

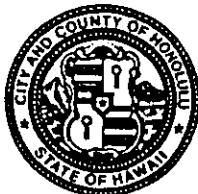
Sand Island  
Terminal Imp.

DEPARTMENT OF LAND UTILIZATION  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813  
PHONE: (808) 523-4414 • FAX: (808) 527-6743

RECEIVED

JEREMY HARRIS  
MAYOR



'96 DEC -9 PATRICK F. ONISHI  
DIRECTOR  
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OFF. OF ENV. & NAT. RES. QUALITY  
96/SMA-092 (ST)  
96-08319

December 6, 1996

The Honorable Gary Gill, Director  
Office of Environmental Quality Control  
State of Hawaii  
220 South King Street, 4th Floor  
Honolulu, Hawaii 96813

Dear Mr. Gill:

Chapter 343, HRS  
Environmental Assessment/Determination  
Finding of No Significant Impact

Recorded Owner: State of Hawaii, DOT Airports Division  
Applicant : BHP Petroleum Americas Refining  
Agent : KN Consulting Services, Inc.  
Location : 2 Sand Island Access Road, Sand Island, Oahu  
Tax Map Key : 1-2-25: 19  
Request : Special Management Area Use Permit  
Proposal : Further development of an existing fuel  
storage/transfer facility for truck park and  
storage  
Determination : A Finding of No Significant Impact is Issued

Attached and incorporated by reference is the Final Environmental Assessment (FEA) prepared by the applicant for the project. Based on the significance criteria outlined in Chapter 200, State Administrative Rules, we have determined that preparation of an Environmental Impact Statement is not required.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the FEA. If you have any questions, please contact Steve Tagawa of our staff at 523-4817.

Very truly yours,

*Patrick F. Onishi*  
PATRICK F. ONISHI  
Director of Land Utilization

PTO:am  
Encls.

g:feasm92.sht

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1997-12-23-0A-*FEA-Sand Island Terminal  
Improvements*

DEC 23 1996

**FILE COPY**

**FINAL ENVIRONMENTAL ASSESSMENT**

**BHP Petroleum Americas Refining Inc.  
SAND ISLAND TERMINAL  
2 SAND ISLAND ACCESS ROAD  
HONOLULU, HAWAII**

**Tax Map Key: 1-2-25:19**

Prepared for:

**BHP-Petroleum Americas Refining Inc.  
733 Bishop Street, Suite 2700  
Honolulu, Hawaii 96842**

Prepared by:

**KN Consulting Services, Inc.  
982 Prospect Street - 6  
Honolulu, Hawaii 96822**

**November 1996**

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**FINAL ENVIRONMENTAL ASSESSMENT**

'96 NOV 25 AM 9 02

**BHP Petroleum Americas Refining Inc.  
SAND ISLAND TERMINAL  
2 SAND ISLAND ACCESS ROAD  
HONOLULU, HAWAII**

DEPT OF LAND UTILIZATION  
CITY & COUNTY OF HONOLULU

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## ***FINAL ENVIORNMENTAL ASSESSMENT***

### **I. GENERAL INFORMATION**

#### **A. Applicant**

BHP Petroleum Americas Refining Inc.  
733 Bishop Street, Suite 2700  
PO Box 3379  
Honolulu, Hawaii 96842  
Phone: 547 3484

#### **B. Record Fee Owner:**

State of Hawaii  
Department of Transportation  
Airports Division  
Phone: 838 8600

#### **C. Agent:**

KN Consulting Services, Inc.  
982 Prospect Street - 6  
Honolulu, Hawaii 96822  
Phone: 545 2098

#### **D. Tax Map Key:**

TMK 1-2-25:19

#### **E. Lot Area:**

169,240 square feet

#### **F. Agencies Consulted in Making Assessment:**

In accordance with the Department of Health's Administrative Rules, Title 11, Environmental Impact Statement Rules, the following agencies and citizen group, having jurisdiction or expertise in project area, were consulted to make an early assessment. Consultation was made by telephone, and by meetings when requested by the party consulted.

1. U.S. Army Corps of Engineers  
Pacific Ocean Division



2. State Highways Division  
Design Branch, Drainage Section  
Traffic Branch
3. State Harbor Division  
Property Management  
Engineering Program Manager, Design Section:
4. State Airports Division  
Administrator  
Engineering Branch, Planning Section
5. State Department of Land and Natural Resources  
Boating and Ocean Recreation Division  
Property Management  
Engineering Branch  
Aquatic Resources Division
6. State Department of Health  
Clean Water Branch  
Safe Drinking Water Branch
7. University of Hawaii  
Marine Center at Snug Harbor
8. City and County of Honolulu Fire Department  
Fire Prevention Bureau
9. City and County of Honolulu Department of Public Works  
Environmental Engineer
10. City and County of Honolulu Dept. of Transportation Services  
Traffic Planning and Survey Section
11. City and County of Honolulu Dept. of Land Utilization  
Environmental Review Branch
12. Sand Island Business Association  
Executive Director

## II. DESCRIPTION OF THE PROPOSED ACTION

### A. General Description:

#### 1. Description of Proposed Project

The applicant plans to develop their existing terminal site to accommodate a truck park and storage facilities; and to upgrade their existing fuel storage and transfer facilities. See figure 1 for project vicinity.

#### 2. Relation of the parcel to the SMA

The project site is entirely within the Special Management Area (SMA) as defined by Chapter 25 of the Revised Ordinances of Honolulu. See figure 2 for relationship of project to SMA boundary.

#### 3. Location

The project is located on the western end of Honolulu Harbor on the Island of Oahu. The project's street address is 2 Sand Island Access Road which is at the southwest corner of Sand Island Access Road and the second road leading to Keehi Lagoon Small Boat Harbor.

#### 4. Land Use Approvals Required

- a. Special Management Area permit from the Department of Land Utilization, City and County of Honolulu.
- b. Building permits from the Building Department, City and County of Honolulu.
- c. Grading permit from the Department of Public Works, City and County of Honolulu.
- d. Permit for Connection to the State Highway Drainage System, Highways Division, State of Hawaii.
- e. NPDES General Permits Notice of Intent for Storm water discharges associated with industrial activities, Department of Health, State of Hawaii.
- f. NPDES General Permits Notice of Intent for Storm water discharges associated with dewatering activities, Department of Health, State of Hawaii.

B. Technical Characteristics:

1. Use Characteristics

The project site is the applicant's Sand Island Terminal developed by their predecessor, Hawaiian Independent Refinery Inc. (HIRI), in 1974. The terminal is the initial control point in the applicant's petroleum distribution system on the island of Oahu. From the refinery, products such as gasoline, diesel, and jet fuel are piped to a pipe manifold at the terminal. The manifold is used to switch and direct the different products to other locations for storage and distribution to customers. For example, the pipe manifold is used to direct the jet A/A1 fuel to the Honolulu Fueling Facilities Corporation's tank farm across the street.

Other existing facilities at this terminal are two aboveground storage tanks with a combined capacity of 32,000 barrels. See figure P-O for a site plan of existing terminal. One of the tanks contains diesel and the other contains transmix. The transmix, a derivative of various products resulting from the terminal pipeline switching operations, tank condensation, and storm water from the concrete pads, etc. is returned to the refinery for reprocessing. Diesel stored at the site is used for the displacement of transmix back to the Refinery and to supplement diesel shipments to customers via the loading rack.

Also at the site is a small office, transfer pumps, piping and valves, truck loading rack and a truck wash. Approximately seventy five percent of the site is presently undeveloped.

2. Physical Characteristics

The applicant plans to construct a truck park and storage facilities with ancillary improvements; and make certain best management improvements to their existing fuel storage and transfer facilities.

- a. The truck park and storage facilities will include an approximate 50,000 square foot paved area to accommodate a truck park for seven tanker trucks, four prefabricated trailers, and two covered storage pads. See figure P-1 for site layout. Drainage improvements will consist of a subsurface collection system, an oil water separator, and a sump pump. Storm runoff will be conveyed to the State Highway's storm drain system. Security lighting will be installed around the perimeter of the paved area.
- b. Best management improvements to the existing fuel transfer facilities will include replacing an existing underground oil water separator, which is currently used primarily as a transfer tank, with

a 10,000 gallon aboveground storage tank and installing roofs over existing concrete pads. See figure P-2 for elevations view of roof structures. Other improvements include installing a pad mounted air compressor; and installing a pad mounted 460 KW emergency generator. Repair and other miscellaneous works will be done simultaneously with the new work.

- c. Improvements to the aboveground storage area will consist of installing a 2,000 gallon aboveground foam tank which is part of a foam fire protection system, installing a concrete or polyethylene liner in the secondary containment area and pads for hose storage racks.

### 3. Construction Characteristics

Construction will consist of light grading; excavation and backfill to install drainage system and utilities; concrete work; installation of base course material and asphaltic concrete; and the installation of a liner in the containment area. If dewatering is required, water from the dewatering operation will either be discharged to a "permitted" connection to the State Highways storm drain system or to a ponding area onsite.

### 4. Utility

The current staff loading at the terminal is one person per shift per day with 1 to 2 roving maintenance workers. After the project is completed, the operations may extend to two shifts with two persons during the day shift and one during the evening shift. The project will not require additional resources that are not already on site. Water, power and telephone works will be an extension of facilities now existing on site.

### 5. Liquid Waste Disposal

The existing facilities has an individual wastewater disposal system that was installed with the original improvements. The new facilities will not require additional pumbing fixtures. Effluent from the truck wash rack is removed by a private contractor and will continue after the project is completed..

### 6. Solid Waste Disposal

Other than a small amount of solvent which will be recycled, the terminal does not normally generate hazardous wastes. Exceptions are the 1993 tank cleaning operation which generated 700 gallons of waste and the 1994 gasoline spill documented in Section II.D.4 of this assessment. Disposal or

recycling of hazardous wastes; and the disposal of normal solid waste will be contracted to private disposal companies

7. Access to Site and Traffic

Currently, vehicular access to the site is from a driveway off Sand Island Access Road and a driveway off the small boat harbor access road. Traffic load at this terminal varies from 12 to 22 vehicle trips per day. About 10 to 20 trucks enter the terminal to load products each day and the terminal work force add another 2 to 4 trips per day.

When the proposed improvements are completed, all vehicular access to the site will be through a new driveway near the north west corner of the site. Vehicles associated with terminal operations will egress through the middle driveway. Trucks picking up fuel from the terminal will exit as they do now from the existing driveway. The existing driveway off Sand Island Access Road will be maintained but used only on a limited basis.

With the completion of the project, there should be minimal changes in traffic volume. Under normal operations, only three trucks are on the road at any time and the remainder will be parked at the terminal. These trucks will return to be parked at the terminal each day. Fuel loading traffic will remain the same or may be reduced as an alternate loading rack will be made available under the applicant's new operations.

C. Economic and Social Characteristics

1. Estimated cost and time phasing of construction:

The estimated cost for the proposed improvements is \$ 1,600,000. The current program calls for construction to be done in the three phases outlined hereinafter.

- a. Phase one (approximate cost: \$ 800,000):
  - 50,000 square feet paved area with associated drainage and utility improvements.
  - Installation of four prefabricated trailers.
  - Installation of two storage sheds.
  - Installation of roofs over existing paved area.
  - Related miscellaneous items
- b. Phase two (approximate cost \$ 300,000)
  - Installation of a 10,000 gallon above ground storage tank

- Pad mounted enclosed 460 KW diesel emergency generator.
- Pad mounted air compressor
- Related miscellaneous items

c. Phase three (approximate cost \$ 500,000)

- Installation of a 2,000 gallon foam tank.
- Installation of concrete or polyethylene liner in the secondary containment area with ancillary improvements.
- Hose storage racks
- Related miscellaneous items

2. Other pertinent information

The applicant's lease on their Nimitz Terminal, located at Honolulu Harbor pier 29, will expire at the end of March, 1997. They are required to vacate the pier before their lease expires. The offices and gasoline loading station operations have already been relocated to facilities in Iwilei. When the project is completed, only the truck parking and portion of the storage requirements will be relocated to the Sand Island Terminal.

D. Environmental Characteristics:

1. Soils:

According to the *Soils Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai*, the soil type found in this area is classified as "fill land, mixed" which consist of material dredged from the ocean or hauled from nearby areas. A pavement design report was prepared by Ernest K. Hirata & Associates, Inc., dated September 3, 1996. The surface soils are primarily silty clay and silty sand. Six shallow exploratory borings were drilled and the soils samplings retrieved indicate that the subsurface soils are generally sandy silt. Ground water was encountered at elevations 2 to 3.5 feet MSL in three of the six borings.

