.

In its letter dated November 22, 2022 attached as **Exhibit B**, FHWA has identified various exceptions to the requirements of Section 4(f). One such exception, identified in 23 CFR 774.13(d), is temporary occupancies of land that are so minimal as to not constitute a use within the meaning of Section 4(f). FHWA finds that the five (5) conditions required for this exception are satisfied by FHWA's italicized findings described in Exhibit B:

1) Duration of occupancy must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land:

   The duration of the closure of the portion of the Ala Wai Canal is temporary, estimated at approximately 3-4.5 months as compared to 18-24 months for the duration of the entire Project. There would be no change in ownership of the land.

2) Scope of the work must be minor, i.e., both the nature and magnitude of the changes to the Section 4(f) Property are minimal:

   The scope of the work will be minor relative where approximately 1.6 acres will be temporarily occupied during construction compared to the approximately 4.5 acres (1.5mile length) that the Ala Wai Canal occupies. The majority of the Ala Wai Canal would not be impacted and would remain open to recreational users.

3) There are no anticipated permanent adverse physical impacts, nor will there be interferences with the protected activities, features, attributes or the property, on either a temporary or permanent basis:

   There would be no permanent adverse physical impacts to the property; the recreational activities, features, and attributes of the property would be maintained in other portions of the Ala Wai Canal during construction so that users could continue to recreationally utilize the Ala Wai Canal during construction.

4) The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project:

   All areas temporarily disturbed by the Project would be restored to preconstruction conditions or better. Upon completion of the bridge deck construction, all temporary construction equipment would be removed from Ala Wai Canal. Under either the precast or the CIP construction method, use of temporary construction equipment would not result in any physical impacts to the Ala Wai Canal that would require restoration, The contractor would be required to implement standard best management practices to prohibit the release of construction materials, fuels, etc. into the Ala Wai Canal.

   Construction of the makai and mauka bridge landings would not physically impact the Ala Wai Canal wall triggering the need for any restoration. The contractor would implement best management practices and techniques to protect in place the existing canal wall during construction of the cantilever sections of the bridge."

5) There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above condition:

   [FHWA] are seeking [State] concurrence with this letter that the proposed temporary occupancy meets the above conditions.

Pursuant to the discussion with CCH, staff understands that the subject concurrence is part of the National Environmental Policy Act process that CCH is working on in relation to this project. CCH understands that the concurrence, if granted, does not mean the construction of the project can commence. Upon subsequent conclusion of the environmental assessment process at both the federal and state levels, CCH is required to seek authorization from the Board, at a later date, to issue land dispositions in the form of a construction right-of-entry permit and easement before commencement of any construction phases of the project.

After review of the FHWY's findings in response to the requirements of being an exception to Section 4(f) described in Exhibit B and CCH's understanding of the subsequent process

described in the preceding paragraph, staff recommends the Board concur with the findings by FHWA articulated therein and authorize the Chairperson sign Exhibit B on behalf of the State as owner.

RECOMMENDATION: That the Board:

1. As the official with jurisdiction, find that the proposed project satisfies the conditions described above and meets the criteria for a temporary occupancy exception under Section 4(f) of the USDOT Act of 1966 for the Ala Wai Canal.

