DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

(FINAL - JUNE 1971)

ENVIRONMENTAL IMPACT STATEMENT

FOR

INTERSTATE H-2
WAIAHOLE DITCH TO WAHLAWA INTERCHANGE
OAHU, HAWAII

Pursuant to Section 102(2)(c), P.L. 91-190

Prepared by
State Highways Division, Department of Transportation
State of Hawaii
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ENVIRONMENTAL IMPACT STATEMENT FOR
INTERSTATE H-2, WAIAHOLE DITCH TO WAHIWA INTERCHANGE
OAHU, HAWAII

I. PROJECT DESCRIPTION AND NEED

The project lies on the west side of Pearl City, island of Oahu. This 4.4 mile section of Interstate Freeway begins at the Waiahole Ditch crossing, approximately 2.7 miles north of Wahiawa Interchange, traverses approximately parallel to and supplements existing Kamehameha Highway, and ends at Wilikina Drive approximately 1700 feet west of Wahiawa Junction. There are two major interchanges, one at Mililani Town, and the other at Wahiawa (see Appendix "A"). These interchanges, when completed as part of the Interstate System, will provide a fast, safe and efficient transportation facility for island motorists. To assure the above, the design incorporates the most up-to-date design standards including features that will encourage a safe and efficient operation.

Upon completion of this project and the Interstate System in total, the travel time between certain defense installations such as the Naval Radio Facility near Whitmore Village, Wahiawa, Schofield Barracks, Wheeler Air Force Base, Pearl Harbor Naval Base and Fort Shafter Military Reservation will be drastically reduced. This
reduction in travel time is a distinct asset to the National defense. Coordination with the Air Force, Army and Navy in terms of their facilities was fully effectuated and correspondence is available in the State Highways Division files. Anticipated through traffic volume in two directions in 1992 is approximately 45,550 vehicles (average daily traffic).

This project is consistent with the recommended transportation system for the island of Oahu for the year 1985 based on the Oahu Transportation Study. The basic objective of the study is "to provide for the island of Oahu a transportation system designed for the future movement of people and goods, fully coordinated with public and private land development plans and economically feasible to construct and use."

II. IMPACT OF HIGHWAY

This project will tie into the Wahiawa Interchange to the south and Wilikina Drive to the north. It will complement Kamehameha Highway and utilize an entirely new highway right-of-way. The existing right-of-way along Kamehameha Highway will remain except for portions of a few parcels at the Wahiawa Interchange, which parcels are within the Interchange complex. This facility will greatly reduce time of automobile travel in this area and stimulate economic activity.
A. Social

1. Public Safety

The interstate design has recognized public safety in all aspects and no compromises will be made. This aspect, which is expressed in the detailed design of such items as guardrail location, barrier design and location, bridge pier placement, cut and fill slope design, use of breakaway design features, lighting and signing, utility locations, basic geometric features including lane and shoulder width, lane delineation, traffic flow considerations, etc., will be constantly reviewed during the design of the project.

2. Residential and Neighborhood Character and Location

Rights-of-way required will be from agricultural and military properties. Where the construction affects the facilities on these properties, the design will minimize impact on them. The Interstate Highway has been coordinated and will be further coordinated during the design to insure that the
highway is in consonance with the present and masterplanned developments of this area. The highway will not divide neighborhoods or disturb the present character of a neighborhood.

3. Religious Institutions

No churches will be displaced by the highway construction.

4. Replacement Housing

Four dwelling units will be directly affected by this section of highway. However, ample replacement housing is known to be available.

B. Economics

1. Economic Activity

This stretch of highway will displace a military laundry and the residence and implement shed of a farmer in addition to approximately 107 acres presently devoted to pineapple culture. A new military laundry is now being constructed within Schofield Barracks and the existing laundry will be abandoned. The new laundry will furnish comparable employment for workers from the abandoned laundry. Although the
improvements to the farmer will be required, the cultivated areas will not be affected and it is anticipated that his operations will continue. It should be noted that a substantial area presently in pineapple culture near Mililani Town is earmarked for residential development in the near future. The decrease in economic activity caused by the dislocation of the pineapple fields is considered minimal when compared to the benefits to economic activity of the immediate area.

2. **Employment**

   This project, upon completion with the balance of H-2, will provide improved service to the major employment centers at Schofield Barracks, Wheeler Air Force Base, Wahiawa and points beyond, as well as to Pearl Harbor, Hickam Air Force Base, Honolulu International Airport, and downtown Honolulu. Also, the highway construction will require a substantial labor force.

3. **Conduct and Financing of Government**

   The effect of this project on the local tax base by removing the acquired land from
the tax rolls is considered to be minimal since most of the land required for this facility is presently zoned for agriculture or is owned by the Government. Upon completion of the Interstate System, the properties located in this area will have direct access by fast, safe, and efficient highways to all areas of the island. The anticipated increased value of surrounding non-Government properties would probably offset the loss of taxable land.

4. Displacement of Families and Businesses

Four families are expected to be displaced by this project. A survey of the open market for replacement sites was performed from information obtained from calls made on residential, commercial and industrial properties listed in the classified ad section of the daily newspaper and from random calls to various real estate agencies and brokers. The survey indicated that there are ample sites available for the anticipated displacees.

Rights-of-way required for the project will be acquired at "Fair Market Value"
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and will include land and improvements and
other items such as crop damages, relocation
payments, etc. Attached is a brochure
titled, "Relocation Advisory Assistance and
Relocation Payments" which describes the
State's relocation program. This brochure
is included in the public hearing handout
and available to the public.

5. Project Costs

<table>
<thead>
<tr>
<th></th>
<th>Alignment</th>
</tr>
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<tbody>
<tr>
<td>Preliminary Engineering</td>
<td>$1,219,000</td>
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<tr>
<td>Construction - H-2:</td>
<td>$19,169,000</td>
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<tr>
<td>Mililani Interchange</td>
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<tr>
<td>Wahiawa Interchange</td>
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<td>Right-of-Way</td>
<td>$1,071,000</td>
</tr>
<tr>
<td>Total Estimated Cost</td>
<td>$26,801,000</td>
</tr>
</tbody>
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6. Maintenance and Operating Features

The design of the project will recognize
the continuing aspects of maintenance and
operations. Designs will be such as to
result in the lowest feasible maintenance
and operating expenses. Drainage systems,
lighting systems, structures, signs, pave-
ments, slopes, and all other facilities
will be designed to recognize the problem
of access for maintenance and operation.

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7. Operation and Use of Existing Highway Facilities

The design will recognize the operational aspect of existing highways and roadways, both during construction and after construction. The construction contracts will contain plans for the maintenance of traffic. Such plans will include phasing of construction, temporary detours, temporary signing and safety features for public protection. Inconvenience to motorists will be minimized.

C. Environmental

1. Aesthetics

The recognition of aesthetics will be constantly considered during the design of the project. Special features to improve appearance will be utilized in the design of the Freeway, including the Kipapa, Waikakalaua, Leilehua Golf Course Road and East Range Road overcrossing structures. In this regard, close contact will be maintained with the State's Consulting Architect and the project will be coordinated with affected agencies. In addition,
the highway will be landscaped as necessary and desirable. The project will be blended into the terrain to the extent feasible, and special attention will be devoted to grading and general visual impact.