2. Topography

The site is located at the western end of Honolulu Harbor, adjacent to Kapalama Basin. The site has two levels and is relatively flat. The area that contains the fuel transfer facilities is about a half acre in size and its elevation are on an average of 7.5 feet MSL. The remaining site, which contain the two above ground storage tanks, are surrounded by a four foot high secondary containment berms and site elevations average 5.5 feet MSL.

### 3. Surface Runoff, Drainage, and Erosion Hazard

Prior to the site being developed in 1974, a drain line and an open ditch crossed the site, running east to west, and terminated in the existing drainage ditch that runs north to south and located west of the project's boundary and within the Small Boat Harbor trailer parking lot. When the State Highways Division improved Sand Island Access Road in 1986, this drain line was sealed off at the highway's western right-of-way line. A drain inlet to the drain line still exists in the upper portion of the project site; however, it has been abandoned and replaced with a collection tank. The open ditch within the site has been filled in.

Surface runoff from the upper area of the site is directed to an oil water separator and is periodically pumped to tanker trucks or to the transmix storage tank on site. The remainder of the site is surrounded by a secondary containment berms. Surface runoff in this area pond within the confine of the berms and either percolate into the ground or evaporate.

As part of the best management plan, areas with exposed transfer equipment and equipment storage will be roofed to minimize petroleum contact with rain water. The new paved area and portions of the existing facilities will have a subsurface drainage system which will pipe the runoff to an oil water separator. A manually operated sump pump will be installed to convey runoff to the State storm drain system within Sand Island Access Road. Preliminary coordination with the State Highways Division indicated that this arrangement will be acceptable; however, a State Highways connection permit must be obtained.

The erosion hazard severity rating for the anticipated construction will be low to moderate.

### 4. Hazards

A remediation program is ongoing due to soil contamination that occurred near the pipe manifold in 1994. This incident occurred when the sensor for a motor operated valve failed leaving the valve open while a worker was preparing to remove a pig<sup>1</sup> from the pipeline. This resulted in a release of approximately 4,000 gallons of gasoline. Prompt cleanup actions resulted in the recovery of about 90 percent of the gasoline and approximately 80 cubic yards of soils was removed for treatment. During the soil remediation, leaking gaskets were discovered on the pipelines installed by the applicant's predecessor in 1974. Short termed repair work on the

---

<sup>1</sup> Polyurethane pipeline "pigs" are used to separate different products within the pipeline.

pipelines has been completed; however, these pipelines will be replaced as part of the proposed improvements.

The spill incident and the gasket leaks were promptly reported to the Hawaii State Department of Health (DOH) and the subsequent remedial actions are being done under the oversight of the Hazard Evaluation and Emergency Response (HEER) Office.

Following the release, an environmental site characterization was made which included an analysis of the groundwater and soil for gasoline, diesel and their toxic constituents. This characterization and subsequent samplings found no free floating product and that the contamination generally remained in the vicinity of the release. Samples and visual observations showed no impacts to the adjacent surface waters in Kalihi Channel. In subsequent monitoring, it was found that the levels of contamination are decreasing in the soil; and the groundwater quality, in terms of toxic constituents, meets the DOH cleanup standards. All reports, which include the results of all sampling events, have been submitted to the DOH in accordance with the remediation program formulated for this incident.

To prevent the recurrence of similar incidents, the terminal operating procedures were modified to include a physical locking of the motor controller and new sensor lights were installed to designate the status of the motor operated valve. Part of the proposed improvements will include paving the area around the pipeline manifold and pumps which will minimize soil contamination in the unlikely event the same or similar incident occurs."

The Federal Flood Insurance Rate Map (FIRM) for the area indicates that a portion of the site is within the Special Flood Hazard Area, AE zone with a base flood elevation of 5.0 feet, MSL. Although the existing site is higher than 5 feet, all new structures will comply with the requirements of Section 7.10-10 of the City land Use Ordinance.

### III AFFECTED ENVIRONMENT

#### A. Surrounding Area

##### I. Description of surrounding area

The area surrounding Sand Island Access Road leading to the project area is a mixture of industrial and commercial uses. Puuhale Elementary School and the closest residential units are located at least a half mile inland of the project site. Closer to the site, the land use is primarily marine industrial.



2. Description of Subject Site in relation to surrounding area

The existing facilities were developed by HIRI sometime in 1974 on land previously built up by land fill. The terminal site is industrial in appearance not unlike the tank farm that is adjacent to the site.

3. Existing surrounding Land Use

East of the project site and across Sand Island Access Road is the University of Hawaii Marine Center. North of the project site is the Honolulu Fueling Facilities Corporation's tank farm. West of the site is the trailer parking lot of the Keehi Lagoon Small Boat Harbor. At the eastern edge of the parking lot are several small structures that house ice and food concessions. These enterprises are on a month to month lease rent with the State of Hawaii. To the south is the Kapalama Basin and Sand Island.

4. State Land Use Designation

The State land use designation for the project site is "Urban."

5. Development Plan Designation

The City and County of Honolulu Development Plan designation for the project site is "Industrial."

6. Zoning

The City and County of Honolulu zoning designation for the project site is "I-3 Waterfront Industrial." Permitted uses and structures in this district include storage yards and truck terminals.

B. Project Site in Relation to:

1. Publicly owned or used Beaches, Parks and Recreation Areas

The Marina at the Keehi Lagoon Beach Park is located to the north west of the site and Sand Island State Recreation Area is on the south end of Sand Island. The trailer and vehicular parking lot for the Keehi Lagoon Small Boat Harbor is adjacent to and west of the project site.

2. Rare, Threatened or Endangered Species and their Habitats

There are no known rare, threatened or endangered species or their habitat on the project site.

3. Wildlife and Wildlife Preserves

There are no known wildlife or wildlife preserve on the project site. Data on biological diversity of Ke'ehi Lagoon can be found in the 1988 study, *Survey of the Water Quality, Benthic Communities and Avifaunal Populations of Ke'ehi lagoon, Honolulu, Hawaii*

4. Wetlands, Lagoons, Tidal Lands and Submerged Lands

There are no wetlands, lagoons, tidal lands and submerged lands on the site. Directly to the west of the project site is a man made drainage ditch vegetated with kiawe trees, a small mangrove, and other vegetation. During higher tides, waters of this ditch is connected to the harbor waters.

5. Fisheries and Fishing Grounds

The waters around the project site is not considered a major fishing ground.

C. Historic, Cultural, and Archaeological Resources

There are no known historic, cultural or archaeological resources on the project site. The project site is not listed on the national Register of Historic places.

D. Views

The "Coastal View Study", 1987, identifies Keehi Lagoon as one of the viewshed on southern shoreline of Oahu. View to and from the project site was not included as a significant view by the study.

E. Quality of Receiving Waters and Ground Waters

The receiving water for the project site is the Kapalama basin of Honolulu Harbor. The State Department of Health's Water Quality Standards classify the waters of Honolulu Harbor as Class A embayment. 1988 data of samples taken near the bridge to Sand Island is documented in the *Survey of the Water Quality, Benthic Communities and Avifaunal Populations of Ke'ehi lagoon, Honolulu, Hawaii*

The project site is located seaward of the State Department of Health Underground Injection Control Line (UIC.) There are no know potable water wells within a mile of the project site.

## IV. PROJECT IMPACTS

### A. Positive Impacts

#### 1. Business Economic Benefits

Short termed benefits derived from the project are the employment opportunities for the construction industry and its related fields; and the continued employment opportunities for the petroleum industry in Hawaii. In the long term, the project will allow the applicant to continue its petroleum distribution through pipelines and tanker trucks in a safe and environmentally responsible manner.

#### 2. Social Benefits

Currently, the primary access for tanker trucks is through the Sand Island Access Road driveway which requires wide right turns into the terminal. After the proposed improvements are completed, the primary access will come off the second small boat harbor access road. According to the State Highways engineers, this revised traffic pattern will result in a safer traffic flow in the immediate area of the project.

### B. Negative Impacts

#### 1. Construction Impacts

There will be a few negative impacts associated the construction of the proposed improvements; however, these impacts should not be significant and should not last longer than the period of construction. These will be an increase in construction related traffic, and noise and dust emissions from the construction activities. Although, the site is near Honolulu Harbor, the existing 4 foot high secondary containment berm around the project site precludes surface runoff from entering the waters of the Harbor inadvertently.

#### 2. Long Terms Impacts

There are no long term impacts anticipated as a result of the proposed project. A "Storm Water Pollution Control Plan" will be implemented and will monitor any storm water discharges into Honolulu Harbor. The applicant has prepared and implemented a "Spill Prevention Control & Countermeasure Plan (SPCC) for the existing terminal in accordance with Part 112, Sub-chapter D, chapter I of Title 40, code of Federal Regulations (40 CFR 112.). The SPCC will be updated to include the proposed improvements.

C. Alternatives

1. No Action Alternatives

The Applicant's lease for their present facilities at Pier 29 expires at the end of March, 1997. The trucking and storage facilities are an integral part of the Applicant's petroleum distribution operations; therefore, a *no action alternative* is not acceptable.

2. Other Alternatives

There are no other alternatives to the trucking and storage facilities. These facilities are required for the Applicant's petroleum distribution operations. An alternate site is possible; however, another site considered was closer to the population centers and did not allow proximity controls of the proposed improvements. A consolidated facility makes it easy to implement best management practices required for petroleum related facilities.

V. MITIGATION MEASURES

Construction Mitigation Measures

1. Air Quality

Equipment and dust emission controls will be in accordance with the Department of Health's Public Health Regulations on Air Pollution Control.

2. Noise Quality

The contractors are responsible for maintaining their equipment to minimize noise levels. Equipment noise exceeding the allowable levels specified in the State Department of Health's Public Health Regulations, Title 11, Chapter 43 are not anticipated; however, any equipment emitting noise higher than the allowable levels will be "permitted" prior to its use.

3. Soils Contamination - Short term Risk Abatement

If soils contamination is encountered during any of the excavation activities, appropriate measures will be implemented in accordance with OSHA standards and the State Department of Health guidelines for management and disposal.

4. Erosion

Most of the existing containment berms will remain in place. During construction, erosion control measures and best management practices will be implemented in accordance with the requirements of the City and County of Honolulu' Soil Erosion Standard and Guidelines.

VI. DETERMINATION

The proposed project will not cause any long-term adverse impacts to the environment. It is therefore determined that a negative declaration should be filed for the construction of the proposed project.

VII. FINDING AND REASONS SUPPORTING THE DETERMINATION

- A. The construction of the proposed project will not involve the irrevocable commitment to loss or destruction of any natural or cultural resources
- B. The project will not curtail the range of beneficial uses of the environment.
- C. The proposed project does not conflict with the State's or the City and County of Honolulu's long-term environmental policies or goals and guidelines.
- D. The project will not adversely affect public health or the economic or social welfare of the community or State.
- E. The project will not result in secondary impacts, such as population changes or effects on public facilities
- F. The project will not cause substantial degradation of the environmental quality.
- G. The project will not affect a rare, threatened or endangered species, or its habitat.
- H. There will be an increase in noise and dust emissions from construction activities; however, the project will not detrimentally affects air or water quality or ambient noise levels in the long term.
- I. Although portion of the project site is within the flood plain as defined by the FIRM delineation, the project will not adversely affect the flood plain, tsunami zone, or coastal waters.

Based on the evaluation of the significance criteria, it is concluded that the construction of the proposed project will not have any significant negative impacts to the environment.