2. Authorize the Chairperson sign the letter attached as Exhibit B herein on behalf of the State of Hawaii as owner.

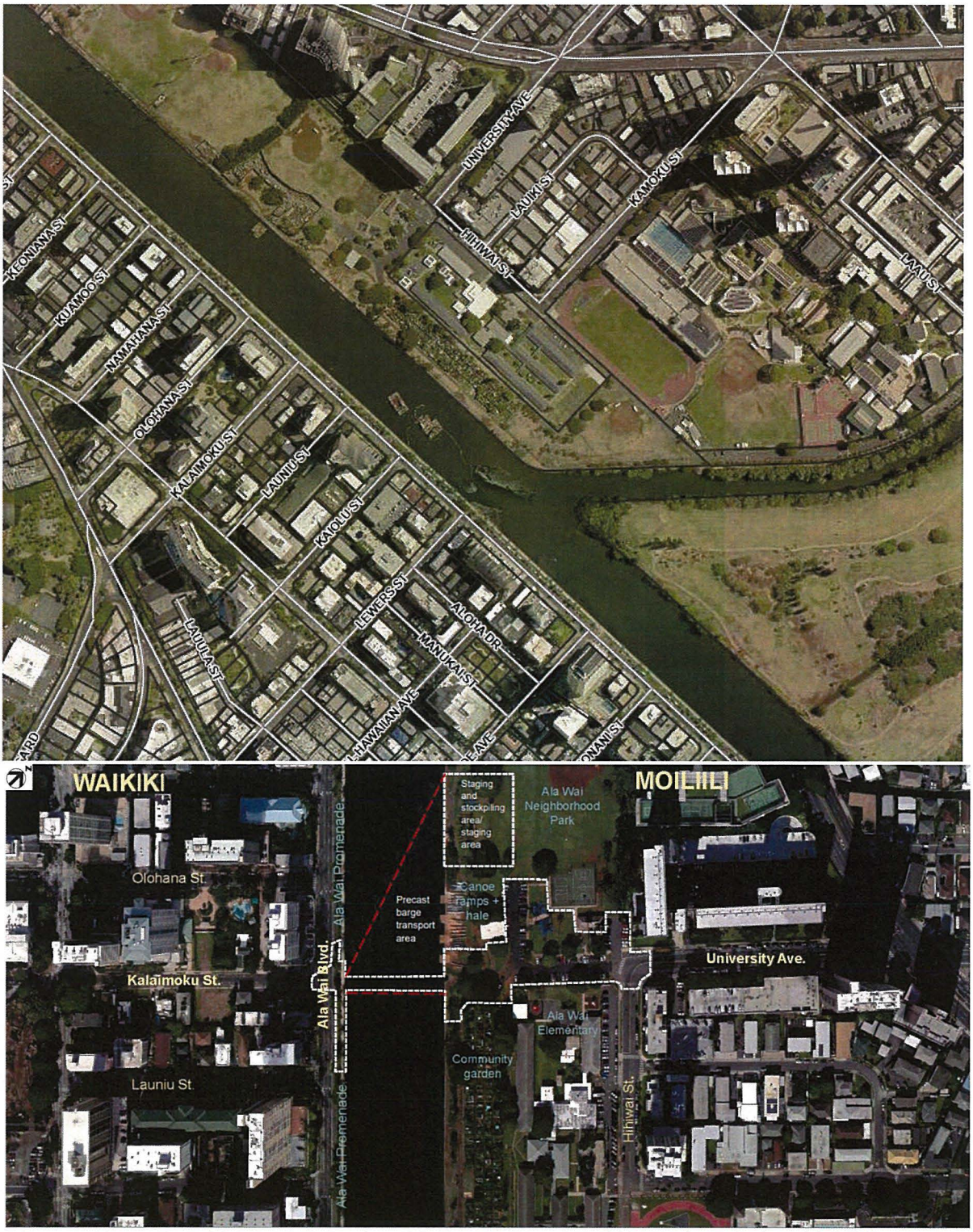
Respectfully Submitted,

Barry Cheung

Barry Cheung
District Land Agent

APPROVED FOR SUBMITTAL:

Dawn N. S. Chang, Chairperson RT

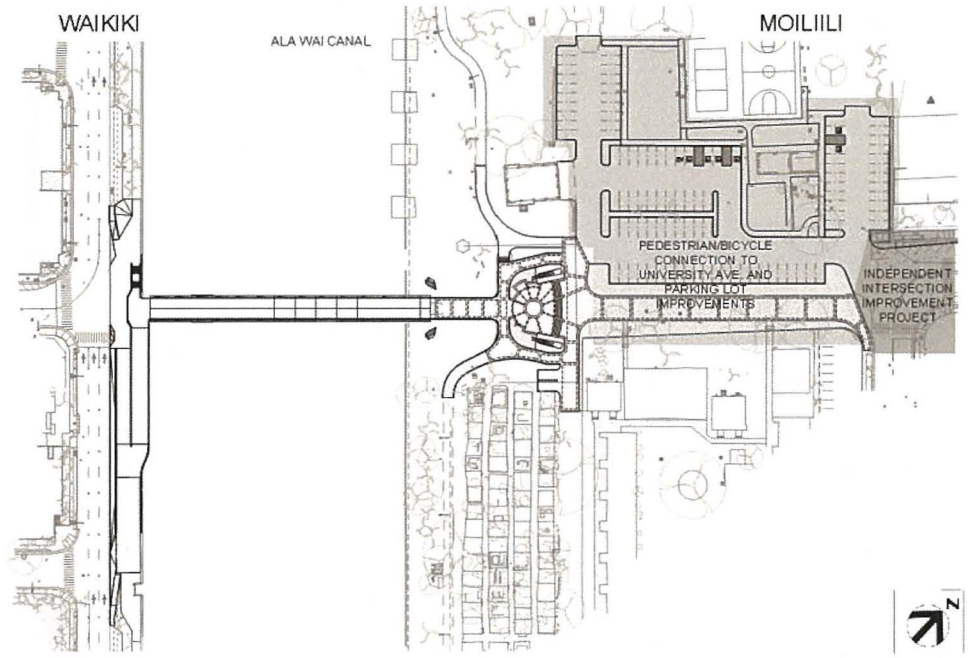


Source: Draft Environmental Assessment Ala Wai Bridge Project

Project Area (outlined in white)