2. **Recreation and Parks**
   
   No park lands will be acquired for this project.

3. **Fire Protection**
   
   The section of highway will not disrupt any fire protection facilities for the area.

4. **Public Utilities**
   
   Design will carefully and completely recognize and incorporate within construction documents any necessary requirements to maintain during construction and for ultimate uses all existing public, private, and Military utility services including firm mass transit plans. The design will be accomplished in close and continued liaison with the utility agencies including the Board of Water Supply, U. S. Army and Air Force.

5. **Conservation**
   
   This section of highway construction will have no adverse effects on fish and wildlife
resources. Where the new alignment approaches the banks of the Wahiawa Reservoir, retaining walls will be constructed to prevent embankment materials from entering the reservoir. The capacity of the reservoir will not be reduced in any manner. All slopes will be temporarily treated during construction to prevent erosion prior to final landscaping.

6. Natural and Historic Landmarks

There are no natural or historic landmarks located within the project area.

7. Noise, Air and Water Pollution

The location and design of the highway project and the use of landscaping should result in no adverse effect on the community at large. The use of elevated or depressed sections of freeway may reduce the noise level from that emanating from freeways at grade. Most of the area is open country and noise level will have little impact. At the Wilikina Drive end where habitation occurs, flowing traffic will create less noise than the stop and go condition now existing.

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Further noise resulting from traffic will be controlled by noise level standards being established and enforced by the State Department of Health.

The highway is not expected to have any significant impact on local air and water pollution problems. The water table is not expected to be affected.

During design and construction, assistance from such agencies as Soils Conservation Service, U.S.D.A. may be requested in developing an erosion and sediment control plan.

Attached is a copy of our present specifications on temporary pollution control.

8. **Multiple Use of Space**

   The present contemplated design does not incorporate any specific aspects of multi-purpose use of the right-of-way. This does not preclude the possible evaluation and planning of joint use of space some time in the future.

9. **Education**

   No schools will be directly affected by this section of highway.
10. **Honolulu Board of Water Supply Well Site and Proposed Reservoir**

The Honolulu Board of Water Supply well site near Mililani Town will be affected by the H-2 freeway.

No existing wells will be affected, and it is anticipated that ample, adjacent lands will be available to effect a lands transfer on an area-for-area basis, which would thus tend to minimize the effects to the impacted site.

The right-of-way requirement from the well site amounts to approximately 0.33 acre from the 3.17 acre site. The affected area, being graded but undeveloped, is deemed to be of marginal value with no social significance.

The site itself is neither a public park, recreational area, wildlife and waterfowl refuge, nor historical site.

Located within the highway right-of-way is a proposed water reservoir serving Waipio Valley Farm Lot Subdivision, Unit II. As the reservoir is not yet constructed and realigning the highway is not feasible, participation
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by the State to acquire an alternate site
will be effectuated at an early date.

11. **Military Deep Well Pumping Station**

The Military Deep Well Pumping Station
located east of Kamehameha Highway and
approximately opposite Wright Gate entrance
to Wheeler Air Force Base will not be
affected by the H-2 freeway.

III. **ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED
SHOULD THE PROJECT BE IMPLEMENTED**

The area will have to be cleared and grubbed for
highway construction. Pavements will replace some plant
life and drainage patterns will be modified. High-level,
viaduct type crossings will be required where H-2 crosses
Kipapa Gulch and Waikakalaua Gulch. A deep cut will be
required from Waikakalaua Gulch northerly for approxi-
mately 0.7 mile. A concrete drainage channel will be
required at the top of the east bank of this cut to
intercept the natural drainage pattern and runoff from
the Koolau Range. Although the present runoff discharges
in Waikakalaua Gulch, this new drainage channel will
concentrate much of the runoff at one place. The design
will include an extensive energy dissipation system.
Measures will be taken, however, to minimize dust problems during construction, to properly drain and landscape the project area and to make the entire project functional and attractive.

IV. ALTERNATIVES

A. Kipapa Gulch - Bridge Crossing vs. Embankment Crossing

Variations of grade and horizontal alignment of H-2 crossing at Kipapa Gulch have been studied.

Several embankment alternatives studied involved slightly downstream alignments of H-2, as well as various vertical alignments, all requiring a costly multiple-barrel culvert system for Kipapa Stream, and all requiring approximately 1.4 million yards of embankment material.

Substrata investigations revealed questionable foundation problems for high embankments, which would have required surcharging. The required surcharging would have jeopardized the effectiveness of any culvert system, if not causing an outright failure thereof. In addition, the embankment would have occupied large acreage of rights-of-way. Further, it was felt that a vast area of Kipapa Valley would have to be acquired for flood-easement purposes, which acquisition would have affected practically all of the present farmers in the area. A sophisticated energy dissipation
system would have been required at the downstream end of the culverts to eliminate damage to the military reservation further downstream during major floods. Finally, the alignment studied would have eliminated the existing main access to Kipapa Valley (from the northerly side).

The alignment for the embankment alternative would have occupied a somewhat smaller acreage of existing pineapple field and would have occupied a finger gulch of little value except for highway purposes.

The bridge crossing alternative now proposed will minimize, to the greatest extent practicable, all of the disadvantages mentioned hereinabove for the embankment crossing. However, due to the great height of the bridge proposed, the alignment has been straightened for simplicity of design and economy of construction. This revised alignment is the reason that the Board of Water Supply well site near Mililani Town will be affected. Also, the desirable straight horizontal alignment across Kipapa Gulch will result in more existing pineapple field acreage being required for rights-of-way, in the vicinity of Mililani Town.
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No other horizontal alignment across Kipapa is feasible that would not encroach into the Kipapa Military Reservation, its "Blast Zone," or else H-2 would encroach into Panakauahi Gulch. Neither alternative is desirable.

B. Waikakalaua Gulch - Bridge Crossing vs. Embankment Crossing

Construction of an embankment crossing at Waikakalaua Gulch on the same horizontal alignment, but at different vertical grades was studied, and discarded for the following reasons:

1. An embankment would have required extensive rights-of-way, part of which would have encroached into the area downstream of H-2, which area is presently being developed for residential purposes.

2. Extensive areas of Waikakalaua Valley upstream from H-2 would have been required for flood easement purposes.

3. An undercrossing and approach roads would have been required to connect those portions of the valley not required for flood easement and the lower valley.

4. An expensive culvert system and energy-dissipation system would have been required for the stream.
5. The embankment would have created a huge dike across the valley, which would be unsatisfactory from an aesthetic point of view, and would have severely limited the natural air circulation in the valley.

The bridge alternate recommended will eliminate all of the above disadvantages of the embankment crossing. Further, the bridge crossing will be of such height that noise pollution emanating from the freeway should be reduced to acceptable levels for nearby residents.

C. Mililani Interchange Schemes

This interchange is needed to help reduce the potential congestion on Kamehameha Highway between Mililani Town and Wahiawa. Even with this interchange, the aforesaid section of Kamehameha Highway will have to be widened to a 4-lane divided facility by 1992.

Three alternate sites were considered after consultations with the Mililani Town developers and a study of their Master Plans. These were:

1. Near Mililani Town Well Site nearest to Kipapa Gulch.
2. At the existing main pineapple road.

3. At the proposed major spine road for Mililani Town.

Site No. 1 was eliminated from further consideration because of its effect on the Board of Water Supply's well site in this vicinity.

