

1
7/15/74

F I N A L

ENVIRONMENTAL IMPACT STATEMENT

FOR

SAND ISLAND PARKWAY AND UTILITIES MASTER PLAN

SAND ISLAND, KAPALAMA - OAHU, HAWAII

Pursuant to the Governor's Executive Order
Dated August 23, 1971

Submitted By:

Department of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

Prepared By:

R. M. Towill Corporation
1600 Kapiolani Boulevard
Honolulu, Hawaii 96814
May 16, 1974

TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
I	Project Description and Purpose	1
II	Impact of Project on the Environment	9
III	Unavoidable Adverse Environmental Effects	22
IV	Project Alternatives	23
V	Relationship between Short-Term Uses and Long-Term Productivity	25
VI	Irreversible and Irretrievable Commitments of Resources	26
VII	Economic and Social Analysis	27
VIII	Problems and Objections	29
IX	Coordination with other Agencies	30
X	Summary Sheet	31

LIST OF PLATES

Plate 1	Location of Project
Plate 2	Proposed Alignment and Assumed Land Use
Plate 3	First Increment Parkway
Plate 4	Typical Road Sections
Plate 5	Ultimate Design Traffic Volume
Plate 6	Proposed Drainage, Water Distribution and Sewerage Systems
Plate 7	Proposed Telephone and Electrical Facilities

LIST OF TABLES

Table 1	Projected Average Daily Traffic (ADT) at Bascule Bridge and Percentage of Truck Traffic for Various Land Uses
Table 2	First Increment Construction Cost Estimate
Table 3	Cost Estimates for Sand Island Parkway and Utilities
Table 4	Present and Contemplated Land Uses on Sand Island
Table 5	Evaluation of Alignment Schemes

APPENDICES

Appendix A	Review Comments Received on the Draft Environmental Impact Statement
Appendix B	Responses to Review Comments

I. Project Description and Purpose

A. General

The proposed project is located on Sand Island, off the south shore of the Island of Oahu (Plate 1). Designated as the Sand Island Parkway, the proposed main thoroughfare will be approximately 1.5 miles long, portions of which will be divided by a landscaped medial strip. The design concept will integrate aesthetics with functional requirements to conform to the Department of Land and Natural Resources general environmental objectives for this project:

1. That there exist a balance between economic development and environmental quality.
2. That the natural beauty of Hawaii be preserved for present and future generations to enjoy.
3. That in our pursuit to continue the vigorous economic growth of our State, we are mindful of protecting, preserving and enhancing the quality of the States natural physical environment.

The parkway alignment and landscaping will include amenities to complement the park setting and surroundings of the flat island topography and ocean frontage. The proposed alignment is shown on Plate 2.

B. Description

The proposed parkway alignment commences at the existing bridge abutment, extends southeasterly parallel to the west shoreline for approximately 0.5+ miles, then continues easterly for about 1.0+ miles, then merges with the existing road at the Sand Island Fishery Station.

The parkway design standards are in accordance with, A Policy on Geometric Design of Rural Highways, AASHO, 1965. The geometric section

of the parkway varies from a 120-foot right-of-way to a 100-foot right-of-way and finally to a 60-foot right-of-way. The 120-foot and 100-foot sections will include medial strips. Typical sections are shown on Plate 4, and will include the following features:

1. The 120-foot and 100-foot sections will have four 12-foot lanes, a 28-foot median and landscaped sidewalks.

2. The 60-foot section will include 44 feet of pavement and 8-foot sidewalks.

Other design features are:

1. Design Speed - 40 miles per hour (MPH)

(Operational Speed - 35 MPH)

2. Minimum Radius - 477 feet

3. Vertical Alignment - maximum grade: 5%

minimum grade: 0.4%

4. Maximum Superelevation - 0.08-foot per foot

In addition to the proposed parkway, the project will also include a utilities master plan to provide essential support facilities. These support facilities are planned to provide all necessary improvements to meet and satisfy the needs of the projected land uses anticipated on Sand Island. All utilities located within the road right-of-way will be installed underground.

The construction of the parkway and necessary utilities to support the development of Sand Island will be in three increments. The three construction stages were necessitated by limited available funds. The recommended limits for the first increment are shown on Plate 3. The objectives in utilizing the available funds for the first increment are:

1. Construct at least a parkway half-section to the Sand Island State Park entrance and into the existing road. The partial parkway section will consist of the two mauka lanes and a full median.

2. Construct necessary storm drains appurtenant to the incremental parkway.

3. Install all utility lines that would be under the incremental parkway section.

C. Purpose

The purpose of this Sand Island Parkway and Utilities Master Plan study is to plan and design for future transportation and utility requirements to serve projected industrial and recreation uses for this area. Vehicular access to the proposed beach park and recreational areas must be made available to the community; adequate transportations needs must be provided and maintained to meet projected requirements for industrial and recreation activities. The present road system is not adequate to meet the projected traffic volume that is expected to accompany the development of Sand Island. Existing utility facilities are sub-standard and inadequate and these facilities must be sized and constructed to accommodate future development. The proposed Sand Island State Park will play a major role on recreation, social and environmental considerations in this area. Consequently, the design of all facilities for this area must be in consonance with the specific environmental objectives set for this area: 1) provide adequate access for various existing and proposed developments on Sand Island, including the Sand Island State Park and Sewage Treatment Plant; 2) provide a landscaped parkway; 3) improve drainage, water, sewerage and electrical facilities; 4) enhance Sand Island;

5) provide a safe roadway by separating as much as possible, the industrial traffic from other vehicles; and 6) provide a parkway and landscaping to complement the proposed State Park setting and surroundings of the flat island topography and ocean frontage.

1. Existing Roadway

Presently, Sand Island is served by a roadnet that has been improved and modified as the need for extended roadway and vehicular access increased with expanded use of the land area. The roadnet is comprised of paved and graded roadways with widths varying from twelve (12) to twenty-four (24) feet. The existing main road, a two-lane paved thoroughfare, is interconnected with the highway system of Honolulu via Sand Island Access Road and a 650-foot bascule bridge across the Kapalama entrance channel to Honolulu Harbor. The roadway extends easterly from the bascule bridge about 1.5 miles and services the cargo container marshalling yards, the maritime-industrial complex, the United States Coast Guard facility, the State Fishery Station, and a number of light-industrial businesses. From the end of the paved segment at the eastern end of Sand Island, the coral-gravel segment is in poor condition, generally rutted, and strewn with debris. The latter continues as a return loop paralleling the south shoreline, and then junctions with the paved segment in the vicinity of the bridge abutment.

2. Traffic Data

Existing traffic data on Sand Island was obtained from a ten (10) day traffic count conducted in May 1971. This survey resulted in an Average Daily Traffic (ADT) in both directions of approximately 5,400 vehicles, of which approximately 15% were trucks. The survey indi-

cated that the volume of traffic was fairly uniform throughout the working day (8:00 a.m. to 5:00 p.m.). The existing road is adequate to handle this volume of traffic.

The traffic analysis for the development of Sand Island was based primarily upon data developed by the State Department of Transportation (DOT) in 1972. The ADT for various land uses developed by DOT was utilized, with a modification to the trip rate constant for the proposed Sand Island State Park.

Additional information available from similar transportation studies conducted on the mainland, and traffic data compiled in 1973 received from the Parks and Recreation Department, City and County of Honolulu and the United States Coast Guard Station form the basis of the traffic projection presented in Table 1. Table 1 shows the existing and assumed land uses, acreage, trip rate constant (trip ends per acre), trip ends (ADT both ways), and the percent of truck traffic. The trip rate constant assumes complete development for the land use indicated in the first column of the table and are not intended to reflect any specific time frame. Plate 5 shows the ultimate design traffic volume and the destination points. Traffic will increase in direct proportion to the rate of development of Sand Island. A limiting factor in the potential development of Sand Island is the limited capacity of the bascule bridge. The full development potential of Sand Island cannot be realized without a second bascule bridge.

Upon completion of this construction phase when most of the land areas available for maritime-industrial development have been effectively utilized, traffic trends will stabilize and truck traffic will level off at fifteen (15) to twenty (20) percent of the average

TABLE 1
 PROJECTED AVERAGE DAILY TRAFFIC (ADT) AT BASCULE BRIDGE
 AND PERCENTAGE OF TRUCK TRAFFIC FOR VARIOUS LAND USES

<u>Land Use Activity</u>	<u>Area Acres</u>	<u>Trip Rate (Trip Ends/Acre)</u>	<u>Trip Ends (ADT)</u>	<u>Truck Traffic Percent</u>	<u>Truck End Trips</u>
Container Facility	60	40	2400	25	600
Break Bulk	15	170	2550	25	638
Harbor Back-up	15	40	600	35	210
Maritime Industrial	45	136	6120	11	673
Fuel Storage	11	20	220	15	33
Foreign Trade Zone	45	135	6075	12	729
Sewage Treatment Plant	50	10	500	10	50
Fish and Game Station	4	20	80	8	6
U.S. Coast Guard	49	20	980	5	49
Park and Playgrounds	140	40	5600	5	280
Road Rights-of-way	18				
Land Bank	70	135	9450	35	3308
Total	522		*34,575		6576

Percent of truck traffic $\frac{6576 \times 100\%}{34,575} = 19\%$

*ADT in both directions based upon full development of the Land Use Activity.

daily traffic. However, passenger car traffic will continue to trend moderately upward because of Sand Island's location and proximity to the densely populated Kalihi-Palama tributary area and because Sand Island possesses an inherent potential to develop into an important island-wide recreational beach park.

Based on the projected volume of traffic shown on Table 1, portions of the Sand Island Access Road between Nimitz Highway and the bascule bridge will not be adequate to convey the traffic that is projected. In addition, a second bascule bridge (similar to existing bridge) to Sand Island will be required. The proposed location of this additional bridge is makai of the existing bascule bridge. A second bridge located mauka of the existing bridge would either require relocation of existing planned utilities crossing the channel or severely disrupt existing or planned container operations.