EXHIBIT A-1

Figure 2-2. Site Plan



March 14, 2021 | 11

Draft Environmental Assessment
Ala Wai Bridge Project

Figure 2-3. Aerial View of Bridge

Source: Draft Environmental Assessment Ala Wai Bridge Project

EXHIBIT A-2

U.S. Department of Transportation
Federal Highway Administration

Hawaii Federal-Aid Division

300 Ala Moana Blvd, Rm 3-229
Box 50206
Honolulu, Hawaii 96850
Phone: (808) 541-2700
FHWA-Hawaii.Intake@dot.gov

November 22, 2022

In Reply Refer To:
HDA-HI

Ms. Suzanne Case
Director
Department of Land and Natural Resources
1151 Punchbowl Street, Room 130
Honolulu, HI 96813

Subject: Section 4(f) of the U.S. Department of Transportation Act
Request for Concurrence with Temporary Occupancy Exception
Ala Wai Bridge Project
Federal-aid Project No. TAP-0300(159)

Dear Ms. Case:

The Federal Highway Administration (FHWA), in cooperation with the State of Hawaii Department of Transportation (HDOT) and the City and County of Honolulu (CCH), Department of Transportation Services (DTS), is planning the Ala Wai Bridge Project located in the Waikiki Ahupuaa, Kona Moku, Island of Oahu. The Ala Wai Bridge Project involves constructing a new pedestrian and bicycle bridge over the historic Ala Wai Canal that connects the Waikiki, McCully, and Moiliili neighborhoods; businesses; parks; schools; and recreational activities. The project also includes a pedestrian and bicycle connection to University Avenue and reconfiguration of the parking lot mauka of the canal. The Ala Wai Bridge Project would provide a safe and reliable point of access for people traveling by foot or by bicycle across the Ala Wai Canal and would support numerous regional and area plans.

The proposed bridge is a cable-stayed design with an asymmetric configuration that uses a main concrete tower sited on the mauka side of the canal. Lighting would be incorporated in the bridge railings, tower, path, and parking design features. The tower would include facets designed to reduce wind loads and create a unique sense of place based on the time of year and atmospheric condition. The bridge would be approximately 26 feet wide to accommodate people walking and bicycling. The proposed bridge would span the historic Ala Wai Canal, which was added to the Hawaii Register of Historic Places in 1992. The bridge landing would be partially within the Ala Wai Neighborhood Park and portions of the Park would be occupied temporarily during construction and a smaller portion of the Park would be permanently incorporated as a result of construction of the proposed bridge. The overall project would require an easement for bridging over the Ala Wai Canal from the Department of Land and Natural Resources (DLNR) and additional coordination beyond this letter would be conducted. The project area is shown in the

EXHIBIT B

enclosed Figure 1 (white outline), as well as the possible limits of temporary closure of the Ala Wai Canal during construction of the bridge deck.

The proposed project is needed to provide safe and comfortable pedestrian and bicycle access across the Ala Wai Canal, improve nonmotorized emergency evacuation from Waikiki, provide Complete Streets connectivity, improve travel time and convenience, improve environmental and public health, and provide affordable access.

Section 4(f) of the U.S. Department of Transportation Act

Since the proposed project is federally funded, consideration under Section 4(f) of the U.S. Department of Transportation Act of 1966 is required. Section 4(f) of the U.S. Department of Transportation (DOT) Act of 1966 stipulates that the FHWA and other U.S. DOT agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless the following conditions apply:

- There is no feasible and prudent avoidance alternative to the use of land; and the action includes all possible planning to minimize harm to the property resulting from such use; or
- The Administration determines that the use of the property will have a *de minimis* impact.

The law, now codified in 49 U.S.C. §303 and 23 U.S.C. §138, is implemented by the FHWA through regulations in 23 CFR §774.