Site No. 2 and Site No. 3 interchange configurations are basically the same, namely, a diamond type of interchange. At either site, it is also possible to carry the freeway over or under the crossroad. Site No. 3 with the freeway depressed is favored for the following reasons:

1. It conforms to the overall Master Plan.
2. It maximizes the use of marginal land area.
3. The depressed freeway is visually more pleasing and will probably cause less noise disturbance than an elevated freeway in this location.
4. The overall cost is the least and it has the highest benefit cost ratio.

The Mililani Interchange, upon completion, will provide a fast, safe and efficient transportation facility between Mililani Town and the Wahiawa and Waiawa Interchanges.
D. Wahiawa Interchange Studies

Variations in line and grade of the proposed Freeway have been studied. Horizontal controls which resulted in the selected alignment are:

1. Densely built-up areas adjacent to Wilikina Drive.
2. Location of Wilson Bridge, the only southerly entrance into and exit from Wahiawa.
3. The configuration of Wahiawa Reservoir.
5. Wright Gate at Wheeler Air Force Base.
6. The deep well pumping station east of Kamehameha Highway near Wright Gate.
7. Wheeler Air Force Base main runway.
8. Leilehua Golf Course
10. Location of shortest feasible crossing of Waikakalaua Gulch.

The selected alignment meets all the controls except for the Military laundry, but this is being replaced by a new laundry in Schofield Barracks.
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Constraints which resulted in the selection of
the vertical alignment are:

1. Elevation and grade of existing Wilikina
   Drive at the terminus of the freeway.
2. Existing commercial establishments along
   Wilikina Drive between the freeway terminus
   and Wilson Bridge.
3. Elevation and grade of existing Wilson
   Bridge.
4. Elevation of high water in Wahiawa Reservoir.
5. Deep well pumps and transmission pipelines.
6. Elevation of intersection of Kamehameha
   Highway and Wright Avenue.
7. Continuation of existing drainage pattern of
   Wright Gate area into Wahiawa Reservoir.
8. Elevation of intersection of Kamehameha
   Highway and East Range Road.
9. East Range Road in combination with the
   Airway-Highway Clearance requirements at
   Wheeler Air Force Base.
10. Drainage of East Range Road at Separation
    structure.
11. Elevation and grades of Leilehua Golf
    Course Road which provides access to
    Wahiawa Armory as well as the golf course.
12. Elevation and grades of Waikakalaua Gulch crossing.

13. Minimum clearances at separation and interchange structures.

14. The nature and slope of the terrain of the area being crossed.

In order that the elevated portion of the freeway be kept low, the undercrossing roads have been depressed to the lowest elevations possible commensurate with drainage and access requirements.

The horizontal and vertical alignments have been coordinated with the Military and Air Force agencies and reflect all of their constraints.

Trestle type structure approaches to Wahiawa Interchange and East Range Road Separation, in lieu of embankment approaches, were considered. Embankment approaches were selected for the following reasons:

1. Economy; sufficient suitable embankment material is readily available from the roadway excavation north of Waikakalaua Gulch.

2. Aesthetics; embankment approaches with flat slopes and properly landscaped will blend
readily with the adjacent environment and be more pleasing than long concrete structures. Areas under structures are difficult to landscape and maintain.

3. Multiple use of space is not required by adjacent land use.

4. The low embankment will not act as barriers to air circulation to adjacent land.

5. Embankments lend themselves better to incremental or stage construction than do structure approaches.

The highway proposals and alternatives were discussed at the Design Public Hearing held on April 14, 1971.

V. RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Commitment of the Interstate Highway construction would most certainly be classified as a long-term productive facility of the area.

This commitment would provide a stretch of highway to be used by many and would result in higher use of the land.
VI. **IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES**

The proposed highway project would commit land, labor and material resources. In the event of future abandonment of the project area, the land could be put to other use. The construction materials used in the project are probably irretrievable but might be reused for fill, reclamation of tidal lands, breakwater construction, etc. Labor utilized in the project would be wholly irretrievable.

VII. **PROBLEMS AND OBJECTIONS**

Consideration will have to continue to be given to minimizing motorist inconveniences.
RELOCATION ADVISORY
ASSISTANCE

and

RELOCATION
PAYMENTS

* * * * * * * * * * * * * * * *

This brochure briefly describes the State Department of Transportation, Highways Division's Interim Relocation Assistance Program established by Chapter 5 of Title 23, U.S.C. and Act 166, Session Laws of Hawaii 1970. Copies of the regulations implementing this program may be obtained from the Right-of-Way Branch, Highways Division, Department of Transportation, State of Hawaii, 869 Punchbowl Street, Honolulu, Hawaii, 96813.

All persons displaced by Federal-Aid Highway projects on or after January 2, 1971, may be entitled to receive new benefits authorized by a Federal Act entitled the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970"; however, the State's Relocation Assistance Program will be continued under existing regulations pending the development and issuance of guidelines and implementing regulations by the Federal Highway Administration.
INTRODUCTION

There are two services which have been authorized by Federal and State Laws to aid persons who must be relocated from their residences and businesses because of highway construction. The first service is RELOCATION ADVISORY ASSISTANCE, and the second service is RELOCATION PAYMENTS.

Both are briefly described in this brochure so that you may know the benefits which persons, businesses and farm operations may be entitled to receive and how they are obtained.

We hope that this brochure answers some of the questions you may have about Relocation Advisory Assistance and Relocation Payments. This is a general information brochure only and is not intended to give a detailed description of either the law or regulations pertaining to Highway Relocation and Relocation Payments.

RELOCATION ADVISORY ASSISTANCE

Relocation Advisory Assistance Service is available to families (and to individuals who are not members of families), businesses (including the operation of a farm), and non-profit organizations that must relocate because highway construction requires that their residences or businesses be acquired.

This service is provided by the Central Relocation Office of the Honolulu Redevelopment Agency, located at 296 North Vineyard Boulevard, Honolulu, Hawaii (Ph: 536-7751) assisted by representatives of the Right-of-Way Branch, Highways Division, Department of Transportation.
DISPLACEMENT CERTIFICATES will be issued by the Department of Transportation to all eligible persons or businesses. These certificates must be presented to the CENTRAL RELOCATION OFFICE of the Honolulu Redevelopment Agency as soon as possible so that they may be able to provide you with rehousing referrals, advisory assistance and instructions for claiming Relocation Payments.

The CENTRAL RELOCATION OFFICE maintains lists of properties being offered for sale or rent together with typical real estate market purchase and leasing costs, available public housing, lists of services offered by other agencies in the area, etc. In needy cases, the Relocation Advisory Assistance Service will establish contact with the appropriate public agency or organization best suited to provide the needed assistance. These services are available to both property owners and tenants.

RELOCATION PAYMENTS

The second service the Department of Transportation offers is MOVING COST RELOCATION PAYMENTS. Such Relocation Payments are authorized by Federal and State laws and are available to displaced individuals, families, business concerns (including the operation of a farm), and non-profit organizations. Both owners and tenants are eligible for Relocation Payments.