3. Utilities

The Utilities Master Plan for Sand Island outlines necessary improvements to provide essential support facilities for Sand Island. Included in the plan are the drainage structures and water, sewer, electrical and telephone services, (Plates 6 and 7).

The existing facilities on Sand Island will generally be replaced. These facilities are substandard, inadequate and must be sized and improved to meet future requirements. The present electrical and telephone services are via overhead lines. These lines will be removed and services will be provided by underground conduits. The sewer lines serving existing tenants on Sand Island were installed approximately thirty (30) years ago and are in bad

condition. These sewer lines will not be incorporated into the new sewer system. The waterlines, except for the segment installed with the wharf improvements, are old and leaking badly. The new water distribution system will consist of installing a new 16-inch subaqueous line to Sand Island and new distribution lines on Sand Island. The recently installed lines will be incorporated into the water distribution system, however, the older lines will be abandoned.

II. Impact of Project on the Environment

A. General

Hawaii is approximately 2,400 miles from the mainland United States. The economy of Hawaii and its existence are dependent on a viable and convenient transportation system between these two areas. Approximately 80 percent of consumer goods must be imported, more than 90 percent of this amount by surface transportation. The shipping technology has advanced and expanded from small container ships to giant vessels capable of transporting an increased amount of container cargo. In consonance with this trend of movement of goods by containers, it is essential that we provide and maintain adequate vehicular access to facilitate cargo and freight distribution.

Areas along and adjacent to the south shoreline of Sand Island have been set aside for a major State Beach Park. Plans are now underway to develop this portion into a beach park and recreational area. The sandy beach and offshore waters are conducive to beach park activities, particularly water-oriented recreation activities.

The proposed Sand Island Parkway will be the main thoroughfare to accommodate current and projected transportation needs for industrial activities and provide a vehicular access to the proposed beach park and recreational areas.

Master plans for support facilities will provide a procedure through which improvement programs can be effectively implemented to provide these essential facilities. Sand Island, because of its strategic location and proximity to the downtown business section, transportation center of Honolulu Harbor, Honolulu International Airport, and the densely

International Trade Zone, establish a much needed maritime-support complex and add significantly to the short supply of beach parks for a variety of water-oriented recreation activities.

B. Social Effects

1. Public Health and Safety

The project design is intended fundamentally to satisfy improvement needs for health, safety and public welfare. The parkway design details will consider public safety as of paramount importance, and no compromise of safety will be made. This aspect which is expressed in the design of such details as street lighting, traffic control devices and basic roadway geometry will be constantly reviewed during the design of the project.

In particular, the following areas of public safety will be improved.

a. Traffic flow will be separated by a median strip where none now exists.

b. The addition of two lanes will reduce traffic hazards that are caused by congestion and conflicts in traffic movements.

c. The alignment will remove non-commercial vehicular traffic from the industrial areas as much as possible, thus, further alleviating traffic congestion and safety hazards.

The long-term prospectives concerning the general public health and welfare will be improved through public access to the proposed beach park and recreational facilities. Public health and safety along the

proposed parkway will be advanced by subsequent developments and improvements that accompany such development, namely electrical power, water distribution, sanitary facilities and communication systems.

Because of limited funds available the first increment of construction will include a two-lane undivided roadway. This condition will exist until the parkway is fully developed. To maintain a safe condition for the interim period until the parkway is fully developed, a reduced speed limit may be effected.

2. Residential and Neighborhood Character and Location

There are no residential areas or neighborhoods that will be adversely affected by the proposed parkway. The United States Coast Guard station barracks which houses approximately 70 personnel on base is located immediately north of the project area. Permanent civilian residential areas are located across the harbor approximately one mile from the project site.

3. Religious Institutions and Practices

There are no religious institutions and/or practices that will be affected by the project.

4. Replacement Housing

There will be no houses requiring replacement since none are affected by the project.

C. Economic Effects

1. Economic Activities

The economic activities of the maritime-industrial businesses will not be disrupted or affected adversely by the project. The new parkway will enhance and promote the general economic vitality in the area

by providing a much needed improved roadway to serve this area. The parkway will provide the essential means to achieve and develop the economic potential anticipated for a planned maritime-industrial complex and Foreign Trade Zone.

2. Employment

The project will improve the general employment situation. The project will produce a desirable effect in the employment level initially by generating jobs for construction personnel followed by opportunities created by permanent industrial and recreation activities. As the development of Sand Island progresses, attendant employment opportunities will increase.

3. Displacement of Businesses

The construction of the first increment of the proposed project will not affect any businesses. However, upon construction of the second increment of the parkway, thirteen (13) light-industrial activities will be required to relocate to other suitable areas. The light-industrial activities which occupy State lands south of the existing road include such uses as contractor's baseyards, storage areas, field offices and various other activities. The State has issued month-to-month revocable permits for these uses which can be terminated upon thirty (30) days written notice. Because of the uncertainty of the month-to-month tenancy, these properties have not been improved and are generally sub-standard and will continue to be in this condition under the present revocable permits issued.

All other light-industrial activities located south of the existing road that are not affected by the proposed parkway will eventually

be required to be relocated to make way for the ultimate development of Sand Island.

4. Property Value

The proposed project will increase the value of Sand Island. This increase in land value will proportionately result in higher assessed valuations, thereby increasing return revenues. The benefits of this result will accrue to the State.

5. Project Cost

The present day cost estimate for the construction of Sand Island Parkway, associated drainage structures, and supporting utilities are shown on Tables 2 and 3. Table 2 reflects the cost of the first increment of construction. Table 3 shows the total cost of the parkway including the cost of the first increment of construction. This cost to the State in developing Sand Island would increase approximately 4.5% for each year of delay, based on data provided by the First National Bank of Honolulu.

6. Maintenance and Operating Features

The design of the project will consider the continuing needs of maintenance and roadway operations. The City and County Highway design standards for maintenance and operations will be adhered to regarding design of drainage, roadways and other facilities. The parkway also allows for access from the parkway proper to makai (ocean-side) and mauka (mountain-side) areas along the highway. The right-of-way width for access roads will be in compliance with City and County and State requirements.

7. Operation and Use of Existing Highway Facilities

The construction contracts will contain plans for maintenance of traffic on the existing road. Such plans will include detours,

TABLE 2
FIRST INCREMENT CONSTRUCTION COST ESTIMATE

<u>Roadway</u>	
Sand Island Parkway	\$268,800
Road "B"	51,500
<u>Drainage Structure</u>	213,000
<u>Water Distribution</u>	19,800
<u>Landscaping</u>	
Landscape	48,000
Sprinkler System	45,000
<u>Electrical</u>	
Street Lights, Conduits & Appurtenances on Mauka Side Only	46,500
4-Inch Ducts Under Pavement	3,000
<u>Mobilization</u>	
(Not to Exceed 6% of All Items Excluding This Item)	41,700
TOTAL CONSTRUCTION COST ESTIMATE	\$737,300

TABLE 3
 COST ESTIMATES FOR
 SAND ISLAND PARKWAY AND UTILITIES*

Sand Island Parkway (Including Roadway B)	\$1,137,000
Trash Removal and Demolition	46,800
Clear and Grub	3,200
Street Lights	99,200
Street Signs	4,000
Traffic Signals (2 intersections)	60,000
Drainage	682,000
Landscaping and Sprinkler	143,000
Water Distribution System	208,000
Sewerage System	618,000
Telephone Facilities	200,000
Electrical Facilities	<u>801,500</u>
	\$4,002,700

*Includes cost of first increment (Table 2).

temporary signing and safety features for public protection. Inconvenience to motorists will be minimized.

D. Environmental Effects

1. Aesthetics

Aesthetic qualities will be preserved and special consideration will be given to visual amenities. Whenever possible, improvements will be blended into the desirable features of the existing environment.

An important concept of the selected alignment is to provide a landscaped screen between abutting non-compatible land uses. In addition, the landscaped median and side strip will provide a relatively pleasant, park-like approach to the main entrance of the proposed Sand Island State Park.

2. Recreation and Parks

The proposed parkway will open to the community one of Honolulu's major recreational resources. Presently, access roads to the undeveloped beach front are unpaved, rutted and strewn with debris. As plans for the development of the land area along the ocean front for a beach park and recreational activities progresses, the need for this parkway will become more critical and apparent. The parkway will offer a pleasant entry and ready access for the enjoyment of the public.

3. Landscaping and Erosion Control

The general concept of the landscaping is to enhance the aesthetic values of the parkway and blend it into the local setting of the planned recreation area. Planting will include coconut palms, flowering shade trees, and ground cover of grass and tropical shrubbery for overall

beautification and erosion control. Plant species will be selected for their viable characteristics conducive to growth in the soil and climatic conditions of Sand Island.

Erosion control is incorporated as a prime factor of the overall landscaping scheme to minimize unsightly conditions, add stability and longevity to the roadway section and to prevent detrimental effects on the environment.

4. Natural and Historic Landmarks

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

5. Conservation

A 16-inch waterline will be installed across Kapalama Channel adjacent to the bascule bridge. Installation of this waterline will be on submerged lands considered conservation. No other conservation land will be encroached upon and there are no wildlife, nesting or feeding grounds along the project right-of-way. The parkway will displace birds that utilize Sand Island as a roosting ground; however, the population of these birds is low. There are no rare species of wildlife in this area.

6. Fire Protection and Medical Services

The improved parkway with four traffic lanes will reduce congestion and aid the mobility of fire fighting equipment and medical services.

7. Education

There are no schools or educational activities that will be unfavorably affected by the construction of the parkway.

8. Noise, Water and Air Pollution

The construction of the parkway is not expected to have adverse effects on local air and water qualities. Some degree of pollution from dust, surface runoff and disturbance of the Kapalama Channel bottom is expected but this condition will be of a temporary nature.