Identified Section 4(f) Property

The FHWA has evaluated the subject project in relation to the requirements of Section 4(f) and identified the Ala Wai Canal as a publicly owned recreation area and historical site subject to these requirements. The Ala Wai Canal is a human-made waterway that forms the boundary of the Waikiki district and is approximately two miles long. The Ala Wai Canal was constructed to serve as a drainage canal for the entire Ala Wai Watershed (approximately 1,358 acres). The canal separates Waikiki from the McCully, Moiliili, and Ala Moana neighborhoods. The proposed bridge alignment would span the canal, connecting to University Avenue on the mauka side of the canal and to Kalaimoku Street on the makai side of the canal.

The contractor could construct the proposed bridge using two methods: precast deck planks or casting the deck in place. The bridge deck would be constructed in a mauka-to-makai sequence and direction. The proposed precast construction method and the cast-in-place construction method are described below. Measurements and areas provided under each construction method describe "width" in the mauka to makai direction and "length" in the diamond head to ewa direction.

Precast Construction Method

The bridge deck would be comprised of 13 – 20 ft. wide precast deck segments that under the precast construction method would be constructed in three phases. The first phase involves the erection of the first four sections of the bridge deck, beginning at the mauka end. This phase would require an area approximately 100 ft. wide by 30 ft. long directly

beneath the bridge deck within the canal, to be temporarily closed. The first sections would take approximately four weeks to install. During this period, recreational activities would be allowed in the open, approximately 150 ft. wide area of the canal that is not in the active construction area and temporarily closed. See Figure 2 for an illustration of the proposed closure requirements for the precast construction method.

At the completion of the first phase of the bridge deck construction, the second phase of bridge deck construction would begin immediately. The second phase involves the erection of the next 5 - 20 ft. wide sections. This phase would require an area approximately 60 ft. wide by 30 ft long directly beneath the bridge deck within the canal, to be temporarily closed for each 20 ft. section to be installed. The 60 ft. wide by 30 ft. long closure area would shift in a makai direction as each 20 ft. segment is erected. These five segments would take approximately five weeks to install. During this five-week period, recreational activities would be allowed in the open, approximately 95ft. wide area of the canal on either side that is not in the active construction area and temporarily closed – refer to Figure 2.

The third and final phase of the bridge deck construction would begin immediately after the completion of the second phase. The third phase involves the erection of the last four sections to complete the bridge deck connection to the makai abutment. This phase would require an area approximately 100 ft. wide by 30 ft. long area directly beneath the bridge deck within the canal, to be temporarily closed. The last four sections would take approximately four weeks to install. During this four-week period recreational activities would be allowed in the open, approximately 150 ft. wide area of the canal that is not in the active construction area and temporarily closed – refer to Figure 2.

The canal would also be briefly closed for the movement of each bridge deck section from the precast yard on the mauka shore to the proposed bridge alignment construction area. Each section would be transported via a flexifloat pontoon barge and would take approximately 1 hour for transport. Therefore, at the beginning of each week of bridge deck section construction there would be a brief closure of a larger area of the Ala Wai Canal for this movement. The transport area is approximately identified in Figure 2. The exact brief closure area of the canal for the barge transport would be determined by the contractor. As the bridge deck construction progresses from mauka to makai the barge transport would have to traverse a larger area of the canal and thus a larger area would be briefly closed during this time for safety purposes. In total the incremental, temporary closure of the canal for the precast construction method would take approximately 3 months.

Cast-In-Place Construction Method

The cast-in-place (CIP) method of construction would not require using barges. Instead of sequentially placing precast sections into position across the canal, the CIP method would utilize what is called a "traveling formwork" for casting the deck in 20 ft. lengths. Once the first 20 ft. length is poured and cured for approximately 10 days, the formwork would slide across the proposed bridge alignment and be positioned for pouring the next 20 ft. length. Traveling formwork assembly is approximately 25 ft. long by 30 ft. wide and would extend down beneath the bridge deck for approximately 4 ft. to 6 ft. For

safety reasons, an area of approximately 50 ft. wide by 30 ft. long directly beneath the bridge deck within the canal, would be closed for recreational activities. At the end of each 10-day curing period the 50 ft. wide by 30 ft. long temporary, closure area would shift in the makai direction. See Figure 3 for an illustration of the proposed closure requirements for the CIP construction method. If the CIP method of construction is used the Ala Wai canal would have temporary partial closures for a length of 4.5 months.

In summary, the incremental, temporary closures of the canal for the precast construction method or the cast-in-place construction method would take approximately 3-4.5 months, which is a shorter duration than the overall project construction, 18-24 months. Upon completion of each phase of bridge deck construction the temporarily closed portion of the Ala Wai Canal would be reopened and no change of ownership would occur.