The following is a discussion concerning Relocation Payments. It answers various questions concerning moving expenses and supplementary payments for purchase or rental of replacement housing generally asked by displaced persons.
What are "Relocation Payments"?

Relocation payments are made for reasonable moving expenses and for other expenses necessary for eligible persons to obtain replacement housing.

MOVING EXPENSES

What are "Moving Expense Payments"?

A payment for the costs of moving personal property, including temporary storage of personal property, if necessary, for a reasonable time, not to exceed one year.

Eligible persons displaced from residential dwellings may choose to receive this payment by either the "Room Count" method for self moves or by the "Actual Cost" method.

"Room Count" Method of Payment for Self Move

The "Room Count" payment provides for a flat payment according to a fixed schedule based on the number of rooms (or room equivalents) of furniture and personal belongings in the house.

If the "Room Count" method is chosen, no more than $200 moving costs can be paid no matter how large the home may be. However, in addition, displacees will receive a DISLOCATION PAYMENT of $100 regardless of the number of rooms.
"Actual Cost" Method of Payment

The "Actual Cost" method provides for payment of actual and reasonable moving expenses to a displaced individual (who is not a member of a family), or a family within a 50 mile radius of the point from which the move is made. If the "Actual Cost" method is chosen, displacees are not allowed the additional $100 dislocation allowance.

Displaced businesses (including a farm operation) and non-profit organizations may be eligible for receipt of actual and reasonable moving expenses within a 50 mile radius of the point from which the move is made.

A business concern (1) must submit to the Central Relocation Office a written notice of its intention to move at least 30 days, but not earlier than 90 days, prior to the intended move and the new address; and (2) has permitted, at all reasonable times, the inspection by the Central Relocation Office or by Right-of-Way Agents of the Right-of-Way Branch, Highways Division, of all property to be moved from the project site.
In lieu of actual moving expenses, some businesses may be eligible to receive an allowance equal to its average annual net earnings. This allowance may not exceed $5,000.

Average annual net earnings are one-half of the net earnings of the business before Federal, State and Local income taxes, during the two taxable years immediately preceding the taxable year in which the business is displaced.

SUPPLEMENTAL PAYMENTS

Certain residential property owners or tenants will be eligible to receive payments in addition to moving expenses.

A replacement housing payment which may be made to eligible homeowners and tenants who purchase or rent and occupy a decent, safe and sanitary replacement housing.
Displaced owner-occupants of a one, two or three family dwelling, may be eligible for a lump sum supplementary payment not to exceed $5,000 when:

A. They actually owned and occupied the dwelling for at least one year before the State Department of Transportation made its first written offer for acquisition of the property; and

B. If the amount the State paid for the dwelling was determined to be less than the average price of a functionally comparable decent, safe and sanitary dwelling; and

C. The displaced owner-occupant purchases a decent, safe and sanitary dwelling within one year after the date on which he was required to vacate the dwelling unit acquired by the State --

Then an amount may be paid equal to the difference between the amount the State paid for the home and the average price of a functionally comparable dwelling.
An owner-occupant who is not eligible for payment as described on page 6 because he had not actually owned and occupied his dwelling for at least one year prior to the initiation of negotiations for the acquisition of that property by the Department of Transportation or for some other reason is entitled to:

A. **If he rents** -- a sum equal to the difference, if any, between the cost of renting for the next two years a decent, safe and sanitary dwelling adequate to accommodate him and his family in an area not generally less desirable in regard to public utilities and commercial facilities than the area from which he was displaced and 12 percent of the acquisition price of the property taken, but in no event may this payment exceed $1,500 or the amount which the owner-occupant would have received had he been eligible for a payment as described on page 6, whichever is the lesser.

B. **If he buys** -- a sum necessary to make a downpayment on a decent, safe and
sanitary dwelling based on the amount that the relocatee would have to pay if the purchase of replacement housing was financed by a conventional loan. This amount shall not exceed $1,500 or the amount which the owner-occupant would have received had he been eligible for a payment as described on page 6, whichever is the lesser. The entire supplemental payment must be used as a downpayment and/or for closing costs on the purchase of replacement housing.

An owner-occupant who otherwise qualifies for a payment, as described on page 6, who has elected not to purchase a replacement dwelling shall be entitled to the following payment: a sum equal to the difference, if any, between the cost of renting for the next two years a decent, safe and sanitary dwelling adequate to accommodate him and his family in an area not generally less desirable in regard to public utilities and commercial facilities than the area from which he was displaced and 12 percent of the acquisition price of the property taken, but in no event may this payment exceed
$1,500 or the amount which the owner-occupant would have received, as
described on page 6, had he elected to
purchase a new property, whichever is
the lesser. If, later during the year
subsequent to the date he was required
to move from the dwelling unit acquired
for the project, the owner-occupant does
purchase a decent, safe and sanitary
replacement dwelling, he would be
entitled to receive the difference, if
any, between the amount of payment
received under this paragraph and the
replacement housing payment computed
according to that described on page 6.
An individual or family renting a dwelling unit taken for a project is entitled to the following if they have lawfully occupied the dwelling taken for at least 90 days prior to the initiation of negotiations:

A. **If he rents** -- a payment to enable him to rent decent, safe and sanitary housing. The amount of the payment shall be determined by subtracting 24 times the amount which the displaced individual or family paid in rent for the last month immediately before being required to move, or 24 times the economic rent as established by the Department's appraisal process for his dwelling unit, whichever is the lesser, from the amount necessary to rent a decent, safe and sanitary dwelling for the next two years, but in no event shall this amount exceed $1,500.

B. **If he buys** -- a sum necessary to make a downpayment on a decent, safe and sanitary dwelling based on the amount that the relocatee would have to pay if the purchase of replacement housing was financed by a conventional loan. In no event shall this amount exceed $1,500. The entire supplemental payment must be used as a downpayment and/or for closing costs on the purchase of replacement housing.
A supplemental payment shall not be made unless the Department has established by inspection that the property acquired has been vacated and the replacement dwelling meets the standards of decent, safe and sanitary housing.

PAYMENT FOR INCIDENTAL EXPENSES

Owners of real property acquired for a Federal-aid highway project are entitled to receive payments for the reasonable and necessary expenses incurred in transferring such property to the State. Such expenses may include:

A. Recording fees, transfer taxes, and any similar expenses incidental to conveying such property;

B. Penalty costs for prepayment of any mortgage which is on record or has been filed for record under applicable State law on date of final approval by the State of the location of such project.

How are Relocation Payments Claimed?

The CENTRAL RELOCATION OFFICE located at 296 North Vineyard Boulevard, Honolulu, Hawaii will provide you with proper claim forms and assist you in filling them out. Applications submitted to the Central Relocation Office will be reviewed and forwarded to the Right-of-Way Branch with its recommendation.
For displacements occurring on neighboring Islands within the State of Hawaii, applications for relocation payments are filed directly with the Right-of-Way Branch, Highways Division, Department of Transportation.

All claims submitted shall be reviewed by the Department of Transportation. Upon approval of your claim, you should be receiving a payment within a month.

Where can Detailed Information Concerning Relocation Payment Procedures and Regulations be Obtained?

This information can be obtained by contacting the HIGHWAYS DIVISION at the address shown on the title page of this brochure.

