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DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
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STAFF SUBMITTAL

COMMISSION ON WATER RESOURCE MANAGEMENT

June 24, 2015
Honolulu, Hawaii

Application for a Stream Channel Alteration Permit Modification (SCAP.2864.3)
Honolulu Authority for Rapid Transportation
Moanalua Stream, Honolulu, O'ahu, TMK: (1) 1-1-003:138

APPLICANT:
Daniel A. Grabauskas
Executive Director and CEO
Honolulu Authority for Rapid Transportation
1099 Alakea Street, Suite 1700
Honolulu, HI 96813

LANDOWNER:
State of Hawaii

SUMMARY OF REQUEST:

Honolulu Area Rapid Transit (HART) seeks to modify its Stream Channel Alteration Permit (SCAP.2864.3) with regard to the Moanalua Stream by increasing the number of guideway support piers from two (2) to three (3).

LOCATION: Moanalua Stream where it enters Ke'ehi Lagoon makai of Nimitz Highway, Honolulu (**Exhibit 1**).

BACKGROUND:

On June 29, 2011, the Commission on Water Resource Management (Commission) approved SCAP.2864.3 which authorized the construction of instream columns, streambank hardening and restoration work within the Waiawa, Kapālama, Moanalua, and Nu'uanu Streams.

On June 18, 2014, the Commission approved SCAP.3854.3 which modified SCAP.2864.3 above and authorized HART to fill in and divert the Waiawa Tributary into a 36-inch pipe and drain it into the Waiawa Stream, construction of instream columns, streambank hardening and restoration work within the Stream.

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On April 9, 2015, a letter acknowledging receipt of the current modification of Application (SCAP.2864.3) was sent to the Applicant, initiating the Commission's process for agency review.

On May 7, 2015, HART requested a 2-year time extension on SCAP.2864.3 which is set to expire on June 29, 2015, for the Waiawa Stream Tributary, Kapālama, Moanalua, and Nu'uanu Streams.

DESCRIPTION:

The Moanalua Stream is a 24-mile long perennial stream that drains into the Ke'ehi Lagoon **(Exhibit 1)**. The project area is a tidal estuary within a broad 230-foot wide man-made channel. Riparian vegetation is dominated by mangroves covering both banks. The 20 to 30 foot tall mangroves have aerial roots and trunks extending 5 to 10 feet into the channel. The substrate of the stream consists of course pebbles and fine sediment. A field survey and literature reviews of similar degraded estuaries on O'ahu cite the presence of invertebrates such as jellyfish, Samoan crab, and fish such as tilapia, guppies, and barracudas. Birds included egrets, stilts, and mallard ducks.

Water Quality. Turbidity exceeded all Department of Health (DOH), Clean Water Branch, water quality criteria thresholds. Dissolved oxygen was below the DOH water quality standards and potentially harmful to larval stages of many fish and shellfish species. Waters are typically brackish to saline.

PROJECT SUMMARY:

1. Increase the number of guideway support piers **(Exhibits 2 and 3)** in the Stream from two to three located below the mean high water mark in a tidally influenced portion of the Stream to include:
    a. Two 6.5-foot diameter columns on a 10-foot diameter drilled shaft.
    b. One 7-foot diameter column on a 10-foot diameter drilled shaft.
2. Temporary work platform on trestle bridge 30 to 40 feet wide, including (35) 24-inch pipe piles (included in original SCAP). **(Exhibit 4)**.

The 2010 Final Environmental Impact Statement described two piers located within the Moanalua Stream. Accordingly, the project description in the original SCAP application included construction of two instream piers and a temporary trestle bridge platform. However, additional engineering determined that a third pier is likely to affect the stream channel. The guideway design has not changed in terms of alignment, or span type. The two piers (No. 614 and 615) within the stream channel are aligned with existing piers on the adjacent Nimitz Highway (Koko Head bound) bridge to minimize impacts to stream hydraulic flows, and the third pier (No. 616) is on the east bank (Koko Head side). Because the guideway is south of the existing viaducts and elevated 50 feet above the water, shading on the estuary will be minimal.