## REFERENCES

Coastal View Study, Michael S. Chu and Robert B. Jones, 1987

Draft Environmental Assessment, Flynn Learner Warehouse, 120 Sand Island Access Road, Honolulu, Hawaii, Wil Chee Planning, Inc., February 1996

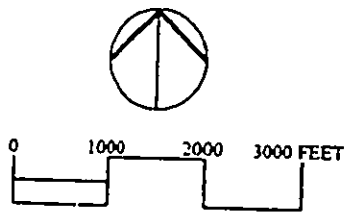
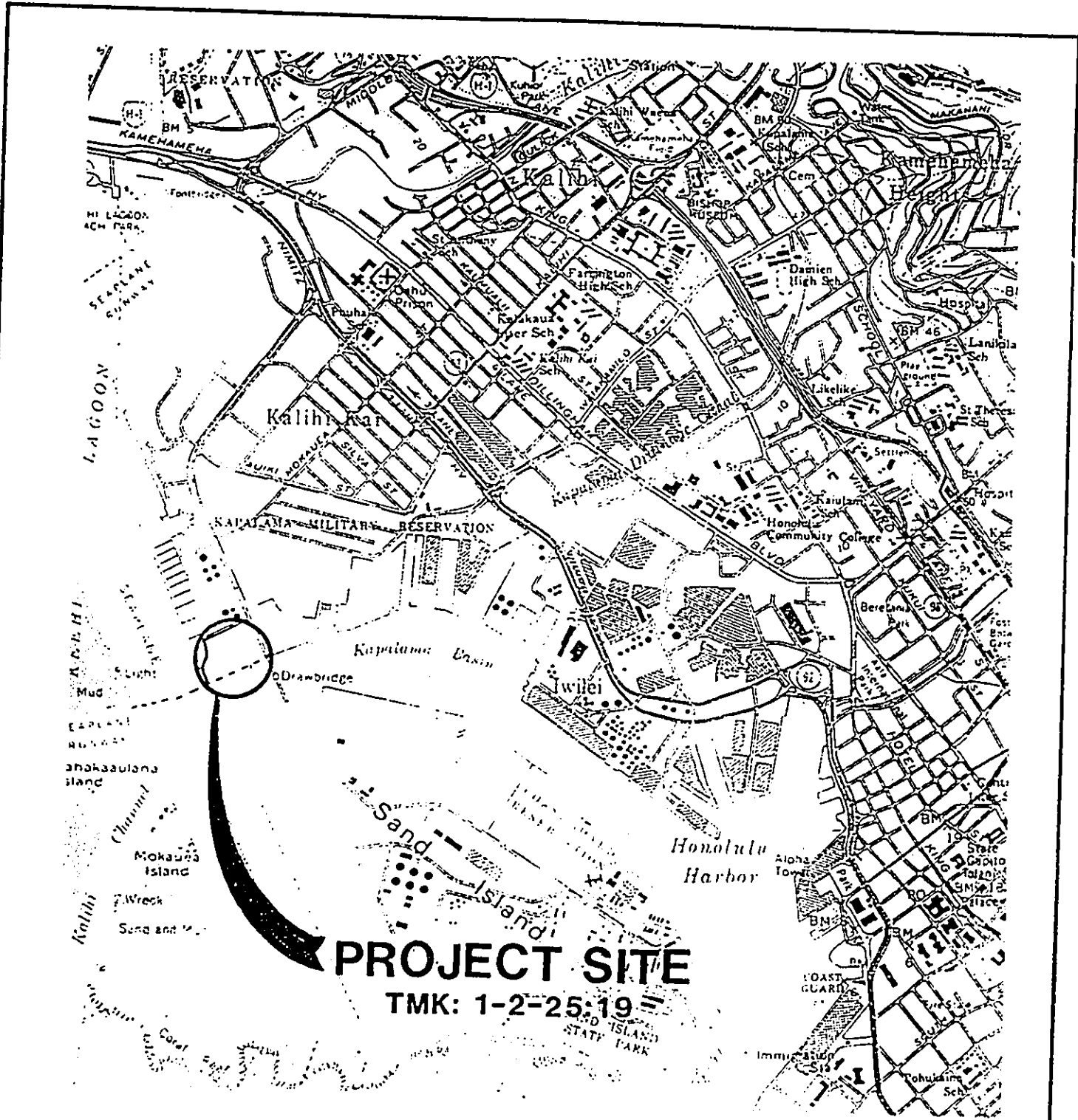
Pavement Design, Sand Island Fuel Terminal Honolulu, Hawaii, Ernest K. Hirata & Associates, September 3, 1996

Soils Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii, U.S. Department of Agriculture, Oils Conservation Services, August 1972

Survey of Water Quality, Benthic communities and Avifaunal Populations of Ke'ehi Lagoon, Honolulu, Hawaii, OI consultants, Inc., November 1988 (appendix to Ke'ehi Lagoon Recreation Plan Final Environmental Impact Statement, State of Hawaii, Department of Transportation, harbors Divisions, December 1989.

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**FIGURES**

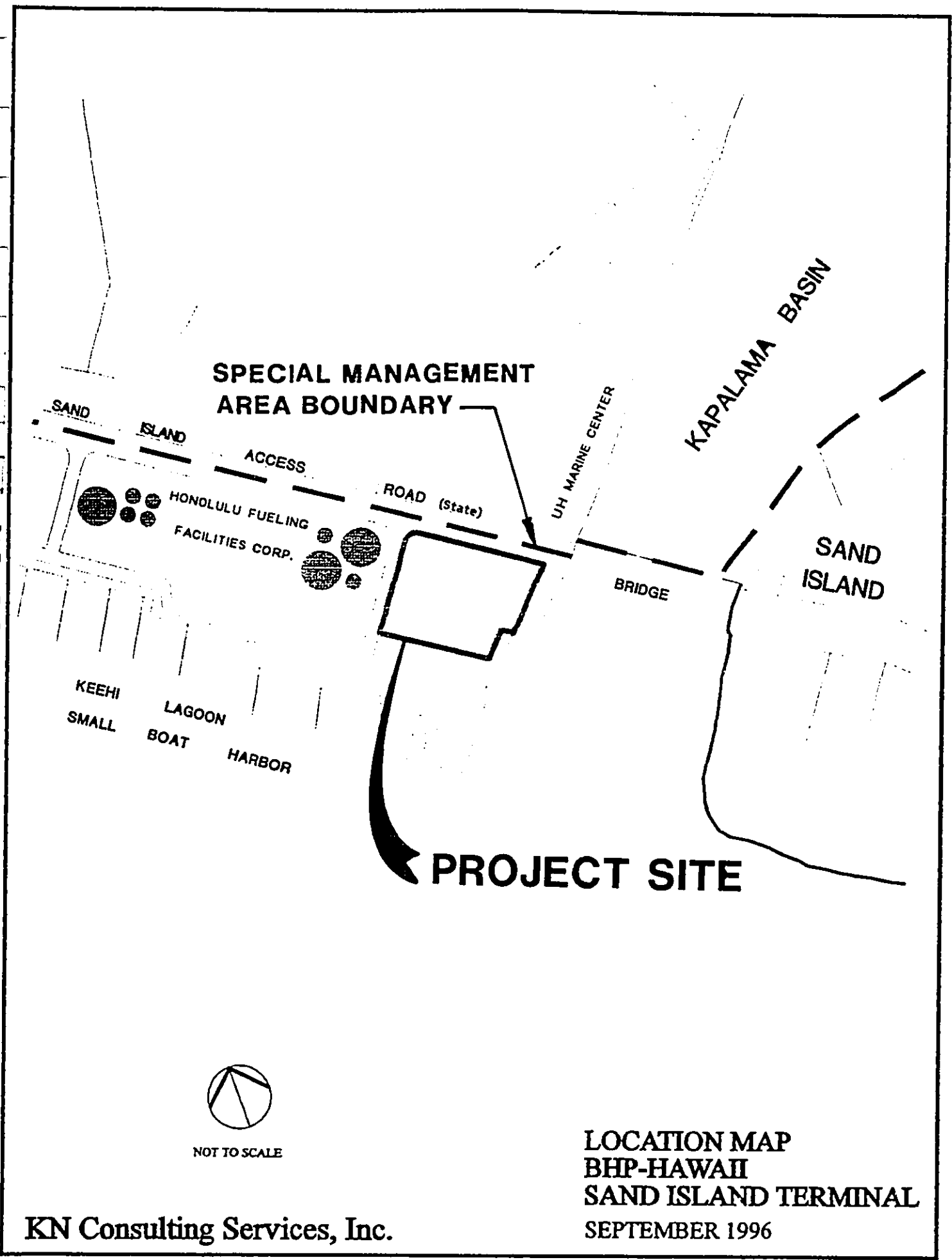


KN Consulting Services, Inc.

VICINITY MAP  
 BHP-HAWAII  
 SAND ISLAND TERMINAL  
 AUGUST 1996

FIGURE 1





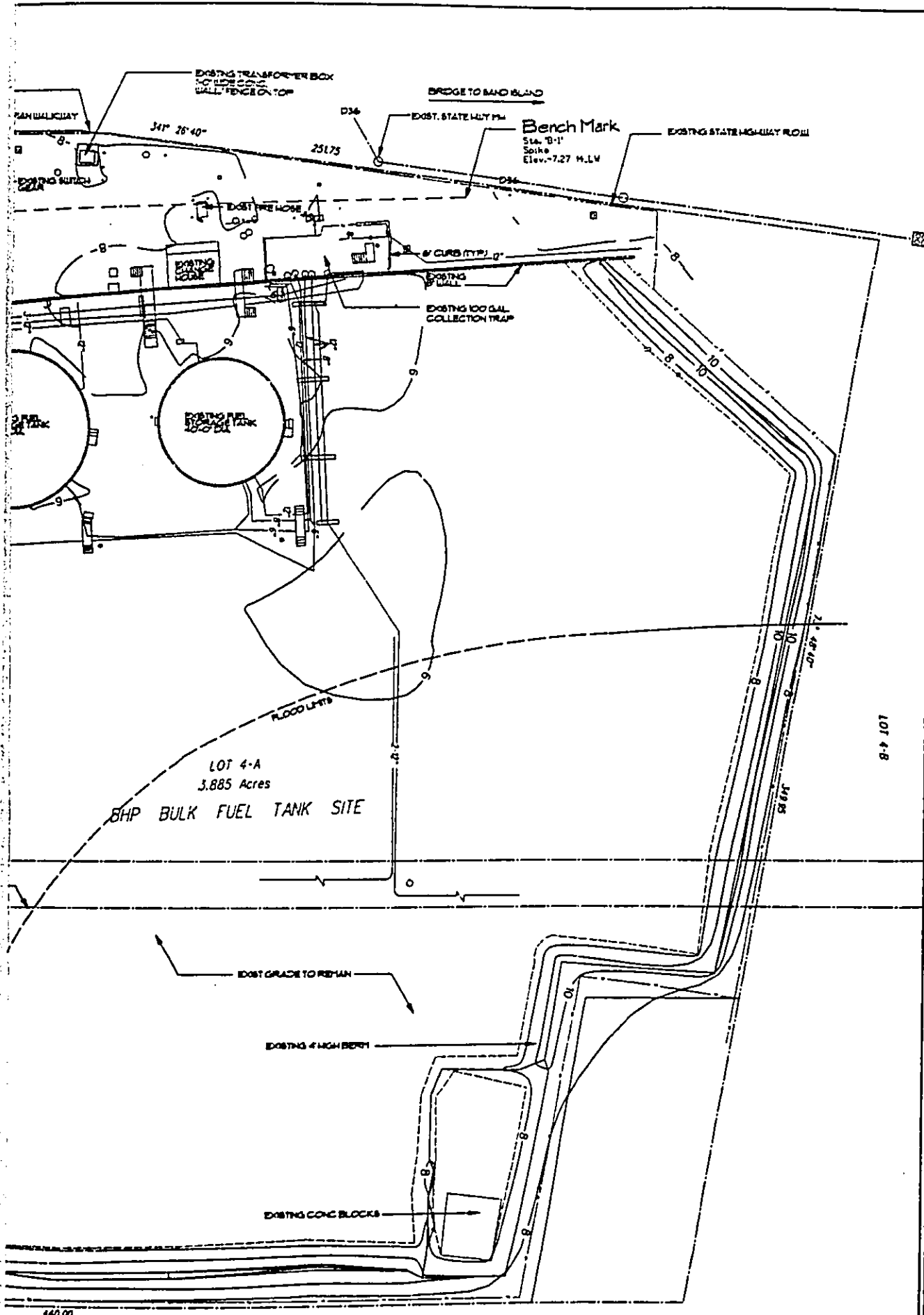
  
 NOT TO SCALE

**LOCATION MAP**  
**BHP-HAWAII**  
**SAND ISLAND TERMINAL**  
**SEPTEMBER 1996**

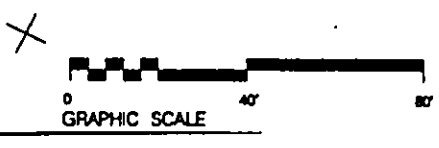
**KN Consulting Services, Inc.**

**FIGURE 2**





GOON  
T HARBOR



**Shimokawa Architects, Inc.**  
1580  
Makaloa St.  
Suite 1050  
Honolulu, HI  
96814  
808.955.3373



The work was prepared by me or under my supervision and cooperation of the project will be under my supervision. Supervision of the construction as defined in Para. 16-55.2 of the rules and regulations of the Board of Professional Engineers, Architects and Surveyors of the State of Hawaii.