**APPEAL PROCEDURE**

Any displaced person aggrieved by a determination as to his eligibility for payment described in this brochure or the amount of such payment, may request in writing that his application be reviewed by the Director of Transportation. Such a request shall be filed with the Head, Right-of-Way Branch and must contain all necessary data and information in support of the applicant's position for disagreeing with the Department's initial ruling.
The Head, Right-of-Way Branch shall first review such a request, then forward it with his recommendation to the Director of Transportation for his review and final decision.

Any aggrieved applicant who is not satisfied with the Director's decision, may appeal the Director's determination to the Circuit Court of the Circuit in which he then resides. The appeal shall be made pursuant to the Administrative Procedure Act set forth in Chapter 91, Hawaii Revised Statutes, and Rules of Practice and Procedure of the Department of Transportation.
The following Section shall be made a part of the Standard Specifications:

"SECTION 639 - TEMPORARY PROJECT WATER POLLUTION CONTROL (SOIL EROSION)"

639.01 Description. This work shall consist of temporary control measures as shown on the plans or ordered by the Engineer during the life of the contract to control water pollution, through use of berms, dikes, dams, sediment basins, fiber mats, netting, gravel, mulches, grasses, slope drains, and other erosion control devices or methods.

The temporary pollution control provisions contained herein shall be coordinated with the permanent erosion control features specified elsewhere in the contract to the extent practicable to assure economical, effective and continuous erosion control throughout the construction and postconstruction period.

639.02 Materials.

A. Mulches may be bagasse, hay, straw, fiber mats, netting, wood cellulose, bark, wood chips, or other suitable material acceptable to the Engineer and shall be reasonably clean and free of noxious weeds and deleterious materials.

B. Slope drains may be constructed of pipe, fiber mats, rubble, portland cement concrete, bituminous concrete, plastic sheets, or other material acceptable to the Engineer that will adequately control erosion.

C. Grass shall be a quick growing species (such as bermuda grass, rye grass, Italian rye grass, or cereal grasses) suitable to the area providing a temporary cover which will not later compete with the grasses sown later for permanent cover.

D. Fertilizer and soil conditioners shall be a standard commercial grade acceptable to the Engineer.

E. Others as specified by the Engineer.

639.03 Preconstruction Conference. At the preconstruction conference or prior to the start of the applicable construction, the Contractor shall submit for acceptance his schedules for accomplishment of temporary and permanent erosion control work, as are applicable for clearing and grubbing; grading; bridges and other structures at watercourses; construction; and paving. He shall also submit for acceptance his proposed method of
erosion control on haul roads and borrow pits and his plan for disposal of waste materials. No work shall be started until the erosion control schedules and methods of operations have been accepted by the Engineer.

639.04 Construction Requirements. The Engineer has the authority to limit the surface area of erodible earth material exposed by clearing and grubbing, the surface area of erodible earth material exposed by excavation, borrow and fill operations and to direct the Contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of adjacent streams or other watercourses, lakes, ponds, or other areas of water impoundment. Such work may involve the construction of temporary berms, dikes, dams, sediment basins, slope drains, and use of temporary mulches, mats, seeding or other control devices or methods as necessary to control erosion. Cut slopes shall be seeded and mulched as the excavation proceeds to the extent considered desirable and practicable.

The Contractor will be required to incorporate all permanent erosion control features into the project at the earliest practicable time as outlined in his accepted schedule. Temporary pollution control measures will be used to correct conditions that develop during construction that were not foreseen during the design stage; that are needed prior to installation of permanent pollution control features; or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with permanent control features on the project.

Where erosion is likely to be a problem, clearing and grubbing operations should be so scheduled and performed that grading operations and permanent erosion control features can follow immediately thereafter if the project conditions permit; otherwise temporary erosion control measures may be required between successive construction stages. Under no conditions shall the surface area of erodible earth material exposed at one time by clearing and grubbing, exceed 750,000 square feet without approval by the Engineer.

The Engineer will limit the area of excavation, borrow and embankment operations in progress commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent pollution control measures current in accordance with the accepted schedule. Should seasonal limitations make such coordination unrealistic, temporary erosion control measures shall be taken immediately to the extent feasible and justified.
Under no conditions shall the amount of surface area of erodible earth material exposed at one time by excavation, borrow or fill within the right-of-way exceed 750,000 square feet without prior approval by the Engineer.

The Engineer may increase or decrease the amount of surface area of erodible earth material to be exposed at one time by clearing and grubbing, excavation, borrow and fill operations as determined by his analysis of project conditions.

In the event of conflict between these requirements and pollution control laws, rules, or regulations of other Federal or State or local agencies, the more restrictive laws, rules, or regulations shall apply.

639.05 Method of Measurement and Basis of Payment. In the event that temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled, and are ordered by the Engineer, such work shall be performed by the Contractor at his own expense. Temporary erosion and pollution control work required, which is not attributed to the Contractor's negligence, carelessness or failure to install permanent controls, will be performed as ordered by the Engineer.

Where the work to be performed is not attributed to the Contractor's negligence, carelessness or failure to install permanent controls and falls within the specifications for a work item that has a contract price, the units of work will be paid for at the proper contract price. Should the work not be comparable to the project work under the applicable contract items, the Contractor will be ordered to perform the work on a force account basis, or by agreed unit prices.

In case of repeated failures on the part of the Contractor to control erosion, pollution, and/or siltation, the Engineer reserves the right to employ outside assistance or to use his own forces to provide the necessary corrective measures. Such incurred direct costs plus project engineering costs will be charged to the Contractor and appropriate deductions made from the Contractor's monthly progress estimate.

Temporary pollution control may include construction work outside the right of way where such work is necessary as a result of roadway construction such as borrow pit operations, haul roads and equipment storage sites.

The erosion control features installed by the Contractor shall be acceptably maintained by the Contractor."
Your Reference: HWY-DS
2.91756

Mr. T. Harano, Chief
Highways Division
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Harano:

This letter will acknowledge receipt of the Draft Environmental Statement for the Waiahole Ditch to Wahiawa Interchange, Oahu, Hawaii project.

The responsibilities for air pollution, water hygiene and solid waste management have been transferred from DHEW to the newly created Environmental Protection Agency. Comments relative to those concerns will undoubtedly be made by EPA.

A staff review of your statement will be made relative to DHEW responsibilities and comments will be forwarded to you as soon as possible.

Yours very truly,

Robert Coop
Regional Director
May 20, 1970

Mr. Tetsuo Harano
Chief, Highways Division
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Harano:

This letter is in reply to your request for comments on the Waiahole Ditch to Wahiawa Interchange Draft Environmental Statement. Our comments relating to soil and water conservation on the statement are as follows:

Section II C5. Conservation - We are pleased to see this statement that the "capacity of the reservoir will not be reduced in any manner." One interpretation of this statement could be that you will trap all sediment from the site during construction through the use of sediment basins. Treatment of slopes and opened areas with vegetation or other means of temporary protection will do much to prevent erosion.

Section II C7. Noise, Air and Water Pollution - The project crosses several streams and is adjacent to the Wahiawa Reservoir so temporary erosion control measures during construction are going to be very important. For developed areas you may wish to include permanent plantings which would serve as noise abatement or sound barriers.