Best Management Practices (BMPs). The contractor will be required to follow the project specific Storm Water Pollution Prevention Plan and BMPs, including, but not limited to, silt fence, fiber roll, aggregate filter bag/gravel bag berm, drain inlet protection, catch basin protection.

Floating silt curtains will also provide barriers around the pile foundations for the temporary trestle work bridge. The curtains will be installed before pile driving commences for the pipe piles, and will remain in place until they are removed. Silt curtains will be placed in a manner that allows fish passage.

Spoils removed from the drilled hole will be placed directly into lined dump trucks or other lined receptacles to be transported to an off-site upland location for proper disposal.

Site Restoration. The temporary trestle bridge will be installed for construction of the drilled shaft and column. After the instream work is completed, the trestle structure will be removed. Pipe piles used to support the temporary work platform will be vibrated out, during which substrate material is expected to fill the holes. Over time, natural fluvial and tidal processes will restore the pile holes to their previous elevations. Other instream BMPs will be removed at this time.

AGENCY REVIEW COMMENTS:

City and County of Honolulu, Dept. of Planning and Permitting: The proposed revision is consistent with the approved Special Management Area Use Permit. If previously unidentified archaeological sites are encountered, HART is required to follow the approved monitoring plan.

Department of Hawaiian Home Land (DHHL): No comments.

Department of Land and Natural Resources (DLNR), Aquatic Resources: The proposed construction of the guideway support piers and the temporary trestle bridge along with its removal may have a short-term impact on the aquatic environment. The construction of the piers and trestle bridge should not impede the stream flow within the stream channel in either direction and be maintained to provide a continuous connection to the ocean during stream flows resulting from heavy rains to accommodate the upstream migration of post-larval native Hawaiian stream animals and allow the downstream passage of larval drift to the ocean should recruitment or spawning occur as well as for native estuarine species.

Mitigative measures should be implemented during the construction of the instream piers and temporary trestle bridge and its demolition to minimize the potential for erosion, siltation and pollution of the aquatic environment.

1) Lands denuded of vegetation should be planted or covered as quickly as possible to prevent erosion;
2) Any vegetation cleared along stream banks should be removed from the site to prevent it from falling into the stream/estuary environment;
3) Schedule site work (particularly the excavation and demolition of existing bridge abutments, piers, footings and supports, the construction of bridge foundations structures, and stream bank hardening) during periods of minimal rainfall;
4) Prevent construction materials, petroleum products, debris and landscaping products from falling, blowing or leaching into the aquatic environment during the rehabilitation / replacement of the bridges and their associated improvements.

DLNR, Engineering: The project site according to the Flood Insurance Rate map (FIRM) is located in Zones AE, AEF, VE, and X. The National Flood Insurance Program (NFIP) regulates developments within Zones AE, AEF, and VE, but not Zone X. The project must comply with the rules and regulations of NFIP under Title 44 of the Code of Federal Regulations whenever development within a Special Flood Hazard Area is undertaken.

DLNR, Forestry and Wildlife: No objections.

DLNR, Historic Preservation: No response.

DLNR, Land Division: Any improvements constructed within TMK (1) 1-1-003:138 requires the issuance of a disposition to HART from the Land Board.

DLNR, State Parks: No objections.

Dept. of Health, Clean Water Branch:

1. Any project and its potential impacts to State waters must meet the following criteria:

    a. Antidegradation policy (HAR, §11-54-1.1) requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected;
    b. Designated uses (HAR, §11-54-3) as determined by the classification of the receiving State waters; and
    c. Water quality criteria (HAR, §11-54-4 through §11-54-8).

2. You may be required to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Ch. 11-55).

3. If the project involves work in, over, or under waters of the United States, it is recommended that the applicant contact the Army Corp of Engineers, Regulatory Branch regarding their permitting requirements.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 Water Quality Certification are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Ch. 11-54, and/or permitting requirements, specified in HAR, Ch. 11-55, may be subject to penalties of $25,000 per day per violation.