**BHP HAWAII**  
739 A NORTH HIMITZ HIGHWAY  
PO BOX 3379  
HONOLULU, HAWAII 96842

**SAND ISLAND  
TERMINAL  
HONOLULU, HAWAII**

**PROPOSED SITE IMPROVEMENTS**

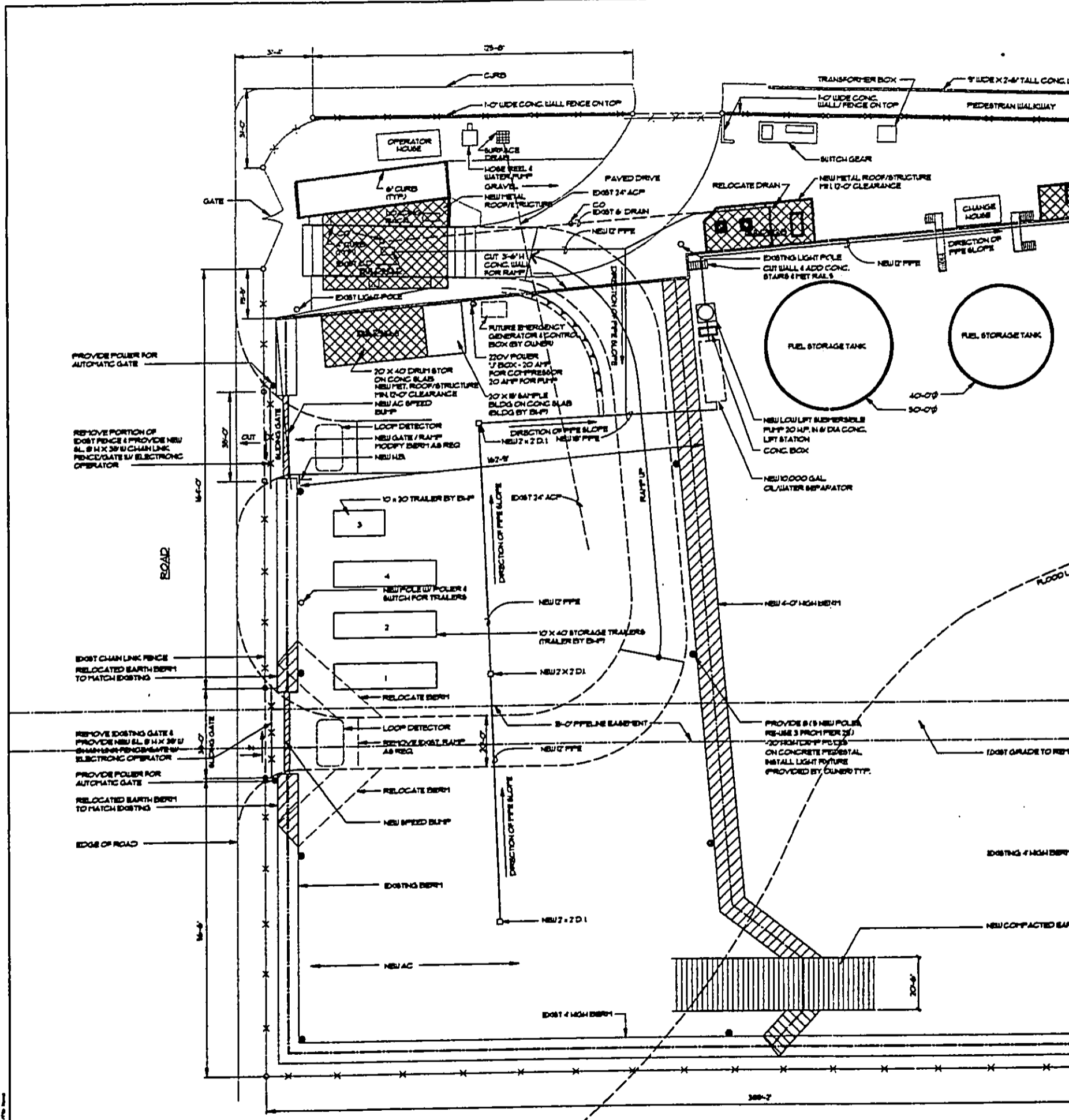
REVISIONS

DESCRIPTION  
**EXISTING SITE PLAN**

DRAWING NO.  
**P-0**

DATE  
11/19/96

PROJECT NO.  
9635.00




**SITE PLAN**  
 SCALE 1" = 20'-0"

**Shimokawa  
Architects, Inc.**

1580  
Makaloa St.  
Suite 1050  
Honolulu, HI  
96814  
808.955.3373



The work was prepared by me in order my experience and qualifications of the project will be under my supervision. I am a member of the Board of Professional Engineers, Architects and Surveyors of the State of Hawaii.



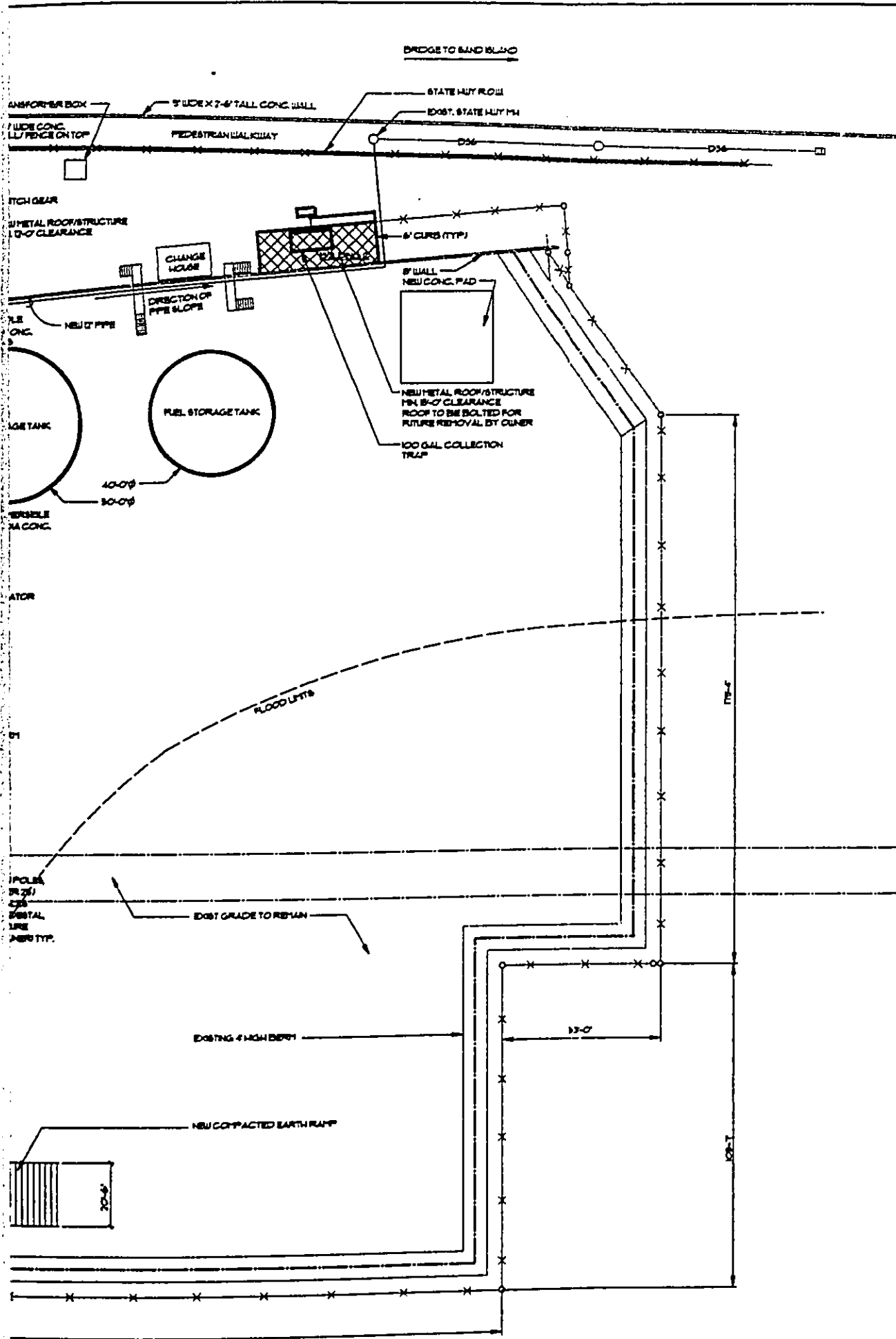
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PO BOX 3379  
HONOLULU, HAWAII 96842

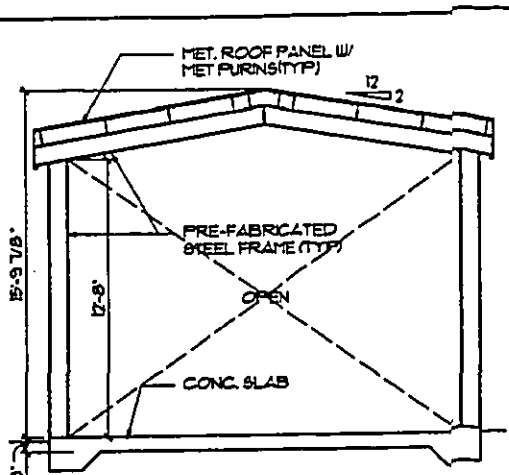
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TERMINAL  
HONOLULU, HAWAII  
PROPOSED SITE IMPROVEMENTS**

DESCRIPTION

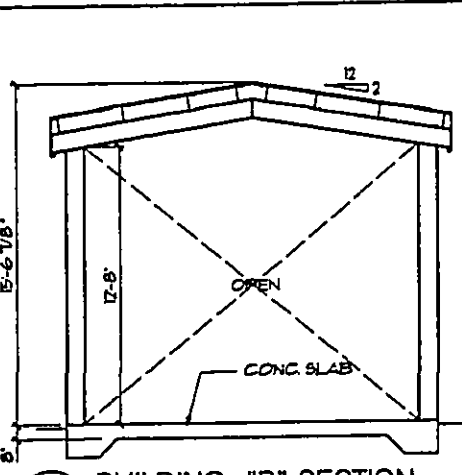
SHEET TITLE  
**SITE PLAN**

DRAWING NO.  
**P-1**  
DATE: 11/19/86 PROJECT NO: 9435.00

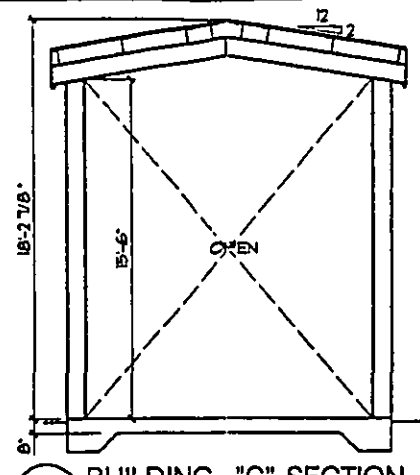




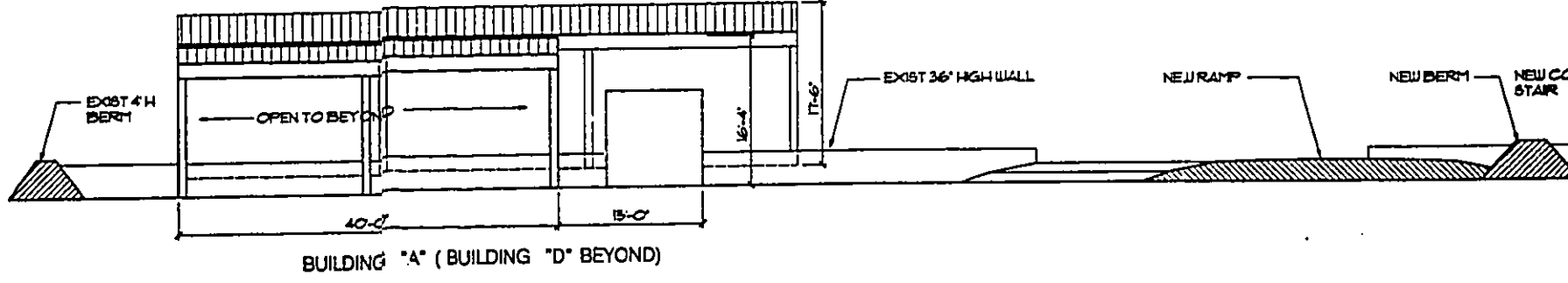
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0 2 4'