The West Oahu Soil and Water Conservation District can provide assistance in developing an erosion and sediment control plan for use during construction. If you desire assistance, we suggest you contact Mr. Otis Gryde, district conservationist, phone 5465-795.

Sincerely,

[Signature]

Fred Haughton
State Conservationist

cc: Otis Gryde, SCS, Honolulu.
Mr. T. Harano, Chief
Highways Division
Hawaii Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Harano:

We have reviewed the draft environmental statement on the following project:

I-H2-1(1)
Waiahole Ditch to Wahiawa Interchange
Oahu, Hawaii

The Statement appears to be in conformance with the provisions of Section 102(2)(c) of the National Environmental Policy Act of 1969. Based primarily on a limited desk review of the statement, we foresee no significant adverse environmental effects on recreation values resulting from the project.

These comments are provided at field level for your information and do not constitute formal Department-level review.

Sincerely yours,

Frank E. Siblester
Regional Director
May 12, 1971

Mr. T. Harano, Chief
State Highways Division
Hawaii Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

The Environmental Impact Statement for Interstate H-2, Waiahole Ditch to Wahiawa Interchange, prepared by your Division has been reviewed by our Hawaii District staff and comments prepared in accord with your letter of March 31, 1971.

So long as bridge crossings instead of embankment crossings are used at both Kipapa and Waikakalaua Gulches, the effects on surface water flow should be minimal. Construction of the long, deep cut north of Waikakalaua Gulch and the diversion drainage channel may cause some erosion and sediment problems, but the watershed area affected is small and runoff from the area should not have any significant effect on the flood-flow characteristics of Waikakalaua Stream.

With reasonable care in grading, and with adequate drainage provided, the construction should not result in any long-term increase of sediment production. Soils are well-drained and deep along the proposed route, and no large fills are planned. Sediment transport would probably be minimized if the diversion channel to the east of the long cut north of Waikakalaua Gulch were constructed first and the drainage allowed to stabilize. It is also suggested that, to the extent practicable, settling basins, low-gradient terraces, and grassed waterways should be used. Discoloration of streams and parts of Pearl Harbor must be expected during runoff events so long as bare soil is exposed, even with maximum care during construction.

There are two principal groundwater bodies beneath the area of the proposed construction. Nevertheless, the shallowest point between the ground surface and the water level in either of these is about 460 feet at the bottom of
Kipapa Gulch. The land is now largely used for irrigated agriculture
which creates some degradation of water bodies by recharge of excess
irrigation water. Unless deep cuts in excess of 100 feet or more are
made that reduce the protection now afforded by the weathered zone, no
added degradation of the water bodies caused by highway construction
is anticipated.

The foregoing comments are provided for technical assistance and are
not intended to represent the position of the Department of the Interior.

Sincerely,

[Signature]

W. W. Hastings
Chairman
Pacific Coast Survey Committee
Honorable Fujio Matsuda  
Director  
Department of Transportation  
869 Punchbowl Street  
Honolulu, Hawaii 96813

Dear Dr. Matsuda:

Subject: Project I-H2-1(1)  
Waiahole Ditch to Wahiawa Interchange  
Draft Environmental Statement

Thank you for this opportunity to review and comment on the subject: Draft Environmental Statement.

We do not find the Statement inconsistent with our review of the project's impact on existing and planned facilities under our department.

We would appreciate it if you would send us a copy of the minutes of all public hearings held for the subject project.

Very truly yours,

KENAM KIM  
State Comptroller
MEMORANDUM

To: Tetsuo Harano, Chief, Highways Division

From: Michio Takata, Director, Division of Fish and Game

Subject: Project I-H2-1 (1)
Waiahole Ditch to Wahiawa Interchange
Draft Environmental Statement

We have reviewed the draft environmental impact statement for the above project and find that adequate safeguards will be taken to prevent degradation of the waters of the Wahiawa Public Fishing Area through sloughing off of embankment material.

No adverse effects on fish or wildlife values foreseen.

MICHI TAKATA, Director
Division of Fish and Game

MT:nn
Mr. T. Harano  
Chief, Highways Division  
Department of Transportation  
869 Punchbowl Street  
Honolulu, Hawaii 96813

Dear Mr. Harano:

Receipt is acknowledged of your letter, HWY-DS 2.91756, dated March 31, 1971, transmitting for our review a draft environmental statement applying to the Waipio Ditch to Wahiawa Interchange, Project I-H2-1(1).

We have reviewed the environmental impact statement and concur in its content, and have no further comments to submit. We would, however, appreciate the opportunity of examining the plan for this portion of Interstate Route H-2 as it relates to our property at the Wahiawa Armory and the possible effect upon our current plans for expansion of the motor pool and fenced in compound at that location.

Very truly yours,

[Signature]

BENJAMIN J. WEBSTER  
Major General, HANG  
Adjutant General
May 18, 1971

Ref: HMY-DS
2.91756

Mr. T. Harano, Chief
Highways Division
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Harano:

SUBJECT: Project 1-H2-1(1) Waiahole District to Wahiawa Interchange Draft, Environmental Statement

We appreciate this opportunity to review and comment on the subject matter as requested by your letter of March 31, 1971. Our comments are as follows:

1. This Division currently has underway a consultant's contract to study and prepare a development plan for the Wahiawa Freshwater Park across the reservoir from the termination of the H-2 interchange. Moreover, coordination of this park with the recreational opportunities provided by the Division of Fish and Game and your Division is one of the requirements, among others, of this contract. The firm of Koebig and Koebig, Inc. has been retained as our consultant.

2. In view of the foregoing, the H-2 interchange will have, we believe, a visual and environmental impact on the environment of the Wahiawa Freshwater Park. Although no park lands are directly affected by the H-2 interchange and, since landscaping and blending of fill material to the existing terrain are already proposed by your policies, our feelings are that careful screening and minimizing of structures visible from the park's vantage points be given serious consideration in the design of this facility.

We would appreciate close consultations with our consultant on this matter.

Very truly yours,

J. M. Souza, Jr.
State Parks Administrator
Division of State Parks

cc: Fish and Game
Planning Office
Mr. T. Harano, Chief
Highways Division
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Harano:

Our comments on the draft of the Environmental Impact Statement for Interstate H-2, Waiahole Ditch to Wahiawa Interchange are as follows:

The statements note that "all slopes will be temporarily treated to prevent erosion prior to final landscaping" and that the highway is not expected to have any significant impact on the local air and water pollution problems. This office would prefer that the specific methods to be used to prevent pollution during construction be included in the impact statement.

The effect of the proposed freeway on the noise levels in the area during and after construction are not noted. More specific indicators of the change in noise levels as a result of the freeway should be included in this statement.

The procedures considered for dust control during construction and the effect of automotive emissions on the area after completion should be delineated. Our preference is that the techniques used to control dust during construction be spelled out in the impact statement.

I hope that these comments can have specific input to the final environmental impact statement.

Very truly yours,

Shinji Soneda, Chief
Environmental Health Division

HJY/fk
MEMORANDUM

To: T. Harano, Chief
Highways Division, Department of Transportation

Subject: Draft Environmental Statement - Project I-H2-1 (1), Waialae Ditch to Wahiawa Interchange

May 6, 1971

Thank you for the opportunity to review and comment on the environmental impact statement.

