

OEQC

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

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JAN NAOE SULLIVAN
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

1999/ED-1 (ST)

June 16, 1999

OFFICE OF
QUALITY CONTROL

Mr. Gary Gill, Director
Office of Environmental Quality Control
State of Hawaii
State Office Tower, Room 702
235 South Beretania Street
Honolulu, Hawaii 96813

Dear Mr. Gill:

CHAPTER 343, HRS
Environmental Assessment (EA)/Determination
Finding of No Significant Impact

Recorded Owners:	:	State of Hawaii and City and County of Honolulu
Applicant	:	AT&T Corporation
Agent	:	R.M. Towill Corporation
Location	:	Makaha Beach, Oahu
Tax Map Keys	:	8-4-1: 12 and 8-4-2: 41
Request	:	Shoreline Setback Variance
Proposal	:	AT&T Japan-U.S. Cable Network
Determination	:	A Finding of No Significant Impact is Issued

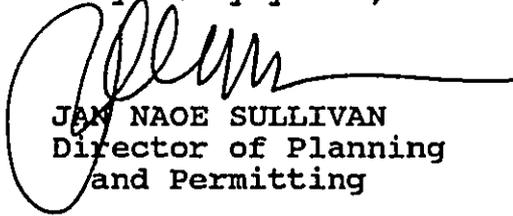
Attached and incorporated by reference is the Final EA prepared by the applicant for the project. Based on the significance criteria outlined in Chapter 200, State Administrative Rules, we have determined that preparation of an Environmental Impact Statement is not required.

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Mr. Gary Gill, Director
Page 2
June 16, 1999

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

Very truly yours,



JAN NAOE SULLIVAN
Director of Planning
and Permitting

JNS:am
attachs.

posse doc no. 4373

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JUL 8 1999

FILE COPY

FINAL

ENVIRONMENTAL ASSESSMENT

Prepared in Accordance with Requirements of Chapter 343, Hawaii Revised Statutes

1999-07-08-0A-FEA-AT & T (rest of title in yellow)

JAPAN - U.S. CABLE NETWORK

Submarine Fiber Optic Cable Landings, Cable Station
Improvements, and Shore-End Improvement at
Makaha Beach, Oahu
TMK 8-4-01: parcel 12 and 8-4-02: parcel 41

MAY 21, 1999

Prepared for:
AT&T
340 Mt. Kemble Avenue
Morristown, New Jersey 07960

Prepared by:
R. M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817-4941

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**FINAL
ENVIRONMENTAL ASSESSMENT**

JAPAN - U.S. CABLE NETWORK

**Submarine Fiber Optic Cable Landings, Cable Station
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	Page
PROJECT SUMMARY	-1-
SECTION 1. INTRODUCTION	-2-
1.1 PURPOSE AND OBJECTIVES	-2-
1.2 PROJECT LOCATION	-4-
SECTION 2. PROJECT BACKGROUND	-7-
2.1 CABLE TECHNOLOGY	-7-
2.1.1 Copper and Fiber Optic Cables	-7-
2.2 SUBMARINE CABLE ROUTE	-8-
2.3 LANDING SITES SELECTION	-10-
SECTION 3. CONSTRUCTION ACTIVITIES	-13-
3.1 OVERVIEW	-13-
3.2 PHASE 1 - TERRESTRIAL FACILITIES	-13-
3.4 PHASE 3 - CABLE LANDING PROCESS	-16-
3.5 SAFETY CONSIDERATIONS	-19-
3.6 SCHEDULE AND ESTIMATED COST	-19-
SECTION 4. DESCRIPTION OF THE AFFECTED ENVIRONMENT	-20-
4.1 PHYSICAL ENVIRONMENT	-20-
4.1.1 Climate	-20-
4.1.2 Topography, Geology, Soils	-20-
4.1.3 Hydrology	-20-
4.1.4 Terrestrial Flora/Fauna	-20-
4.1.5 Marine Flora and Fauna	-21-
4.1.6 Scenic and Visual Resources	-23-
4.1.7 Historic/Archaeological Resources	-24-
4.1.8 Beach Erosion and Sand Transport	-24-
4.1.9 Noise From Construction Activity	-24-
4.1.10 Air Quality	-25-
4.1.11 Water Quality	-25-
4.2 SOCIO-ECONOMIC ENVIRONMENT	-25-
4.2.1 Population	-25-
4.2.2 Surrounding Land Use	-26-
4.3 PUBLIC FACILITIES AND SERVICES	-26-
4.3.1 Transportation Facilities	-26-
4.3.2 Recreational Facilities	-27-
SECTION 5. RELATIONSHIP TO STATE AND COUNTY	
LAND USE PLANS AND POLICIES	-28-
5.1 THE HAWAII STATE PLAN	-28-