During construction of the water distribution system, a 16-inch waterline will be installed across the Kapalama Channel adjacent to the bascule bridge. This operation will result in localized water pollution in the form of increased turbidity from suspended materials. This will occur during excavation and emplacement of the waterline. Once the waterline is installed, no other adverse effects are anticipated. The control of this turbidity may not be possible. The construction activities will be confined to the immediate work area with caution taken so as to minimize disturbance to the marine environment. Depending upon the quality of the bottom conditions of the channel, the excavated trenching material for the waterline may have to be replaced by imported backfill. Provisions will be made to dispose of any unsuitable excavated material in an approved disposal site.

The proposed drainage system will have three outlets into Honolulu Harbor. An increase in sediment load in the vicinity of the drainage outlets is expected but not in sufficient quantity to create any problems. Silt generation due to erosion is not a problem on Sand Island due to the relatively flat terrain. The silt discharged by the drainage outlets will be from windblown sediment that has accumulated

on the parkway and adjacent lands and is subsequently conveyed to the storm drain system. The amount of sediment load discharged into Honolulu Harbor will decrease proportionately as the vacant lands on Sand Island are developed and as the area for silt generation is reduced.

The problem of litter and other pollutants generated on the parkway and adjacent lands will not vary substantially from existing conditions. Possible pollutants from other developments such as the Foreign Trade Zone and other maritime-related industries will be controlled by local City and County Ordinances and State Department of Health regulations.

The noise level will increase in the immediate vicinity for the duration of construction activities. However, the project site is removed from permanent housing areas and the maritime-industrial character of Sand Island indicates that noise will not create a significant disturbance. Dust during construction is expected; however, the contractor will be required to comply with an approved means of keeping the dust down. This requirement will be included in the Special Provisions and strictly enforced at all times during construction of the project to eliminate any dust nuisance or hazards.

The new generated traffic that is projected for Sand Island will increase noise and pollution of the air from vehicle emissions. These effects will increase proportionately as the number of vehicles on Sand Island increases. However, the landscaped parkway with planted borders will serve to reduce noise and the ocean breeze will tend to minimize pollution from vehicle emissions.

9. Land Use

Sand Island is presently owned and under the jurisdiction of the State of Hawaii except for a 48.6-acre parcel owned and utilized by the United States Coast Guard, and the 50-acre sewage treatment plant site to be leased to the City and County of Honolulu. The total acreage of Sand Island including the Coast Guard parcel is approximately 522+ acres. Current and potential occupants, present and contemplated land usage, and acreage of each separate installation site are tabulated on Table 4. Assumed land use is shown on Plate 2.

The parkway right-of-way includes 17.0+ acres and traverses the length of Sand Island on land under State jurisdiction. The alignment traverses land that is classified as urban and zoned R-6, residential and I-3, waterfront industrial.

TABLE 4

PRESENT AND CONTEMPLATED LAND USES ON SAND ISLAND

OCCUPANT	LAND USAGE	ACRES
U. S. Coast Guard	Base Yard and Storage	49.0*
State Dept. of Land and Natural Resources	Maritime Related Industrial	45.0
State Dept. of Planning and Economic Development	Foreign Trade Zone	45.0
State Dept. of Land and Natural Resources	State Park	140.0
State Dept. of Land and Natural Resources	Fishery Station	4.0*
City and County of Honolulu	Sewage Treatment Plant	50.0
Seatrain and U.S. Lines	Container Cargo Operations	60.0**
Seatrain and U.S. Lines	Break-Bulk & Back-Up Operations	30.0**
State Dept. of Transportation	Bulk Fuel Storage	11.0
State Dept. of Transportation	Road Rights-of-Way & Utility Easements	18.0
Land Bank		70.0
	Total	522.0 Acres

* Present Use

** Partially Developed at Present

III. Unavoidable Adverse Environmental Effects

The immediate project area will have adverse effects that will be minimal. The right-of-way will be cleared and grubbed in preparation for the construction. Pavement will replace some of the existing vegetation (weeds, small shrubs, kiawe and opiuma trees). The newly constructed parkway and connecting roadways will intrude visually upon the terrain until the landscaping is fully developed.

Minor local interruptions will inevitably be present during the entire construction phase. Motorists, pedestrians and businesses will experience inconveniences; however, a detour plan to provide continuous circulation of traffic way to prevent any disruption from normal activities will be provided.

Pollution of air from dust and pollution of water from surface runoff during the construction phase will occur, but this will be only during the period of construction. The proposed drainage system will increase the sediment load in the vicinity of the three outlets; however, no problems are expected. In addition to surface conditions, the laying of the new 16-inch waterline on the bottom of Kapalama Channel will temporarily disturb the ecology of the channel area.

The maritime-industrial character of the area and its distance from permanent housing indicates that noise will not be a significant problem. The noise level will increase during the construction period and will have a temporary affect on the businesses that are located in the vicinity of the project; however, this will be minimal. The noises that are generated by trucks and other vehicles will decrease once the parkway is completed due to improved operational characteristics, planted borders and design of the parkway.

IV. Project Alternatives

During the development of this project, various alternative alignments to the proposed action were reviewed and evaluated, leading to the selection and detailed study of the preferred alignment as the proposed parkway and the subject of this Environmental Impact Statement. The other two alignment alternatives considered were makai and mauka of the proposed alignment. The major disadvantage of the makai alignment was routing of traffic through the Sand Island State Park. The major disadvantage of the mauka alignment was the adverse effect of splitting the container yard operations area (Table 5). The selected alignment (a combination of the makai and mauka alignment) reduced these major problems. The general environmental impact would not change appreciably if any alternate had been selected.

The more basic alternatives of improving the existing road or not constructing the parkway were rejected because they are not compatible with the assumed land uses of Sand Island.

The limited funds available necessitates incremental construction staging. For the first increment, the alternative of providing a divided two-lane roadway was considered. However, the additional costs involved and problems with the phasing of support facilities made this alternative unfavorable. A two-lane divided roadway would entail additional embankment, breaking of pavement and associated traffic disruption and would be a distraction until the parkway is fully developed.

TABLE 5

EVALUATION OF ALIGNMENT SCHEMES

<u>Consideration</u>	<u>Scheme A (Mauka)</u>	<u>Scheme B (Makai)</u>	<u>Scheme C (Mauka-Makai)</u>
Traffic	Maximum conflict between recreational and industrial traffic.	Some conflict between recreational and industrial traffic.	Minimum conflict between recreational and industrial traffic.
Aesthetics	Enhances the industrial area by providing landscaped open area (Parkway).	Parkway would provide a buffer between the park and the industrial area. Parkway would be most advantageous from aesthetic viewpoint.	Limited length of parkway would provide the least aesthetic contribution.
Utility	Advantageous as a utility corridor.	A separate utility corridor would be required through the industrial area.	Advantageous as a utility corridor.
Park Use	Least beneficial to the park since it would require more extensive interior park roads.	Provides for a more flexible park development, especially if road is constructed simultaneously with development of park.	Benefits to park about equal to Scheme A since it would require extensive interior park roads.
Container Operation	Least desirable due to splitting of areas devoted to container operation.	Most favorable for container operation due to the least amount of disturbance. However, it will require service road to container yards.	Benefits about equal to Scheme B.

V. Relationship between Short-Term Uses and Long-Term Productivity

The proposed project will facilitate both the short-term uses of man's environment and the enhancement of long-term productivity. This project is necessary to develop the economic potential of Sand Island and to promote the well being of the community.

The parkway is essential to both the maritime-industrial and recreational environment. The requirements of present and projected volume of heavy traffic resulting from increased revenue activities will be accommodated. In the immediate and foreseeable future, the parkway will open the gateway to one of Honolulu's largest recreational resources.

VI. Irreversible and Irretrievable Commitments of Resources

The impact of the proposed project on resources such as land, labor and material will be irreversible and irretrievable, but not in such a substantial quantity to be of great significance. However, the parkway itself, once approved and constructed, will set a trend for present and future planners. This trend will be the development of Sand Island into a maritime-industrial complex and a major recreational area.

VII. Economic and Social Analysis

The proposed Sand Island Parkway is part of the program for prudent use of the nearshore and onshore lands at Sand Island. Roadways such as the proposed project are an economic asset to the life-style of a community. Adequate transportation is essential for economic growth and the social well-being of the people. The interior parkway of Sand Island will serve to enhance the development of Sand Island and its economic potential and at the same time open to the community an important beach park and recreational area.

The economic benefits derived by the construction of the parkway is through the development of the maritime-industrial and Foreign Trade Zone activities that are planned. The parkway will stimulate the growth of Sand Island's economic potential. Another benefit to be derived is the increased land value. With the improved circulation of Sand Island, a definite economic gain from land value will result. The beneficiaries of the traffic circulation system are not only the road users, but the maritime-industrial businesses and the general public who benefit indirectly from the parkway.

The public health, safety and the welfare of the community will definitely be affected. The long-range benefits concerning the general public health will be improved through public access to the proposed beach park and recreational area. Sand Island offers the last remaining stretches of shoreline available for recreation development in urban Honolulu. Studies have indicated that there is a severe deficiency of beach parks in the Honolulu urban area. The Sand Island Beach Park and recreational development will certainly

benefit the community. A pleasant entry and ready access to this development will provide an important social need; enhanced opportunities for relaxing and enjoying the beach park and recreational activities.

VIII. Problems and Objections

The Draft Environmental Impact Statement has been reviewed by Federal, State and City and County agencies and their comments and the responses to these comments are provided in Appendix A and B.

