MEMORANDUM

TO: Mr. Brian Choy, Director
Office of Environmental Quality Control

FROM: Honorable Keith W. Ahue, Chairperson
Department of Land and Natural Resources

Subject: Negative Declaration for Conservation District Use Application
to Construct a Concrete Driveway and Drainage Improvements at
Tantalus, Encholulu, Oahu, (TMK: 2-5-15: S)

The Department of Land and Natural Resources has reviewed the comments
received during the 30-day public comment period which began on July 8,
1993. We have determined that this project will not have significant
environmental effect and have issued a negative declaration. Please
publish this notice in the OEQC Bulletin as soon as possible.

We have enclosed a completed OEQC Bulletin Publication Form and four
copies of the final EA. Please contact Cathy Tilton of our Office of
Conservation and Environmental Affairs at 587-0377, if you have any
questions.

Enclosure
FINAL ENVIRONMENTAL ASSESSMENT FOR
DILLINGHAM PROPERTY DRIVEWAY IMPROVEMENTS PROJECT
TANTALUS, OAHU

Submitted by:
First Hawaiian Bank
Trust - Real Estate
P.O. Box 3200
Honolulu, HI 96847

Prepared by:
Belt Collins & Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, HI 96813

September 1993
1.0 INTRODUCTION

The applicant is Harold Dillingham Jr. and the First Hawaiian Bank Trust-Real Estate. The applicant owns two parcels on Tantalus, in Makiki on Oahu, Hawaii (Figure 1). An existing private driveway straddles the two parcels, TMK 2-5-15:4 and 5. It is routed around the western and southern boundaries of parcel TMK 2-5-15:5 and passes directly in front of the applicant's home, which is located on parcel TMK 2-5-15:4 (Figure 2). The driveway provides access to two adjacent properties owned by Charles and Allison Holland (168 Poloke Place, parcel TMK 2-5-15:22) and Robert and Judy Buntin (169 Poloke Place, parcel TMK 2-5-15:3), as well as to the Dillingham residence. The driveway, and the land beneath it, is owned by the applicant; there are no reported encumbrances on the applicant's title to either of his parcels.

The applicant proposes to re-route the driveway along the northern and eastern boundaries of parcel TMK 2-5-15:5, which, with the exception of the existing driveway and a concrete foundation, is vacant (Figure 3). The proposed routing will improve access to the adjacent parcels and improve surface drainage, while reducing traffic directly in front of the applicant's home.

Because the property where the proposed driveway would be constructed is in a State Conservation District, a Conservation District Use Application (CDUA) must be approved prior to the start of construction. This environmental assessment is in support of the CDUA.

The State Department of Land and Natural Resources (DLNR) is the agency responsible for reviewing this application; the Board of Land and Natural Resources is the approving agency. Other agencies that have been consulted include the City and County Department of Public Works Refuse Collection and Disposal Division, Division of Engineering and the City and County Fire Department. Preliminary plans were submitted to these agencies for their review. Based on recommendations from the Refuse Collection and Disposal Division, the plans were revised. The agencies have approved the design that is presented in this document (Appendix A and Appendix B). Revised plans were submitted to the Department of Health who determined that the proposed seepage wells are not injection wells (see response letter in Appendix C).

Adjacent property owners (Hollands and Buntins) were notified of the proposed actions and were consulted during the planning and design of the proposed relocation and drainage improvements. A copy of the signed "Driveway Relocation Agreement" between the applicant and the adjacent property owners is included in Appendix D. This agreement grants the Hollands and Buntins perpetual easement over the proposed driveway, when constructed, in exchange for their agreement to surrender use of the existing driveway.
POLIOKE LOTS, TANTZUS HEIGHTS, F.P. 201, MAIKIKI, HONOLULU, OAHU, HAWAII

LEGEND

Site of Proposed Driveway Improvements

Note: Parcel 2-5-18.3 was acquired by Robert Lenard Buntin and wife Judy Satoko Buntin since this tax map was last updated.
2.0 DESCRIPTION OF THE PROPOSED ACTIVITY

The applicant proposes to install a new driveway on his property. The project will require grading, construction of a concrete driveway and installation of drainage improvements. Access to the existing driveway will be restricted by a gate, but would remain available for emergencies.

2.1 Purpose of the Proposed Project

Currently, the Dillingham residence and those of the adjacent property owners (Holland and Buntin) are accessed via Poloke Place and the present driveway which is routed around the west and south sides of parcel TMK 2-5-15:5 (Figure 2). The existing driveway, much of which consists of two narrow concrete slabs spaced approximately an axle width apart, is less than ten feet from the applicant’s home.

The primary purpose of the proposed project is to reduce the noise and annoyance generated by traffic which now passes directly in front of the applicant’s home, and to provide a better driveway surface. The proposed driveway would improve access to the adjacent properties, as well as the Dillingham residence. The existing driveway could also be used in emergency situations. Improved access, particularly by emergency and service vehicles, will benefit all of the property owners. Installation of a drainage swale and seepage wells concurrent with the driveway construction will improve drainage conditions in the area, particularly in the vicinity of the Holland property.

2.2 Detailed Description

Nine mature trees in the path of the proposed driveway, including five kukui nut and two avocado, will be removed by professional gardeners prior to the start of construction. A combination bulldozer and backhoe, or similar equipment, will be used to clear, grub, and rough grade the area of the proposed driveway.

The existing grade will be altered through a combination of cut and fill operations. Approximately 100 cubic yards of material will be excavated. It is anticipated that the majority of the excavated material will be used on-site as fill to build up the existing grade. The remainder will be disposed of by the contractor off-site, in conformance with applicable State and City and County regulations.

Following fine grading, the subgrade will be compacted in place. Graded aggregate base course will be laid on the prepared subgrade and compacted. Concrete forms will then be constructed and the reinforcing material (welded wire fabric) will be set to lay in the center of the poured concrete slab. The driveway will be poured in sections.

The driveway will be approximately 12 feet wide and will be about 250 feet long. The finished grade of the new driveway will range from about six percent at its
connection with the existing driveway to nearly 19 percent along most of its length. A passing area approximately 22 feet wide will be provided near the curve in the drive (Figure 4).

A drainage swale will be constructed adjacent to the driveway, extending from the passing area to the driveway end (Figure 4). The swale will intercept runoff from areas upslope of the driveway and most of the driveway itself. Water will be directed downslope along the swale to two seepage wells. The drainage swale will be V-shaped, two feet wide. It will be constructed of concrete on a layer of compacted base course and prepared subgrade. The driveway and the drainage swale will be constructed concurrently.

Following completion of the driveway and swale, the seepage wells will be excavated. Clean aggregate will be placed in the bottom of the excavations and precast concrete rings will be installed to form the sides of the seepage wells. Aggregate will be placed between the CMU or rings and the sides of the excavations to facilitate drainage from the seepage wells.

The seepage wells were designed to accommodate runoff volume generated during a 10-year recurrence interval storm event, approximately 333 cubic feet. This design criterion was based on City and County Department of Public Works Storm Drainage Standards (March 1986; Revised May 1988). According to the Department of Health Safe Drinking Water Branch Environmental Management Division, the seepage wells are not injection wells and do not require an Underground Injection Control permit (see Appendix C).

A total of about 550 cubic yards of concrete will be required for the driveway and swale. All aggregate used in the project will be free of fine-grained material, organics, and other undesirable constituents. Design of all components has been coordinated with geotechnical engineers who performed soil sampling and analyses. An engineer will supervise the construction operations.

It is expected that construction can be completed within four to five weeks. The preliminary cost estimate indicates that the project will be constructed for less than $65,000.

According to the “Grant of Easement” (included in Appendix D), the adjacent property owners, Holland and Buntin, will have primary responsibility for driveway maintenance and repair and maintenance of the drainage improvements. The document further specifies that the applicant’s responsibility for maintenance costs will be in proportion to his use of the “easement area”.

Dillingham Driveway Improvements
Environmental Assessment
3.0 DESCRIPTION OF AFFECTED ENVIRONMENT AND INVESTIGATION OF POTENTIAL IMPACTS

3.1 Existing Conditions

3.1.1 Geology, topography, and climate

The applicant’s property is located approximately 3,000 feet downslope from Tantalus peak, at an average elevation of about 1,500 feet. The existing land slopes range from approximately 21 percent to 33 percent. Rainfall in the area averages about 120 inches per year; average monthly rainfall is about eight to 12 inches.

The U. S. Department of Agriculture Soil Conservation Service (Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii. August, 1972) classifies the soil in the area as Tantalus silty loam. This soil has developed from volcanic ash and weathered cinders and its characteristics may vary significantly within short distances. It is fairly permeable and well-drained; the erosion hazard is classified as moderate.

Runoff from the property is by sheetflow, generally from the northwest toward the southeast. Large storms routinely result in ponding of water at the lower end of the existing driveway near the Holland garage.

3.1.2 Flora and Fauna

The area of the proposed driveway realignment was cleared for maintenance purposes recently. The remainder of the property is covered by a five- to six-foot high stand of scrub vegetation. Common species in the area of the proposed alignment are ginger, bamboo, ti, and banana. About thirty mature trees, reaching heights of 30 feet, are found throughout the parcel, including avocado, kukui nut, and guava.