For safety, construction work areas would be demarcated with protective barriers and signage indicating safe passageways. Temporary closure of the portion of the Ala Wai Canal would be done via a buoy and notification system. The buoys would be positioned to clearly define the areas beneath the bridge that are closed to recreational vessels, much like the lane markers in a swimming pool during race events. The closure area limits would be defined during construction in coordination with the contractor and the paddling groups.

The partial canal closure would only occur during a portion of the time needed for overall project construction, would have a minor impact on canal users, and would not result in any physical impacts on the canal that would require restoration. Therefore, the temporary, partial closure of the Ala Wai Canal would result in a temporary occupancy.

No permanent structures would be installed in the Ala Wai Canal. Construction of the makai and mauka landings would cantilever out over the existing Ala Wai Canal walls. No physical impacts or weight bearing on the canal walls would result from the project. Furthermore, as stated above the Ala Wai Canal was originally constructed to serve as a drainage canal. Currently the Department of Land and Natural Resources manages and operates the canal to maintain its original purpose. The proposed clear span bridge design would help maintain the canal's drainage functions and purpose and would not interfere with the canal operations. Since the bridge would span the Ala Wai Canal and would not impact the canal walls or the protected features of the canal, the proposed project would not result in any direct impact on the canal or land acquisition. Therefore, there is no anticipated direct use of the Ala Wai Canal.

Since there is no direct use of the Ala Wai Canal, it was evaluated for a potential constructive use under Section 4(f) as well. A constructive use involves no actual physical use of the Section 4(f) property via permanent incorporation or a temporary occupancy of land into a transportation facility. Constructive use occurs when the proximity impacts of a project on an adjacent or near-by Section 4(f) property, after incorporation of impact mitigation, are so severe that the activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs when the protected activities, features, or attributes of the Section 4(f) property are substantially diminished. The Draft Environmental Assessment (EA) for the Ala Wai Bridge Project (March 2021) evaluated the construction and indirect effects of the proposed bridge project. Noise levels would temporarily increase during construction due to the presence and use of construction equipment. Upon completion of

construction, there would be no long-term noise impacts as a result of the proposed bridge. The presence and use of construction equipment are expected to have a negligible impact on recreational users in the area and paddlers on the canal. Therefore, anticipated noise impacts would not be so high as to reach the level of a constructive use.

Excavation and drilling of the shafts for the makai and mauka landings may result in small, temporary vibration effects. Vibrations would be limited by the use of temporary casings and a rotator/oscillator method that minimizes ground vibration by breaking the friction around the temporary casing. Upon completion of construction, there would be no long-term vibration impacts due to the proposed bridge. The temporary vibrations during construction of the drilled shafts are expected to have a negligible impact on surrounding properties and users.
The presence of construction equipment on the Ala Wai Canal would result in a temporary visual effect. As stated previously, upon completion of construction activities the spud columns and flexifloat pontoon barges would be removed from the canal. Permanently, the proposed project would create a new vantage point for pedestrian, bicycle, and recreational users to see the canal and surrounding areas and would increase access to the Ala Wai Canal. The canal currently provides an open and unobstructed viewplane. While there would be a visual effect or change in the landscape from the addition of the proposed bridge, the proposed bridge would not create a complete obstruction to the viewshed. In fact, the open cable design of the bridge would help maintain the open feeling and views through the proposed bridge to Diamond Head and the existing McCully Bridge. In addition, recreational users on the Ala Wai Canal would still be able to traverse and view freely through the Ala Wai Canal viewplane as they do currently.

The aforementioned noise, vibration, and visual effects of the proposed project would not result in a substantial impairment of the activities, features, or attributes of the Ala Wai Canal. In addition, the construction of the proposed bridge spanning the canal and associated Park and parking improvements would not result in an ecological intrusion in this urban area. For these reasons, there is no anticipated constructive use of the Ala Wai Canal.

Coordination with the State Historic Preservation Division

FHWA, HDOT, and CCH DTS are consulting with the State Historic Preservation Officer/ State Historic Preservation Division (SHPO/SHPD) as part of compliance with the National Historic Preservation Act (NHPA) Section 106 and the Hawaii Revised Statutes (HRS) Chapter 6E-8 consultation processes for potential project effects to the historic Ala Wai Canal. Formal consultation under NHPA Section 106 and HRS Chapter 6E has been initiated and is ongoing with SHPO/SHPD and interested parties. The proposed project is anticipated to result in an adverse effect under Section 106 and HRS Chapter 6E to the Ala Wai Canal. CCH DTS, FHWA, HDOT, SHPO/SHPD, and any interested parties are working together to resolve the potential project effect under the NHPA Section 106 and HRS Chapter 6E processes. FHWA has determined that although there may be an adverse effect under Section 106 to the Ala Wai Canal, there would not be a Section 4(f) use of the Ala Wai Canal beyond the temporary occupancy because there would not be a substantial impairment of the activities, features, or attributes of the Ala Wai Canal that contribute to its national register eligibility.