5. It is the State's position that all projects must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters.

Office of Hawaiian Affairs: No objections.

US Army Corps of Engineers: No response.

US Fish and Wildlife Service: No response.

HAWAII REVISED STATUTES (HRS) CHAPTER 343, ENVIRONMENTAL REVIEW:

DOH, Office of Environmental Quality Control (OEQC): An environmental impact statement was triggered due to State and County lands and funds used for the project (HRS §343-5(a)).

On July 8, 2010, a Final Environmental Impact Statement (FEIS) was published in the Environmental Notice. On December 16, 2010, the Governor accepted the FEIS. [Note: FEIS is available online at http://www.honolulutransit.org/document-library/eis.aspx]

On January 18, 2011, the Federal Transit Administration (FTA) issued an environmental Record of Decision (ROD).

On April 2, 2015, HART submitted an Environmental Re-evaluation for Proposed Project Changes after Record of Decision (dated January 18, 2011) and Amended Record of Decision (dated September 30, 2013) for the Guideway Alignment and Station Location Shift at Middle Street and Kalihi Stream; Guideway Crossing at Moanalua and Hālawa Streams. The Environmental Re-evaluation identifies the impacts associated with the currently proposed design changes and identifies recommended mitigation measures, if needed. The Environmental Re-evaluation concluded that the proposed design change would not result in new or substantially more severe impacts than the impacts identified in the FEIS and ROD. [Note: ROD is available online at http://www.honolulutransit.org/document-library/eis.aspx]

STAFF REVIEW:

DLNR Land Division identified that any improvements constructed within TMK (1) 1-1-003:138 requires the issuance of a disposition to HART from the Land Board. In the FEIS, HART noted that agreements between HART and the State related to the project's construction on State lands (i.e., highway right-of-way and other real property) will be completed by construction section as the project progresses from west to east.

Water as a Public Trust. Under the public trust and the State Water Code, HRS §174C, there is an inherent presumption in favor of the four public trust purposes, yet allowing for use and development in a reasonable and beneficial manner. The state water resources trust thus embodies a dual mandate of protection and maximum reasonable and beneficial use.

The four public trust purposes are:

1) Maintenance of waters in their natural state;
2) Domestic water use of the general public, particularly drinking water;
3) The exercise of Native Hawaiian and traditional and customary rights, including appurtenant rights; and
4) Reservations of water for Hawaiian home lands allotments.

There are no significant changes to the four public trust purposes of Moanalua Stream.

Stream Channel Alterations. HRS §174C-71(3) provides that the Commission regulate construction activities in streams to protect stream channels from alteration whenever practicable, to provide for fishery, wildlife, recreational, aesthetic, scenic, and other beneficial instream uses. Instream use means beneficial uses of stream water for significant purposes which are located in the stream and which are achieved by leaving the water in the stream. Instream uses include, but are not limited to:

(1) Maintenance of fish and wildlife habitats;
(2) Outdoor recreational activities;
(3) Maintenance of ecosystems such as estuaries, wetlands, and stream vegetation;
(4) Aesthetic values such as waterfalls and scenic waterways;
(5) Navigation;
(6) Instream hydropower generation;
(7) Maintenance of water quality;
(8) The conveyance of irrigation and domestic water supplies to downstream points of diversion; and
(9) The protection of traditional and customary Hawaiian rights.

HAR §13-169-52(c)) set out the criteria for ruling on SCAP applications:

(1) Channel alterations that would adversely affect the quantity and quality of the stream water or the stream ecology should be minimized or not be allowed.

Commission staff believes that the adverse effects to the quantity and quality of the stream water or the stream ecology from the project are small, temporary, and will be mitigated by City, County, State and Federal environmental regulations.

(2) Where instream flow standards or interim instream flow standards have been established, no permit shall be granted for any channel alteration which diminishes the quantity or quality of stream water below the minimum established to support identified instream uses.