**C** BUILDING "B" SECTION  
SCALE: 1/4" = 1'-0"  
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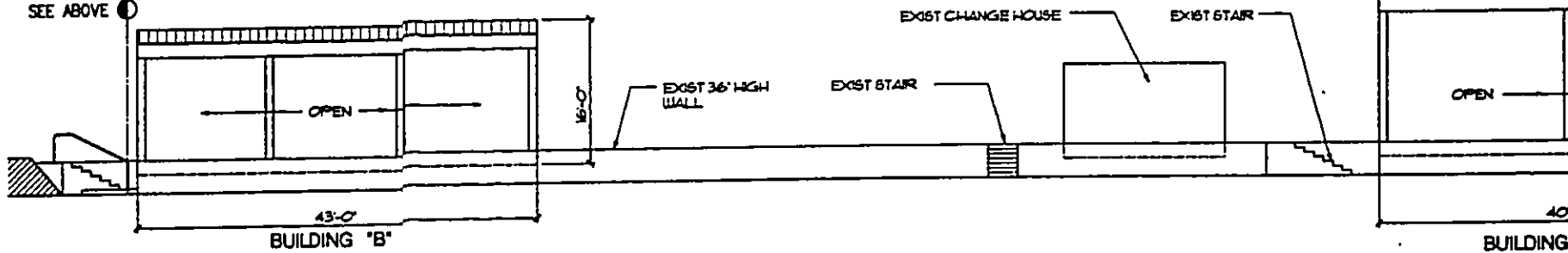


**B** BUILDING "C" SECTION  
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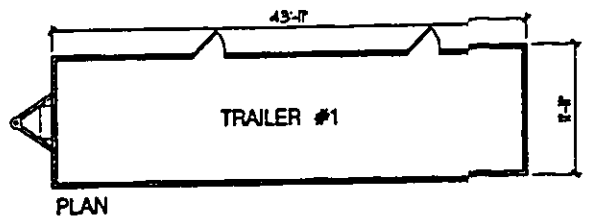


BUILDING "A" (BUILDING "D" BEYOND)

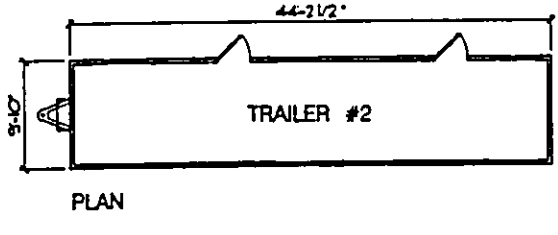
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0 4 8'



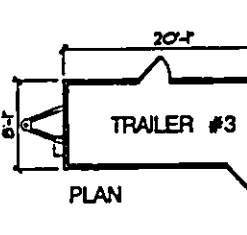
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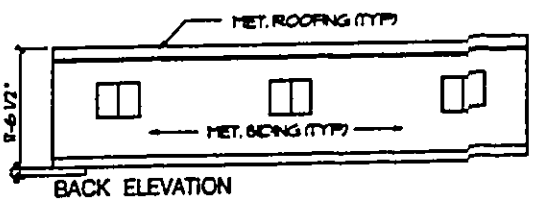
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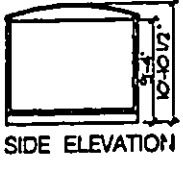
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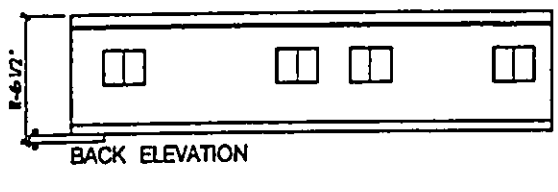
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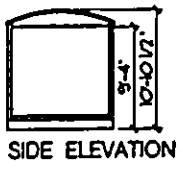
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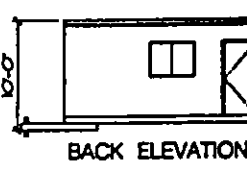
SIDE ELEVATION



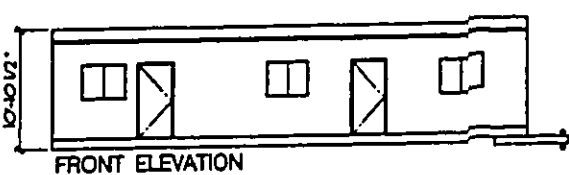
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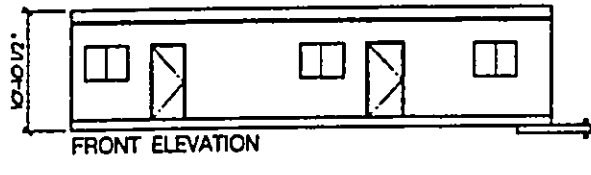
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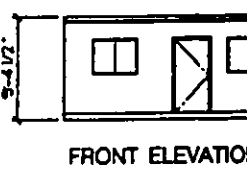
BACK ELEVATION



FRONT ELEVATION

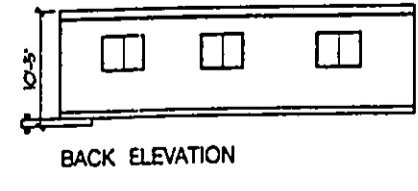
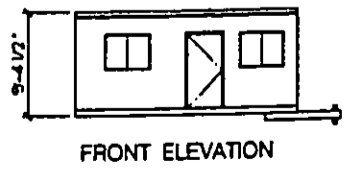
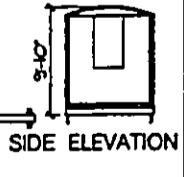
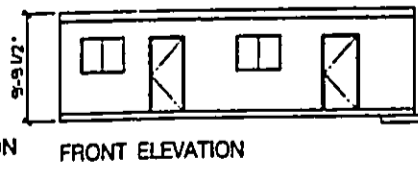
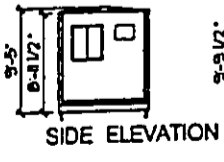
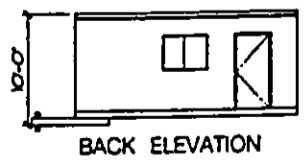
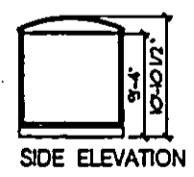
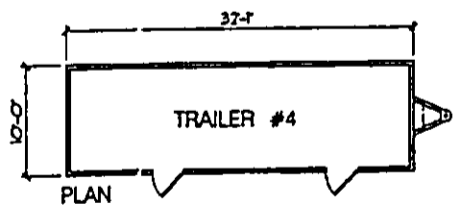
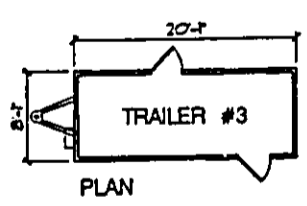
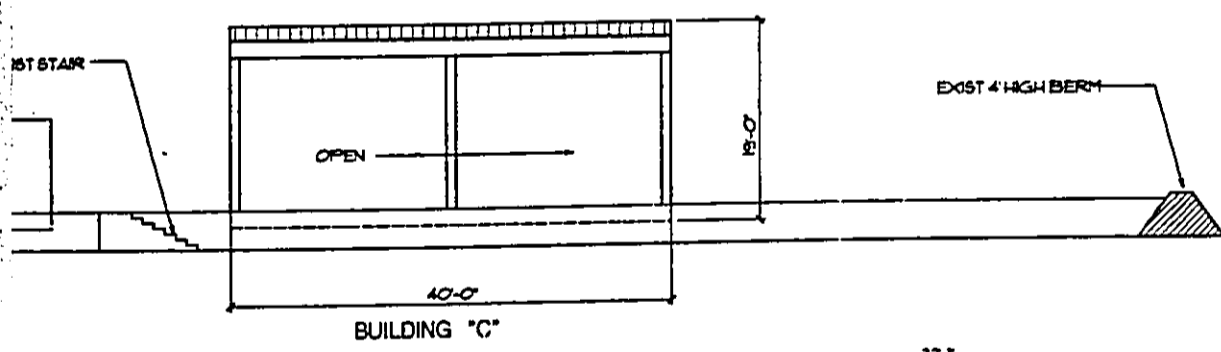
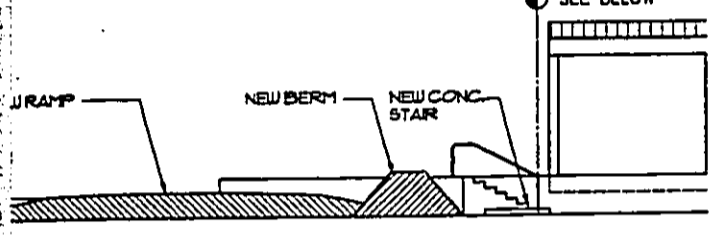
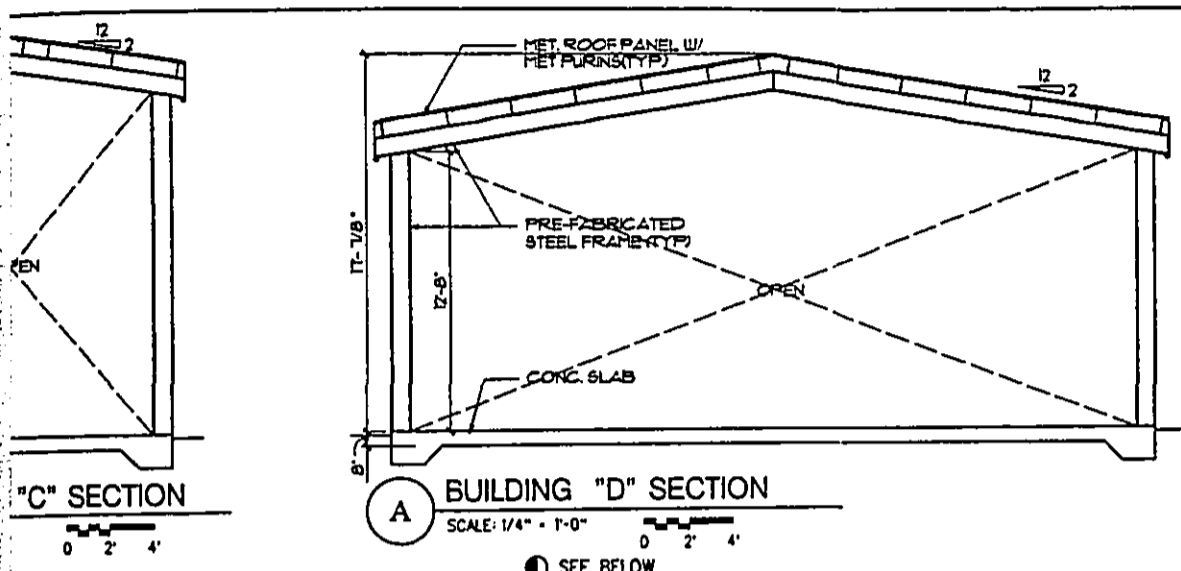


FRONT ELEVATION



FRONT ELEVATION

**F** TRAILERS  
SCALE: 1/8" = 1'-0"  
0 4 8'



**Shimokawa  
Architects, Inc.**  
1580  
Makaloa St.  
Suite 1050  
Honolulu, HI  
06814  
808.955.3373



The seal was prepared by me or under my supervision and construction of the project will be under my supervision. Signature of the registered architect in Part 16-01-2 of the rules and regulations of the Board of Professional Engineers, Architects and Surveyors of the State of Hawaii.

**BHP HAWAII**  
739 A NORTH HAWAII HIGHWAY  
PO BOX 3379  
HONOLULU, HAWAII 96842

**SAND ISLAND  
TERMINAL  
HONOLULU, HAWAII**

**PROPOSED SITE IMPROVEMENTS**

REVISIONS

**BUILDING SECTIONS  
& ELEVATIONS  
TRAILER PLANS &  
ELEVATIONS**

DRAWING NO.  
**P-2**

DATE: 07/18/96 PROJECT NO: 9635.00





## Comments to Draft Environmental Assessment and Responses

The DEA was published in the OEQC Environmental Notice on October 8, 1996. Department of Land Utilization sent to the following agencies and organizations listed below a copy (s) of the DEA with a request for their comments on the project. Written comments received from these parties and the responses to comments requiring written reply are reproduced herein.

