Application for a Stream Channel Alteration Permit (SCAP.4289.3)
Honolulu Rail Transit Project, Honolulu Authority for Rapid Transportation
Kalihi Stream, Honolulu, Oahu, TMK: (1) 1-2-013:020 and 022

APPLICANT: Daniel A. Grabauskas
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SUMMARY OF REQUEST:
Honolulu Authority for Rapid Transit (HART) proposes three piers to support the elevated guideway and one pier to support the Middle Street Station in the Kalihi Stream; and a temporary work platform on a trestle bridge, including thirty-one 24-inch diameter pipe piles.

LOCATION: Kalihi Stream between Nimitz and Kamehameha Highways (Exhibit 1).

STREAM DESCRIPTION:
The Kalihi Stream is a perennial stream 11 miles long that drains into Keehi Lagoon. The watershed is 6 square miles. The average depth of the channel is 1-foot and is tidally influenced. The substrate of the stream consists of fine cobble, rubble, and silt. The lower stretches of the Kalihi stream are channelized with rip-rap and concrete.

Flora and Fauna. Survey and literature reviews of similar degraded estuaries on Oahu cite the presence of common non-natives such as jellyfish and crab; tilapia, barracuda, and mosquitofish.
Birds include cardinals, doves, sparrows, and myna. Vegetation includes mangrove, California grass, and pickleweed.

Water Quality. Generally poor water quality due to high turbidity and low dissolved oxygen levels and potentially harmful to larvae of many fish and shellfish. Waters are typically brackish to saline.

BACKGROUND:

To date, HART has received five approved Stream Channel Alteration Permits (SCAP’s) along the rail route: Waiawa Stream and Tributary, Halawa, Moanalua, Kapalama, and Nuuanu Streams. Kalihi Stream is the sixth, and final, stream seeking a SCAP.

On November 26, 2015, a complete stream channel alteration permit application was received for Kalihi Stream.

On January 12, 2016, a letter acknowledging receipt of the subject application was sent to the Applicant, initiating the Commission’s process for agency review.

PROJECT DESCRIPTION

HART is proposing to construct three guideway support piers (Piers 627, 628 and 629) in a tidally influenced portion of the Kalihi Stream (Exhibit 2). For each pier, drilled shafts about 10-feet in diameter will provide the foundation for columns about 8 feet in diameter. There will also be one station support pier with a 6-foot diameter column founded on an 8 foot diameter drilled shaft. The four piers will have an instream footprint of 286 sq. ft. (0.007 acre). A temporary trestle bridge and work platform 30-40 feet wide will be installed to construct the instream piers.

Best Management Practices (BMPs) for Construction. The contractor will follow the project specific Storm Water Pollution Prevention Plan, as well as, the City and County of Honolulu Storm Water Best Management Practice Manual - Construction. General BMPs for construction include, but are not limited to, the following:

- Silt fence; fiber roll; aggregate filter bag/gravel bag berm; drain inlet protection; catch basin protection; temporary and permanent seeding and planting for bare spots and washouts; and inspections for healthy growth.

- Good housekeeping practices to prevent construction materials, petroleum products, debris and landscaping products from falling, blowing, or leaching into the aquatic environment.

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

- Material to be secured to prevent discharge into the stream or other areas below.
Site Restoration. 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 and the construction zone will be restored to pre-existing conditions.

AGENCY REVIEW COMMENTS:

City and County of Honolulu, Dept. of Planning and Permitting: No comments.

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

Department of Land and Natural Resources (DLNR), Aquatic Resources: No comments.

DLNR, Engineering: The National Flood Insurance Program regulates developments within Zone AE. The project must comply with the rules and regulations of the National Flood Insurance Program presented in 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 comments.

DLNR, Land Division: The proposed work to support the elevated guideway requires approval from the Land Board. The disposition could be in the form of an easement.

DLNR, State Parks: No objections.

Dept. of Health (DOH), 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, Chapter 11-55).
For NPDES general permit coverage, a Notice of Intent (NOI) form must be submitted at least 30 calendar days before the commencement of the discharge. An application for a NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. To request NPDES permit coverage, you must submit the applicable form (“CWB Individual NPDES Form” or “CWB NOI Form”) through the e-Permitting Portal and the hard copy certification statement with the respective filing fee ($1,000 for an individual NPDES permit or $500 for a Notice of General Permit Coverage). Please open the e-Permitting Portal website located at: https://eha-cloud.doh.hawaii.gov/epermit/. You will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool and locate the appropriate form. Follow the instructions to complete and submit the form.

