



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

September 19, 2007
Honolulu, Hawaii

Application for a Stream Channel Alteration Permit (SCAP.1719.3)
Retaining Wall and Storm Water Drain at
Middle Street Intermodal Center, Kalihi Stream, Honolulu, Oahu
TMK: (1) 1-2-018:001

APPLICANT:

Akira Fujita, Project Manager
City and County of Honolulu
Department of Transportation Services
650 South King Street
Honolulu, HI 96813

LANDOWNER:

Same as applicant

SUMMARY OF REQUEST:

Application for a Stream Channel Alteration Permit (SCAP) to construct a reinforced concrete retaining wall approximately 430 feet long along Kalihi Stream and a 48-inch storm water drain for the Middle Street Intermodal Center (MSIC), Kalihi Stream, Honolulu, Oahu.

LOCATION: Exhibits 1a and 1b.

BACKGROUND:

The City and County of Honolulu, Department of Transportation Services, is constructing the MSIC on a 9.15-acre site along Middle Street between North King Street and Kamehameha Highway in an industrial area of Honolulu. The MSIC project includes three major components: 1) Handi-Van program facilities, 2) bus transit center, and 3) park and ride parking structure. The Handi-Van facilities will include a parking area, service bays and vehicle maintenance facilities. The bus transit center will replace the existing transit center at the Kalihi-Palama Bus Facility and support the proposed "hub and spoke" bus network. The 1,000-vehicle, park and ride parking structure will be built over the transit center to accommodate park and ride patrons and transit employees. An area of the site fronting the transit center is reserved for future commercial/retail/community facilities in support of the transit center and/or long-term transit center expansion.

Approved by Commission on
Water Resource Management
at the meeting held on

SEP 19 2007

Item D2

DESCRIPTION:

The proposed reinforced concrete retaining wall will be constructed on the south side of the property running parallel to Kalihi Stream and will be eight inches wide with varying wall heights of four to ten feet. A 10-foot high chain-link fence will be constructed on top of the retaining wall. The retaining wall footings will vary across the entire length of the wall depending on the wall height. A stabilizing apron of grouted rubble paving (GRP) will be constructed adjacent to and seaward of the retaining wall. The GRP will be 12 inches thick and four feet wide along the entire length of the wall with a total volume of 11,279 cubic feet. See Exhibit 2 and 3.

The proposed storm water drain is a 48-inch diameter polyvinyl chloride (PVC) pipe that will intersect the retaining wall and drain into Kalihi Stream approximately 150 feet from the southeastern end of the retaining wall. The storm drain will include a filtration system to filter storm water discharge. The GRP for the storm drain will be 24 inches thick and 20 feet wide, extending 14 feet seaward of the retaining wall. See Exhibit 4 and 5.

There will be no discharge of dredged or fill material into Kalihi Stream during the construction phase of the proposed improvements. Excavated material from grading and trenching operations will not enter into the stream. The retaining wall along the stream will be constructed on clean gravel backfill and granular structural fill. No temporary facilities will be used or constructed.

A stabilized construction entrance and silt fencing will be used to reduce erosion and minimize potential sediment runoff. Best Management Practices (BMPs) to control sediment runoff, such as covering stock-piled material and use of dust control watering will be incorporated during the construction phase to limit soil loss. The site will be graded to provide proper drainage. Exposed areas will be paved or landscaped to match the adjacent landscaping. Grass sod will be planted and maintained to minimize erosion. Construction activities associated with this project are planned to commence around October 1, 2007 and be completed in about six months.

ANALYSIS:

On May 13, 2005, the State Department of Health (DOH) Clean Water Branch (CWB) issued a Notice of General Permit Coverage (NGPC) authorizing the City and County of Honolulu (CCH), Department of Transportation Services, to discharge storm water associated with construction activity from the project into Kalihi Stream. DOH CWB required CCH to comply with:

- National Pollutant Discharge Elimination System (NPDES) General Permit Authorizing Discharges of Storm Water Associated with Construction Activities
- DOH Standard General Permit Conditions
- Applicable sections of Hawaii Administrative Rules (HAR) Chapter 11-55
- All materials submitted with CCH's Notice of Intent (NOI)

In addition, CCH must implement, operate, and maintain site specific BMPs for the project to ensure that storm water discharges associated with construction activities will not cause or contribute to a violation of applicable State water quality standards.

On January 22, 2007, the CCH, Department of Planning and Permitting (DPP), issued a Grading Permit (GP2007-01-0045) for this project.

On July 5, 2007, the applicant's consultant, SSFM, and U.S. Army Corps of Engineers (COE) staff conducted a site visit to inspect the project area. COE confirmed that the portion of Kalihi Stream parallel to the project site is subject to tidal influences and is considered "navigable waters of the United States." COE was unable to determine if the proposed improvements would require a Department of the Army (DA) permit until the seaward boundary of the project improvements was surveyed and staked.

Subsequently, SSFM identified the seaward boundary of the project improvements with markers that showed all construction associated with the retaining wall would terminate 10 feet upland from the markers. SSFM believes that the proposed retaining wall is outside the DA's jurisdiction and has requested the COE's confirmation.