The interim instream flow standard for all streams on Leeward O'ahu is amount of water flowing in each stream on the effective date of this standard (December 10, 1988), and as that flow may naturally vary throughout the year (HAR §13-169-49). The identified instream uses of the Moanalua Stream include fish habitat, stream flow contribution to the nearshore waters. The quantity and quality of the Stream will remain unchanged.

(3) The proposed channel alteration should not interfere substantially and materially with existing instream or non-instream uses or with channel alterations previously permitted.

There is one stream channel alteration permit located at the footbridge. The proposed SCAP modification is not expected to interfere with any existing instream or non-instream uses.

RECOMMENDATION:

Staff recommends that the Commission approve the Stream Channel Alteration Permit (SCAP.2864.3) Modification Application to the Honolulu Authority for Rapid Transportation to increase from two (2) to three (3) guideway support piers below the mean high water mark in a tidally influenced portion of Moanalua Stream as stated above, subject to the following conditions:

1. The applicant shall obtain approval from the Board of Land and Natural Resources (Board) for the disposition of TMK (1) 1-1-003:138. Upon issuance, the applicant shall notify the Commission and submit a copy of the Board's approval.

2. Standard conditions in Exhibit 5.

Respectfully submitted,

W. ROY HARDY
Acting Deputy Director

Exhibits:

1. Location, Moanalua Stream.
2. Aerial View of Moanalua Stream.
3. Plan and Profile at Moanalua Stream.
4. Trestle Work Plan.
5. Standard Stream Channel Alteration Permit Conditions.

APPROVED FOR SUBMITTAL:

SUZANNE D. CASE
Chairperson

Location, Moanalua Stream.