5.2	STATE FUNCTIONAL PLANS	-28-
5.3	STATE LAND USE LAW	-29-
5.4	COUNTY ZONING	-29-
5.5	CITY AND COUNTY OF HONOLULU GENERAL PLAN	-29-
5.6	SPECIAL MANAGEMENT AREA	-30-
5.7	SHORELINE SETBACK VARIANCE	-34-
SECTION 6.	ALTERNATIVES TO THE PROPOSED ACTION	-35-
6.1	NO ACTION	-35-
6.2	ALTERNATIVE SITES	-35-
6.3	ALTERNATIVE TECHNOLOGY	-36-
	Satellites.	-36-
6.4	RECOMMENDED ACTION	-36-
SECTION 7.	RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY	-37-
SECTION 8.	IRREVERSIBLE / IRRETRIEVABLE COMMITMENT OF RESOURCES BY THE PROPOSED ACTION	-38-
SECTION 9.	SUMMARY OF IMPACTS AND EIS DETERMINATION	-39-
9.1	SUMMARY OF IMPACTS	-39-
	9.1.1 Physical Impacts	-39-
	9.1.2 Impacts on Public Services	-39-
	9.1.3 Socio-Economic Impacts	-39-
9.2	NEED FOR AN ENVIRONMENTAL IMPACT STATEMENT (EIS)	-39-
9.3	SIGNIFICANCE CRITERIA	-39-
SECTION 10.	NECESSARY PERMITS AND APPROVALS	-42-
10.1	STATE	-42-
10.2	CITY AND COUNTY OF HONOLULU	-42-
10.3	FEDERAL	-42-
SECTION 11.	CONSULTED AGENCIES AND PARTICIPANTS IN THE PREPARATION OF THE ENVIRONMENTAL ASSESSMENT	-43-
11.1	FEDERAL AGENCIES	-43-
11.2	STATE AGENCIES	-43-
11.3	CITY AND COUNTY OF HONOLULU	-43-
11.4	INDIVIDUALS AND GROUPS	-43-
SECTION 12.	COMMENTS AND RESPONSES TO THE DRAFT ENVIRONMENTAL ASSESSMENT	-44-
REFERENCES	-71-

LIST OF FIGURES

Figure 1. Location Map	-3-
Figure 2. Site Map	-5-
Figure 3. Makaha Easement Map	-6-
Figure 4. Terrestrial Facilities	-14-
Figure 5. Beach Trench Section	-15-
Figure 6. General Bottom Profile	-18-
Figure 7. State Land Use Boundaries	-31-
Figure 8. Zoning	-32-
Figure 9. SMA Boundary	-33-

PROJECT SUMMARY

Project: Japan - U.S. (JUS) Cable Network **99 JUN -9 AM 9: 08**

Applicant: AT&T
340 Mt. Kemble Avenue
Morristown, NJ 07960
Contact: Mr. Wade Higa, Station Manager
Telephone: (808) 696-4732

Agent: R. M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817
Contact Chester Koga, AICP
Telephone: (808) 842- 1133, Fax: 842-1937

Accepting Authority: City & County of Honolulu
Department of Planning and Permitting

Tax Map Key: 8-4-01: 12 and 8-4-02: 41

Location: Makaha Beach, Oahu

Owner: State of Hawaii
Departments of Transportation and Land and Natural Resources

City and County of Honolulu
Department of Park and Recreation

Existing Land Uses: Beach Park, State Highway

State Land Use District: Conservation and Urban

Development Plan Park
Land Use Designation:

County Zoning Designation: P-2

SECTION 1 INTRODUCTION

1.1 PURPOSE AND OBJECTIVES

AT&T, on behalf of a consortium of international telecommunications companies, proposes to develop and install a transpacific submarine fiber optic cable system which will link Japan, Hawaii, and California. The project is known as the Japan-U.S. Cable Network. In the 1980's, AT&T installed the first transpacific fiber optic cable system at Makaha to enhance telecommunications capacity between Hawaii and the rest of the world. Information for this environmental assessment (EA) is derived from earlier EA's and reports written for AT&T, GST Telecom Hawaii, and GTE Hawaiian Tel by R. M. Towill Corporation.