IX. Coordination With Other Agencies

A. Coordination has been afforded the following agencies and organizations:

Department of Transportation, Airports Division

Department of Transportation, Harbors Division

Department of Transportation, Highways Division

Department of Land and Natural Resources, State Parks Division

Department of Land and Natural Resources, Land Management
Division

Department of Land and Natural Resources, Fish and Game Division

Department of Planning and Economic Development, Foreign
Trade Zone

Department of Accounting and General Services

City and County of Honolulu, Department of Public Works

City and County of Honolulu, Board of Water Supply

Hawaiian Electric Company

Hawaiian Telephone Company

Kalihi-Palama Community Council

B. All necessary permits and approvals that are required will be obtained prior to implementation of the proposed project.

X. Summary Sheet

A. Administrative Action

This is the final Environmental Impact Statement.

B. Project Description

The Sand Island Parkway is located on Sand Island, Oahu, Hawaii and is a 1.5+ mile long facility. This project begins at the existing bridge abutment on Sand Island, extends southeasterly paralleling the west shoreline for approximately 0.5+ miles, continues easterly for about 1.0+ miles towards the United States Coast Guard reservation, and terminates near the fishery. In addition to the parkway, a utilities master plan has been prepared to provide adequate support facilities. Drainage structures, water, sewer, electrical and telephone services are planned to meet future requirements.

C. Environmental Impact

The environmental impact of the proposed parkway will be slight when compared to the advantages that will accrue to the general public by the development of Sand Island that will follow. The land traversed by the parkway right-of-way is relatively undeveloped, portions of it being utilized by non-permanent light-industrial activities. The parkway will provide the essential means to achieve the anticipated economic potential of Sand Island and open to the public one of Honolulu's finest recreational resource areas. It will pave the way for the development of the planned maritime-industrial complex, Foreign Trade Zone, and the Sand Island State Park.

The impact resulting from the construction will be minimum and of a temporary nature. Increased sediment load will be deposited in the

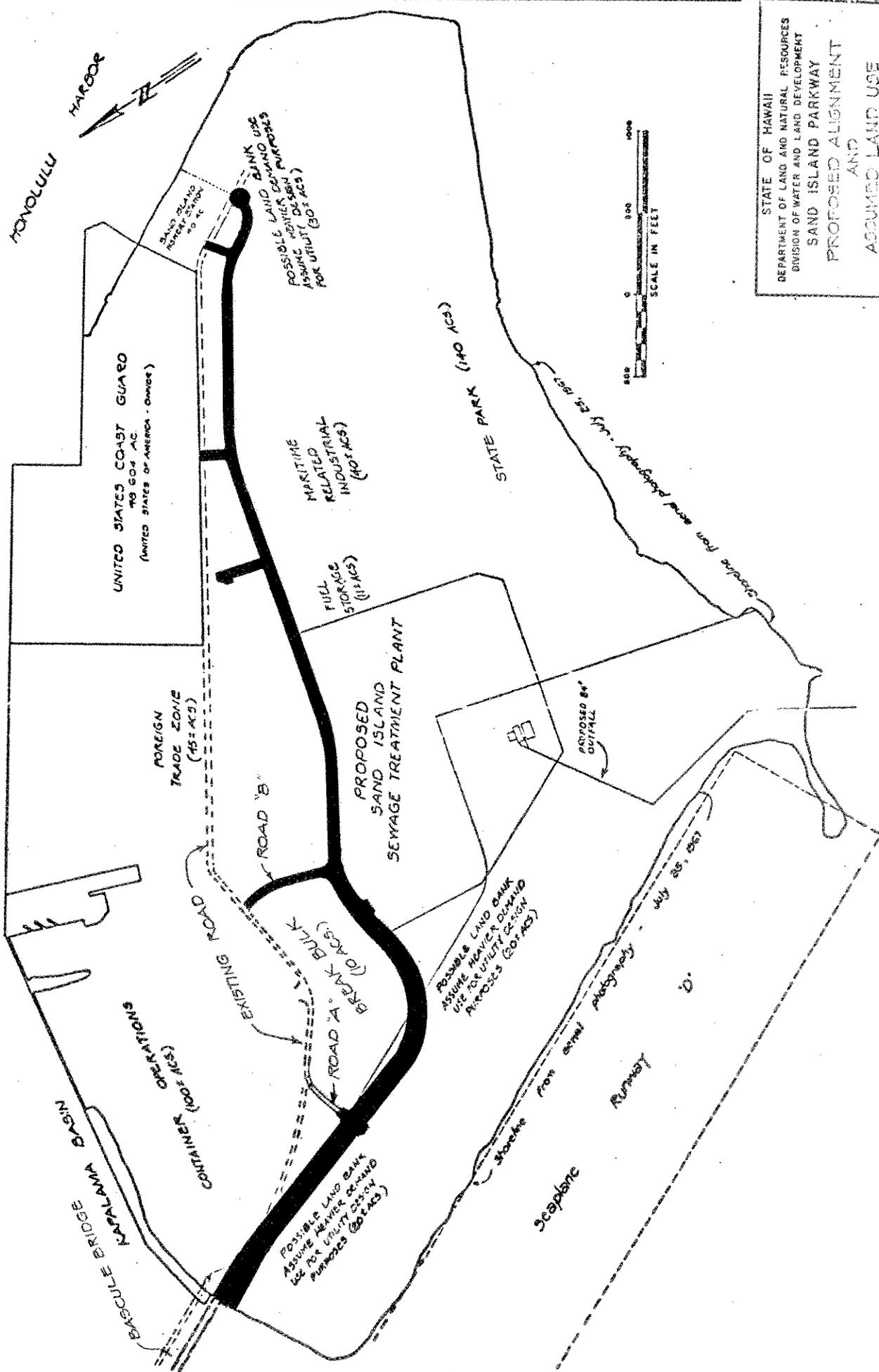
vicinity of the drainage outlets, but no serious harm to the water quality of Honolulu Harbor is expected.

D. Alternates

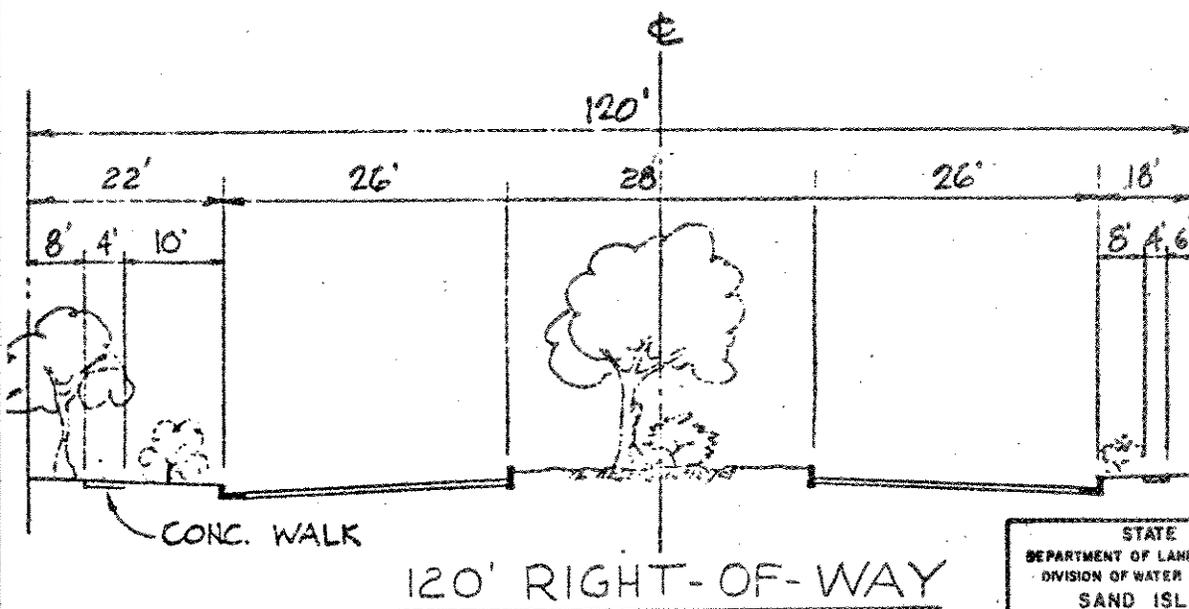
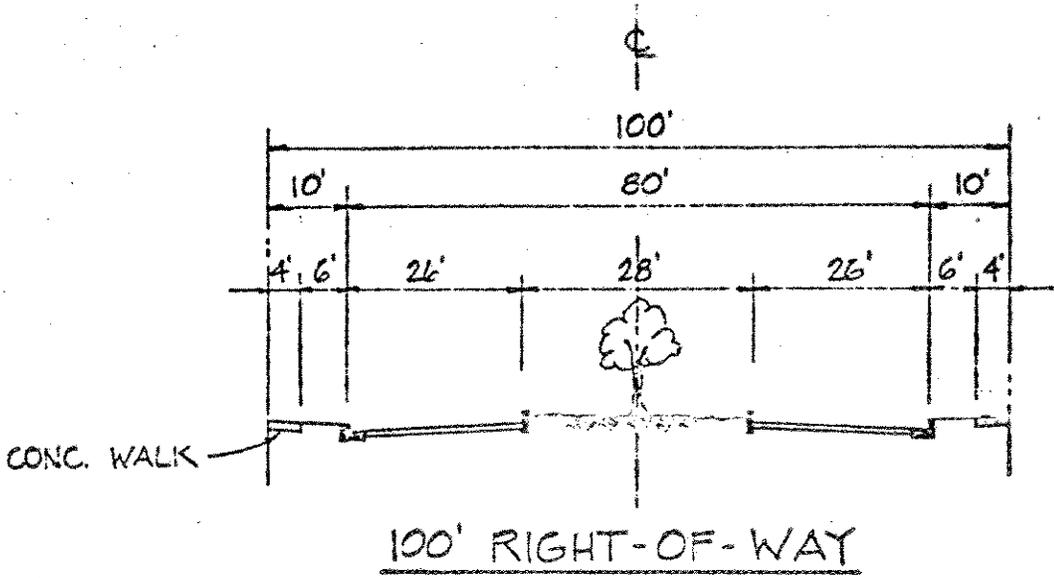
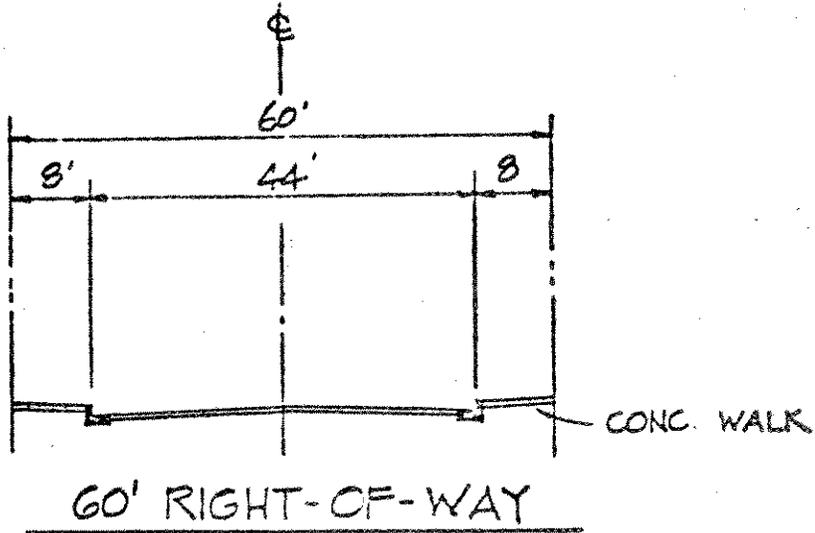
Three alternative alignments were reviewed:

1. Scheme A (Mauka Alignment).
2. Scheme B (Makai Alignment).
3. Scheme C (Mauka-Makai Alignment).

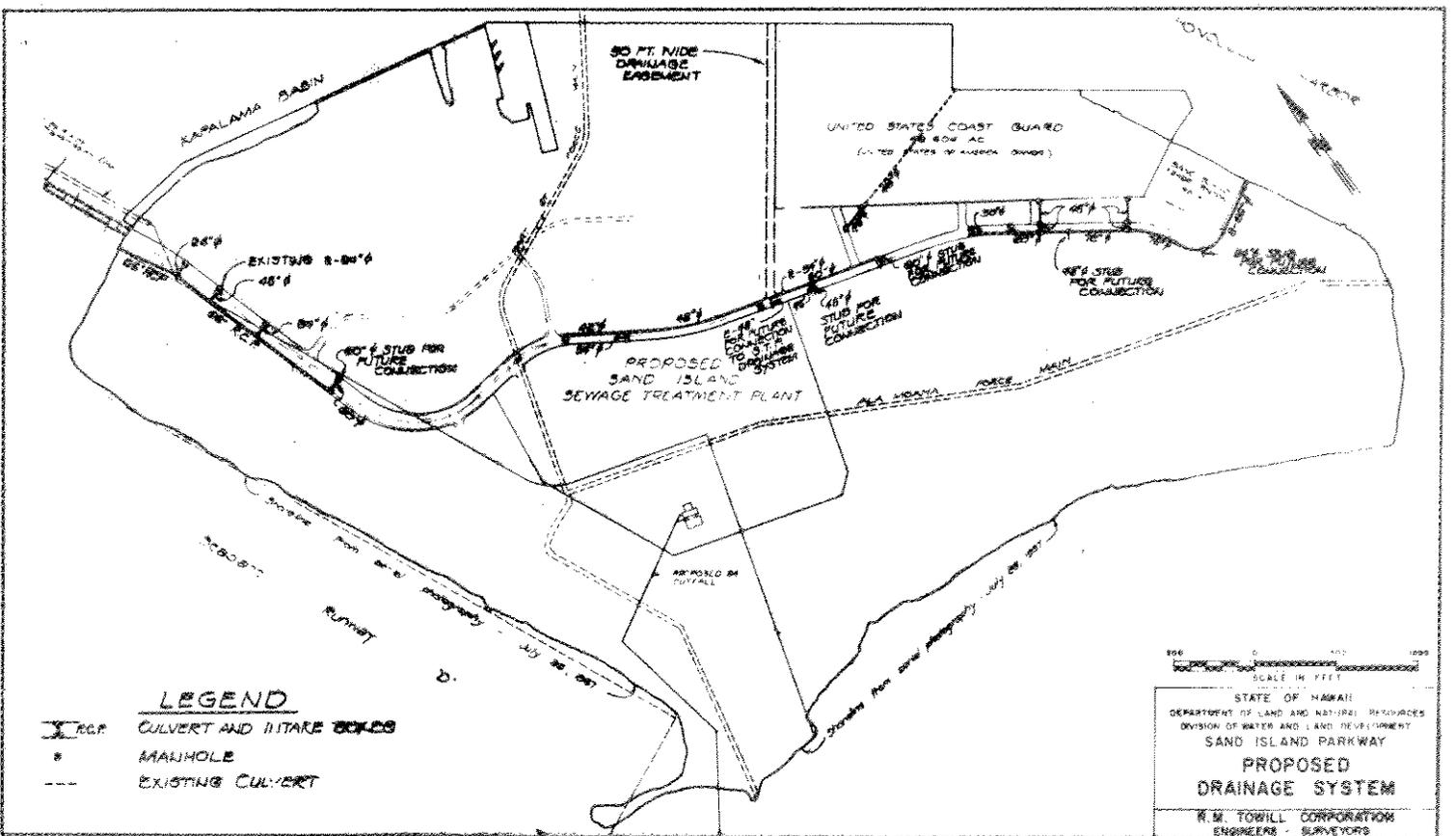
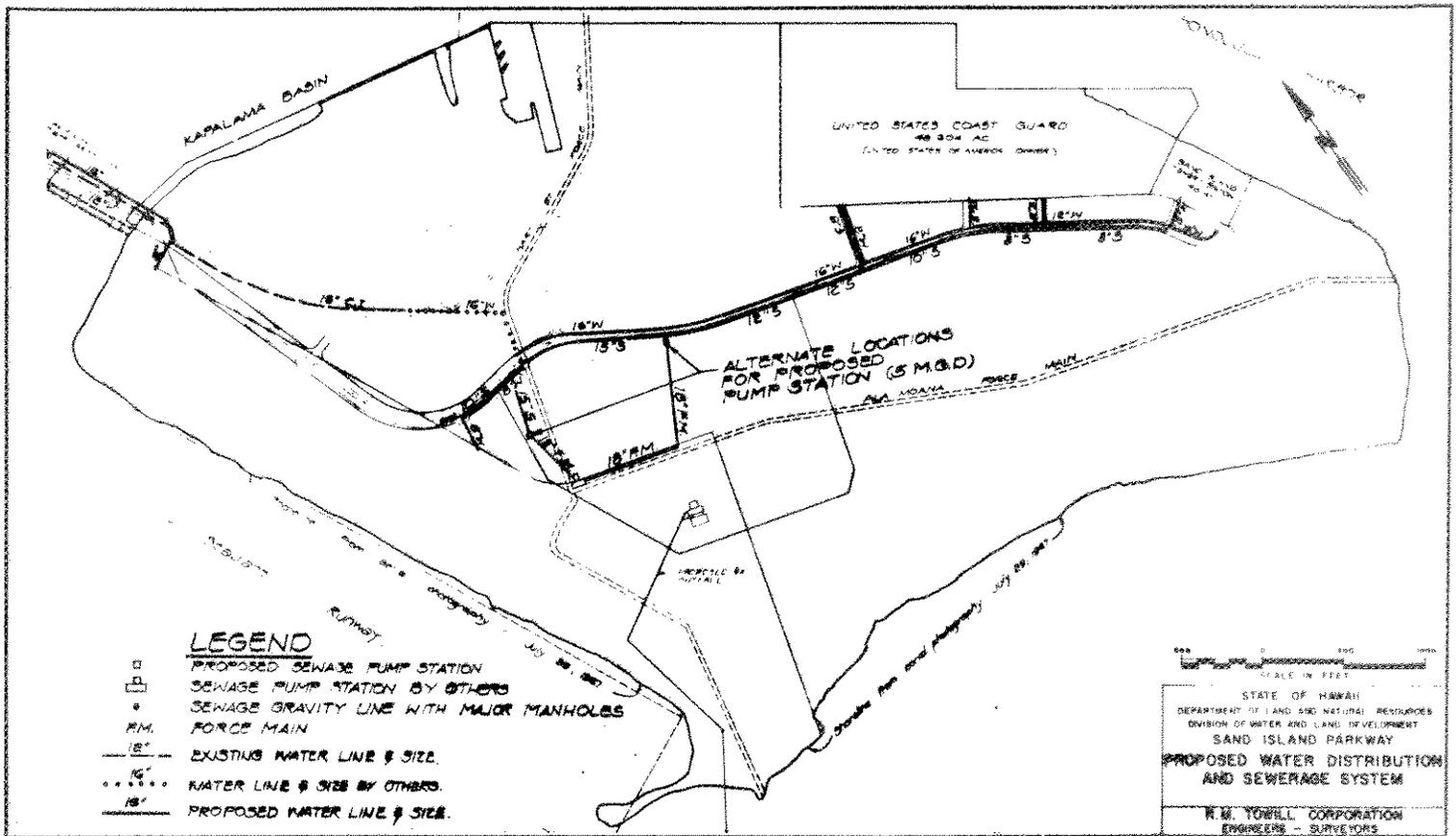
In addition, the alternatives of improving the existing roadway and not constructing the Parkway were evaluated.