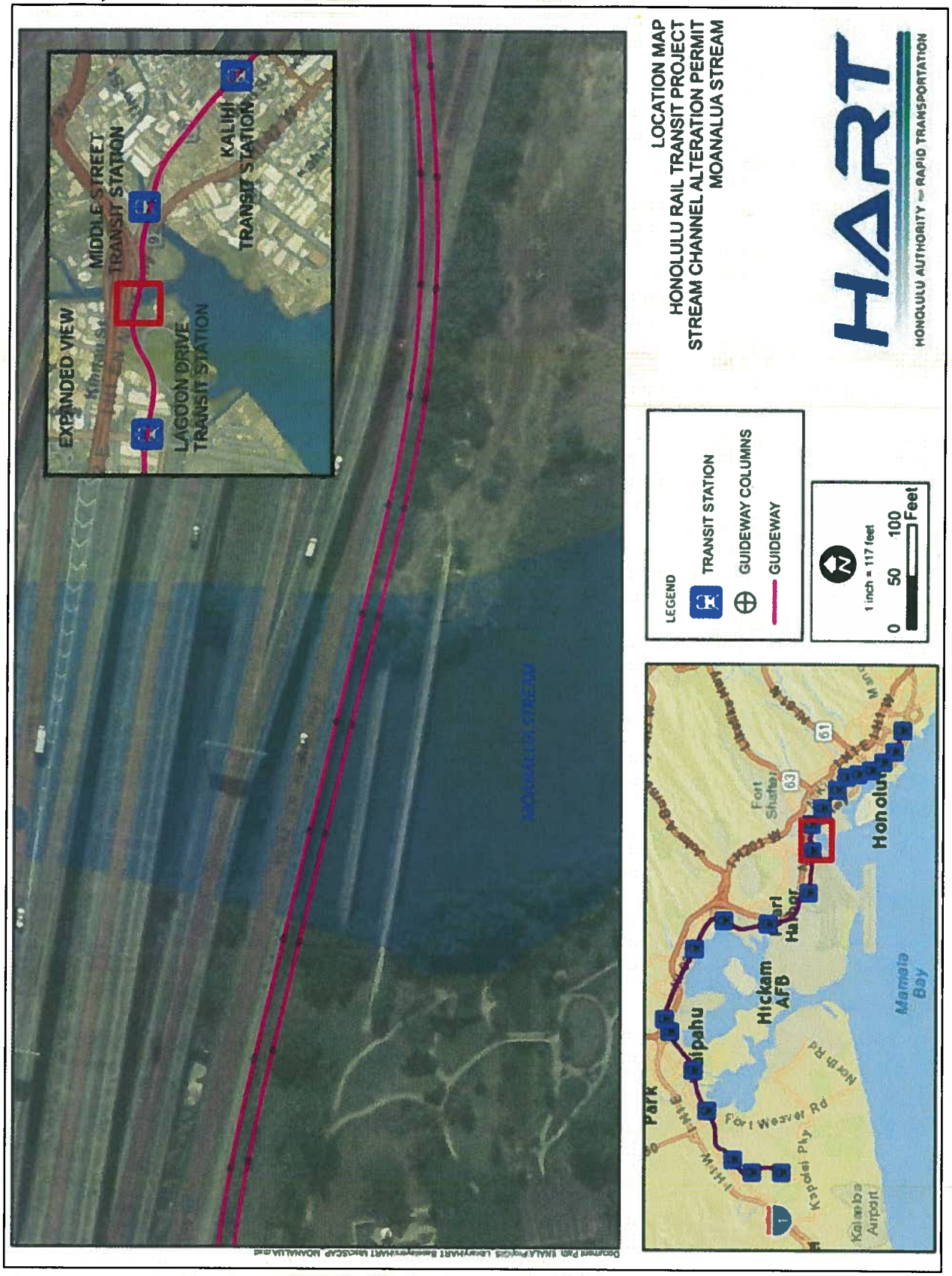

EXHIBIT 1

Aerial View of Moanalua Stream.

EXHIBIT 2

Plan and Profile at Moanalua Stream.