No mammals were observed during two site visits to the property, but based on general information about the Tantalus area, it is expected that resident mammals are limited to feral dogs and cats, and various rodents. Native birds that might inhabit or traverse the area include the endemic Hawaiian short-eared owl or pueo (Asio flammeus) and elepaio (Chasmipis sandwicensis) (P. Brunner, M.S., personal communication, 1993). Most of the birds in the area are introduced species, such as doves and thrushes. None of these species are on the Federal list of threatened or endangered species. The endangered Hawaiian Hoary Bat (Lasiurus) has been reported in the Tantalus area in recent years (P. Brunner, personal communication, 1993). It is unknown whether the bat is a resident of the area, or whether it flies regularly between the different Hawaiian islands.
3.1.3 Historical and Archaeological Resources

The State DLNR Historic Preservation Division was consulted during the planning stages of the project to investigate the possibility that historical or archaeological resources existed in the vicinity of the proposed driveway relocation. Their response (attached as Appendix E) indicated that the only known historic sites in the area are downslope from the project site. Records do not show any sites that extend into upper elevations.

3.1.4 Utilities, Infrastructure and Noise Issues

Electric power and telephone service to the three properties are supplied via overhead lines. Water is supplied by individual rain catchment systems and domestic wastewater is disposed of in individual septic systems. No storm drainage system exists on the applicant's property, or on adjacent parcels. The existing driveway is an extension of Poloke Place, a private road which accesses State-owned Forest Ridge Way. The driveway, and the land beneath it, is owned by the applicant with no recorded encumbrances. Because the property is in a small residential neighborhood surrounded by open space, existing noise levels are very low.

3.1.5 Man-made Environment

The only improvements on the parcel where the new driveway is proposed are the existing driveway and a concrete foundation, approximately 20 feet square, located near the southwest corner of the parcel. The applicant indicated that the foundation is the only remaining part of a dwelling that had been abandoned for many years and was recently destroyed by fire. Residences and associated structures (e.g., garages) are located on adjacent parcels. Evidence of past habitation, including discarded water piping and a bathtub were found in the area of the proposed driveway during a visit to the property in January 1993. In addition, two empty tanks were found that were subsequently determined to have been used for propane storage. The applicant will dispose of this debris prior to the start of construction.

3.2 Potential Construction Impacts and Mitigation Measures

3.2.1 Potential for Increased Soil Erosion and Fugitive Dust Emissions

Erosion will be minimized through a combination of grading operation specifications (e.g., keying the fill) and temporary and permanent erosion controls. Temporary erosion controls may consist of limiting the areal extent of the excavations and/or installation of siltation curtains. Temporary erosion controls will not be removed until permanent controls are in place and established. Permanent erosion controls will consist of sod or other vegetation. All exposed areas will be planted as soon as final grading has been completed. Grading to final grade will be continuous, and any area in which work has been interrupted or
delayed will be planted. The contractor will minimize fugitive dust from the excavation through standard control methods.

3.2.2 Potential Impacts on Flora and Fauna

None of the trees to be removed are threatened or endangered. The trees will be chipped and used for mulch on the property. In addition, the applicant proposes to plant nine trees on the property after completion of construction to replace those removed.

Wildlife in the area may be adversely affected by increases in the number of people on the property, noise, and other construction-related effects. These impacts, however, will be temporary and short-lived; they are not expected to have any lasting effects on birds or other animals.

The only endangered species that may exist in the general vicinity of the proposed project site is the Hawaiian Hoary Bat. It is unknown, however, if the animal is a resident of the Tantalus area or whether it merely transits the region. In addition, any potential construction-related impacts would be temporary and localized.

3.2.3 Potential Impacts on Historical and Archaeological Resources

Personnel at the DLNR Historic Preservation Division have indicated that no known historic or archaeologic resources are expected near the applicant's property and that construction of the proposed driveway should have "no effect" on significant historical or archaeological resources (see Appendix E). However, the contractor will be instructed to cease work if any potentially significant items (e.g., shell or charcoal deposits, burials, pavings, or walls) are excavated and contact the State Historic Preservation Division. The supervising engineer will be informed of this contract provision.

3.2.4 Potential Noise Impacts

Noise levels are expected to increase significantly during the construction period due to use of large earth-moving equipment, cement mixing trucks, and other construction equipment. Adequate provisions for reducing noise levels, day-time, weekday work periods, and obtaining approvals from adjacent land owners should minimize complaints.

3.2.5 Other Potential Impacts

In addition, there is a possibility that an abandoned septic system may be unearthed during the construction process. (One was believed to exist on the property, but its exact location is unknown.) If it is located, the contractor will fill it in with engineer-approved aggregate before proceeding with the grading operations.
3.3 Potential Post-Construction Impacts and Mitigation Measures

The proposed driveway construction is not expected to alter the total volume of traffic or number of individuals on the applicant's property or in the adjacent area. Improved access to the applicant's property and adjacent properties will benefit all three property owners.

The primary change to the environment following completion of construction activities will be a change in the surface drainage. Runoff associated with the parcel will increase as a result of an increase in the impermeable surface. The proposed seepage wells will collect most of the increased runoff as well as the existing runoff that currently drains in the direction of the wells and disperse it to the subsurface in a controlled manner. The net effect of the seepage wells is expected to be a reduction in the volume of surface runoff from the property and improved drainage conditions, particularly in the vicinity of the Holland property.

No long-term effects to flora or fauna are expected. No impacts to the existing infrastructure, utilities, or general population are expected. Access to the properties will be improved.

4.0 RELATIONSHIP TO LAND USE PLANS

The primary goal of the Conservation District, in which the property is located, is protecting and preserving natural and scenic resources in order to insure "optimum long-term benefits for the inhabitants of the State." The State seeks to accomplish this goal through "judicious development and utilization" of these districts (Hawaii Administrative Rules Title 13 Chapter 2).

The Conservation District is further divided into subzones. The State's objectives vary slightly for the five subzones. The applicant's property is in the Resource subzone, the objective of which is to "develop, with proper management, areas to ensure sustained use of the natural resources of those areas".

The existing driveway, buildings, and other man-made structures were constructed between 1900 and 1928. The applicant purchased the properties in 1945 (Tax Assessors Office). The existing uses are the same as they were prior to October 1, 1964, the date the Conservation district line was established. Consequently, the existing uses of the applicant's properties are considered lawful "non-conforming" uses according to the definitions presented in Hawaii Administrative Rules Title 13 Chapter 2.

Residential dwellings have been permitted in the General and Resource subzones of the Conservation District as conditional uses. Repairs and minor improvements to these properties have generally been allowed by the State. The proposed driveway is an alteration of an existing use of the property, not a new use.

Dillingham Driveway Improvements
Environmental Assessment
County zoning in the area is P-1, Restricted Preservation. Likewise, the region is designated Preservation on the City and County Development Plan map.

5.0 ALTERNATIVES TO PROPOSED PROJECT

5.1 No Driveway Relocation

The "no project" alternative will result in no impacts to the environment as a result of construction of the proposed driveway. However, it also will provide no benefits to the applicant or the adjacent property owners. Because this option does not attain the objectives of the proposed action, it is not considered a reasonable alternative.

5.2 Alternative Location for Proposed Driveway

The proposed driveway could be constructed elsewhere on the property, such as diagonally across the parcel. Other alignments were investigated during the design process, but were rejected because of lack of feasibility (e.g., a prohibitively steep grade) or because of potentially greater impacts (e.g., removal of more trees or more extensive grading). The proposed realignment was designed to accomplish the intended goals with minimal impacts.

6.0 DETERMINATION OF NO SIGNIFICANT IMPACT

The proposed driveway realignment will not cause any permanent impacts to flora, fauna, or habitat. No historical or archaeological sites are expected to be impacted, nor does the project have any socioeconomic implications. No long term impacts on air or water quality are expected. The proposed project will have no effect on the existing infrastructure and no permanent adverse impacts on residents in the surrounding area.

Increases in noise levels and fugitive dust during construction will be temporary and mitigated to the greatest extent possible. The potential for soil erosion during construction will be reduced significantly by the use of erosion controls. Other temporary impacts, such as wildlife disturbance will be short-lived and reversible.

Several positive benefits are likely to result from the project. Access by service and emergency vehicles to the adjacent properties will be improved. In addition, installation of the seepage wells will reduce surface runoff from the property and facilitate better drainage on the applicant's property and adjacent parcels.

Dillingham Driveway Improvements
Environmental Assessment
APPENDIX A

Response from the City and County Department of Public Works Refuse Collection and Disposal Division
February 2, 1993

Mr. Alan Kato
Belt Collins & Associates
680 Ala Moana Boulevard
First Floor
Honolulu, Hawaii 96813-5406

Dear Mr. Kato:

Subject: Driveway Relocation for Harold Dillingham
Off of Poloke Place, Tantalus

We will provide service on the proposed driveway, subject to the following:

☐ Provide a minimum turnaround as shown on the attached sketch.

☐ Because we will no longer be able to turn around on Poloke Place, our truck will only travel on the proposed driveway. Any rubbish on the "tail end" of Poloke Place will have to be brought out and placed at the intersection of Poloke Place and the beginning of the new driveway. In addition, we will pick up any rubbish placed at the edge of the proposed driveway.

☐ The owner of the new driveway or his agent shall be responsible for working out with neighbors any changes in refuse placement caused by this proposal.

Should you have any questions, please call David Shiraishi at 527-5697.