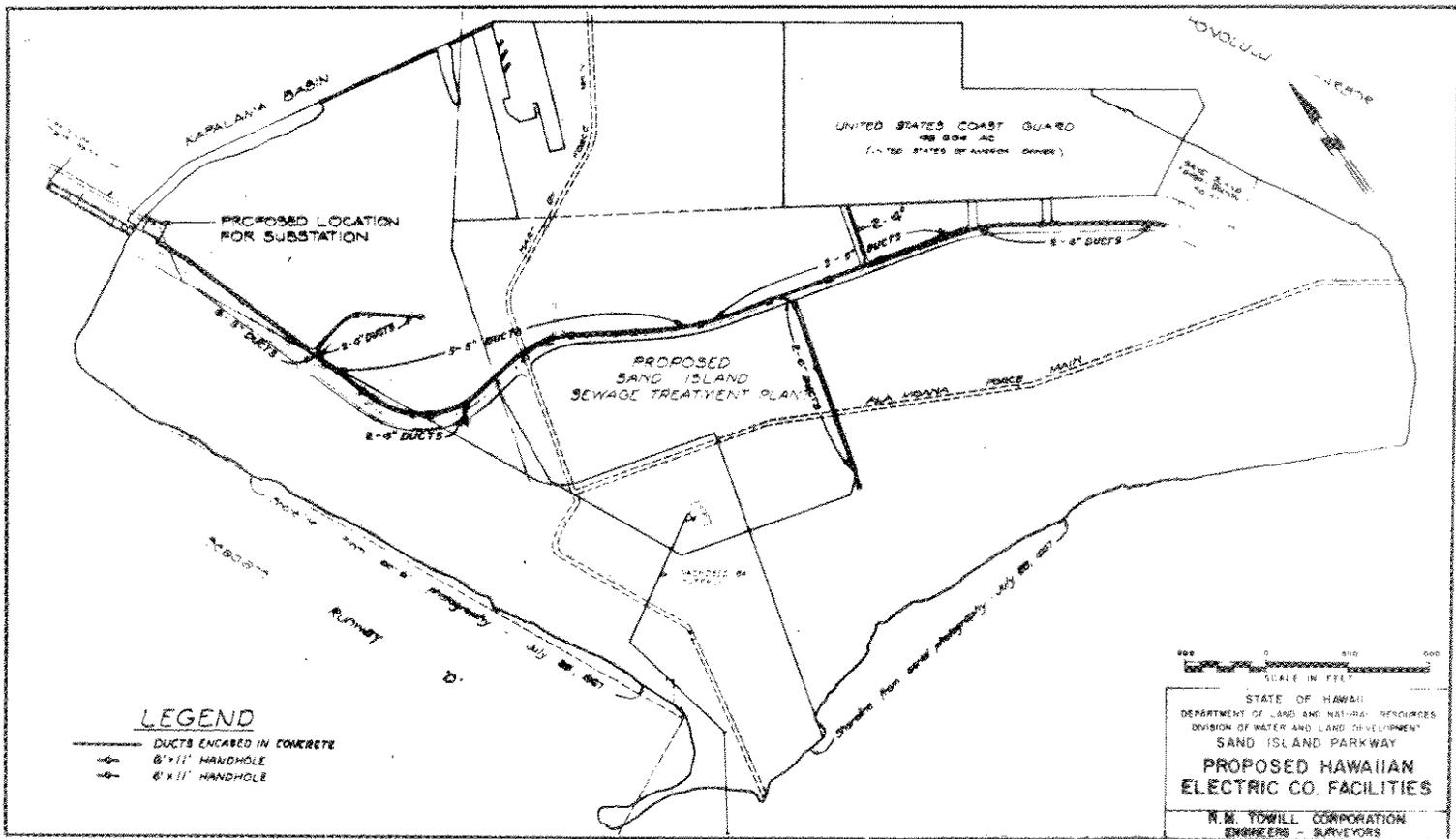
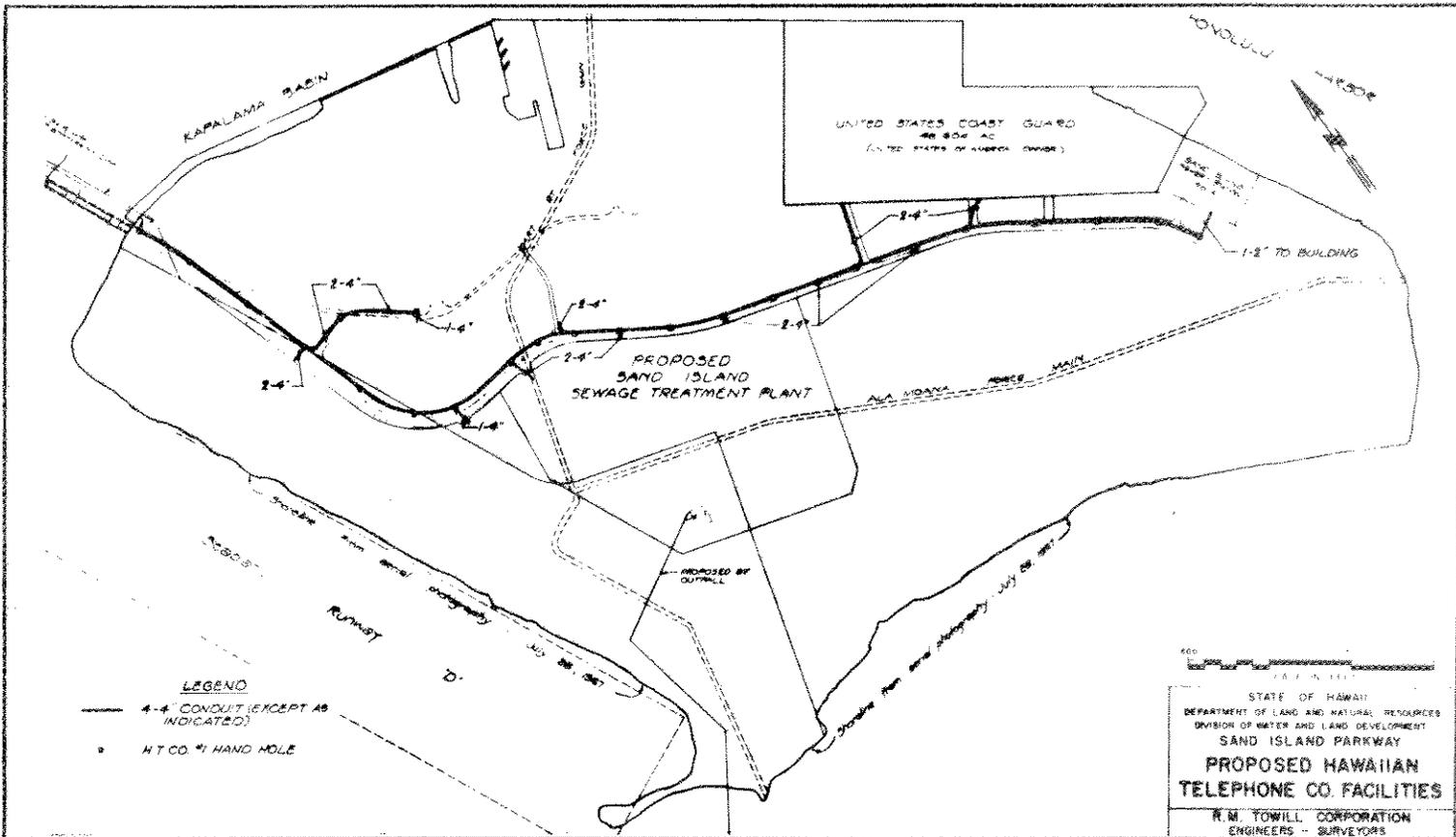


STATE OF HAWAII
 DEPARTMENT OF LAND AND NATURAL RESOURCES
 DIVISION OF WATER AND LAND DEVELOPMENT
 SAND ISLAND PARKWAY
 PROPOSED ALIGNMENT
 AND
 ACCUED LAND USE
 R. M. TOWILL CORPORATION
 ENGINEERS - SURVEYORS



STATE OF HAWAII
 DEPARTMENT OF LAND AND NATURAL RESOURCES
 DIVISION OF WATER AND LAND DEVELOPMENT
 SAND ISLAND PARKWAY
 TYPICAL ROAD SECTIONS
 R.M. TOWILL CORPORATION
 ENGINEERS - SURVEYORS





JOHN A. BURNS
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HAWAII 96801

November 23, 1973

WALTER B. QUISENBERRY, M.P.H., M.D.
DIRECTOR OF HEALTH

WILBUR S. LUMMIS JR., M.S., M.D.
DEPUTY DIRECTOR OF HEALTH

RALPH B. BERRY, M.P.H., M.D.
DEPUTY DIRECTOR OF HEALTH

HENRI P. MINETTE, M.P.H., DR.P.H.
DEPUTY DIRECTOR OF HEALTH

In reply, please refer to:
File: EH-SE

To: Dr. Richard E. Marland, Interim Director
Office of Environmental Quality Control

From: Director of Health

Subject: Draft Environmental Impact Statement for Sand Island
Parkway and Utilities Master Plan, Sand Island, Oahu

We have reviewed the subject report.

Assuming compliance is made to Health Department regulations, we foresee no adverse effects on air, water or noise environmental factors from this project.

A handwritten signature in cursive script, reading "Walter B. Quisenberry".

WALTER B. QUISENBERRY, M.D.



DEPARTMENT OF PLANNING
AND ECONOMIC DEVELOPMENT

P. O. BOX 2359 • HONOLULU, HAWAII 96804

JOHN A. BURNS
Governor

SHELLEY M. MARK
Director

EDWARD J. GREANEY, JR.
Deputy Director

STATE OF
HAWAII

November 26, 1973

Ref. No. 9994

MEMORANDUM

TO: Dr. Richard E. Marland, Interim Director
Office of Environmental Quality Control

FROM: *Shelley M. Mark*
Shelley M. Mark, Director

SUBJECT: Draft Environmental Impact Statement for Sand Island Parkway
and Utilities Master Plan, Sand Island, Oahu

We have reviewed this draft statement and feel that it is generally adequate in its coverage of the probable effects of the proposed improvement. In addition to environmental concerns, it evaluates social and economic effects of the proposal.