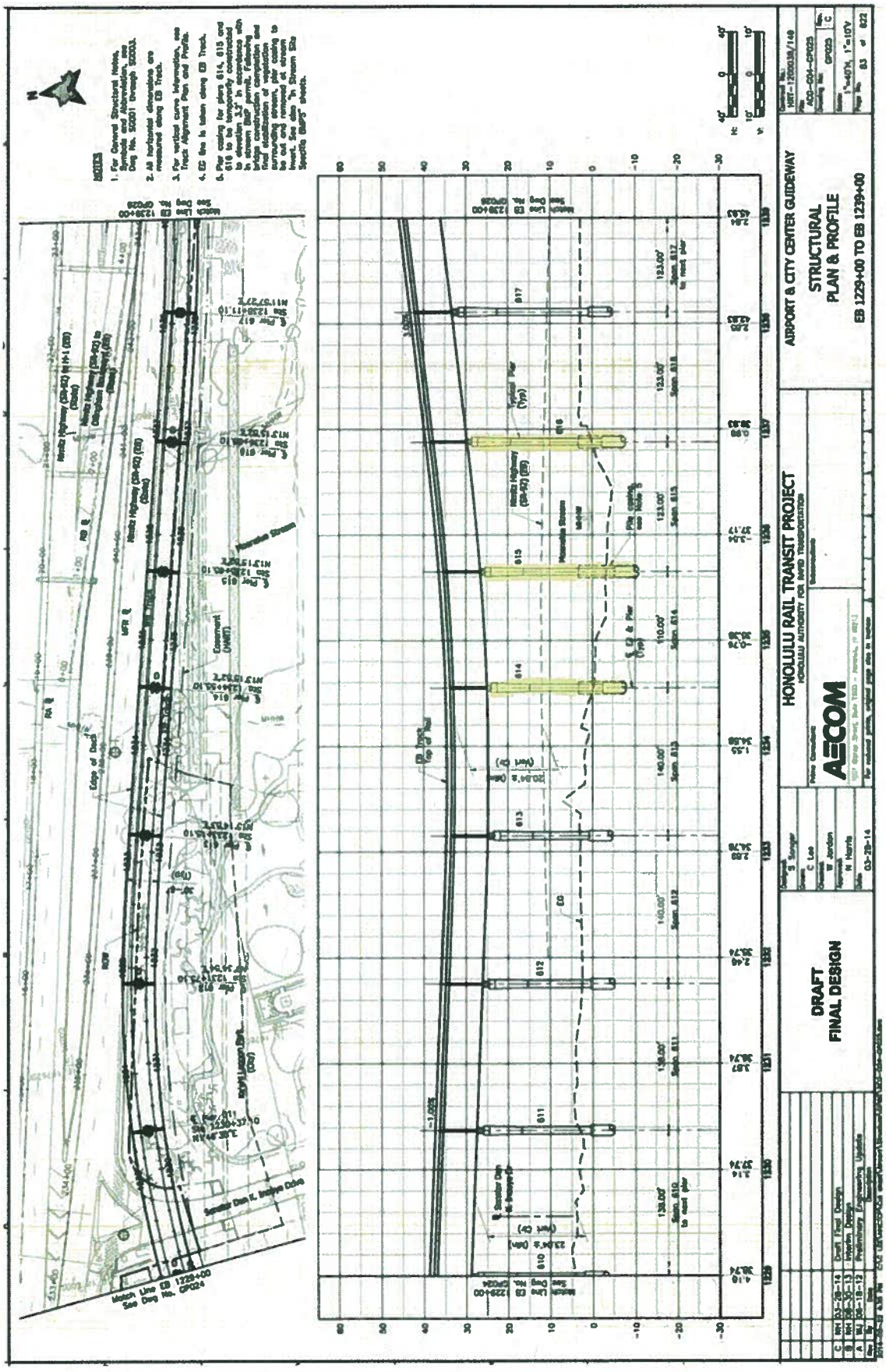

EXHIBIT 3

Trestle Work Plan.