Sincerely,

ROBERT YOUNG
Acting Chief

Attach.
MINIMUM TURNROUND FOR 13 C.Y. TRUCK
APPENDIX B

Response from the City and County Fire Department
Captain Michael Chung
Plans Examination Section
Fire Department
Municipal Building - 1st Floor
650 South King Street
Honolulu, Hawaii 96813

Dear Captain Chung:

Driveway Relocation for Harold Dillingham

We are providing engineering design services for the relocation of the private driveway at the end of Poloke Place, located at Tantalus, Oahu, Tax Map Keys 2-5-15: 4 and 5, see attached maps. The relocated driveway is to provide privacy for Mr. Harold Dillingham's property, Tax Map Key 2-5-15: 4, while maintaining access to the lots at the end of the existing driveway, Tax Map Keys 2-5-15: 3 and 22. The existing driveway will remain, however access will be limited by a gate or some other means. There is no intention to provide a looped driveway. Mr. Dillingham also has tentative plans to construct a house in the lot, Tax Map Key 2-5-15: 5, where the new driveway traverses through. The new concrete driveway will be 12' wide with turning radii of 27'. The maximum slope along the new driveway is 18.92%.

In comparison to the existing driveway, the proposed driveway will be an improvement. The existing driveway varies in width and composition. Approximately 100 feet is 10 feet wide broken asphaltic concrete with two - 1 foot wide concrete grooves 5' feet on center. Approximately 70 feet is concrete pavement with the driving surface varying in width from 10 to 14 feet. This concrete area, located in the southwest corner of the site, is used as the turn-around for the refuse vehicles. The radius on this turn-around is about 15 feet. The remaining driveway, some 150 feet in length, is asphaltic concrete pavement, which varies in width from 12 to 20 feet. The slope on the existing driveway averages 13%, with a maximum sustained slope of 17%.

No Objections! 1/6/93

Es Kaul

If a Keyed Gate is Installed on Existing Driveway, provide Knox Box. (From Fire Prevention Bureau)
APPENDIX C

Response from the State Department of Health
July 8, 1993

Mr. Alan Kato
Belt Collins & Associates
680 Ala Moana Boulevard
Honolulu, Hawaii 96813-5406

Dear Mr. Kato:

SUBJECT: DILLINGHAM - NEW DRIVEWAY (DRYWELLS)
UNDERGROUND INJECTION CONTROL (UIC)
TANTALUS, OAHU
TRK NO.: 2-5-15:4 and 5

The Department of Health acknowledges receipt of your June 29, 1993 transmittal of the construction plans for the subject facility.

The Department has reviewed the construction plans and has determined that the two (2) seepage wells are not injection wells under the purview of Hawaii Administrative Rules, Title 11, Chapter 23, Underground Injection Control. Therefore, a UIC permit will not be required for the seepage wells.

Please be advised that the determination does not absolve the owner of the facility from assuming responsibility for corrective action if the drainage system becomes a source of groundwater contamination.

If you have any questions about this subject, please contact Norris Uehara of the Safe Drinking Water Branch at 586-4258.

Sincerely,

[Signature]

WILLIAM WONG, P.E., Chief
Safe Drinking Water Branch
Environmental Management Division

NU:kt
APPENDIX D

"Driveway Relocation Agreement"
DRIVEWAY RELOCATION AGREEMENT

THIS AGREEMENT is made this 27th day of June, 1993 among HAROLD G. DILLINGHAM, JR. ("Dillingham"), FIRST HAWAIIAN BANK, as Trustee under that certain unrecorded Harold G. Dillingham, Jr. Revocable Living Trust dated December 28, 1976 ("Trustee"), ROBERT LENARD BUNTIN and JUDY SATOKO BUNTIN (the "Buntins"), and CHARLES H. HOLLAND and ALLISON ALLEN HOLLAND (the "Hollands").

BACKGROUND

1. Trustee is the owner of certain real property located at Poloke, Makiki, Honolulu, Hawaii, bearing Tax Key designations 2-5-15-4 and 5 (the "Dillingham Property") and the Buntins and the Hollands use a portion of this property as a roadway giving access to adjacent parcels of real property owned by them (the "Existing Driveway") as depicted in red on Exhibit "A" attached hereto and made a part hereof.

2. Dillingham, for whose benefit Trustee holds title to the Dillingham Property, desires to relocate a portion of the Existing Driveway to another portion of the Dillingham Property as depicted in red on Exhibit "B" attached hereto and made a part hereof.

AGREEMENT

In consideration of the foregoing and the agreements hereinafter set forth, the parties agree as follows:

1. Dillingham agrees to use his best efforts to obtain all necessary permits and approvals and to construct a new 15-foot wide driveway with concrete pavement 12 feet wide in the area depicted in red on Exhibit "B" (the "New Driveway") in accordance with specifications conforming to government regulations or with such variances as shall be allowed by governmental authorities. All turns in the New Driveway shall comply with the turning-radius requirements of the Refuse Division of the City and County of Honolulu. If a necessary permit for installation of the New Driveway is denied, Dillingham or the Trustee may terminate this Agreement by written notice to the other parties.

2. If Dillingham is able to install the New Driveway, the improvement work will incorporate a storm water drainage system designed appropriately so that drainage flows into the Hollands' driveway and diagonally across their property will not exceed the flows that would otherwise occur under existing circumstances.
3. At such time as the construction of the New Driveway has been completed, the Buntins agree to surrender, release and quitclaim to the Trustee the portion of the Existing Driveway shown in red on Exhibit "C" and the Hollands agree to surrender, release and quitclaim to the Trustee the portion of the Existing Driveway shown in red on Exhibit "D" in exchange for a grant of a perpetual easement by the Trustee to the Buntins and the Hollands over the New Driveway as shown in red on Exhibit "B". The grant of easement of the New Driveway shall be free and clear of any financial encumbrance and any other encumbrance interfering with practical use of the New Driveway.

4. The grant of easement of the New Driveway from the Trustee to the Buntins and the Hollands shall be in substantially the form of Exhibit "E" attached hereto and made a part hereof. Concurrently with execution and delivery of such grant of easement, the parties shall also execute, acknowledge and deliver a Partial Surrender and Modification of Easement in substantially the form of Exhibit "F" attached hereto and made a part hereof.

5. This Agreement may be signed in counterparts, all of which together shall constitute a single, binding agreement.

The parties have signed this Agreement on the date set forth above.

HAROLD G. DILLINGHAM, JR.  ROBERT LENARD BUNTING
FIRST HAWAIIAN BANK, Trustee  JOE SATO KO BUNTING
as aforesaid  CHARLES M. HOLLAND
By  ALLISON ALLEN HOLLAND
Its
GRANT OF EASEMENT

KNOW ALL MEN BY THESE PRESENTS:

That FIRST HAWAIIAN BANK, a Hawaii corporation, whose principal place of business is at 161 South King Street, Honolulu, Hawaii, and whose post office address is P.O. Box 3200, Honolulu, Hawaii 96847, as Trustee under that certain unrecorded Harold G. Dillingham, Jr. Revocable Living Trust Agreement dated December 28, 1976, as it may be amended, hereinafter called the "Grantor", for good and valuable consideration received from CHARLES M. HOLLAND and ALLISON ALLEN HOLLAND, husband and wife, whose residence and post office address is 168 Poloke Place, Honolulu, Hawaii 96822, and ROBERT LENARD BUNTIN and JUDY SATOKO BUNTIN, husband and wife, whose residence and post office address is 169 Poloke Place, Honolulu,
Hawaii 96822, hereinafter collectively called the "Grantees", does hereby grant and convey unto the Grantees:

A perpetual nonexclusive easement appurtenant to the Grantees' lands designated in the First Taxation Division of the State of Hawaii by Tax Map Key Nos. 2-5-15:3 and 22, for pedestrian and vehicular ingress and egress and utility service and repair purposes over, across, along and upon that certain parcel of land (the "Easement Area") at Poloke, Makiki, Honolulu, Hawaii, as more particularly described in Exhibit A attached hereto and made a part hereof.

TO HAVE AND TO HOLD the same unto the Grantees and their respective successor owners of said Tax Map Key Nos. 2-5-15:3 and 22, forever, subject to the following terms:

1. The Grantees shall exercise due care in using the Easement Area and shall be responsible for maintaining the Easement Area and all improvements thereon, except that the Grantor shall be responsible for a share of maintenance costs in proportion to the actual use, if any, of the Easement Area for access and utility purposes serving Lot 14 of the Poloke Lots, as shown on File Plan 208 filed in the Bureau of Conveyances.

2. The Grantees shall not cause or permit the parking or storage of any vehicles or other equipment or materials on the Easement Area at any time.

3. The Grantees shall cooperate with the Grantor in taking such action as may be reasonably necessary or appropriate in the judgment of the Grantor from time to time to assure that the Easement Area does not become a public road. Any and all rights to dedicate any portion of the Easement Area to any
public authority shall be reserved to the Grantor. In case of any condemnation or other taking of all or any portion of the Easement Area for public use, this grant shall automatically terminate as to the portion or portions of the Easement Area so condemned or taken, and the Grantor shall be entitled to receive and recover all compensation awarded for the condemnation or taking.

4. This grant shall be binding upon the Grantor and any successor owner of the Easement Area; however, nothing in this grant shall be construed to give rise to any claim against the private property of First Hawaiian Bank or any successor trustee, but only the trust estate shall be bound.

IN WITNESS WHEREOF the Grantor and the Grantees have executed this agreement as of 1992.