The proposed system will include a total of nine submarine cable segments. Two of the segments (Segment 1 and Segment 2) will link Hawaii (Makaha Beach) with Japan (Shima) and with California (Morro Bay) (Figure 1). The main system will include an eight strand fiber optic cable.

AT&T will construct, as part of this project, two or three new manholes and eight ductlines to land and connect the terrestrial portion of its network with the transpacific portions of the cable system. The Makaha Beach landing site will also utilize existing AT&T facilities, including a beach manhole, ductline and the Makaha Cable Station.

The purposes of the proposed project are as follows:

1. To provide the State of Hawaii, U.S. mainland and Japan with, enhanced transpacific telecommunication services. It is anticipated that additional capacity will result in higher quality, greater reliability and lower unit prices which will benefit the public;
2. Increase available bandwidth capacity to serve the explosive growth in customer demand for faster, reliable, international telecommunications services. The Japan-U.S. Cable Network has higher speed and capacity than any existing transpacific fiber optic system. The new system will allow use of high technology digital services such as internet, electronic commerce, telemedicine, real time video, data

Figure 1. Location Map

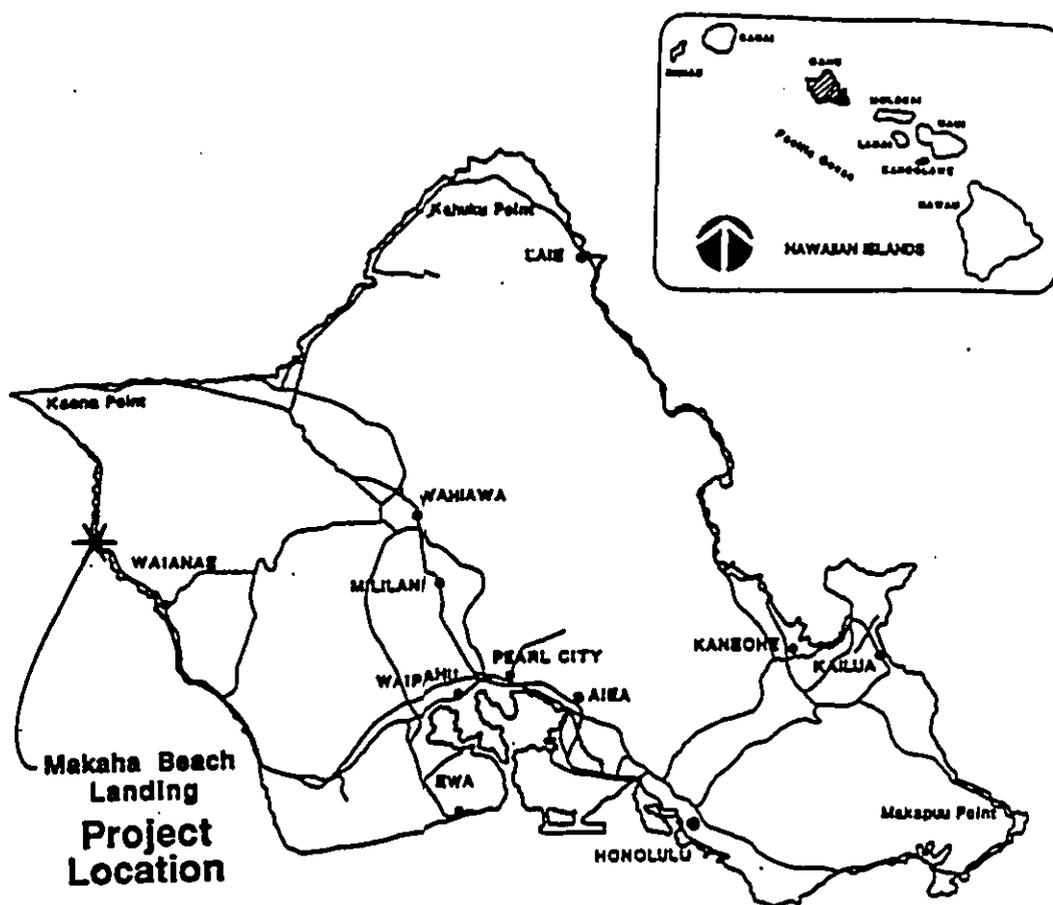


Figure 1
LOCATION MAP
Makaha Beach, Oahu

AT&T JAPAN-U.S. CABLE SYSTEM

R. M. TOWILL CORPORATION

December 1998

and voice communications; and

3. To provide redundancy to the existing fiber optic systems in the event of system failure or damage to the other system.