Our comments are as follows:

1. On page 4 under "Economics," the first sentence reads: "This stretch of highway will displace ... a small farm ...." On page 5 under "4. Displacement of Families and Businesses," the second sentence reads: "The highway may displace a few small farms." If the latter statement is correct, the proposed highway should be realigned to minimize economic hardship to small farmers. However, if the displacement of small farms cannot be avoided, the farmers should be justly compensated for existing short-term crops and, in addition, potential production for long-term crops, such as bananas, by competent appraisers.

2. On page 3 under "Replacement Housing," the first sentence reads: "Four dwelling units will be directly affected by this section of highway." If these units are small farmer dwellings, we disagree with the following sentence: "However, ample replacement housing is known to be available." For many reasons housing for small farms in Hawaii are located on or near farms and not miles away in urban areas. If housing units for small farmers are to be demolished, they should be appraised at replacement cost by competent appraisers.

We hope that these comments will be helpful.

Frederick C. Erskine
Chairman, Board of Agriculture

cc: Office of Environmental Quality Control
Mr. T. Harano, Chief
Highways Division
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Harano:

Subject: Project I-H2-1 (1)
Waiahole Ditch to Wahiawa Interchange
Draft Environmental Statement

This is in response to your request by letter of March 31, 1971 (HWY-D 2.91756), for review and comments on the copy of the draft environmental impact statement for the subject project.

We have no comments to offer at this time.

Very truly yours,

L. C. Fruto
Acting Director and Chief
MEMORANDUM

TO: MR. TETSUO HARANO, CHIEF, HIGHWAYS DIVISION
DEPARTMENT OF TRANSPORTATION, STATE OF HAWAII

FROM: ROBERT R. WAY, PLANNING DIRECTOR
CITY AND COUNTY OF HONOLULU
METROPOLITAN CLEARINGHOUSE

SUBJECT: DRAFT OF THE ENVIRONMENTAL IMPACT STATEMENT
FOR INTERSTATE H-2, WALAOHE DITCH TO
WAHLAWA INTERCHANGE

We have completed our review of the above and find that the
draft statement appears consistent with the guidelines of
Section 102(2)(C) of the National Environmental Policy Act
of 1969.

We are in general agreement with the Environmental Statement.
We have no other comments to offer.

ROBERT R. WAY
Planning Director

RRW/JB:1m

cc: State Clearinghouse
April 14, 1971

Mr. Tetsuo Harano, Chief
Highways Division
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Harano:

Subject: Project I-H2-1(1)
Waiahole Ditch to Wahiawa Interchange

Reference is made to your letter, dated March 31, 1971, regarding your draft environmental impact statement for the subject project.

We do not have any comments on the draft.

Since the H-2 will have a definite effect on the City street system, we would appreciate receiving your plans for review and comment.

Very truly yours,

ROY A. PARKER
Acting Traffic Engineer
May 5, 1971

Mr. T. Harano, Chief
Highways Division
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Harano:

Transmitted herewith for your use are our comments on the draft environmental impact statement for Project I-H2-1 (1) Waialohoe Ditch to Wahiawa Interchange.

If there are any questions on the comments please contact me at your earliest.

Sincerely,

[Signature]
NEAL S. WU
Planning Technician

Enclosure
Comments

1. **Page 3, Replacement Housing**
   We question whether the ample supply of replacement housing could be met by the time the project is implemented. It is anticipated that shortage of housing will be increasingly greater by the time of implementation.

2. **Page 4, Employment**
   We question the utilization of the local labor force. There is no assurance that imported labor will be involved with the general builder being a mainland concern.

3. **Page 5, Displacement of Families and Business**
   Our comment is similar to #2.

4. **Page 6, Maintenance and Operating Feature**
   It is anticipated that design features will be low-maintenance type.

5. **Page 8, Public Utilities**
   It is important also to consider the mass transit office in its relationship to transportation planning.

6. **Page 8, Noise, Air and Water Pollution**
   There will be considerable run off from the construction into the reservoir.

7. **Page 9, Honolulu Board of Water Supply Well Site**
   We are questioning whether the cost of relocation and land trade will be figured into the project cost.
Mr. T. Harano, Chief
Highways Division
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Harano:

Subject: Project I-H2-1(1) Waiahole Ditch
to Wahiawa Interchange
Draft Environmental Statement

In response to your letter HWY-DS 2.91756, we offer
the following comments particularly affecting Board of Water
Supply's facilities.

1. At the immediate vicinity of Mililani Interchange
we have an active well field and a transmission
main that runs transversely to the proposed free-
way.

2. At the Wahiawa Interchange we have water mains on
both Wilikina Drive and Kamehameha Highway.

3. At the upper reaches of Waikakalua Gulch where
a bridge crossing is shown, a new subdivision
known as Waipio Valley Farm Lot, Unit II is
now under construction.

4. In the design aspects of the proposed project,
we request that consideration be given to
accessibility of our water mains for operational
and maintenance purposes.

Very truly yours,

S. Kawakami
Assistant Chief Engineer
May 11, 1971

Mr. T. Harano, Chief
Highways Division
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Harano:

SUBJECT: HWY-DS 2,91756
Project I-H2-1(1)
Waiahole Ditch to Wahiawa Interchange
Draft Environmental Statement

We have reviewed your draft of the Environmental Impact Statement for subject project and have no objection to this proposal.

It would be highly desirable if some recreational reservoirs could be developed along or off the highway, or areas along the gulches, for fishing or swimming.

We are sure that this highway improvement will facilitate traffic and provide another vital link in making the round-the-island tour more enjoyable for residents and tourists.

Sincerely,

YOUNG SUK KO, DIRECTOR
I. FEDERAL AGENCIES

1. The Department of Health, Education and Welfare had no comments.

No further evaluation necessary.

2. Soils Conservation Service, U.S.D.A., comments pertain to conservation and noise, air and water pollution. They also offer assistance in developing an erosion and sediment control plan for use during construction.

Evaluation. These comments are good and are similar to those of the Department of Health, and our evaluation thereof is the same as expressed under Section II (5).

3. The Bureau of Outdoor Recreation, U.S.D.I., had no comments at this time.

No evaluation necessary.

4. The Geological Survey, U.S.D.I., comments were on erosion and sediment problems.

Evaluation. The comments are constructive and practicable and helpful in designing the facility. The construction of the diversion channel east of Waikakalua Gulch as one of the first items of work to be done in order to allow the drainage to stabilize will be evaluated in design and spelled out in the construction plans and specifications.

II. STATE AGENCIES

1. The State Comptroller does not find the E.I.S. inconsistent with his Department's review of the project's impact on any of their existing or planned facilities.

No evaluation required.

2. The State Director of the Division of Fish and Game feels adequate safeguards have been provided to prevent degradation of the fishing area in the reservoir.

No further evaluation necessary.
3. The State Adjutant General concurs in the contents of the E.I.S., but would like to examine the highway plans as they relate to the Wahiawa Armory.

   The plans will be furnished for examination. No further evaluation necessary.

4. Division of State Parks, State of Hawaii comments on the development of Wahiawa Freshwater Park across the reservoir from Wahiawa Interchange.