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.

Pursuant to Federal Water Pollution Control Act [commonly known as the “Clean Water Act” (CWA)], Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for “[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters...” The term “discharge” is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and HAR, Chapter 11-54.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC 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. Project planning should:

a. Treat storm water as a resource to be protected by integrating it into project planning and permitting. Storm water has long been recognized as a source of irrigation that will not deplete potable water resources. What is often overlooked is that storm water recharges ground water supplies and feeds streams and estuaries; to ensure that these water cycles are not disrupted, storm water cannot be relegated as a waste product of impervious surfaces. Any project planning must recognize storm water as an asset that sustains and protects natural ecosystems and traditional beneficial uses of State waters, like community beautification, beach going, swimming, and fishing. The approaches necessary to do so, including low impact development methods or ecological bio-engineering of drainage ways must be identified in the planning stages to allow designers opportunity to include those approaches up front, prior to seeking zoning, construction, or building permits.
b. Clearly articulate the State’s position on water quality and the beneficial uses of State waters. The plan should include statements regarding the implementation of methods to conserve natural resources (e.g. minimizing potable water for irrigation, gray water re-use options, energy conservation through smart design) and improve water quality.

c. Consider storm water Best Management Practice (BMP) approaches that minimize the use of potable water for irrigation through storm water storage and reuse, percolate storm water to recharge groundwater to revitalize natural hydrology, and treat storm water which is to be discharged.

d. Consider the use of green building practices, such as pervious pavement and landscaping with native vegetation, to improve water quality by reducing excessive runoff and the need for excessive fertilization, respectively.

e. Identify opportunities for retrofitting or bio-engineering existing storm water infrastructure to restore ecological function while maintaining, or even enhancing, hydraulic capacity. Particular consideration should be given to areas prone to flooding, or where the infrastructure is aged and will need to be rehabilitated.

Staff: The lead agency for the protection of water quality is the Department of Health, Clean Water Branch, who administer the Federal Clean Water Act (33 U.S.C. §1251 et seq.) and the State Water Pollution Act (HRS Ch. 342D; HAR Ch. 11-54 Water Quality Standards; and HAR Ch. 11-55 Water Pollution Control). HAR §11-54-1 through §11-54-8 defines Best Management Practices, water quality criteria applicable to inland and nearshore waters and is based on the Federal Clean Water Act. HAR Ch. 11-55 Appendix C defines discharges of storm water associated with construction activity.

Office of Hawaiian Affairs: No comments.

US Army Corps of Engineers: No comments.

US Fish and Wildlife Service: No federally designated or proposed critical habitat occurs within the proposed project site. Our data indicate the endangered Hawaiian stilt (Himantopus mexicanus knudseni), Hawaiian common gallinule (Gallinula chloropus sandvicensis), Hawaiian coot (Fulica alai), Hawaiian duck (Anas wyvilliana) (collectively referred to as Hawaiian waterbirds), the endangered Hawaiian petrel (Pterodroma sandwichensis), threatened Newell’s shearwater (Puffinus auricularis newelli), a species proposed for listing as endangered, the band-rumped storm-petrel (Oceanodroma castro), and seabirds protected under the Migratory Bird Treaty Act [16 U.S.C. 703-712] (MBTA), such as the wedge-tailed shearwater (Puffinus pacificus), (collectively referred to as Hawaiian seabirds), could be impacted by components of your project. We offer the following recommendations to assist you in the proposed project.

Hawaiian Waterbirds. Our records indicate there is a probability that Hawaiian waterbirds may occur in the vicinity of the proposed project. We recommend you incorporate the following
measures into your project description to avoid and minimize impacts to listed Hawaiian waterbirds:

- A biological monitor should conduct Hawaiian waterbird and nest surveys at the proposed project site prior to project initiation and after any subsequent delay in work of three or more days (during which birds may attempt nesting).

- Any documented nests or broods within the project vicinity should be reported to the Service within 48 hours.

- A 100-foot buffer should be established and maintained around all active nests and/or broods until the chicks/ducklings have fledged. No potentially disruptive activities or habitat alteration should occur within this buffer.