### Federal Agencies

U.S Department of the Army\*

### State Agencies

Office of State Planning\*  
Office of Environmental Quality Control  
Office of Hawaiian Affairs  
Department of Health  
Department of Land and Natural Resources  
Department of Transportation

### City and County of Honolulu

Board of Water Supply  
Department of Parks and Recreation  
Department of Public Works  
Kalihi-Palama Neighborhood Board No. 15\*

\*Did not respond

BENJAMIN J. CAYETANO  
DIRECTOR



OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
STATE OF HAWAII

220 SOUTH KING STREET  
FOURTH FLOOR  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 585-4188  
FACSIMILE (808) 585-4188

November 7, 1996

Mr. Richard Rosen  
BHP Petroleum Americas Refining  
P. O. Box 3379  
Honolulu, Hawaii 96822

Dear Mr. Rosen:

We submit for your response (required by Section 343-5(c), Hawaii Revised Statutes) the following comments on an September 1996, draft environmental assessment (DEA) for BHP Petroleum Americas Refining Inc. Sand Island Terminal, 4 Sand Island Access Road, Honolulu, Hawaii, Tax Map Key: 1-2-25-19. The DEA was submitted by a September 26, 1996, letter (96/SMA-0092 (ST) 96-06168) to our office by Mr. Patrick Onishi, Director of Land Utilization, City and County of Honolulu. Notice of availability of this draft environmental assessment was published in the October 8, 1996, edition of the *Environmental Notice*.

1. BIOLOGICAL DIVERSITY

Page 9 of the DEA states that "[t]here are no known wildlife or wildlife preserves on the project site." (Underlining supplied) While it is true that the site itself does not harbor wildlife, the surrounding environment does. The biological diversity of Ke'ehi Lagoon, the subject of a 1988 study,<sup>1</sup> includes *Alpheus malabaricus macrakai* (snapping shrimp), *Ostrea sandwicensis* (oysters), *Balanus amphitrite hawaiiensis* (barnacles), *Polanion debilis* (glass shrimp), *Halichondria sp.* (sponge), *Strophureus purpureus* (nehu), *Podophtalmus vigil* (Hawaiian crab), *Panaeus* (shrimp), *Scilla serrata* (Samoan crab), and many other fishes, algae, sponges, corals, bryozoans, nudibracs, worms and mollusks. Plants in the area include *Rhizophora mangle* (mangrove), *Batis maritima* (pickleweed), and others.

Please submit the following to the City and County of Honolulu Department of Land Utilization for their inclusion in the final environmental assessment (FEA) and notice of determination for this project:

- 1A. A more comprehensive discussion of the biological diversity (including taxa and habitat descriptions) in the area and the direct, indirect and cumulative impacts of the proposed project on the various taxa in and around the area.

<sup>1</sup> OI Consultants, Inc., *Survey of the Water Quality, Benthic Communities and Aquifunal Populations of Ke'ehi Lagoon, Honolulu, Hawaii*, prepared for KFC Airport, Inc., Waimanalo, 1988 (from, *Ke'ehi Lagoon Recreation Plan Final Environmental Impact Statement*, State of Hawaii Department of Transportation, Harbors Division, December 1989).

Mr. Richard Rosen  
BHP Petroleum Americas Refining  
November 7, 1996  
Page 2 of 3

2. SURFACE AND GROUND WATER QUALITY (INCLUDING PRODUCT RECOVERY)

Page 8 of the DEA discloses soil contamination from a 1994 incident near a pipe manifold. Because we are uncertain as to location of the water table, we are concerned about horizontal contaminant migration via groundwater given the tidal flux in the area.

We are also concerned about *de minimis* and other product spillage on the project site and the extent to which such spillage has affected the water table and the potential for such spillage to migrate horizontally in the subsurface groundwater.

Page 10 of the DEA describes the receiving waters for the project site as the Kapalama Basin and further describes the waters of Honolulu Harbor as a class A marine embayment. The DEA does not contain data to substantiate water quality in and around the project site.

Please submit the following to the City and County of Honolulu Department of Land Utilization for their inclusion in the FEA and notice of determination for this project:

- 2A. A discussion of the analytes and their respective quantities in relation to the 1994 soil contamination incident.  
2B. Present and past off-shore surface water quality data.  
2C. Present and past on-site data for ground water monitoring and product monitoring conducted on site. This will entail and examination of your organization's past records on spills and product monitoring. Please include estimates of the amount of subsurface product, along with maps delineating the nature (i.e., types of analytes) and extent of subsurface contamination in both soil and groundwater.  
2D. A discussion of the direct, indirect and cumulative impacts of the proposed project on surface water quality, ground water quality and product recovery, including discussion on the likelihood of horizontal contaminant and/or product migration to the nearshore waters of Ke'ehi Lagoon or Honolulu Harbor.  
2E. Given the increase in product capacity on-site, a discussion of the likelihood of increased spillage and *de minimis* releases.

3. HISTORIC, CULTURAL OR ARCHAEOLOGICAL RESOURCES

While page 10 of the DEA correctly states that "[t]he project site is not listed on the national Register of Historic Places", the Office would like to note that the site is located close by, if not on, the Auiki and Ananoho fishponds, documented in the *Sites of Oahu*.<sup>1</sup> The present project site is also in the same general area as Kahaka'aulana<sup>2</sup> and the former Kailhi Receiving Station<sup>3</sup> (for persons afflicted with Hansen's disease).

<sup>2</sup> See, footnote 1 for some 1988 data.

<sup>1</sup> Sterling, Elsie P., and Catherine Summers, *The Sites of Oahu*, Bernice Pauahi Bishop Museum Press, Honolulu, 1978, p. 322.

<sup>4</sup> *Ibid.*

<sup>3</sup> *Ibid.*, p. 327.

76-07987

Mr. Richard Rosen  
BHP Petroleum Americas Refining  
November 7, 1996  
Page 3 of 3

Page 10 also states that "[t]he waters around the project site is [sic] not considered a major fishing ground." The off-shore waters of Ke'ehi Lagoon and Kapalama have been and continue to be used for recreational and subsistence fishing and crabbing.


- 3A. Please consult with the Office of Hawaiian Affairs and the Kalihi Palama Neighborhood Board on cultural and subsistence practices, and discuss the direct, indirect and cumulative health and socioeconomic effects of the proposed project on fishing and crabbing, with particular discussion on subsistence practices. Please submit the results of your consultations and your written discussion on health and socioeconomic effects to DLU for their inclusion in the FEA.
- 3B. Please discuss Auiki, Ananoho and the other fishponds in the former Kalihi fishery and submit the same to DLU for their inclusion in the FEA.
4. CEDED LAND CONSULTATION
- 4A. Please consult with the Office of Hawaiian Affairs as to whether the project parcel involves ceded lands under Section 5 of the Admission Act, and submit the results of your consultation to DLU for their inclusion in the FEA.

#### 5. SITE RESTORATION ACTIVITIES

- 5A. Please consult with the State Department of Transportation as to whether the lease to State lands for the project site needs to be amended by the State Board of Land and Natural Resources. Please discuss what measures the lessee will take to restore the site to its original or better condition and submit the results of the consultation and this discussion to DLU for their inclusion in the FEA.

Please submit a copy of this letter, your response, and all timely received comment letters and responses to the City and County of Honolulu, Department of Land Utilization for their inclusion in the final environmental assessment and notice of determination for this project. If there are any questions, please call Mr. Leslie Segundo, Environmental Health Specialist toll-free at 586-4185. Thank you.

Sincerely,

  
GARY GILL  
Director

- c: Mr. Kenneth Nagai, KN Consulting Services, Inc.  
† Hon. Patrick T. Onishi, Director of Land Utilization, City and County of Honolulu  
Mr. Steve Tagawa, Department of Land Utilization, City and County of Honolulu  
Hon. Kazu Hayashida, Director of Transportation, State of Hawaii

KN CONSULTING SERVICES, INC.

November 20, 1996

Mr. Gary Gill, Director  
Office of Environmental Quality Control, State of Hawaii  
220 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Gill:

BHP Petroleum Americas Refining Inc  
Sand Island Terminal Improvements  
2 Sand Island Access Road, Honolulu, Hawaii  
TMK: 1-2-25:19

Thank you for your letter to Mr. Richard Rosen, dated November 7, 1996. We offer the following clarifications and responses to your review comments.

We would like begin by clarifying that the gasoline truck loading station, currently located at Pier 29, will not be transferred to the Sand Island Terminal. The proposed improvements to the existing terminal are primarily for equipment storage, truck parking, and best management upgrades. These upgrades include installing roof structures over the existing load rack, pumps, and pipe manifold to keep the rain water out of the areas normally exposed to petroleum products; and replacing a 20 years plus underground tank and piping with a 10,000 gallon above ground storage tank. These improvements will not increase the fuel storage or transfer capacity of the existing terminal. Lastly, these improvements will be totally contained within the existing site that is currently bounded by a containment berm. Parcel 18, not part of the terminal, is located between the subject parcel and Kahii Channel.

#### 1. Biological Diversity

The Aquatic Resources Division of DLNR was one of the agencies consulted in make the assessment and findings documented in the DEA; however, we agree that the reference you have cited provides general information on the area surrounding the project. Section III.B.3 Wildlife and Wildlife Preserves will be revised to include a reference to the Survey of the Waier Quality, Benthic Communities and Avifaunal Populations of Ke'ehi Lagoon, Honolulu, Hawaii.

2. Surface and Ground Water Quality (including Product Recovery)

The first paragraph of section II D 4 Hazards will be revised as follows:

"A remediation program is ongoing due to soil contamination that occurred near the pipe manifold in 1994. This incident occurred when the sensor for a motor operated valve failed leaving the valve open while a worker was preparing to remove a pig<sup>1</sup> from the pipeline. This resulted in a release of approximately 4,000 gallons of gasoline. Prompt cleanup actions resulted in the recovery of about 90 percent of the gasoline and approximately 80 cubic yards of soils was removed for treatment. During the soil remediation, leaking gaskets were discovered on the pipelines installed by the applicant's predecessor in 1974. Short termed repair work on the pipelines has been completed, however, these pipelines will be replaced as part of the proposed improvements.

The spill incident and the gasket leaks were promptly reported to the Hawaii State Department of Health (DOH) and the subsequent remedial actions are being done under the oversight of the Hazard Evaluation and Emergency Response (HEER) Office.

Following the release, an environmental site characterization was made which included an analysis of the groundwater and soil for gasoline, diesel and their toxic constituents. This characterization and subsequent samplings found no free floating product and that the contamination generally remained in the vicinity of the release. Samples and visual observations showed no impacts to the adjacent surface waters in Kalihū Channel. In subsequent monitoring, it was found that the levels of contamination are decreasing in the soil, and the groundwater quality, in terms of toxic constituents, meets the DOH cleanup standards. All reports, which include the results of all sampling events, have been submitted to the DOH in accordance with the remediation program formulated for this incident.

To prevent the recurrence of similar incidents, the terminal operating procedures were modified to include a physical locking of the motor controller and new sensor lights were installed to designate the status of the motor operated valve. Part of the proposed improvements will include paving the area around the pipeline manifold and pumps which will minimize soil contamination in the unlikely event the same or similar incident occurs."

<sup>1</sup> Polyurethane pipeline "pigs" are used to separate different products within the pipeline.

Section III E. Quality of Receiving Waters and Ground Waters will be revised to include a reference to data found in *Survey of the Water Quality Benthic Communities and Avifaunal Populations of Ke'ehi Lagoon, Honolulu, Hawaii*.

3. Historic, Cultural or Archaeological Resources

We have reviewed the reference cited by your letter, *The Sites of Oahu*, Auiki and Ananoho fishponds did exist in the general vicinity of the site; however, according to the map labeled "Kona" which follows page 336 of the reference, these fishponds were designated as "destroyed or non-archaeological site." These fishponds were filled in sometime during the 1940 when massive dredging was done to create the seaplane runways.

Kahaka'aulana and the former Kalihū Receiving Station are not in the general area of the project site.

The Office of Hawaiian Affairs (OHA) and the Kalihū Palama Neighborhood Board were consulted. DLU provided each organization with a copy of the DEA. A copy of OHA's letter to DLU, dated October 16, 1996, with their comments is included in this Appendix. The Kalihū Palama Neighborhood Board did not submit a response. Because the proposed improvements will be totally contained with the existing site and the site is a parcel removed from Kalihū Channel, we stand by the findings documented in the DEA.

4. Ceded Land Consultation

DLU provided the OHA with a copy of the DEA. A copy of OHA's letter to DLU, dated October 16, 1996, with their comments is included in this Appendix.