We have no further comments at this time but appreciate the opportunity to review this draft.

JOHN A. BURNS
GOVERNOR



E. ALVEY WRIGHT
DIRECTOR

LAWRENCE F. O. CHUN
DEPUTY DIRECTOR

MUNNY Y. M. LEE
DEPUTY DIRECTOR

DOUGLAS S. SAKAMOTO
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813

IN REPLY REFER TO:
ATP 8.2421

November 28, 1973

Dr. Richard E. Marland
Interim Director
Office of Environmental
Quality Control
550 Halekauwila St., Room 301
Honolulu, Hawaii 96813

Dear Dr. Marland:

Subject: Draft Environmental Impact Statement
Sand Island Parkway and Utilities
Master Plan

We have reviewed the above subject Statement and have the following comments to make:

1. Page 7. The amount of goods by surface transportation should be greater than 90 percent.
2. Page 30. Plate 3. The locations of the various intersections on the parkway should be coordinated with the State Highways Division. Locating the main park entrance after a curve is particularly poor. Also, an 8-foot bikeway that is physically separated from traffic is recommended. A more current plan should be developed and included in the final impact statement.
3. A replacement of the affected 11-acre land parcel must be accomplished before withdrawing the affected parcel from airport purposes.
4. A utility corridor, included that for fuel pipes, should be established to insure efficient use of the designated land.

During the implementation of the parkway and utilities system, we recommend that the Department of Land and Natural Resources work closely with our Airports, Harbors, and Highways Divisions.

Sincerely,

Douglas S. Sakamoto
for E. ALVEY WRIGHT
Director



DEPARTMENT OF THE ARMY
HONOLULU DISTRICT, CORPS OF ENGINEERS
BUILDING 96, FORT ARMSTRONG
HONOLULU, HAWAII 96813

PODED-P

20 November 1973

Dr. Richard E. Marland, Interim Director
Office of Environmental Quality Control
State of Hawaii
550 Halekauwila Street
Honolulu, Hawaii 96813

Dear Dr. Marland:

We have reviewed the draft environmental statement for Sand Island Parkway and Utilities Master Plan, Sand Island, Oahu, and offer the following comments:

a. The statement describes construction of the water distribution system on page 16. Installation of this system across the Kapalama Channel constitutes work in navigable waters of the United States and is subject to permit approval of the District Engineer under Section 10 of the River and Harbor Act of 1899. The discussion of the laying of the line should delineate between the expected impacts due to construction activities and to operation of the system. A description of the methods that can be used to mitigate the effects of the anticipated construction disturbances would be helpful to the lay reader.

b. Reference is made to the conformance of this project with Department of Land and Natural Resources environmental objectives (pp. 1, 3). Since the objectives appear to have been used as criteria for design, a statement of these objectives would be helpful. Further, the discussion of alternatives indicates that alternate alignments were rejected on a cost basis and an undefined incompatibility with "the overall planning of Sand Island."

c. The basis for selection of the recommended plan should be clearly stated and substantiated.

d. Throughout the statement it is noted that the parkway will be used by park visitors who will account for over 80 percent of the use on some days. Access from the parkway to the proposed state park area should be clearly identified, and the traffic projections for this use should be discussed in terms of destination points (parking areas or water use areas).

Sincerely yours,

A handwritten signature in cursive script that reads "R. L. Nichols".

R. L. NICHOLS

Chief, Engineering Division

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

440 Alexander Young Bldg., Honolulu, HI 96813

November 6, 1973

Dr. Richard E. Marland
Office of Environmental
Quality Control
Tani Office Bldg., Third Floor
550 Halekauwila St.
Honolulu, HI 96813

Dear Dr. Marland:

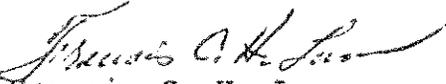
Subject: Draft Environmental Impact Statement for Sand
Island Parkway and Utilities Master Plan,
Sand Island, Oahu

We have reviewed the above-mentioned draft environmental
statement in this office.

We have no comments to offer.

Thank you for the opportunity to review this statement.

Sincerely,


Francis C. H. Lum
State Conservationist



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 15th AIR BASE WING (PACAF)
APO SAN FRANCISCO 96553



21 NOV 1973

REPLY TO
ATTN OF:

DEEE

SUBJECT:

Draft Environmental Impact Statement

TO:

Office of Environmental Quality Control
Office of the Governor
550 Halekauwila Street
Tani Office Building, Third Floor
Honolulu, Hawaii 96813

1. Reference is made to your letter of 24 Oct 73, subject as above.
2. This office has no comment to render relative to the draft environmental impact statement for the Sand Island Parkway and Utilities Master Plan.

A handwritten signature in cursive script, appearing to read "Henry G. Under".

HENRY G. UNDER, Colonel, USAF
Dep Comdr for Civil Engineering

PARTMENT OF GENERAL PLANNING
CITY AND COUNTY OF HONOLULU

629 POHUKAINA STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR



ROBERT R. WAY
CHIEF PLANNING OFFICER

DONALD A. CLEGG
DEPUTY CHIEF PLANNING OFFICER
DGP10/73-809 (RSY)

November 19, 1973

MEMORANDUM

TO : DR. RICHARD E. MARLAND, INTERIM DIRECTOR
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

FROM : ROBERT R. WAY, CHIEF PLANNING OFFICER

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR SAND ISLAND
PARKWAY AND UTILITIES MASTER PLAN

This is in response to your memorandum, dated October 24, 1973, which transmits the subject draft EIS for our review and comments.

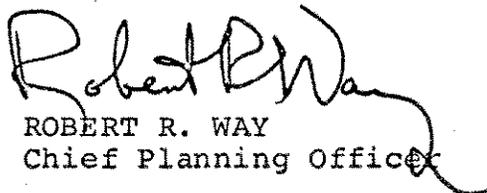
The Sand Island Parkway does not conform to the General Plan of the City and County of Honolulu with respect to land uses and the major traffic circulation pattern. Therefore, a General Plan amendment is required. This requirement was communicated to the Department of Land and Natural Resources by letter dated September 23, 1971.

Although the project proposes 140 acres of parks which is part of the total off-shore parks on lands not now in existence, the location now proposed to be used preempts some 140 acres of lands now in existence and designated for industrial use. The City's General Plan incorporates the State's waterfront plan which covers the shoreline from the Ala Wai Yacht Basin to the Honolulu International Airport. This waterfront plan essentially shows the development of extensive off-shore and some on-shore areas for recreation and industrial uses. The proposed project at issue would, in effect, delete some 140 acres of existing land designated for industrial use in a very critical area. The proposed project also suggests that the State will not develop off-shore lands as

Dr. Richard E. Marland
November 19, 1973
Page 2

planned. Inasmuch as substantial lands are involved, deviations would have a significant impact on land use decisions elsewhere. The amount of land already planned for industrial and recreational needs is a major criterion in many land use decisions. This proposed project raises serious questions as to the validity of the State's waterfront plan and would, in turn, similarly affect the City's General Plan--unless the changes proposed by the project can meet the safeguards provided by the amendment process.

We assume that the subject draft EIS has also been sent to other appropriate City agencies for comments relating to such matters as zoning, traffic, utilities, and recreation. We hope our comments are helpful.


ROBERT R. WAY
Chief Planning Officer

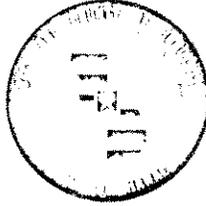
RRW:ak

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU

629 POHUKAINA STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

PAUL DEVENS
MANAGING DIRECTOR



GEORGE S. MORIGUCHI
DIRECTOR

WILLIAM E. WANKE
DEPUTY DIRECTOR

LUL10/73-1254
(WEW)

November 7, 1973

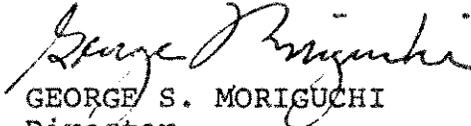
MEMORANDUM

TO : DR. RICHARD E. MARLAND, INTERIM DIRECTOR
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

FROM : GEORGE S. MORIGUCHI, DIRECTOR

SUBJECT : DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR SAND
ISLAND PARKWAY AND UTILITIES MASTER PLAN,
SAND ISLAND, OAHU

We note the project will require the filing of an application for subdivision. Compliance with the Subdivision Rules and Regulations will be necessary. Further, any work along the shoreline will require compliance with the Shoreline Setback Rules and Regulations of the City and County of Honolulu.


GEORGE S. MORIGUCHI
Director

GSM:rh

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
CITY HALL ANNEX
HONOLULU HAWAII 96813



FRANK F. FASI
MAYOR

PAUL DEVENS
MANAGING DIRECTOR

GEORGE C. VILLEGAS
DIRECTOR

ROY A. PARKER
DEPUTY DIRECTOR

October 30, 1973

Dr. Richard E. Marland
Interim Director
Office of Environmental
Quality Control
Office of the Governor
550 Halekauwila Street
Tani Office Bldg., 3rd Floor
Honolulu, Hawaii 96813

Dear Dr. Marland:

Subject: Draft Environmental Impact Statement for
Sand Island Parkway and Utilities Master
Plan, Sand Island, Oahu

In regard to the subject draft environmental impact statement, we have
no comments.