With the COE's approval, SSFM used tidal datums from Honolulu Harbor to determine the Mean Highest High Tide (MHHT) and Mean High Tide (MHT) lines at Kalihi Stream. According to SSFM, the retaining wall and the storm utility line will not extend into either the MHHT or the MHT lines.

On August 13, 2007, DOH Clean Water Branch commented that:

- The project and its potential impact to State waters must comply with the State's anti-degradation policy, designated uses, and water quality criteria.
- A DOH CWB Section 401 Water Quality Certification (WQC) will be required if the COE determines that a Section 404 DA permit is required for the project.
- The NPDES general permit coverage for storm water associated with construction activity for this project will expire on November 6, 2007. The applicant must reapply for NPDES general permit coverage at least 30 calendar days before the permit expiration date.
- Separate NPDES general permit coverages are required for hydro-testing and construction dewatering effluent.
- All discharges must comply with the State's Water Quality Standards.

DOH CWB's comments were forwarded to SSFM for their information and response.

On August 13, 2007, the Office of Hawaiian Affairs (OHA):

- Expressed concern about the discharge of pollutants from the contaminated soils at the project site and the runoff resulting from a 1,000 vehicle parking structure, service bays and vehicle maintenance facility into Kalihi Stream and Keehi Lagoon whose waters are important to Native Hawaiians. The waters' use by Native Hawaiians is constitutionally protected for traditional and customary purposes.
- Noted that *opae oeha 'a* (native prawn) and *o'opu akupa* (native fish) were found in the lower portion of Kalihi Stream, and Native Hawaiian access to them are constitutionally protected. OHA urged all possible mitigating efforts and strict adherence to BMPs if the project were to proceed.
- Recommended planting native species that are common to riparian environments to improve the habitat quality of the Kalihi Stream environment.
- Noted that archaeological sites and the possible presence of native Hawaiian burial sites were reported on the property, but the field work did not identify any traditional or cultural sites. OHA wanted clarification on how the applicant had addressed these concerns and recommended that work will be stopped and the State Historic Preservation Division and Nahinu Ohana be contacted if *iwi kupuna* (ancestral bones) or cultural artifacts are uncovered.

OHA's comments were forwarded to SSFM for their information and response.

On August 14, 2007, the COE determined that the project would not involve any activity in areas subject to its regulatory authority based on the information provided by the applicant; and therefore, a DA permit would not be required. All work and structures would be landward of the Mean High Water (MHW) line, and there would be no discharge of dredged or fill material below (seaward of) the high tide line.

On August 30, 2007, CCH, DPP determined that the project is not located within a Special Management Area (SMA) and would not be subject to the requirements of the SMA Ordinance. DPP will require the applicant to prepare and submit a drainage report substantiating that the improvements will not have an impact on Kalihi Stream and the surrounding properties.

Engineering commented that the flood hazard designations on the Flood Insurance Maps should be corrected to include the following Zones: X unshaded (area outside 500-year flood plain), X shaded (area of 500-year flood and area of 100-year flood with average depths of less than one foot), AE (area where base flood elevations are determined), and AO (area with flood depths of one to three feet).

Aquatic Resources noted that Kalihi Stream provided habitats for six species of native macrofauna including four native fish species (*Eleotris sandwicensis*, *Stenogobius hawaiiensis*, *Awaous guamensis*, *Lentipes concolor*) and two native crustaceans (*Macrobrachium grandimanus* and *Atyoida bisulcata*). The stream also provides habitat for two native damsel flies (*Megalagrion nigrohamatum nigrolineatum* and *Megalagrion oceanicum*).

Although the project is not expected to have any significant impact on the aquatic resource values in Kalihi Stream, Aquatic Resources recommended best management practices such as using silt fences, covering stock pile material, watering to control dust and limit soil loss, and paving or landscaping of exposed areas to minimize the potential for erosion, siltation and pollution of the aquatic environment. Aquatic Resources also recommended that the contractor take mitigative measures to prevent petroleum products from the construction equipment from leaching into the aquatic environment and schedule work (particularly the grading and trenching) during periods of minimal rainfall.

Forestry and Wildlife, State Parks, and Department of Hawaiian Home Lands had no objections to the project.

U.S. Fish and Wildlife Service, University of Hawaii Environment Center, Historic Preservation, and Land Division did not submit comments as of the date of the preparation of this submittal.

RECOMMENDATION:

That the Commission approve a Stream Channel Alteration Permit to construct a reinforced concrete retaining wall approximately 430 feet long along Kalihi Stream and storm water utility line for the Middle Street Intermodal Center, Kalihi Stream, Honolulu, Oahu. The permit shall have a term of two (2) years subject to the Commission’s standard permit conditions in Exhibit 7.

Respectfully submitted,



KEN C. KAWAHARA, P.E.
Deputy Director

- Exhibits: 1. Location Maps 1a and 1b.
- 2. Plan for retaining wall along Kalihi Stream
- 3. Cross section of retaining wall, grouted riprap and Kalihi Stream
- 4. Plan of storm water drain
- 5. Storm water drain detail
- 6. Photos of project site and Kalihi Stream
- 7. Standard Stream Channel Alteration Permit Conditions

APPROVED FOR SUBMITTAL:



LAURA H. THIELEN
Chairperson