Request for Temporary Occupancy

The FHWA has identified various exceptions to the requirements for a Section 4(f) approval. One such exception, identified in 23 CFR §774.13(d), is temporary occupancies of land that are so minimal as to not constitute a use within the meaning of Section 4(f). To use this exception, the following conditions must be satisfied:

(1) Duration of occupancy must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land;
The duration of the closure of the portion of the Ala Wai Canal is temporary, estimated at approximately 3-4.5 months as compared to 18-24 months for the duration of the entire Project. There would be no change in ownership of the land.

(2) Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal;
The scope of the work will be minor relative where approximately 1.6 acres will be temporarily occupied during construction compared to the approximately 45 acres (1.5mile length) that the Ala Wai Canal occupies. The majority of the Ala Wai Canal would not be impacted and would remain open to recreational users.

(3) There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
There would be no permanent adverse physical impacts to the property; the recreational activities, features, and attributes of the property would be maintained in other portions of the Ala Wai Canal during construction so that users could continue to recreationally utilize the Ala Wai Canal during construction.

(4) The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project;
All areas temporarily disturbed by the Project would be restored to preconstruction conditions or better. Upon completion of the bridge deck construction all temporary construction equipment would be removed from the Ala Wai Canal. Under either the precast or the CIP construction method, use of temporary construction equipment would not result in any physical impacts to the Ala Wai Canal that would require restoration. The contractor would be required to implement standard best management practices to prohibit the release of construction materials, fuel, etc. into the Ala Wai Canal.

Construction of the makai and mauka bridge landings would not physically impact the Ala Wai Canal wall triggering the need for any restoration. The contractor would implement best management practices and techniques to protect in place the existing canal wall during construction of the cantilever sections of the bridge.

(5) There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.
We are seeking your concurrence with this letter that the proposed temporary occupancy meets the above conditions.

The FHWA requests concurrence from DLNR, as the official with jurisdiction, that the proposed project satisfies the conditions described above and meets the criteria for a temporary occupancy exception under Section 4(f) of the USDOT Act of 1966 for the Ala Wai Canal. If you concur, please help to facilitate this request by signing the concurrence line below and returning a copy via email to [redacted] We would greatly appreciate your assistance in reviewing the above information and providing us a response within 30 days of receipt of this letter.

If you have any questions, please feel free to contact Greg Shelton, Programs and Project Team Leader FHWA, at [redacted] or by email at [redacted] Thank you for your assistance.

Sincerely yours,

Digitally signed by GREGORY A SHELTON
Date: 2022.11.22 19:50:31 -04'00'

for Richelle M. Takara, P.E.
Division Administrator

Enclosures:
Figure 1 – Project Area
Figure 2 – Water Closures During Bridge Construction – Precast Option
Figure 3 – Water Closures During Bridge Construction – Cast in Place Option

cc: Roger Morton, CCH DTS
Meredith Soniat, CCH DTS
Peter Garino, CCH DTS

Concur:

The Department of Land and Natural Resources as owner of the Ala Wai Canal, concurs that the Ala Wai Bridge Project meets the criteria for a temporary occupancy exception, as described in 23 CFR §774.13(d).