FIRST HAWAIIAN BANK, Trustee as aforesaid

By

CHARLES H. HOLLAND

ALLISON ALLEN HOLLAND

ROBERT LENARD BUNTIN

JUDY SATOKO BUNTIN
On this _____ day of __________, 199__, before me appeared __________________, to me personally known, who being by me duly sworn, did say that he is __________________ of FIRST HAWAIIAN BANK, a Hawaii corporation, Trustee under that certain unrecorded Harold G. Dillingham, Jr. Revocable Living Trust Agreement dated December 28, 1976, as amended; that the seal affixed to the foregoing instrument is the corporate seal of such corporation, and that such instrument was signed and sealed on behalf of such corporation by authority of its Board of Directors; and said __________________ acknowledged that he executed such instrument as the free act and deed of such corporation, as such trustee.

Notary Public, State of Hawaii

My commission expires: __________
STATE OF HAWAI'I COLORADO
       )
CITY AND COUNTY OF HONOLULU ) SS:

On this 21st day of July, 1993, before me personally appeared CHARLES M. HOLLAND and ALLISON ALLEN HOLLAND, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

Notary Public, State of Hawaii
My commission expires: 10-1-93

STATE OF HAWAI'I
       )
CITY AND COUNTY OF HONOLULU ) SS:

On this _ day of __, 199__, before me personally appeared ROBERT LENARD BUNTIN and JUDY SATOKO BUNTIN, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

Notary Public, State of Hawaii
My commission expires: __________
Survey description
conforming to Exhibit B
of the Driveway Relocation Agreement

EXHIBIT A
PARTIAL SURRENDER AND MODIFICATION OF EASEMENT

This AGREEMENT made this ___ day of _____, 199_, by and among

CHARLES M. HOLLAND and ALLISON ALLEN HOLLAND, husband and wife, whose residence and post office address is 168 Poloke Place, Honolulu, Hawaii 96822, hereinafter called the "Hollands";

ROBERT LENARD BUNTING and JUDY SATOKO BUNTING, husband and wife, whose residence and post office address is 169 Poloke Place, Honolulu, Hawaii 96822, hereinafter called the "Buntins";

and

FIRST HAWAIIAN BANK, a Hawaii corporation, whose principal place of business is at 161 South King Street, Honolulu, Hawaii, and whose post office address is P.O. Box 3200, Honolulu, Hawaii 96847, as Trustee under that certain unrecorded Harold G. Dillingham, Jr. Revocable Living Trust Agreement dated December 29, 1976, as it may be amended, hereinafter called the "Trustee",

EXHIBIT F
WITNESSETH THAT

WHEREAS the Hollands and the Buntins use a portion of certain property owned by the Trustee at Poloke, Makiki, Honolulu, Hawaii, for access to the Hollands' and the Buntins' properties at 168 Poloke Place and 169 Poloke Place, respectively; and

WHEREAS the Trustee is concurrently herewith granting to the Hollands and the Buntins a substitute, relocated easement over a different portion of the Trustee's property; and

WHEREAS the parties mutually desire to cancel any easement rights in portions of the existing access route and desire to create and modify easement rights in other portions of the existing access route,

NOW, THEREFORE, the parties, in consideration of the foregoing and for other good and valuable consideration, the receipt of which is hereby acknowledged, hereby agree as follows:

1. The Buntins hereby cancel, surrender, quitclaim, remise and release unto the Trustee all right, title and interest that the Buntins may have, whether in the nature of an easement or otherwise, in and to the property more particularly described in Exhibit A attached hereto and made a part hereof.

2. The Hollands hereby cancel, surrender, quitclaim, remise and release unto the Trustee all right, title and interest that the Hollands may have, whether in the nature of an easement or otherwise, in and to the property more particularly described in Exhibit B attached hereto and made a part hereof.
3. The Trustee hereby grants to the Hollands during their lifetimes and the lifetime of the survivor of them, and only as long as either of them shall continue to reside at 168 Poloke Place, a nonexclusive easement five (5) feet wide, as shown in red on Exhibit C attached hereto and made a part hereof, for landscaping and planting purposes for shrubs and plants not to exceed six (6) feet in height; provided that the Trustee and any authorized occupant of Lot 14 of the Poloke Lots, as shown on File Plan 208 filed in the Bureau of Conveyances, shall have the continuing right to install and maintain driveway and utility facilities through such easement area to serve Lot 14.

4. The Trustee hereby grants to the Hollands an easement for the continued existence and maintenance (including repair or restoration of any casualty damage) of that certain block wall at the southeastern corner of said Lot 14, as shown in red on Exhibit D attached hereto and made a part hereof, including an easement to use the portion of Lot 14 makai of said wall for landscaping and yard purposes. This easement shall continue so long as said wall shall remain in existence. The Hollands accept such easement and assume full responsibility for the safety and maintenance of said wall and for the compliance of said wall with any applicable governmental requirements.

5. Nothing in this agreement shall be construed to give rise to any claim against the private property of First Hawaiian Bank or any successor trustee, but only the trust estate shall be bound.
IN WITNESS WHEREOF the parties have executed this agreement as of ____________, 199__.

CHARLES M. HOLLAND

ALLISON ALLEN HOLLAND

ALLISON ALLEN HOLLAND

ROBERT LENARD BUNTIN

JUDY SATOKO BUNTIN

FIRST HAWAIIAN BANK, Trustee as aforesaid

By ________________________

Its
STATE OF HAWAII

CITY AND COUNTY OF HONOLULU

SS:

On this ____ day of ______________, 199__, before me appeared ______________, to me personally known, who being by me duly sworn, did say that he is ______________ of FIRST HAWAIIAN BANK, a Hawaii corporation, Trustee under that certain unrecorded Harold G. Dillingham, Jr. Revocable Living Trust Agreement dated December 28, 1976, as amended; that the seal affixed to the foregoing instrument is the corporate seal of such corporation, and that such instrument was signed and sealed on behalf of such corporation by authority of its Board of Directors; and said ______________ acknowledged that he executed such instrument as the free act and deed of such corporation, as such trustee.

Notary Public, State of Hawaii
My commission expires: __________
STATE OF HAWAII  }
   CITY AND COUNTY OF HONOLULU   
   SS:  

On this _______ day of ______, 1993, before me personally appeared CHARLES M. HOLLAND and ALLISON ALLEN HOLLAND, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

   WILLIS E. FRIED
   Notary Public, State of Colorado
   My commission expires: 10-1-93
   My Commission Expires 10-1-93
   255 Park Lane Estes Park, CO 80517

STATE OF HAWAII  }
   CITY AND COUNTY OF HONOLULU   
   SS:  

On this _______ day of ______, 1993, before me personally appeared ROBERT LENARD BUNTIN and JUDY SATOKO BUNTIN, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

   Notary Public, State of Hawaii
   My commission expires: _______
Survey description of surrendered easement area conforming to Exhibit C of the Driveway Relocation Agreement
Survey description of surrendered easement area conforming to Exhibit D of the Driveway Relocation Agreement

EXHIBIT B
APPENDIX E

Response from the State Historic Preservation Office
February 16, 1993

Ms. Kathy Dadey
Belt Collins & Associates
680 Ala Moana Blvd., 1st floor
Honolulu, Hawaii 96813

Dear Ms. Dadey:

SUBJECT: Conservation District Use Application for Driveway Improvement on Tantalus
Honolulu, Kona, O'ahu
TMK: 2-5-15-5

A review of our records shows that this parcel has not undergone archaeological survey. Our records for this area of Oahu indicate historic sites are found at lower elevations in the lower portion of Makiki Valley (to the southwest of the above parcel in TMK: 2-5-19) such as State site nos. 80-14-3985, an agricultural and habitation complex (consisting of terraces, irrigated pond fields (lo'i), walls, rock shelters, enclosures, and platforms) and 80-14-2297, the Makiki Valley burial shelter. However, it appears that no historic sites extended up into the upper elevations, based on current records.

Thus, it is likely that the proposed driveway improvements at the above parcel will have "no effect" on significant historic sites. If historic remains such as artifacts, shell or charcoal deposits, burials, stone platforms, pavings, or walls are found during construction of the driveway, please direct your client to stop work in the immediate area and contact the State Historic Preservation Division at 587-0047 immediately. Our office will assess the situation and make recommendations for mitigative action, if needed.

If you have any questions call June Cleghorn at 587-0015.

Sincerely,

DON HIBBARD, Administrator
State Historic Preservation Division

JC:amk
APPENDIX F

Comment Letters on Draft Environmental Assessment and Responses
Ms. Kathleen Dadey  
Belt Collins & Associates  
680 Ala Moana Blvd., First Floor  
Honolulu, Hawaii 96813-5406

Dear Ms. Dadey:

SUBJECT: Conservation District Use Application to Construct a Concrete Driveway and Drainage Improvements at Tantalus, Honolulu, Hawaii  

(TMD: 2-5-15, 5)

We have the following comments regarding the subject matter.

ENVIRONMENTAL ASSESSMENT

The Environmental Assessment (EA) submitted with the subject Conservation District Use Application (CDUA) was published in the CDEC Bulletin on July 8, 1993, as a Draft EA. The Draft EA underwent a formal 30-day review period which ended August 7, 1993. Pursuant to the Office of Environmental Quality Control’s (OEQC) rules, the applicant is responsible for responding to all comments postmarked within the 30-day review period. Attached are comments received to date on the subject application. Some fall within the 30-day review period and some do not. For the comments that fall outside of the 30-day review, please respond to the Department.

According to OEQC, following the end of this 30-day review period, any comments received along with their responses must be incorporated into the Final EA. If appropriate, the text, figures, tables, maps, and other ancillary parts of the EA should be revised.