- If nesting Hawaiian waterbirds are found within the proposed project area a biological monitor(s) should be present on the project site during all construction or earth moving activities to ensure that Hawaiian waterbirds and nests are not adversely impacted.

- If a listed Hawaiian waterbird is observed within the project site, or flies into the site while activities are occurring, all activities should halt within 100 feet of the individual(s). Work should not resume until the Hawaiian waterbird(s) leave the area on their own accord.

- A post-construction report should be submitted to the Service with 30 days of the completion of the project. The report should include the results of Hawaiian waterbird surveys, the location and outcome of documented nests, and any other relevant information.

Hawaiian Seabirds. Outdoor lighting, such as street lights and night-time work, can adversely impact listed and migratory seabird species found in the vicinity of the proposed project. Seabirds fly at night and are attracted to artificially lighted areas which can result in disorientation and subsequent fallout due to exhaustion or collision with objects such as utility lines, guy wires, and towers that protrude above the vegetation layer. Once grounded, they are vulnerable to predators or often struck by vehicles along roadways. Any increase in the use of night-time lighting, particularly during each year’s peak fallout period (September 15 through December 15), could result in additional seabird injury or mortality. Impacts to seabirds can be minimized by shielding outdoor lights associated with the project to the maximum extent possible, eliminating night-time construction, and providing all project staff with information about seabird fallout. All lights, including street lights, should be shielded so the bulb can only be seen from below and use the lowest wattage bulbs possible. The project description should address all potential impacts to seabirds and outline conservation measures to minimize these impacts.

Because the proposed activities may impact water resources that provide habitat for listed Hawaiian waterbirds, we are attaching the Service’s recommended Best Management Practices
regarding sedimentation and erosion in aquatic environments. We encourage you to incorporate the relevant practices into your project design.

**Staff**: HART has been in contact with the FWS whose concerns may be mitigated by BMP’s and/or permits.

**CHAPTER 343 - ENVIRONMENTAL ASSESSMENT**:

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


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

On August 28, 2015, HART submitted an Environmental Re-evaluation for Proposed Project Changes after Record of Decision (January 18, 2011) and Amended Record of Decision (September 30, 2013) for the Guideway Alignment and Station Location Shift at Middle Street and Kalihi Stream. The Environmental Re-evaluation identifies the impacts associated with the currently proposed design changes and mitigation measures, if needed. It concluded that the proposed design changes would not result in new or substantially more severe impacts than the impacts identified in the FEIS and ROD and states in relevant part:

**Ecosystems**: Kalihi Stream is not a designated critical habitat or Essential Fish Habitat (EFH). However, HART prepared an EFH assessment for Kalihi Stream and has been in consultation with the National Marine Fisheries Services (NMFS).

In previous coordination, the National Marine Fisheries Services (NMFS) has stated that the proposed Project change could have an adverse effect on Kalihi Stream due to the possible changes in flow direction, velocities, and sedimentation in the stream, such that there may be potential impacts to marine resources found in the stream or located downstream in the marine environment, but needed more information. NMFS also stated that if the proposed Project change would have an adverse effect, then it could be avoided and/or mitigated through BMP’s. Therefore, the proposed columns would not affect the previous FEIS determination of no effect on any threatened, endangered, or protected species.

**Water**: The only potential direct effect of the Project is shading of the stream. Because the guideway is elevated, some additional shading onto the water would be present. However, mitigation through permitting and BMPs, the FEIS determination would not change.

On September 21, 2015, the FTA completed its review of HART’s Environmental Re-Evaluation and found that the design changes do not induce significant environmental impacts to the resource, either individually or cumulatively.
LEGAL AUTHORITIES

*Water as a Public Trust.* Under the public trust and 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

HRS §174C-71 Protection of instream uses. The commission shall establish and administer a statewide instream use protection program. In carrying out this part, the commission shall cooperate with the United States government or any of its agencies, other state agencies, and the county governments and any of their agencies. In the performance of its duties the commission shall:

(3) Protect stream channels from alteration whenever practicable to provide for fishery, wildlife, recreational, aesthetic, scenic, and other beneficial instream uses;
(A) The commission shall require persons to obtain a permit from the commission prior to undertaking a stream channel alteration; provided that routine streambed and drainageway maintenance activities and maintenance of existing facilities are exempt from obtaining a permit;
(B) Projects which have commenced construction or projects reviewed and approved by the appropriate federal, state, or county agency prior to July 1, 1987, shall not be affected by this part;
(C) The commission shall establish guidelines for processing and considering applications for stream channel alterations consistent with section 174C-93;

HRS §174C-93 Permits for construction or alteration. No person shall construct or alter a stream diversion works, other than in the course of normal maintenance, without first obtaining a permit from the commission.