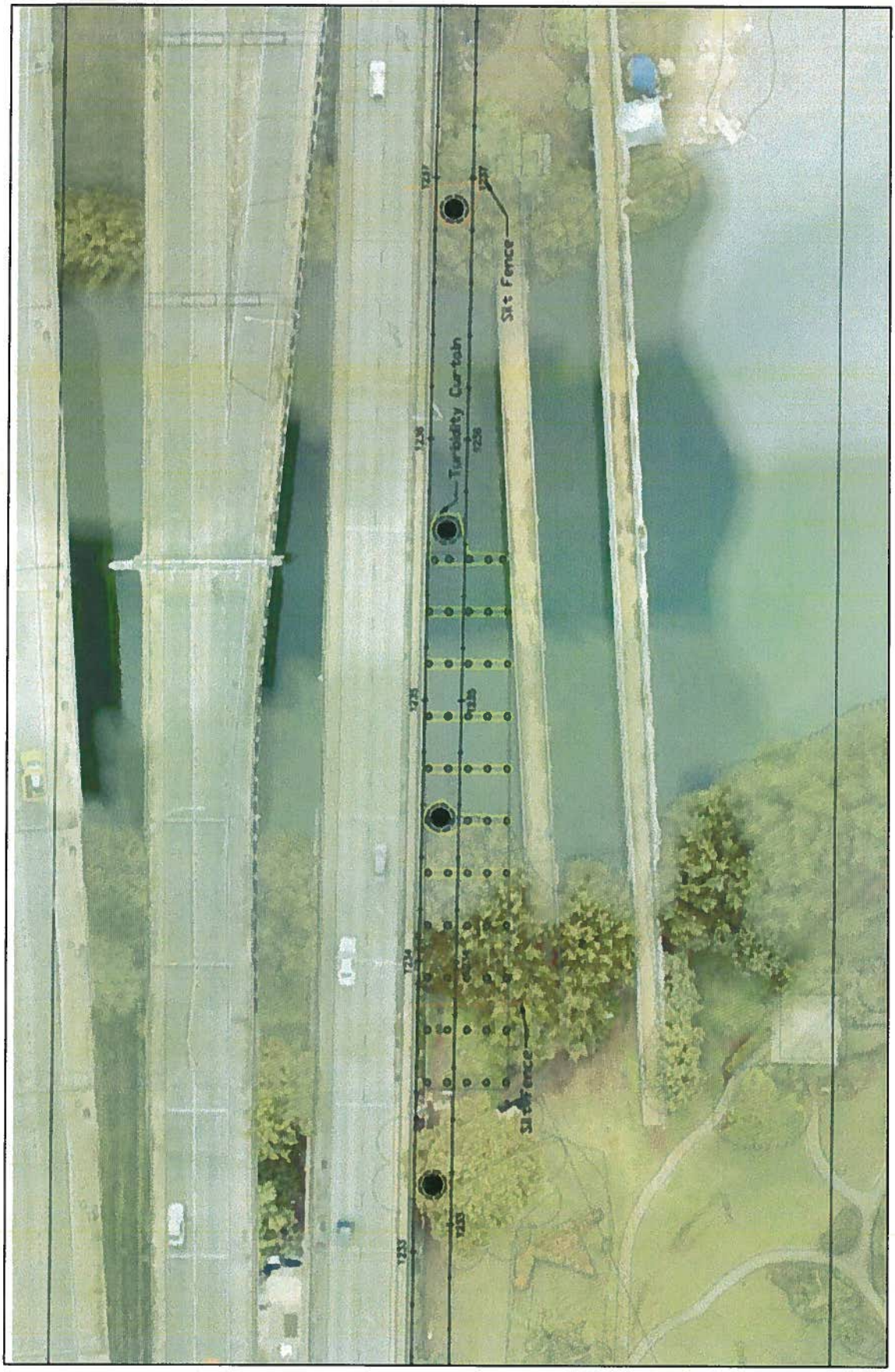

EXHIBIT 4

STANDARD STREAM CHANNEL ALTERATION PERMIT CONDITIONS
(Revised 9/19/07)

1. The permit application and staff submittal approved by the Commission at its meeting on June 24, 2015, shall be incorporated herein by reference.

2. The applicant shall comply with all other applicable statutes, ordinances, and regulations of the Federal, State and county governments.

3. The applicant, his successors, assigns, officers, employees, contractors, agents, and representatives, shall indemnify, defend, and hold the State of Hawaii harmless from and against any claim or demand for loss, liability, or damage including claims for property damage, personal injury, or death arising out of any act or omission of the applicant or his successors, assigns, officers, employees, contractors, and agents under this permit or related to the granting of this permit.

4 The applicant shall notify the Commission, by letter, of the actual dates of project initiation and completion. The applicant shall submit a set of as-built plans and photos of the completed work to the Commission upon completion of this project. This permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The proposed work under this stream channel alteration permit shall be completed within four (4) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Commission upon showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Commission no later than three (3) months prior to the date the permit expires. If the commencement or completion date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.

5. Before proceeding with any work authorized by the Commission, the applicant shall submit one set of construction plans and specifications to determine consistency with the conditions of the permit and the declarations set forth in the permit application.

6. The applicant shall implement site-specific, construction best management practices (BMPs) that are designed, implemented, operated, and maintained by the applicant and its contractor to properly isolate and confine construction activities and to contain and prevent any potential pollutant(s) discharges from adversely impacting state waters. BMPs shall control erosion and dust during construction and schedule construction activities during periods of low stream flow.

7. The applicant shall protect and preserve the natural character of the stream bank and stream bed to the greatest extent possible. The applicant shall plant or cover lands denuded of vegetation as quickly as possible to prevent erosion and use native plant species common to riparian environments to improve the habitat quality of the stream environment.

8. In the event that subsurface cultural remains such as artifacts, burials or deposits of shells or charcoal are encountered during excavation work, the applicant shall stop work in the area of the find and contact the Department's Historic Preservation Division immediately. Work may commence only after written concurrence by the State Historic Preservation Division.

EXHIBIT 5