We have tentatively scheduled your application for the October 22, 1993, Board meeting in Hilo, Hawaii. In order to meet OEQC’s and the Department's processing deadlines, we suggest that your immediate attention be given to finalizing the subject EA and submitting five copies to the Department no later than September 17, 1993.
Please be advised that non-compliance with Chapter 343, Hawaii Revised Statutes, will result in negative action on your application.

SITE VISIT

As you are aware, staff from the Department conducted a site visit to the subject property on July 25, 1993. During the site visit, we noticed that the project area had been recently cleared of vegetation. We have reviewed our files and show no permit or authorization issued by the Department to clear the property. We, therefore, request that you provide us with the following information: Who cleared the area? When, why and how was it cleared? Was a permit or authorization obtained from a government agency prior to clearing?

SMA

Also, for your information, we have yet to receive notification from the City and County of Honolulu regarding the County's Special Management Area requirements (please refer to page 2 of our "Notice of Acceptance" letter dated June 22, 1993).

Thank you for your cooperation in this matter. Please feel free to contact Cathy Tilton of our Office of Conservation and Environmental Affairs at 587-0377, should you have any questions.

Very truly yours,

[Signature]

KEITH W. AHUE

Attachments
July 28, 1993

To: The Honorable Keith W. Ahue, Chairperson
    Department of Land & Natural Resources

From: John C. Lewin, M.D.
    Director of Health

Subject: Conservation District Use Application

Application: Harold Dillingham and First Hawaiian Bank Trust
File No.: OA-5/18/93-2645
Request: Construction of Driveway & Drainage Improvements
Location: Tantalus, Oahu
TMK: 2-5-15: 5

Thank you for allowing us to review and comment on the subject request. We have the following comments to offer:

Underground Injection Control (UIC)

1. The site is located above the UIC line.

2. The UIC program has reviewed the construction plans dated April 1993 which accompanied the transmittal. The drywell design depicted on the April 1993 plan would be considered an injection well and would require a UIC permit from the Department of Health.

3. The UIC program generally does not support any form of upgrade construction in Conservation Districts. Conditions on which the approval for specific land uses were based upon should remain in perpetuity. Regrading this lot, constructing new pavement and altering the surface water drainage should not be an allowable practice in the Conservation District. We would only support an improvement to the existing pavement area if regrading and new pavement square footage is offset on a one-for-one basis against the old pavement square footage. In other words, for every one square foot of new pavement or roadway, one square foot of old pavement must be demolished and the ground returned to its natural state.
The Honorable Keith W. Ahue  
July 28, 1993  
Page 2  

4. The proposed construction shows no benefit to the State's resource subzone objective; to develop, with proper management, areas to ensure sustained use of the natural resources of those areas. Instead, the improvements are basically for personal use and preference. Furthermore, nine mature trees (a natural resource) in the proposed alignment will be cleared and grubbed with no indication of replanting of the trees. Unless the one-for-one square footage replacement condition is implemented, we do not support the approval for this project.

If you have any questions on this matter, please contact Mr. Bill Wong, Chief of the Safe Drinking Water Branch at 586-4258.

Nonpoint Source Concerns

Should the Department of Land and Natural Resources grant this application, the Department of Health offers the following recommendations:

Proper planning, design and use of erosion control measures substantially reduces the total volume of runoff generated, thereby decreasing sediment load. Steps should be taken to minimize onsite erosion which may become a source for additional nonpoint source pollution from construction activities. Suggested measures to be considered are:

a. Conduct grubbing and grading activities during the low rainfall months (April - October).

b. Replant or cover bare areas as soon as grading or construction is completed. New plantings will require soil amendments, and fertilizers to become established.

If you should have any questions on this matter, please contact Ms. Shirley Nakamura of the Environmental Planning Office at 586-4337.
September 14, 1993
93P-596 /133-6001

Dr. John C. Lewin, M.D.
Director of Health
State of Hawaii
Department of Health
P.O. Box 3378
Honolulu, HI 96801

Subject: Conservation District Use Application: Construction of Driveway & Drainage Improvements, Tantalus, Oahu, TMK: 2-9-15:5

Dear Dr. Lewin:

Thank you for your letter dated July 28, 1993 to Keith W. Ahue, Chairperson, Department of Land & Natural Resources, regarding the subject CDUA. We offer the following responses to your comments:

Underground Injection Control (UIC)

2. The comment indicated that the proposed dry well would require a UIC permit.

The April 1993 construction plans submitted with the CDUA for the project were preliminary and subject to revision. Subsequent modifications have been made to the dry well design. The revised plans (dated June 1993) have been reviewed by the Department of Health. In their letter of July 8, 1993, the Safe Drinking Water Branch, Environmental Management Division determined that the proposed dry wells are not injection wells and thus, are not under the purview of the Underground Injection program (please see Attachment 1). The Department's decision was not available for inclusion in the Draft Environmental Assessment, but will be included in the Final Environmental Assessment.

3. The comment suggested that new pavement construction be offset by a one-to-one removal of the existing paved surface to ensure that surface drainage would not be affected adversely by the proposed project.

Surface drainage would not be adversely affected by the proposed project. In fact, analyses completed for the project drainage report indicate that the proposed improvements would improve surface drainage in the vicinity of the subject
property and adjacent properties. A discussion of the drainage improvements can be found on page 13 of the Environmental Assessment for the project; the revised drainage report, including calculations of runoff volumes with and without the proposed project, is included as Attachment 2.

Further, the Fire Department has recommended that the existing driveway remain in place for emergencies (see Attachment 3, memo to file based on telephone conversation with Fire Department personnel). Another safety issue not addressed by the one-to-one replacement recommendation is that removal of the existing driveway would cut off direct access to the applicant’s home, which is located over 100 feet from the end of the proposed driveway. One of the purposes of the proposed driveway is to improve access for rescue and other emergency vehicles; removal of the existing pavement would negate this advantage.

4. The comment stated that the proposed project shows no benefit to the State’s Conservation District Resource subzone, but is “basically for personal use and preference.”

The proposed project would benefit adjacent property owners, as well as the applicant, by improving drainage and reducing the incidence of ponding and flooding; by improving access to all three properties; and by providing a smoother, safer driving surface. There are no plans to develop the parcel, which will remain as open space. Because the subject property is in a residential area, we believe this constitutes “proper management”.

By improving access to fire fighting vehicles, potential adverse impacts to the natural resources of the area are reduced. Furthermore, the proposed project has been undertaken to prevent further damage to the applicant’s property (the fence at the bend in the existing driveway has sustained damage from vehicles backing into it) and reduce hazards associated with the proximity of the applicant’s home to this sharp bend.

This comment also stated that the nine trees which would be cleared in the proposed driveway alignment would not be replanted.

The Environmental Assessment indicates on page 12 that the nine trees would be replaced by nine others. As mentioned in the Environmental Assessment, none of the nine that would be removed are endangered or threatened, and none are habitat for endangered animals. Moreover, the nine replanted trees would be maintained by the applicant.
Nonpoint Source Concerns

The comment stated that erosion controls should be implemented.

This concern is addressed fully in the Environmental Assessment. Erosion control measures that would be used, both during and after construction of the proposed project are described on pages 11 and 12 of the document. Furthermore, details of these measures would be included in the construction plans and specifications for the project.

Thank you for your comments and participation in the Environmental Assessment review process. Your letter and this response will be appended to the Final Environmental Assessment.

Sincerely,

Kathleen A. Dadey
Environmental Planner

Attachments

cc: Ms. Cathy Tilton, DLNR, Office of Conservation and Environmental Affairs
    Office of Environmental Quality Control
    Ms. Sharman Noguchi, First Hawaiian Trust- Real Estate
July 8, 1993

Mr. Alan Kato
Belt Collins & Associates
680 Ala Moana Boulevard
Honolulu, Hawaii 96813-5406

Dear Mr. Kato:

SUBJECT: DILLINGHAM - NEW DRIVEWAY (DRIWELLS)
UNDERGROUND INJECTION CONTROL (UIC)
TANTALUS, OAHU
THK NO.: 2-5-15:4 and 5

The Department of Health acknowledges receipt of your June 29, 1993 transmittal of the construction plans for the subject facility.

The Department has reviewed the construction plans and has determined that the two (2) seepage wells are not injection wells under the purview of Hawaii Administrative Rules, Title 11, Chapter 23, Underground Injection Control. Therefore, a UIC permit will not be required for the seepage wells.

Please be advised that the determination does not absolve the owner of the facility from assuming responsibility for corrective action if the drainage system becomes a source of groundwater contamination.

If you have any questions about this subject, please contact Norris Uehara of the Safe Drinking Water Branch at 586-4258.

Sincerely,

William Wong, P.E., Chief
Safe Drinking Water Branch
Environmental Management Division

NU:kt
DRAINAGE REPORT

FOR

NEW DRIVEWAY AT TMK: 2-5-15: 4 AND 5

PREPARED BY:

Belt Collins & Associates
680 Ala Moana Boulevard Suite 200
Honolulu, Hawaii 96813

January 5, 1993
Revised: June 29, 1993
Revised: July 16, 1993

ALAN M. KATO
LICENSED PROFESSIONAL ENGINEER
No. 7552-O
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
DRAINAGE REPORT
FOR
NEW DRIVEWAY AT TMK: 2-5-15: 4 AND 5

GENERAL PROJECT DESCRIPTION:

The proposed relocated driveway is located on Tantalus, Oahu, Hawaii, at Tax Map Key: 2-5-15: 4 and 5. The driveway is a private 12' wide concrete driveway, which traverses on the northern and eastern property lines of TMK: 2-5-15: 5. The purpose of the driveway is to provide privacy for the residence located at TMK: 2-5-15: 4, while maintaining access to the lots at the end of the existing driveway. A new drainage swale along the driveway and two seepage wells are to be installed to capture the additional runoff volume associated with the improvements.