HAR §13-169-49 Interim instream flow standard for Leeward Oahu. The Interim Instream Flow Standard for all streams on Leeward Oahu, as adopted by the commission on water resource management on October 19, 1988, shall be that amount of water flowing in each stream on the effective date of this standard, and as that flow may naturally vary throughout the year and from year to year without further amounts of water being diverted offstream through new or expanded diversions, and under the stream conditions existing on the effective date of the standard. (Eff. Oct. 8, 1988).
HAR §13-169-52 Criteria for ruling on application.

c) In reviewing an application for a permit, the commission shall cooperate with persons having direct interest in the channel alteration and be guided by the following general considerations:

(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.

(2) Where instream flow standards or interim instream flow standards have been established pursuant to subchapters 3 and 4, 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, as expressed in the standards.

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

STAFF REVIEW

HAR §13-169-52(c) set out the general 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.

Staff: Commission staff believes that any adverse effects to the quantity and quality of the stream water or the stream ecology from the project are small, temporary, and would be mitigated through permitting and BMPs.

(2) Where instream flow standards or interim instream flow standards have been established pursuant to subchapters 3 and 4, 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, as expressed in the standards.

Staff: The interim instream flow standard (IIFS) for Leeward O'ahu is that 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 includes fish habitat and stream flow contribution to the nearshore waters. The quantity and quality of stream water is 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.

Staff: Instream uses, such as ecosystem maintenance or recreation, are unchanged. There are no non-instream uses identified.
RECOMMENDATION:

That the Commission:

1. Approve the Stream Channel Alteration Permit (SCAP.4289.3) application to the Honolulu Authority for Rapid Transportation for the construction of three piers to support the elevated guideway and one pier to support the Middle Street Station in the Kalihi Stream, and a temporary work platform on a trestle bridge as stated above, subject to the standard conditions in Exhibit 4; and,

2. The applicant shall obtain approval from the First Hawaiian Bank for the disposition of TMK (1) 1-2-013:020; and the Board of Land and Natural Resources for TMK (1) 1-2-013:022.

Respectfully submitted,

JEFFREY T. PEARSON, P.E.
Deputy Director

Exhibits:

1. Location, Kalihi Stream Between Nimitz and Kamehameha Highways.
2. Guideway and Station over Kalihi Stream.
3. Trestle Work Bridge over Kalihi Stream.

APPROVED FOR SUBMITTAL:

SUZANNE D. CASE
Chairperson
Location, Kalihi Stream Between Nimitz and Kamehameha Highways.
Guideway and Station over Kalihi Stream.
Trestle Work Bridge over Kalihi Stream.
1. The permit application and staff submittal approved by the Commission at its meeting on March 15, 2016, shall be incorporated herein by reference.

2. The project may require other agency approvals regarding wetlands, water quality, grading, stockpiling, endangered species, and floodways. The permittee shall comply with all other applicable statutes, ordinances, and regulations of the Federal, State and county governments.

3. The permittee, 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 permittee or his successors, assigns, officers, employees, contractors, and agents under this permit or related to the granting of this permit.

4. The permittee shall notify the Commission, by letter, of the actual dates of project initiation and completion. The permittee shall submit a set of as-built plans and photos in pdf format 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 two (2) 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 permittee shall submit one set of construction plans and specifications in PDF format to determine consistency with the conditions of the permit and the declarations set forth in the permit application.

6. The permittee shall implement site-specific, construction Best Management Practices in consultation with the DOH Clean Water Branch and other agencies as applicable, that are designed, implemented, operated, and maintained by the permittee and its contractor to properly isolate and confine activities and to contain and prevent any potential pollutant(s) discharges from adversely impacting State waters per HRS Ch. 342D Water Pollution; HAR §11-54-1 through §11-54-8 Water Quality Standards; and HAR Ch. 11-55 Water Pollution Control, Appendix C.

7. The permittee shall protect and preserve the natural character of the stream bank and stream bed to the greatest extent possible. The permittee 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 permittee 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.