5. Site Restoration Activities

The return of the site to the lessor will be in compliance with the terms of the current lease and future lease agreements negotiated between the lessee and the lessor.

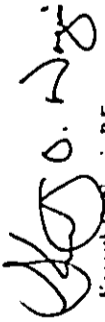
<sup>2</sup> *Ke'ehi Lagoon Recreation Plan Final Environmental Impact Statement*, State of Hawaii Department of Transportation, Harbors Division, December 1989.  
<sup>3</sup> Stierling, Elspeth P., and Catherine Summers, *The Sites of Oahu*, Bernice Pauahi Bishop Museum Press, Honolulu, 1978.  
<sup>4</sup> *Ke'ehi Lagoon Recreation Plan Final Environmental Impact Statement*, State of Hawaii Department of Transportation, Harbors Division, December 1989.

96-07112

Mr. Gary Gill  
Office of Environmental Quality Control  
page 4

We trust that the discussions contained hereinabove address your comments satisfactorily. Thank you for taking the time to review and comment on the project DEA.

Sincerely,  
KN Consulting Services, Inc

  
Kenneth O'Nagai, P.E.



STATE OF HAWAII  
OFFICE OF HAWAIIAN AFFAIRS  
711 KAPOLAHU BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813-5249  
PHONE (808) 594-1888  
FAX (808) 594-1885

October 16, 1996

Mr. Patrick T. Onishi  
Director of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, HI 96813

Dear Mr. Onishi:

Thank you for the opportunity to review the Environmental Assessment (EA) for the BHP Petroleum Americas Refining Sand Island Terminal Improvements, Island of Oahu. BHP intends to develop existing terminal facilities to accommodate truck park and storage facilities and to upgrade existing fuel storage and transfer facilities.

The Office of Hawaiian Affairs (OHA) finds the EA and supporting documentation somewhat superficial in describing potential adverse effects and remediation procedures. Specifics are lacking on proposed fuel storage and transfer facilities. Given the history of soil contamination in the area (page 8 of EA), OHA would like to know what measures or mechanisms are in place to reduce the risk of soil contamination.


Cases of soil contamination, foreseen or unforeseen, have occurred in the past and are bound to happen again. In fact, OHA is just reviewing a recent case of soil contamination in Kauai where a truck broke an underground pipeline and unleaded gasoline seeped through and reached the Nawiliwili stream. As a result, there is a high likelihood that the spilled gasoline may contaminate underground water bodies in the area and may adversely affect wildlife resources in Nawiliwili stream and Kalapaki Bay.

cc: Department of Land Utilization, City and County of Honolulu

Letter to Mr. Onoshi  
Page 2

In light of the Kauai case and taking into account that BHP's proposed development is located nearby the Kapalama Basin and Sand Island, OHA urges the applicant to review and expand the EA to address the risk of soil contamination with specific steps for prevention and/or remediation. Please contact me, or Linda K. Belaney, the Land and Natural Resources Division Officer (594-1938), or Luis A. Manrique (594-1935), should you have any questions on this matter.

Sincerely yours,

  
Martha Ross  
Deputy Administrator

LM:lm

**KCN CONSULTING SERVICES, INC.**

November 20, 1996

Ms Mantha Ross, Deputy Administrator  
Office of Hawaiian Affairs, State of Hawaii  
711 Kapiolani Boulevard Suite 500  
Honolulu, Hawaii 96813-5249

Dear Ms Ross:

BHP Petroleum Americas Refining Inc.  
Sand Island Terminal Improvements  
Draft Environmental Assessment (DEA)  
TNK: 1-2-25:19

Thank you for your letter to Mr. Patrick T. Onishi, dated October 16, 1996. We offer the following clarifications and responses to your review comments

The gasoline truck loading station, currently located at Pier 29, will not be transferred to the Sand Island Terminal. The proposed improvements to the *existing* fuel transfer facilities will consist of best management upgrades such as installing roof structures over the existing load rack, pumps and pipe manifold; and installing pavement over the currently unpaved portion of the area surrounding the pipe manifold and pumps. The purpose of the roofs is to shield the areas that are normally exposed to petroleum products from the rain, and the pavement will reduce the risk of soil contamination from accidental releases similar to the incident that occurred in 1994.


In addition to these physical improvements, the terminal operator will be bounded by operating procedures which were revised after the 1994 incident, by measures outlined in the "best management plan" that will be formulated for the Department of Health's NPDES General Permit coverage, and by the "Spill Prevention Control & Countermeasures Plan that is a requirement of Part 112, Sub-Chapter D, Chapter I of Title 40, Code of Federal Regulations (40 CFR 112.)

For your information, most of the fuel lines within the terminal are above ground. Pipes installed underground are wrapped and cathodically protected.

Ms Maniha Ross  
Office of Hawaiian Affairs  
Page 2

We trust that the discussions contained hereinabove adequately addresses your comments. Again, thank you for taking the time to review and comment on the project DEA

Sincerely,  
KN Consulting Services, Inc.

  
Kenneth O. Nagai, P.E.

DEPARTMENT OF HEALTH  
STATE OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. BOX 3378  
HONOLULU, HAWAII 96813

October 30, 1996

96-171/epo

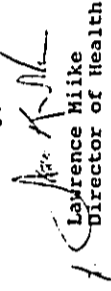
Mr. Patrick Onishi, Director  
Department of Land Utilization  
City & County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Onishi:

Subject: Draft Environmental Assessment  
BHP Petroleum Americas Refining Sand Island  
Terminal Improvements  
2 Sand Island Access Road  
Sand Island, Oahu  
TMK: 1-2-25: 19

Thank you for allowing us to review and comment on the subject project. We do not have any comments to offer at this time.

Sincerely,

  
Lawrence Miike  
Director of Health

1996 NOV -1 PM 4:41  
DEPT. OF HEALTH  
HONOLULU

7653  
LAWRENCE MIIKE  
DIRECTOR OF HEALTH

cc: Office of Environmental Quality Control  
Department of Land Utilization, City and County of Honolulu

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

96-07826

MARY HANAYCO  
DIRECTOR  
DEPUTY DIRECTORS  
STEPHEN BAUSCO  
GLENN M. ORRICO



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO  
STP 8.7610

October 30, 1996

BENJAMIN J. CAVETANO  
COLBERT

96-07827

MICHAEL D. WILSON  
DIRECTOR  
BUREAU OF LAND AND NATURAL RESOURCES



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

October 22, 1996

LD-NAV  
REF.: EABIPSI.RCM

Honorable Patrick T. Onishi  
Director, Department of Land  
Utilization  
Attn: Steve Tagawa, Planner  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Onishi:

SUBJECT: Environmental Assessment for BHP Petroleum American  
Refining Sand Island Terminal Improvements  
2 Sand Island Access Road, Sand Island, Oahu

Thank you for the opportunity to review and comment on the  
Environment Assessment for the proposed project.

We are pleased to inform you that the Department of Land and  
Natural Resources have no comments to offer on the subject matter,  
as submitted.

Should you have any questions, please feel free to contact  
Nick Vaccaro at 587-0438.

Aloha,

*Michael D. Wilson*  
MICHAEL D. WILSON

c: Michael H. Rekoba  
Colbert M. Matsumoto

Mr. Patrick T. Onishi  
Director  
Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Onishi:

Subject: BHP Petroleum Americas Refining Sand Island  
Terminal Improvements - Draft Environmental  
Assessment (DEA)  
TMK: 1-2-25: 19

Thank you for your transmittals of September 26, 1996, to our Harbors Division and to the  
Statewide Transportation Planning Office.

We have the following comments:

1. The developer should submit a traffic assessment for our review and approval to determine whether the cumulative impact of the proposed development along with the existing activities will have an adverse impact to our State transportation facilities in the area. Required mitigation measures should be identified.
2. Required roadway improvements attributable to the development, particularly at the intersections of Keehi Lagoon Small Boat Harbor Access Road and the project access road with Sand Island Access Road shall be borne by the developer.
3. Plans for construction work within the State highways right-of-way must be submitted for our review and approval.
3. Plans for construction work within the subject parcel must be submitted to our State Airports Division for their review and approval.



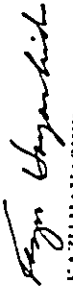
Mr. Patrick T. Onishi  
Page 2  
October 30, 1996

STP 8.7610

4. Our draft Oahu Commercial Harbors 2020 Master Plan proposes to re-open Kalihi Channel. This will require the construction of a tunnel under the Kalihi Channel, the demolition of the existing bridge, and the dredging and widening of the Kalihi Channel, which includes a 100 foot cutback of the seaward face of Kapalama Military Reservation. These projects are in close proximity to the proposed truck park and storage facilities, and their existing fuel storage and transfer facilities.

We appreciate the opportunity to provide comments.

Very truly yours,

  
KAZU HAYASHIDA  
Director of Transportation

KCM CONSULTING SERVICES, INC.

November 20, 1996

Mr. Kazu Hayashida, Director  
Department of Transportation  
869 Punchbowl Street  
Honolulu, Hawaii 96813

Dear Mr. Hayashida:

BHP Petroleum Americas Refining Inc.  
Sand Island Terminal Improvements  
Draft Environmental Assessment (DEA)  
TRM: 1-2-25:19  
STP 8.7610

Thank you for the comments contained in your letter to Mr. Patrick T. Onishi, dated October 30, 1996. In a follow up conversation with your Statewide Transportation Planning Office, the following clarifications were made:

1. The improvements to the Sand Island Terminal are primarily for equipment storage and truck parking.
2. The gasoline truck loading station, currently located at Pier 29 will not be transferred to the Sand Island terminal. Fueling operations at the Sand Island Terminal will be limited to the ongoing diesel fuel truck loading.
3. With the exception of the new parking lot for seven fuel trucks, all other improvements will not generate traffic.
4. The improvements will allow ingress to the terminal to come from the side street rather than from the existing driveway which is directly off Sand Island Access Road.

We believe these clarifications resolved any operational concerns your staff may have had; therefore, it is our understanding that:

1. The nature of the proposed improvements does not warrant a traffic assessment.

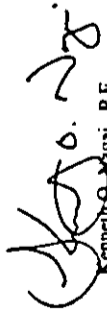
Mr. Kazu Hayashida  
State Department of Transportation  
Page 2

2. Any improvements that are necessary to the Keehi Lagoon Small Boat Harbor access road as a result of constructing the two new driveways will be borne by the terminal operator.
3. Plans for work within the State Highways right-of-way will be submitted to Highways Division for review and approval.
4. Plans for work within the subject parcel will be submitted to the Airports Division for review and approval.

We are aware of the draft *Oahu Commercial Harbors 2010 Master Plan* as it was brought to our attention during our initial consultation with both the Harbor and Airport Divisions. The subject parcel is on a lease from the your Airport Division and is subject to renewal by your Department.

We trust that your comments have been addressed satisfactorily. Thank you for taking the time to review project DEA.

Sincerely,  
KN Consulting Services, Inc.

  
Kenneth O. Nagai, P.E.

cc: Office of Environmental Quality Control  
Department of Land Utilization, City and County of Honolulu

## BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU  
635 SOUTH BIRD STREET  
HONOLULU, HAWAII 96813  
PHONE: (808) 527-6100  
FAX: (808) 527-7111



October 24, 1996

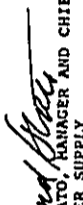
STANDARD TIME

WEDNESDAY, OCTOBER 24, 1996  
HONOLULU, HAWAII  
10:00 AM - 11:00 AM  
11:00 AM - 12:00 PM  
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7:00 PM - 8:00 PM  
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11:00 PM - 12:00 AM

96-07695

TO: PATRICK T. ONISHI, DIRECTOR  
DEPARTMENT OF LAND UTILIZATION

ATTN: STEVE TAGAMA

FROM:   
RAYMOND H. SATO, MANAGER AND CHIEF ENGINEER  
BOARD OF WATER SUPPLY

SUBJECT: YOUR MEMORANDUM OF SEPTEMBER 26, 1996 ON THE DRAFT ENVIRONMENTAL ASSESSMENT, CHAPTER 343, HRS, FOR THE SHIP PETROLEUM TERMINAL IMPROVEMENTS PROJECT, SAND ISLAND, OAHU. THK: 1-2-93: 19

Thank you for the opportunity to review and comment on the proposed petroleum terminal improvements projects.