EXISTING DRAINAGE:

The existing site is a vacant forested lot, with the existing driveway traversing around the western and southern boundaries of the property. Runoff from the site sheet flows in a south-easterly direction.

Since the project area is less than 100 acres, the 10-year recurrence interval flows were calculated by the Rational Method outlined in the City’s Storm Drainage Standards. A rainfall intensity of 2.7 inches per hour was selected for the 10-year design storm from Plate 1 of the Standards. A runoff coefficient of 0.9 was selected for concrete and asphaltic pavement areas, and a runoff coefficient of 0.3 was selected for the forested areas.

Based on the Rational Method, the existing site runoff volumes were calculated. A runoff of 0.88 cubic feet per second (cfs) flows through the area served by the proposed seepage wells. The computed volume of runoff is 264 cubic feet. A runoff of 0.09 cfs drains past this area, with a volume of 27 cubic feet. A runoff of 0.07 cfs drains along the existing driveway, with a volume of 21 cubic feet. The total runoff from the site was calculated to be 1.04 cfs, with a total volume of 312 cubic feet. The computations are attached.

DEVELOPED DRAINAGE:

The developed site runoff will continue to flow in a south-easterly direction. A drainage swale is proposed along the lower half of the new driveway to intercept and direct runoff to the two new seepage wells.
Based on the Rational Method the developed site runoff volumes were calculated. A runoff of 1.11 cfs with a volume of 333 cubic feet flows to the proposed seepage wells. A runoff of 0.27 cfs with a volume of 81 cubic feet drains past the new seepage wells. A runoff of 0.07 cfs drains along the existing driveway, with a volume of 21 cubic feet. The total runoff generated from the improved site was computed to be 1.45 cfs, for a total volume of 435 cubic feet. An additional 123 cubic feet of runoff volume will be generated by the improvements.

The seepage wells are circular wells with a 6 foot diameter and an inside depth of approximately 4 feet. The storage volume within each seepage well is approximately 113 cubic feet, for a total storage volume of 226 cubic feet. Therefore the available storage within the seepage wells can store all the additional runoff volume generated by the improvements. The net volume of runoff from the improved site will be approximately 209 cubic feet, which is less than the volume experienced under existing conditions.

Additional storage volume for runoff is available in the drainage swale, however this volume was not added in the computations. Percolation of runoff in the seepage wells will also increase the capacity of the wells.

SUMMARY:

The proposed relocated driveway will increase the runoff volume generated on the site, due to an increase in impermeable area. The two new seepage wells will retain all of the additional runoff volume generated by the driveway improvements. The net effect of the development is a decrease in runoff volume from 312 cubic feet to 209 cubic feet. This decrease in runoff should improve drainage in the area. Maintenance of the seepage wells will be provided by the owner of TMK: 2-5-15: 4 to maintain drainage.

ATTACHMENTS:

Site Plan
Existing Drainage Map
Developed Drainage Map
Calculations
Excerpts from Department of Public Works, City and County of Honolulu, "Storm Drainage Standards," March 1986.
Drainage Swale Calculations
REFERENCES:


Topographic Map - no title, prepared by Akira Ishida, not dated.
**PURPOSES TO DETERMINE THE IMPACT OF THE NEW DRIVEWAY UPON THE HYDROLOGY OF THE SITE.**

**DRAINAGE AREA IS LESS THAN 100 ACRES, USE RATIONAL METHOD.**

\[ Q = C1A \]

- \( Q \) = Flow rate in cubic feet per second
- \( C \) = Runoff coefficient
- \( I \) = Rainfall intensity in inches per hour for a duration equal to the time of concentration
- \( A \) = Drainage area in acres

- \( C = 0.9 \) for concrete or asphalt pavement
- \( C = 0.3 \) for forested area

\[ I = \text{USE RECURRENCE INTERVAL = 10 YEARS FOR AREA LESS THAN 100 ACRES} \]

- \( I = 2.7 \) inches
- \( C_p = 2.8 \) (Correction factor)

\[ Q = (2.7) \times (2.8) \times 7.5 \]

**DRAINAGE AREAS DRAINING TO NEW SEEPAGE WELLS**

**Existing**
- Concrete/Asphalt = 0.01 acres
- Forest = 0.06 acres

**Developed**
- Concrete/Asphalt = 0.06 acres
- Forest = 0.01 acres

**DRAINAGE AREAS BY-PASSING NEW SEEPAGE WELLS**

**Existing**
- Forest = 0.04 acres

**Developed**
- Concrete/Asphalt = 0.04 acres

**DRAINAGE AREAS DRAINING ALONG EXISTING DRIVEWAY**

**Existing**
- Concrete/Asphalt = 0.01 acres

**Developed**
- Concrete = 0.01 acres
RUNOFF QUANTITIES

AREAS DRAINING TO NEW SEEPAGE WELLS

Q_exist = (0.4)(7.56)(0.01) + (0.3)(7.56)(0.36)
        = 0.88 CFS

Q_denoel = (0.9)(7.56)(0.06) + (0.3)(7.56)(0.31)
          = 1.11 CFS

AREAS BY-PASSING NEW SEEPAGE WELLS

Q_exist = (0.3)(7.56)(0.04)
       = 0.09 CFS

Q_denoel = (0.9)(7.56)(0.04)
        = 0.27 CFS

AREAS DRAINING ALONG EXISTING DRIVEWAY

Q_exist = (0.9)(7.56)(0.01)
       = 0.07 CFS

Q_denoel = (0.9)(7.56)(0.01)
        = 0.07 CFS

* NO CHANGE IN RUNOFF DRAINING ALONG EXISTING DRIVEWAY

RUNOFF VOLUMES - USE RATIONAL METHOD

\[
V = \frac{1}{2} (Q_p) (2T_c)
\]

AREAS DRAINING TO NEW SEEPAGE WELLS

V_exist = (0.88 ft^3/sec)(5 min)(60 sec/min)
         = 264 ft^3

V_denoel = (1.11 ft^3/sec)(5 min)(60 sec/min)
          = 333 ft^3

AREAS BY-PASSING NEW SEEPAGE WELLS

V_exist = (0.09 ft^3/sec)(5 min)(60 sec/min)
         = 27 ft^3

V_denoel = (0.27 ft^3/sec)(5 min)(60 sec/min)
          = 81 ft^3
PROJECT: DILLINGHAM DRIVeway

Job No.: 133-0000
Client: HAROLD DILLINGHAM

Subject: Hydrologic Analysis

Runoff Volumes

Areas draining along existing driveway

\[ V_{exist} = (0.07 \text{ ft}^2/\text{sec})(5 \text{ min})(60 \text{ sec/min}) \]
\[ = 21 \text{ ft}^3 \]

\[ V_{drain} = (0.07 \text{ ft}^2/\text{sec})(5 \text{ min})(60 \text{ sec/min}) \]
\[ = 21 \text{ ft}^3 \]

Compute additional volumes generated

Draining to new seepage wells

\[ \Delta V = 233 \text{ ft}^3 - 204 \text{ ft}^3 \]
\[ = 29 \text{ ft}^3 \]

By passing new seepage wells

\[ \Delta V = 81 \text{ ft}^3 - 27 \text{ ft}^3 \]
\[ = 54 \text{ ft}^3 \]

Draining along existing driveway

\[ \Delta V = 21 \text{ ft}^3 - 21 \text{ ft}^3 \]
\[ = 0 \text{ ft}^3 \]

Total \[ \Delta V = 29 \text{ ft}^3 + 54 \text{ ft}^3 + 0 \text{ ft}^3 \]
\[ = 123 \text{ ft}^3 \]

Determine available storage volume in a 6' diameter, 4' deep seepage well (installing two)

\[ V = \frac{2}{3}\pi D^2 H \times (2 \text{ wells}) \]
\[ = \frac{2}{3}(6)^2(4) \text{ ft}^3 \times 2 \]
\[ V = 126 \text{ ft}^3 \]

\[ \frac{\text{Available storage in the seepage wells exceeds additional volume generated by the driveway improvements}}{\}

Note: The seepage well is a modified dry well with the diameter greater than the depth. No infiltration rate was considered in the analysis, any infiltration into the ground will increase the capacity of the seepage well.
EXISTING DRAINAGE

LEGEND

- DRAINAGE AREA 1 - FOREST
- DRAINAGE AREA 1 - CONC. OR AC PAVEMENT
- DRAINAGE AREA 2 - FOREST
- DRAINAGE AREA 3 - CONC. OR AC PAVEMENT

<table>
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<th>DRAINAGE AREA</th>
<th>CONDITION</th>
<th>AREA</th>
<th>&quot;C&quot;</th>
<th>Q</th>
<th>V</th>
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<td>0.9</td>
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<td>264 CF</td>
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<td>FOREST</td>
<td>0.36 ACRES</td>
<td>0.3</td>
<td>0.09 CFS</td>
<td>27 CF</td>
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<tr>
<td>3</td>
<td>CONC/AC</td>
<td>0.04 ACRES</td>
<td>0.9</td>
<td>0.07 CFS</td>
<td>21 CF</td>
</tr>
</tbody>
</table>