Sincerely,


ROYA. PARKER
Acting Director

HHB:ek

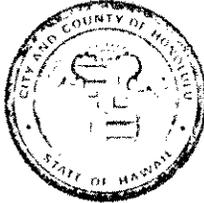
cc: K. Hirata

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

PAUL DEVENS
MANAGING DIRECTOR



EDWARD Y. HIRATA
DIRECTOR AND CHIEF ENGINEER

KAZU HAYASHIDA
DEPUTY DIRECTOR AND
DEPUTY CHIEF ENGINEER

ENV 73-346

November 15, 1973

Office of Environmental Quality Control
Office of the Governor
550 Halekauwila Street
Tani Office Building, Room 301
Honolulu, Hawaii 96813

Gentlemen:

Subject: Draft Environmental Impact Statement
for Sand Island Parkway and Utilities
Master Plan, Sand Island, Oahu

Our comments on the draft statement of the subject
EIS are as follow.

1. The project is highly desirable and necessary to provide access to the treatment plant, park and other activities on Sand Island.
2. Drainage for the treatment plant is critical since the site's drainage pattern to the ocean to provide for discharge into Honolulu Harbor was altered at the request of the Department of Land and Natural Resources. The construction of the proposed drainage system with its three outlets into Honolulu Harbor should be initiated concurrently with the first increment of the project. This provision will allow the proposed treatment plant drainage improvements to become integrated with the master planned facility immediately instead of having to connect to an interim drainage system.

Office of Environmental Quality Control
November 15, 1973
Page 2

3. Projected traffic count to the treatment plant as shown in Table 1 (page 6) agrees with our estimation. However, we wonder whether the draft statement would not be improved if the capacity of the Sand Island Access Road from Nimitz Highway to the bascule bridge was also mentioned.

Very truly yours,



EDWARD Y. HIRATA
Director and Chief Engineer

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA
POST OFFICE BOX 3410
HONOLULU, HAWAII 96804- 96843



JOHN HENRY FELIX, Chairman
STANLEY S. TAKAHASHI, Vice Chairman
GEORGE APOUHAN
EDWARD Y. HIRATA
WALTER D. HOWARD
ROBERT H. ROTZ
E. ALVEY WRIGHT
GEORGE A. LYUEN
Manager and Chief Engineer

November 12, 1973

Dr. Richard E. Marland
Interim Director
Office of Environmental Quality Control
550 Halekauwila Street
Honolulu, Hawaii 96813

Dear Dr. Marland:

SUBJECT: Draft Environmental Impact Statement for
Sand Island Parkway and Utilities Master Plan

Thank you for sending us the subject draft EIS for our review and comments. We do not anticipate any adverse effects on potable water resources and facilities in the area from the proposed project.

Please contact us if further information is required on the matter.

Very truly yours,


Richard W. K. Lum
Chief - Planning, Resources
and Research Division

APPENDIX B

Responses to Review Comments

JOHN A. BURNS
GOVERNOR OF HAWAII



DIVISIONS:
CONVEYANCES
FISH AND GAME
FORESTRY
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

June 7, 1974

Dr. Richard E. Marland
Interim Director
Office of Environmental
Quality Control
550 Halekauwila Street
Room 301
Honolulu, Hawaii 96813

Dear Dr. Marland:

Responses to the Draft Environmental
Impact Statement, Sand Island Parkway
and Utilities Master Plan

Reference is made to your letter of January 28, 1974 regarding your comments on the subject Draft Environmental Impact Statement.

Our responses to your comments under the respective sub-section are as follows:

Environmental Objectives

Incorporated in final impact statement, a copy of which is enclosed.

Existing Conditions

Incorporated in final impact statement.

Necessary Approvals and Planning

All necessary permits and approvals will be obtained prior to implementation of the proposed project. Further, we are in the process of filing an amendment to the General Plan of the City and County of Honolulu.

Other comments under this sub-section have been incorporated in the final impact statement.

Utilities

Incorporated in final impact statement.

Traffic Data and Parkway Design

(1) The traffic analysis for the development of Sand Island was based primarily upon data developed by the State Department of Transportation (DOT) in 1972. These data were traffic volume generated by various land use classification. The trip rate (trip ends per acre) values used are shown in Table 1. Trip ends are the number of trips beginning or ending at a location. As an example, if the origin point is on Sand Island and that a trip is to a location outside of Sand Island, it is counted as a trip end; upon return, it is counted as another trip end. Therefore, the trip ends are the Average Daily Traffic in both directions. The trip rate values developed by DOT were utilized, with a modification to the trip rate value for the proposed Sand Island State Park.

(2) The design speed is 40 miles per hour and the operational speed is 35 miles per hour. The standards for design for the parkway are based on the design speed and the ultimate traffic projection which warrants a four-lane parkway.

Other comments under this sub-section have been incorporated in the final impact statement.

Tax Revenue

Incorporated in final impact statement.

Alternatives

Various alignment schemes were evaluated before final selection of the alignment. Participation in the selection of the alignment included the State Department of Land and Natural Resources, State Department of Transportation, Department of Public Works, City and County of Honolulu, Kalihi Palama Community Council and other community groups. Basically, three alignment schemes were evaluated; a makai alignment, a mauka alignment and a combination of the makai and mauka alignments. The advantages and disadvantages of the various alignments were discussed in numerous meetings. The apparent advantages and disadvantages of the various alignment schemes derived from numerous meetings are summarized on Table 5 of the final impact statement. The mauka-makai alignment (Scheme C) best resolved the major problems and was therefore adopted as the alignment of the Sand Island Parkway.

Dr. Richard E. Marland

-3-

June 7, 1974

Other comments under this sub-section have been incorporated in the final impact statement.

Other Concerns

(1) At the present time, the parkway will be funded by the State.

(2) Construction of the first increment is scheduled to commence at the end of this calendar year. Construction of the second and third increments will depend upon the funding available.

Written responses have been sent to all reviewers who made substantive comments. Copies of these letters are attached.

We appreciate your thorough review and helpful comments on the draft statement.

Very truly yours,

BOARD OF LAND AND NATURAL RESOURCES



SUNAO KIDO
Chairman and Member

Attach.

JOHN A. BURNS
GOVERNOR OF HAWAII



DIVISIONS:
CONVEYANCES
FISH AND GAME
FORESTRY
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

June 7, 1974

Honorable E. Alvey Wright
Director
Department of Transportation
State of Hawaii
Honolulu, Hawaii 96813

Dear Sir:

Draft Environmental Impact Statement
Sand Island Parkway and Utilities
Master Plan

Reference is made to your letter submitted to the Office of Environmental Quality Control, subject as above, dated November 28, 1973.

Your review comments have been evaluated and incorporated in the accompanying copy of the Final Environmental Impact Statement. Some of the comments are further discussed below:

- a. The amount of goods by surface transportation has been corrected to read more than 90 percent.
- b. The main park entrance has been relocated. The relocation of the main park entrance has been coordinated with the Highways Division, Department of Transportation. There will be no provisions for a bikeway within the parkway. However, bikeways will be provided within the Sand Island State Park in accordance with the park plans.
- c. A replacement land parcel will be designated for the 11-acre fuel storage area by the Department of Land and Natural Resources. This will be coordinated with the Airports Division, Department of Transportation.
- d. Utilities, including fuel lines, are planned to be placed under the proposed parkway.

Thank you very much for your review of the draft statement.

Very truly yours,

BOARD OF LAND AND NATURAL RESOURCES

SUNAO KIDO

Chairman and Member

cc: OEQC

Mr. R. L. Nichols

-2-

June 7, 1974

Department of Public Works, City and County of Honolulu, Kalihi Palama Community Council and other community groups. Basically, three alignment schemes were evaluated; a makai alignment, a mauka alignment and a combination of the makai and mauka alignments. The advantages and disadvantages of the various alignments were discussed in numerous meetings. The apparent advantages and disadvantages of the various alignment schemes derived from numerous meetings are summarized on Table 5 of the final impact statement. The mauka-makai alignment (Scheme C) best resolved the major problems and was therefore adopted as the alignment of the Sand Island Parkway.

d. The access roads to the Sand Island State Park from the Sand Island Parkway were designed upon traffic volume established for the park. The traffic volume at the park entrances was coordinated with the park planners, and the specific destination points of the vehicles upon egress from the parkway will be controlled by the interior road system of the park. A plate showing the ultimate design traffic volume and destination points has been included in the Final EIS.

Thank you very much for your review of the draft statement.

Very truly yours,

BOARD OF LAND AND NATURAL RESOURCES



SUNAO KIDO
Chairman and Member

cc: OEQC

JOHN A. BURNS
GOVERNOR OF HAWAII



DIVISIONS:
CONVEYANCES
FISH AND GAME
FORESTRY
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

June 7, 1974

Mr. Robert R. Way
Chief Planning Officer
Department of General Planning
City and County of Honolulu
629 Pohukaina Street
Honolulu, Hawaii 96813

Dear Sir:

Draft Environmental Impact Statement
Sand Island Parkway and Utilities
Master Plan

Reference is made to your letter submitted to the Office of Environmental Quality Control, subject as above, dated November 19, 1973.

Our office is in the process of filing an amendment to the General Plan of the City and County of Honolulu.

We are transmitting a copy of the final environmental impact for your files.

Thank you very much for your review of the draft statement.

Very truly yours,

BOARD OF LAND AND NATURAL RESOURCES

SUNAO KIDO
Chairman and Member

cc: OEQC

JOHN A. BURNS
GOVERNOR OF HAWAII



DIVISIONS:
CONVEYANCES
FISH AND GAME
FORESTRY
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

June 7, 1974

Mr. George S. Moriguchi, Director
Department of Land Utilization
City and County of Honolulu
629 Pohukaina St.
Honolulu, Hawaii 96813

Dear Sir:

Draft Environmental Impact Statement,
Sand Island Parkway and Utilities
Master Plan

Reference is made to your letter submitted to the Office of Environmental Quality Control, subject as above, dated November 7, 1973.

The construction of the project will be in compliance with the applicable Rules and Regulations of the City and County of Honolulu. An application for subdivision will be submitted at the appropriate time.

Thank you very much for your review of the draft statement.

Very truly yours,

BOARD OF LAND AND NATURAL RESOURCES

SUNAO KIDO
Chairman and Member

cc: OEQC