_____ _____

Suzanne Case Date
Director, Department of Land and Natural Resources

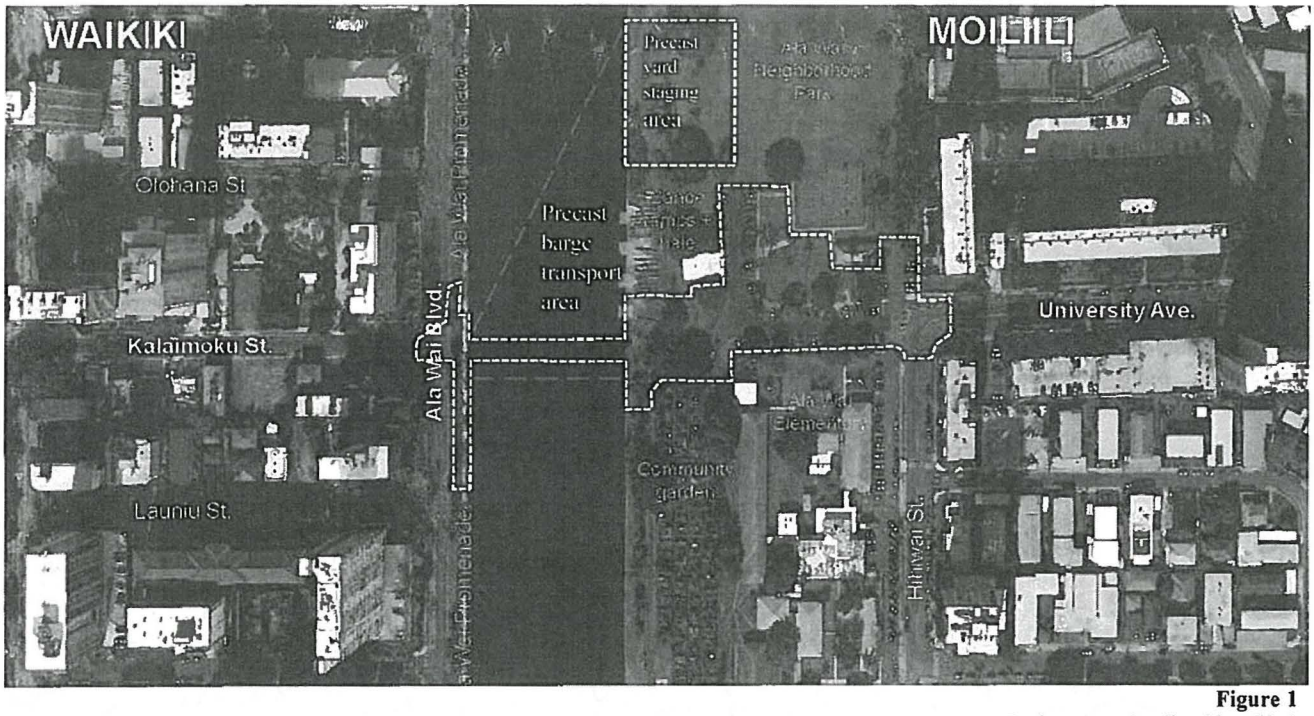


Figure 1
Project Area (outlined in white)