DRAINAGE AREA 1 = EXISTING AREA DRAINING TOWARDS NEW DRY WELLS
DRAINAGE AREA 2 = EXISTING AREA BY-PASSING NEW DRY WELLS
DRAINAGE AREA 3 = EXISTING AREA DRAINING ALONG EXISTING DRIVEWAY

DILLINGHAM DRIVEWAY
TAX MAP KEY: 2-5-15: 4 AND 5

EXISTING DRAINAGE

SCALE: 1" = 40'
### Developed Drainage

**Legend**
- DRAINAGE AREA 1 - FOREST
- DRAINAGE AREA 1 - CONC. OR AC PAVEMENT
- DRAINAGE AREA 2 - CONC. OR AC PAVEMENT
- DRAINAGE AREA 3 - CONC. PAVEMENT

**Diagram**
- DRAINAGE AREA 1: V = 333 ft³
- DRAINAGE AREA 2: V = 81 ft³
- DRAINAGE AREA 3: V = 21 ft³

**Table**

<table>
<thead>
<tr>
<th>DRAINAGE AREA</th>
<th>CONDITION</th>
<th>AREA</th>
<th>C</th>
<th>Q</th>
<th>V</th>
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<tr>
<td>3</td>
<td>CONC</td>
<td>0.01 ACRES</td>
<td>0.9</td>
<td>0.07 CFS</td>
<td>21 CF</td>
</tr>
</tbody>
</table>

**Notes:**
- NEW SEEPAGE WELLS RETAIN 226 FT³
- TOTAL RUNOFF
  - V = 435 FT³
  - NET RUNOFF
  - V = 209 FT³

**Dillingham Driveway**

**TAX MAP KEY:** 2-5-15: 4 AND 5

**Developed Drainage**

**Scale:** 1" = 40'
C. RATIONAL METHOD

The formula \( Q = C \times I \times A \) shall be used to determine quantities of flow rate, in which:

\[ Q = \text{flow rate in cubic feet per second}; \]
\[ C = \text{runoff coefficient}; \]
\[ I = \text{rainfall intensity in inches per hour for a duration equal to the time of concentration; and} \]
\[ A = \text{drainage area in acres}. \]

1. **RUNOFF COEFFICIENT**

The runoff coefficient shall be determined from Table 1 (page 14) for agricultural and open areas and from Table 2 (page 15) for built-up areas. It shall be based on the ultimate use of the drainage area. For distinctive composite drainage areas, a weighted value of runoff coefficient shall be used.

2. **TIME OF CONCENTRATION**

   a. Determine overland flow time from Plate 3 (page 18) generally for paved, bare soil and grassed areas.
   b. Determine flow time over small agricultural areas with well-defined divides and drainage channels from Plate 5 (page 19).
   1. Use upper curve for well-forested areas, representing
      \[ T_c = 0.0136 \times K_0^{0.77} \]
   2. Use lower curve for areas with little or no cover, representing
      \[ T_c = 0.0078 \times K_0^{0.77} \]
   c. In case of uncertainty, check the time of concentration by dividing the estimated longest route of runoff by the appropriate runoff velocity from Table 3 (page 15).

3. **RAINFALL INTENSITY**

The design rainfall intensity of a drainage area shall be determined by the following procedure:

   a. Select the appropriate 1-hour rainfall value from Plate 1 or Plate 2 (page 15 or page 17) for the design recurrence interval.
   b. Enter Plate 4 (page 16) with the rainfall intensity duration equal to the required time of concentration, select the corresponding correction factor, and multiply the 1-hour rainfall value by the factor to obtain the design rainfall intensity.
### Table 1

**Runoff Coefficient for Agricultural and Open Areas**

<table>
<thead>
<tr>
<th>Band</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 1</td>
<td>Steep, barren, impervious surfaces</td>
</tr>
<tr>
<td>Band 2</td>
<td>Rolling barren in upper band values, flat barren in lower part of band, steep forested and steep grass meadows</td>
</tr>
<tr>
<td>Band 3</td>
<td>Timber lands of moderate to steep slopes, mountainous, farming</td>
</tr>
<tr>
<td>Band 4</td>
<td>Flat pervious surface, flat farmlands, weeded areas and meadows</td>
</tr>
</tbody>
</table>

**Diagram:**
- The diagram shows the relationship between rainfall intensity (I) and runoff coefficient (C).
- The bands indicate different runoff coefficients based on the type of land use.
- The existing condition is shown by the band with a runoff coefficient of 0.5.
Table 2

MINIMUM RUNOFF COEFFICIENTS FOR BUILT-UP AREAS

<table>
<thead>
<tr>
<th>AREAS</th>
<th>COEFFICIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESIDENTIAL AREAS:</td>
<td>C = 0.55 to 0.70</td>
</tr>
<tr>
<td>HOTEL-APARTMENT AREAS:</td>
<td>C = 0.70 to 0.90</td>
</tr>
<tr>
<td>BUSINESS AREAS:</td>
<td>C = 0.80 to 0.90</td>
</tr>
<tr>
<td>INDUSTRIAL AREAS:</td>
<td>C = 0.80 to 0.90</td>
</tr>
</tbody>
</table>

The type of soil, the type of open space and ground cover and the slope of the ground shall be considered in arriving at reasonable and acceptable runoff coefficients.

Table 3

APPROXIMATE AVERAGE VELOCITIES OF RUNOFF FOR CALCULATING TIME OF CONCENTRATION

<table>
<thead>
<tr>
<th>TYPE OF FLOW</th>
<th>VELOCITY IN FPS FOR SLOPES IN PERCENT INDICATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVERLAND FLOW:</td>
<td></td>
</tr>
<tr>
<td>Woodlands</td>
<td>0–3% 2.0 4–7% 3.0 8–11% 4.0 12–15% 5.0</td>
</tr>
<tr>
<td>Pastures</td>
<td>1.5 3.0 4.0 5.0 6.0</td>
</tr>
<tr>
<td>Cultivated</td>
<td>2.0 4.0 5.0 6.0</td>
</tr>
<tr>
<td>Pavements</td>
<td>5.0 12.0 15.0 18.0</td>
</tr>
<tr>
<td>OPEN CHANNEL FLOW:</td>
<td>Determine Velocity by Manning Formula</td>
</tr>
<tr>
<td>Improved Channels</td>
<td></td>
</tr>
<tr>
<td>Natural Channel*</td>
<td>1.0 3.0 5.0 8.0</td>
</tr>
<tr>
<td>(not well defined)</td>
<td></td>
</tr>
</tbody>
</table>

*These values vary with the channel size and other conditions so that the ones given are the averages of a wide range. Wherever possible, more accurate determinations should be made for particular conditions by Manning Formula or from Plate 5.
CITY AND COUNTY OF HONOLULU
Intensity of 1-hr Rainfall
Inches (mm)

$T_m = 10\text{ yr}$

Plate 1

SOURCE: DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE OF HAWAII
Plate 3

Overland Flow Chart

Plate 4

Correction Factor
For converting 1 hr. rainfall to rainfall intensity of various durations

To be used for area less than 100 acres
(See Plate 6 on page 20 for area more than 100 acres)

Use $T_c = 15$ min

Use $T_c = 5$ min or less

Use $CF = 2.0$ for both existing and developed conditions
Triangular Channel Analysis & Design
Open Channel - Uniform flow

Worksheet Name: Dillingham
Comment: Concrete Drainage Swale along New Driveway

Solve For Depth

Given Input Data:
- Left Side Slope: 3.00:1 (H:V)
- Right Side Slope: 3.00:1 (H:V)
- Manning's n: 0.013
- Channel Slope: 0.189 ft/ft
- Discharge: 1.18 cfs

Computed Results:
- Depth: 0.20 ft
- Velocity: 10.21 fps
- Flow Area: 0.12 sq ft
- Flow Top Width: 1.18 ft
- Wetted Perimeter: 1.24 ft
- Critical Depth: 0.39 ft
- Critical Slope: 0.0045 ft/ft
- Froude Number: 5.75 (flow is Supercritical)
Mr. Stephen Kishida (phone 523-4187) of the Fire Department Plan Review Section called to discuss the proposed driveway relocation. Mr. Kishida noted that the standard turning radius for a fire truck is 35’. No special (compact) fire trucks service the area. He was informed of the current conditions, however, to provide fire and other emergency vehicle service he recommended using a 35’ radius. The second curve of the driveway, with a widened pavement area for vehicles to pass each other, was acceptable.

Mr. Kishida recommended that the existing driveway should remain accessible for fire trucks, by leaving a loop with the new driveway. A gate, either chained or keyed with a knox box, can be installed after the new driveway. In case of emergency, the fire department can cut the chain, while a knox box can be obtained from the fire department. If there is no access allowed through the existing driveway, Mr. Kishida felt the fire trucks could utilize the driveway in lots 3 or 22 to turn around.

The plans will be returned with his comments.
MEMORANDUM

TO: Aquatic Resources; Conservation & Resources Enforcement; Forestry & Wildlife; Historic Preservation; Land Management; State Parks; Water and Land Development

FROM: [Signature] Roger Evans, Administrator
Office of Conservation and Environmental Affairs

SUBJECT: REQUEST FOR COMMENTS
Conservation District Use Application

APPLICANT: Harold Dillingham and First Hawaiian Bank Trust - Real Estate

FILE NO.: OA-5/18/93-2645
REQUEST: Construction of Concrete Driveway and Drainage Improvements

LOCATION: Tantalus, Honolulu, Oahu

TMK(s): 2-5-15: 5

PUBLIC HEARING: YES ___ NO X

DOCUMENT: Please conduct a field inspection on this project. Should you require additional information, please call Cathy Tilton at 7-0377.