We have the following comments to offer:

1. If additional water is required, the developer will be required to obtain a water allocation from the State Department of Land and Natural Resources.
2. The availability of additional water will be determined when the Building Permit Application is submitted for our review and approval. When additional water is made available, the applicant will be required to pay our Water System Facilities Charges for transmission and daily storage.
3. The existing off-site water system is presently adequate to accommodate the proposed project.
4. The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.
5. There is an existing 2-inch water meter serving the property.
6. If a 3-inch or larger water meter is required, the construction drawings showing the installation of the meter should be submitted for our review and approval.
7. Board of Water Supply approved reduced pressure principle backflow prevention assemblies are required to be installed immediately after all water meters serving the site.

If you have any questions, please contact Barry Usagawa at 527-5235.

DEPARTMENT OF LAND UTILIZATION  
**CITY AND COUNTY OF HONOLULU**  
850 SOUTH KING STREET  
HONOLULU, HAWAII 96813-1600-7323-4432



AGREEMENTS  
SECTION

PATRICK T. ONISHI  
DIRECTOR  
LORRETTA C. CHIEF  
DEPUTY DIRECTOR

96/SMA-092 (ST)

November 22, 1996

Mr. Kenneth Nagai  
KN Consulting Services, Inc.  
982 Prospect Street - 6  
Honolulu, Hawaii 96822

Dear Mr. Nagai:

Draft Environmental Assessment (DEA) For  
BHP Petroleum Americas Refining, Inc.'s  
Sand Island Terminal  
Sand Island, Oahu  
Tax Map Key: 1-2-25: 19

We are forwarding our comments and those received during the 30-day public comment period for the above-referenced project.

In accordance with the provisions of Chapter 343, Hawaii Revised Statutes (HRS), you must respond in writing to these and any other comments which were received during the 30-day comment period which began with publication of a notice of availability of the DEA in The Environmental Notice on October 8, 1996. The Final Environmental Assessment (FEA) must include these comments and responses, as well as revised text, if appropriate.

The following are our comments on respective sections of the DEA:

Section II., B. Technical Characteristics

1. Use Characteristics

The FEA should describe the purpose/function of the current facility in the context of BHP's overall operations and briefly explain the role of the above ground storage tanks relative to the four transfer pumps and manifold.

KN CONSULTING SERVICES, INC.

November 20, 1996

Mr. Ray Sato, P.E.  
Manager and Chief Engineer  
Board of Water Supply  
City and County of Honolulu  
630 South Beretania Street  
Honolulu, Hawaii 96843

Dear Mr. Sato:

Draft Environmental Assessment  
BHP Sand Island Terminal Improvements  
Sand Island, Oahu TMK: 1-2-25: 19

Thank you for your comments on the DEA contained in your memorandum to Mr. Patrick T. Onishi, dated October 24, 1996. We offer the following responses to your comments:

1. Additional water is not required for the improvements contemplated.
2. On-site fire protection requirements have been reviewed with the Fire Prevention Bureau. A fire suppression system will be required for the drum storage structure, however, a chemical system is planned to be used instead of a water system.
3. A Board of Water Supply approved reduced pressure principle backflow prevention assembly will be installed immediately after the existing water meter.

We trust that our responses have adequately addressed your comments. Thank you for taking the time to review and comment on the project DEA.

Sincerely,  
KN Consulting Services, Inc.

cc Office of Environmental Quality Control  
Department of Land Utilization, City and County of Honolulu

Mr. Kenneth Nagai  
Page 2  
November 22, 1996

The FEA should also clarify what is transmex (a byproduct of distribution?) and how it ends up at Sand Island. The DEA indicates that transmex is returned to the refinery, but does not describe how. If this product is transported by tanker trucks, some quantification of this activity should be provided (i.e., trucks/hr., etc.). The FEA should also describe the relative volume of the supplemental distribution of diesel that occurs from this facility.

This additional information on the use characteristics of the property will determine whether additional permits from our Department (Section II.A.4. of the DEA) will be required (i.e., Conditional Use Permit, Type 1).

The FEA should also include an illustration of the existing facility in its current configuration (photographs would be useful) and should clarify what exists on the undeveloped portion (75%) of the property (i.e., dirt, coral, gravel, vegetation, etc.).

2. Physical Characteristics

The FEA should clarify what the proposed "truck park and storage activities" are. Does it include any maintenance or corporation yard types of activities (i.e., routine maintenance, service repairs, wash downs, etc.)?

Inasmuch as the DEA indicates that the proposed improvements are necessitated by BHP's vacating of its facility at Pier 29, the FEA should elaborate on whether all current activities conducted at that site will be relocated to Sand Island, and if not, which activities are going elsewhere.

3. Utility

Although the DEA indicates that no additional resources will be required, some quantification of water use (gals./day) should be provided insofar as it appears that an increase in such use would result from the installation of trailer offices.

4. Solid and Hazardous Waste Disposal

The FEA should disclose the current amount, if any, of solid and hazardous waste (lbs./day, gals./hr., etc.) generated at the existing facility and whether any waste generation activities at Pier 29 are anticipated to be transferred to the Sand Island facility.

Mr. Kenneth Nagai  
Page 3  
November 22, 1996

5. Traffic

The FEA should provide some quantification of the traffic occurring at the present facility and the anticipated traffic increase with the proposed development. The FEA should also disclose the amount of traffic that occurs at Pier 29 which will be shifted to Sand Island.

Section II., C. Economic and Social Characteristics

6. Time Phasing of Construction

The FEA should include separate illustrations of each of the three (3) phases of the development. Although a text description is provided, discerning the components of each phase of construction on the Site Improvements Plan (P-1), is difficult. The FEA should also discuss the duration and the anticipated initiation dates of these project phases.

Section IV., A. Positive Impacts

7. Business Economic Benefits

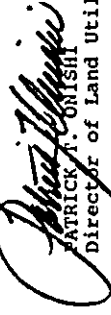
The FEA should discuss whether the development of the proposed project will result in a net increase in employment by BHP in the long-term.

8. Social Benefits

The FEA should also discuss the importance of the proposed project and the relocation of operations from Pier 29 relative to BHP's overall service of Oahu and the State.

Should you have any questions, please contact Steve Tagawa of our staff at 523-4817.

Very truly yours,



PATRICIA ONISHI  
Director of Land Utilization

PTO:am

Encis.

cc: Kazu Hayashida, Department of Transportation

g:\63MAJ02.sht

**KN CONSULTING SERVICES, INC.**

November 22, 1996

Mr. Patrick T. Omishi, Director  
Department of Land Utilization  
City and County of Honolulu  
650 South King Street, 7<sup>th</sup> floor  
Honolulu, Hawaii 96813

Dear Mr Omishi

Draft Environmental Assessment  
BHP Petroleum Americas Refining, Inc  
Sand Island Terminal, Sand Island, Oahu  
TMK 1-2-25-19

Thank you for your letter, dated November 22, 1996. We offer the following clarification and responses to your comments:

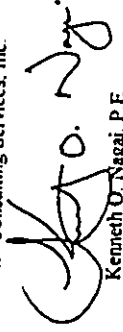
1. **Section II B 1 Use Characteristics:** This section has been expanded to address and clarify the role of the above ground storage tanks and nature of the transmit raised in your letter. Regarding the conditional use permit, type 1, petroleum processing does not occur at the Sand Island terminal presently, nor will it occur as a result of the proposed improvements.  
A site plan showing the existing terminal is included in the FEA.
2. **Section II B 2 Physical Characteristics:** Facilities to accommodate "maintenance or corporation yard types of activities" are not part of the proposed improvements. The storage trailers will be used to warehouse supplies and equipment needed to support the Sand Island terminal operations that were previously accommodated at Pier 29. Incidental truck washing occurs from time to time at the terminal and will continue to occur after the project is completed.
3. **Section II B 3 Utility:** There will be an additional 1 to 2 workers at the terminal after these improvements are completed. See the revised section for further elaboration.
4. **Section II B 6 Solid and Hazardous Waste Disposal:** This section has been revised to clarify the situation on hazardous waste.

Mr. Patrick T. Omishi  
page 2

5. **Section II B 7 Access to Site and Traffic:** This section has been revised to include a discussion of the current and anticipated traffic at the terminal.
6. **Section II C.1 Estimated cost and time phasing of construction:** The added site plan showing the existing terminal (figure P-0) should clarify the improvements proposed. Phase one and two are separated for accounting purposes and most of these improvements will be done as soon as required permits are in hand. Phase three is programmed but a specific time frame is not available at this time.
7. **Section IV A.1 Business Economic Benefits:** In the long term, it is not anticipated that the proposed improvements will result in a net increase in employment by BHP.
8. **Section IV A.2 Social Benefits:** The function of the Sand Island terminal will remain as the control point for product distribution from the refinery to various locations on Oahu. As mentioned in the preceding paragraph, the project will allow the applicant to continue its petroleum distribution through pipelines and tanker trucks in a safe and environmental responsible manner.

We trust that the discussion hereinabove and the revised made to the DEA satisfactorily address the comments made by your department. Thank you for taking the time to review and comment on the DEA

Sincerely,  
KN Consulting Services, Inc.



Kenneth O. Nagai, P.E.

cc: Office of Environmental Quality Control

96-07171

DEPARTMENT OF PUBLIC WORKS  
CITY AND COUNTY OF HONOLULU

800 SOUTH KING STREET  
HONOLULU, HAWAII 96813



KENNETH SPRAGUE  
DIRECTOR  
DEPARTMENT OF LAND UTILIZATION  
ENV 96-240

1996 OCT -3 AM 0:13  
DEPT. OF LAND UTILIZATION  
CITY & COUNTY OF HONOLULU

October 2, 1996

MEMORANDUM:

TO: PATRICK T. ONISHI, DIRECTOR  
DEPARTMENT OF LAND UTILIZATION

FROM: FOR KENNETH E. SPRAGUE  
DIRECTOR AND CHIEF ENGINEER *Ken S*

SUBJECT: ENVIRONMENTAL ASSESSMENT (EA)  
BHP PETROLEUM AMERICAS REFINING SAND ISLAND  
TERMINAL IMPROVEMENTS. TRK: 1-2-25: 19

We have reviewed the subject EA and have the following comments:

1. The EA should indicate on Figure 2 "Location Map" that Sand Island Access Road is under the State Department of Transportation's jurisdiction.
2. On P-1, Site Plan: Show property lines, specifically the State Highway jurisdiction. Also, show drainage improvement within State right-of-way, including outlet to Kapalama Basin.

Should you have any questions, please contact Alex Ho at Local 4150.

96-07311

DEPARTMENT OF PARKS AND RECREATION  
CITY AND COUNTY OF HONOLULU

800 SOUTH KING STREET  
HONOLULU, HAWAII 96813



DONA L. HANAIAKE  
DIRECTOR  
DEPARTMENT OF PARKS AND RECREATION

1996 OCT 14 AM 9:05  
DEPT. OF LAND UTILIZATION  
CITY & COUNTY OF HONOLULU

October 10, 1996

TO: PATRICK T. ONISHI, DIRECTOR  
DEPARTMENT OF LAND UTILIZATION

FROM: DONA L. HANAIAKE, DIRECTOR

SUBJECT: ENVIRONMENTAL ASSESSMENT (EA) FOR THE  
BHP PETROLEUM AMERICAS REFINING  
SAND ISLAND TERMINAL IMPROVEMENTS  
TAX MAP KEY 1-2-025:019  
PROJ. REF. NO. 96/SMA-092(ST)

Thank you for the opportunity to review the EA for the BHP Petroleum terminal improvements.

Based upon the information presented in the EA, we have determined that the proposed project will have no significant adverse impact on the City's recreational resources.

Should you have any questions or comments, please contact Terry Hildebrand of our Advance Planning Branch at extension 4246.

*Dona L. Hanaiake*  
For DONA L. HANAIAKE  
Director

DLH:ej

**KIN CONSULTING SERVICES, INC.**

November 20, 1996

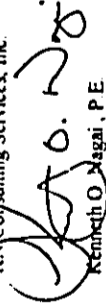
Mr Kenneth Sprague, Director and Chief Engineer  
Department of Public Works  
City and County of Honolulu  
650 South King Street 11<sup>th</sup> Floor  
Honolulu, Hawaii 96813

Dear Mr Sprague

Environmental Assessment  
BHP Petroleum Americas Refining  
Sand Island Terminal Improvements  
TMK: 1-2-25-19

Thank you for your comments contained in your memorandum to Mr. Patrick T. Onishi, dated October 2, 1996. Figures 2 and Site Plan, P-1, will be revised to reflect your comments

Sincerely,  
KIN Consulting Services, Inc.



Kenneth O. Nagai, P.E.

cc Office of Environmental Quality Control  
Department of Land Utilization, City and County of Honolulu