WATER CLOSURES DURING BRIDGE CONSTRUCTION - PRECAST OPTION

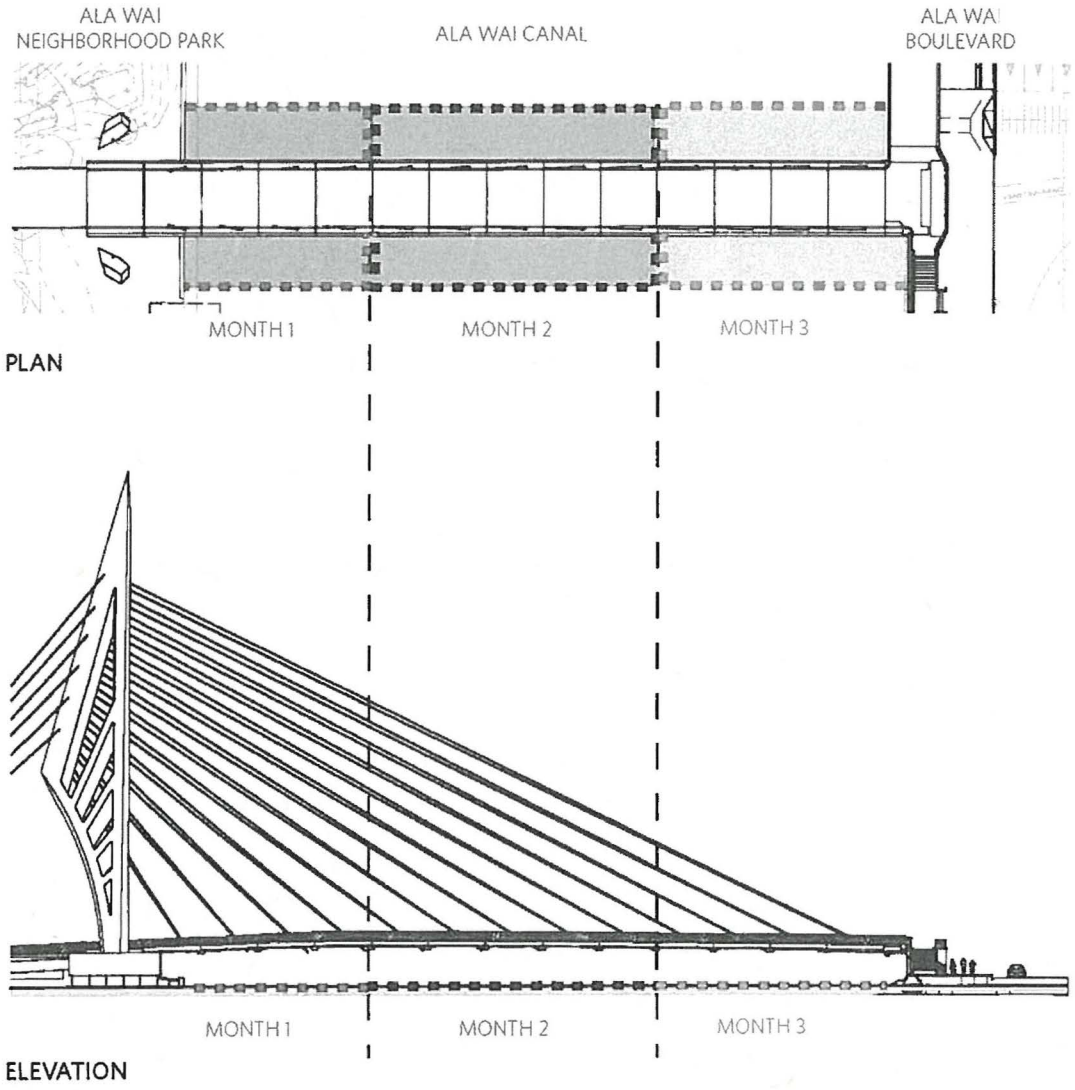
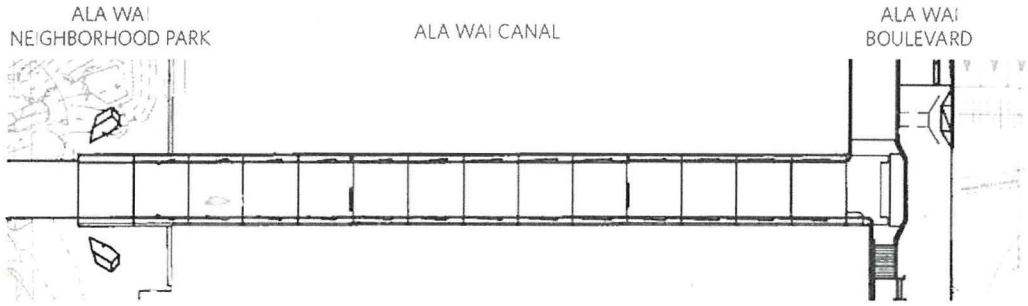
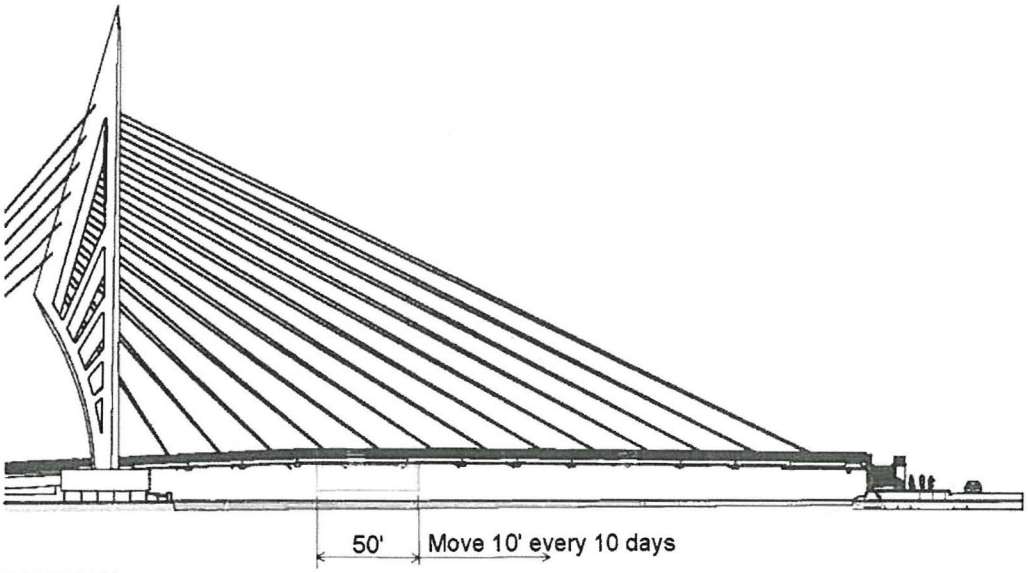


Figure 2

WATER CLOSURES DURING BRIDGE CONSTRUCTION - CAST IN PLACE OPTION



PLAN



ELEVATION

Figure 3