If no response is received by the suspense date, we will assume there are no comments.

Attachment(s)
June 24, 1993

A fire contingency plan is required prior to construction. Other than this requirement, we have no objections to the proposed request.

Michael G. Buck, Administrator
Mr. Michael G. Buck  
Administrator  
Division of Forestry and Wildlife  
Department of Land and Natural Resources  
P.O. Box 3378  
Honolulu, HI 96801  

Subject: Conservation District Use Application: Construction of Driveway & Drainage Improvements, Tantalus, Oahu

Dear Mr. Buck:

Thank you for your response dated June 24, 1993 to Roger Evans, Administrator, Office of Conservation and Environmental Affairs, regarding the subject CDUA. A fire contingency plan has been drafted and is attached to this letter for your review. A copy of the plan will be attached to the Environmental Assessment for the project. Please feel free to contact me if you have any further questions on this matter.

Sincerely,

Kathleen A. Dadey  
Environmental Planner

Attachment

cc: Ms. Cathy Tilton, DLNR, Office of Conservation and Environmental Affairs  
Office of Environmental Quality Control  
Ms. Sharman Noguchi, First Hawaiian Bank Trust - Real Estate
FIRE CONTINGENCY PLAN - DILLINGHAM DRIVEWAY AND DRAINAGE IMPROVEMENTS PROJECT

The fire contingency plan consists of two main components: prevention and response.

Prevention

1. No fires or burning will be permitted on-site.
2. Fueling of all vehicles and equipment will occur off-site or within the gravel construction area.
3. No flammable liquids will be stored on-site.

Response

1. The contractor shall establish and maintain a communication system for fire control with the Honolulu Fire Department and with other emergency service agencies. The communication system will be established prior to start of construction and maintained until completion of the project.
2. The contractor shall establish an on-site fire fighting program. The program will identify trained personnel, materials, and equipment available during construction hours to control fires.
3. The contractor will brief all personnel in emergency response procedures. These include: calling “911” and identifying the situation immediately after discovering a fire, containing the fire by creating fire breaks, and smothering the fire with soil. Hand-held fire extinguishers will be available on all construction equipment; workers will be trained in their use.
TO: The Honorable Keith W. Ahue, Chairperson
   Board of Land and Natural Resources
   Department of Land and Natural Resources

FROM: Rex D. Johnson, Director
   Department of Transportation

SUBJECT: CONSERVATION DISTRICT USE APPLICATION OA-2645,
   CONSTRUCTION OF A DRIVEWAY AND DRAINAGE IMPROVEMENTS,
   TANTALUS, HONOLULU, TMK: 2-5-15: 5

Thank you for your memorandum of June 22, 1993, requesting our review of the subject application.

The proposed driveway and improvements will not impact our State highway facilities.
Ms. Kathleen A. Dadey  
Belt Collins & Associates  
680 Ala Moana Blvd, 1st Floor  
Honolulu, Hawaii 96813-5406

Dear Ms. Dadey:

NOTICE OF ACCEPTANCE AND PRELIMINARY ENVIRONMENTAL DETERMINATION  
Conservation District Use Application OA-2645

This acknowledges the receipt and acceptance for processing your application on behalf of the applicants, Harold Dillingham and First Hawaiian Bank Trust - Real Estate, to construct a driveway and install drainage improvements on property identified as Tax Map Key: 2-5-15:5 at Tantalus, Honolulu, Oahu.

According to your information, the proposed project will involve grading, construction of a concrete driveway, and installation of drainage improvements. The driveway will be approximately 12 feet wide, by 250 feet long, routed along the north and east sides of the applicant's property. Drainage improvements will consist of installing a drainage swale along the upslope side of the driveway and a dry well near the end of the driveway. Access to the existing driveway will be restricted by a gate, but available for emergencies.

After reviewing the application, we find that:

1. The proposed use is a conditional use within the Resource subzone of the Conservation District according to Administrative Rules, Title 13, Chapter 2, as amended;

2. No public hearing pursuant to Section 183-41, Hawaii Revised Statutes (HRS), as amended, will be required; and

3. In conformance with Title 11, Chapter 200, of the Hawaii Administrative Rules, and Act 241, SLH 1992, a negative declaration is anticipated based on the draft environmental assessment for the proposed action.

RECEIVED  
Jun 30 1993
As the applicant, please be advised that it will be your responsibility to comply with the provisions of Section 205A-29(b), Hawaii Revised Statutes, relating to Interim Coastal Zone Management (Special Management Area) requirements.

Negative action as required by law, on your application by the Board of Land and Natural Resources can be expected should you fail to obtain from the County thirty (30) days prior to the 180-day expiration date, as noted on the first page of this notice, one of the following:

1. A determination that the proposed development is outside the Special Management Area (SMA);

2. A determination that the proposed development is exempt from the provisions of the county ordinance and/or regulation specific to Section 205A-29(b), HRS; or

3. A Special Management Area (SMA) permit for the proposed development.

Pending action on your application by the Land Board in the near future, your cooperation and early response to the matters presented herein will be appreciated. Should you have any questions, please contact Cathy Tilton of our Office of Conservation and Environmental Affairs staff at 597-0377.

Very truly yours,

[Signature]

KEITH W. AHU"
MEMORANDUM

TO: Edward E. Henry, Acting Administrator
   Office of Conservation and Environmental Affairs

FROM: Don Hobbard, Administrator
       Historic Preservation Division

SUBJECT: Conservation District Use Application, Construction of Concrete
         Driveway and Drainage Improvements (Harold Dillingham and First
         Hawaiian Bank Trust) (File No. OA-3645)
         Waikiki, Kona, Oahu
         TMK: 2-5-15: 5

Our "no effect" determination for this project is reproduced as Appendix D in the
Environmental Assessment attached to this application. We have no further comments.

TD:jt
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Office of Conservation and Environmental Affairs
Honolulu, Hawaii

FILE NO.: OA-2645
180-Day Exp. Date: 11/14/93
SUSPENSE DATE: 21 Days
DOC. NO.: 2978

JUN 22 1993

MEMORANDUM

FROM: D. Roger Evans, Administrator
Office of Conservation and Environmental Affairs

SUBJECT: REQUEST FOR COMMENTS
Conservation District Use Application

APPLICANT: Harold Dillingham and First Hawaiian Bank Trust
- Real Estate

FILE NO.: OA-5/18/93-2645
REQUEST: Construction of Concrete Driveway and Drainage
Improvements

LOCATION: Tantalus, Honolulu, Oahu

TMK(s): 2-5-15: 5

PUBLIC HEARING: YES    NO X

DCORE: Please conduct a field inspection on this project. Should you require additional information, please call Cathy Tilton at 7-0377.

If no response is received by the suspense date, we will assume there are no comments.

Attachment(s)

No comments.

June 22, 1993

RALSTON MAGATA, State Parks Administrator

RN: js
MEMORANDUM

FROM: Aquatic Resources; Conservation & Resources Enforcement; Forestry & Wildlife; Historic Preservation; Land Management; State Parks; Water and Land Development

TO: Roger Evans, Administrator Office of Conservation and Environmental Affairs

SUBJECT: REQUEST FOR COMMENTS Conservation District Use Application

APPLICANT: Harold Dillingham and First Hawaiian Bank Trust - Real Estate

FILE NO.: GA-5/18/93-2645

REQUEST: Construction of Concrete Driveway and Drainage Improvements

LOCATION: Tantalus, Honolulu, Oahu

TMK(s): 2-5-15: 5

PUBLIC HEARING: YES NO X

DOCARE: Please conduct a field inspection on this project. Should you require additional information, please call Cathy Tilton at 7-0377.

If no response is received by the suspense date, we will assume there are no comments.

Attachment(s)

We have no objections to this project pertinent to DOWALD programs.

MANABU TAGASHIRI  JUN 28 1993
July 8, 1993

Honorable Keith W. Ahue, Chairperson
Board of Land and Natural Resources
Department of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Mr. Sam Lemmo

Dear Mr. Ahue:

Conservation District Use Application
File No. CA-2645 to Construct a Driveway and Drainage Improvements at Tantalus,
Honolulu, Oahu, Hawaii Tax Map Key: 2-5-15: 5

In response to your letter of June 22, we have reviewed the proposal and supporting documents and have no comments to offer at this time.

Thank you for the opportunity to comment on this matter. Should you have any questions, please contact Mel Murakami of our staff at 527-6020.

Sincerely,

ROBIN FOSTER
Chief Planning Officer

By

GARY B. OKINO
Community Planning Division

GH0:1h
FINAL ENVIRONMENTAL ASSESSMENT
NEGATIVE DECLARATION

FOR
PURCHASE OF REMNANT STATE LAND
AT DUNCAN DRIVE, KANEHOE, OAHU, HAWAII
TAX MAP KEY: 4-5-043:03

FOR:
MR. KOON YAU LEE
45-529 DUNCAN DRIVE
KANEHOE, HAWAII 96744

PREPARED BY:
MR. DARRELL LUM
1515 WARD AVENUE, #603
HONOLULU, HAWAII 96822

JULY 1992
CORRECTION

THE PRECEDING DOCUMENT(S) HAS BEEN REPHOTOGRAPHED TO ASSURE LEGIBILITY
SEE FRAME(S) IMMEDIATELY FOLLOWING