   Evaluation. It is difficult to see how a well designed and architecturally pleasing interchange structure with adequately landscaped areas adjacent thereto would have a more detrimental visual and environmental impact on the environment of the proposed park than the present unsightly Army laundry and its appendages and the existing three unit dwelling structure which the new highway will replace. The Park development will probably include retention bank and help to screen much of the growth along the top of the reservoir bank and help to screen much of the visible portion of the interchange structure. Close coordination and cooperation between the highway architects and landscapers and the Park's consultant should result in developments satisfactory to all agencies.

5. The Chief, Environmental Health Division, State Department of Health, comments on specific methods preventing pollution and noise level indications.

   Evaluation. The basic problem seems to be the extent to which specific methods to control pollution during construction are spelled out in the impact statement. The E.H.D. prefers this control to be specific. We feel that specific methods should not be spelled out in the E.I.S., but that a statement should be included to the effect that the contractor will be required, during construction, to comply with all Department of Health rules and regulations pertaining to pollution control in effect at the time. These would include limitations on the area to be graded or bared at any time; the ground cover method to be used to prevent soil erosion and the time schedule for planting after grading; the construction schedule of the highway project; water pollution control measures to be employed to prevent runoff of soil-laden water such as silting basins, baffles or other means; and designating Waikakalaula Gulch as the major area receiving surface runoff and Wahiawa Reservoir as a minor area. Included as an attachment to the final statement is our present specification on temporary pollution control.
The E.H.D. also asks that more specific indicators of the change in noise levels should be included in the E.I.S. between Wilikina Drive and Waikakalaua Gulch, noise level will have little impact upon the adjacent areas. Only at the Wilikina Drive end is there any habitation - the rest of the area being open country. The proximity of H-2 to Leilehua golf course will create a noise level at the edge of the golf course higher than at present, but with heavy landscaping, this can be controlled. Also, the Armory will probably have less noise than at present. At the Wilikina Drive end, flowing traffic will create less noise than the stop and go traffic condition now existing. Further noise resulting from the freeway traffic will be controlled by noise level standards being established and enforced by the Department of Health.

The effect of automotive emissions, vehicle for vehicle, will be less with the construction of H-2 than without it, as stop and go driving will be considerably reduced. Increased volumes of traffic on Kamehameha Highway without H-2 would increase emission problems. In addition, normal northeast tradewinds will blow the emissions away from populated areas and principally over open areas.

6. The Department of Agriculture comments pertain to the displacement of small farms.

Evaluation. The highway will displace the residence and implement shed of a farmer located in Kipapa Gulch. Fortunately the cultivated farm land will not be affected. In this area it is not feasible to realign the highway to miss the improvements. The controls governing the alignment are: military blast zone, economical gulch crossing, Board of Water Supply deep wells, Miliani Town and general alignment of the route. The farm as well as other right-of-way involved will be compensated at fair market value, such compensation will be based on competent appraisals and include in addition to land and improvements such items as crop damages, relocation costs, etc.

III. COUNTY AGENCIES

1. The Acting Director and Chief, City and County of Honolulu, Department of Public Works, has no comments to offer at this time.

No evaluation required.
2. The Planning Director, City and County of Honolulu, Planning Department, is in general agreement with the E.I.S. and had no comments to offer.

No evaluation required.

3. The Acting Traffic Engineer, City and County of Honolulu, had no comments on the E.I.S.

Because H-2 will have an effect on the City road system, the City Traffic Department will be furnished with plans of H-2 when they are available. No evaluation required.

4. City and County of Honolulu Model Cities discusses housing, employment, maintenance, utilities and pollution.

Evaluation. Replacement housing is now available and early acquisition of the dwelling units involved should allow ample lead time for the tenants to acquire other facilities.

The Employment section of the E.I.S. does not state that imported labor will be involved, or that the general contractor will be a mainland concern. Local labor utilization will probably be foremost as past experience indicate. Of course, employment on the various military bases will be as it is today, a mixture of local and mainland personnel. It is felt the employment section of the E.I.S. is adequate as now written.

It is the usual practice to design the project such as to result in the lowest feasible maintenance and operating expenses.

Mass Transit is now a public-owned and -operated facility and therefore falls under the category of a public utility, which is adequately covered in the E.I.S. However, the words "mass transit" could be added to make it specific.

There will not be considerable runoff from the construction into the reservoir. See our discussion on this subject under Department of Health evaluations, Section II (5).

Existing improvements at the well site will not be affected by the highway and no relocation cost is necessary. Further the rights-of-way requirement was coordinated with the Board of Water Supply.
5. The Board of Water Supply advises of their well field near Mililani Interchange, their mains on both Wilikina Drive and Kamehameha Highway, and a new subdivision in Waikakalaua Gulch, and also asks that consideration be given to accessibility to their facilities for maintenance and operation.

Evaluation. The section on Public Utilities in the E.I.S. adequately covers these mains. Accessibility to the mains for maintenance will have to be from outside the Interstate. Any mains crossing under the Interstate will be adjusted, relocated and protected as required. The amount of work required will be included in the design phase of this project.

A proposed water reservoir serving Waipio Valley Farm Lot, Unit II is within the highway right-of-way. It is not feasible to realign the highway and miss the reservoir, therefore right-of-way and other adjustments will be made at an early date.

6. The Director of the City and County Parks and Recreation has no objection to the E.I.S., but suggests some recreational reservoirs be developed along or off the highway for fishing or swimming.

Evaluation. Such recreational areas should not be developed in the Interstate right-of-way. Should such areas be developed by others, access must be from frontage or service roads; direct access from the Interstate will not be permitted.
1. **Testimony**

Mrs. Stever, President, Wahiawa Branch of Outdoor Circle, requested that the State consider landscaping cut slopes, fill slopes, and median so that the highway will be aesthetically beautiful.

**Evaluation**

A licensed landscape architect will prepare plans to make this section as aesthetically beautiful as possible within the confines of traffic use and safety. The suggestion by Mrs. Stever that Bougainvillea cover the cut slopes has not proven practical or economical from a maintenance standpoint. However, both cut and fill slopes will be protected from erosion. New plantings along toes of fills and at tops of cuts will be such as to be compatible with existing growth. Wherever grading permits, existing trees and other vegetation shall remain in their natural state and new plantings blended therewith. The embankment prism will be kept as low as possible, commensurate with drainage requirements and vertical clearances and will be shielded from view from below by shrubs and trees. The median will be planted to grass and shrubs where practicable. Shrubs will help to shield headlight glare of opposing traffic.
Public Hearing
Environmental Testimonies and Evaluations

Due to the wide median (44 feet) between Wahiawa and Mililani Interchange, no concrete barrier walls are proposed.

However, between Mililani Interchange and Waiahole Ditch, the anticipated prevailing median width will be 20 feet, assuming 6-lane construction, concrete median barrier is required, and the remaining median area must be paved; to do any planting would defeat the purpose of the median barrier.

2. Testimony

Embarkment approaches to Wahiawa Interchange be blended into the surrounding landscape and it have a profile as low as possible to avoid the appearance of an earth dam.

Evaluation

The profile of the fill approaches to Wahiawa Interchange will be kept as low as possible, taking into consideration drainage problems, vertical clearances required, fixed intersection elevations and other controlling design features. The fill slopes will be flat as possible to blend into adjacent ground and will be landscaped.

3. Testimony

Fencing, if required, should be located at Right-of-Way boundaries and shielded with planting.