1.2 PROJECT LOCATION

The proposed landing site of the Japan to Hawaii and California fiber optic cable system is Makaha Beach. Makaha Beach is located along the Waianae coast of the Island of Oahu (Figure 2). Facilities at the park include a comfort station, lifeguard station and picnic tables located at various points along the beach. The beach slopes to the water's edge at approximately 5 percent. There are no structures on the beach. The average width of the beach (shoreline to roadway) is about 240 feet.

Makaha Beach already serves as a cable landing site for six transpacific cables and two interisland service cables. These cables are distributed among four easements (Figure 3). The first transpacific cable was landed at Makaha Beach in 1964 with additional cables being added in 1972, 1974, 1975, 1989, 1994, and 1996. During these cable installations a trench was dug across the beach for the purpose of burying and protecting the submarine cables.

The proposed cable will be laid across lands that are owned by the State of Hawaii (seaward of the shoreline), along the highway, and the City and County of Honolulu, and will be laid within an existing cable easement. The proposed landing site at Makaha Beach will utilize both existing and new AT&T facilities.

Figure 2. Site Map

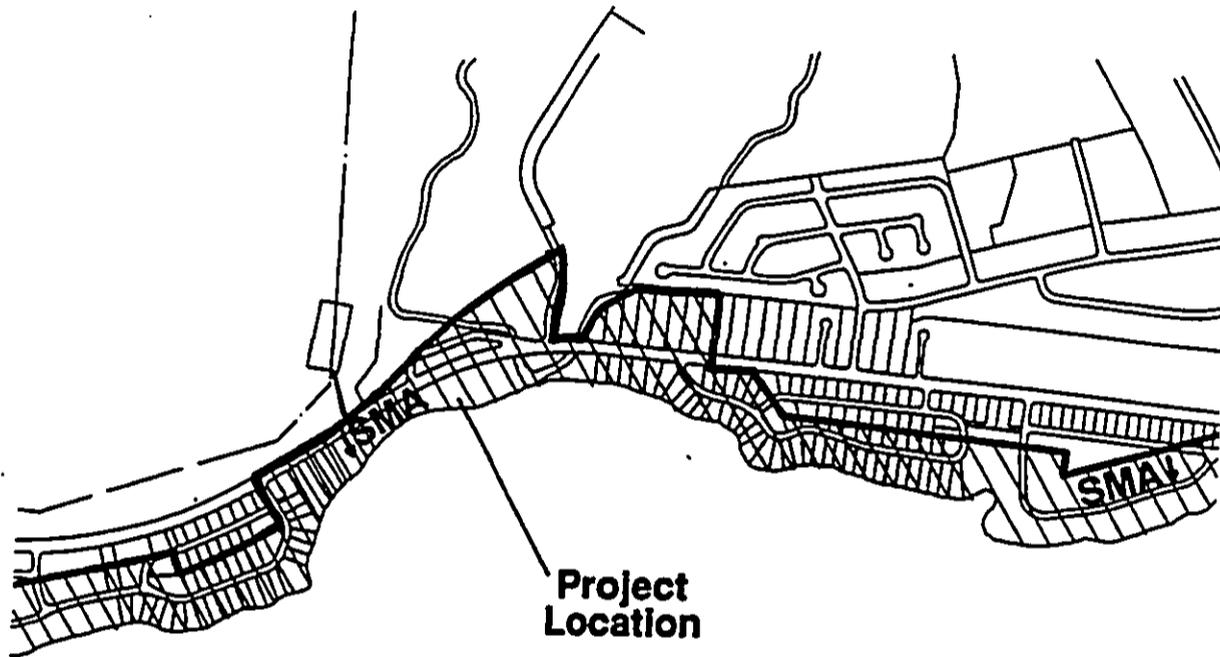


Figure 2

Makaha Beach, Oahu

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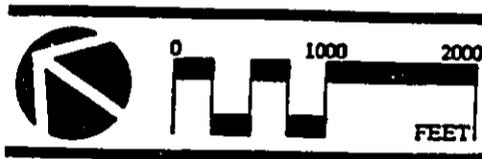
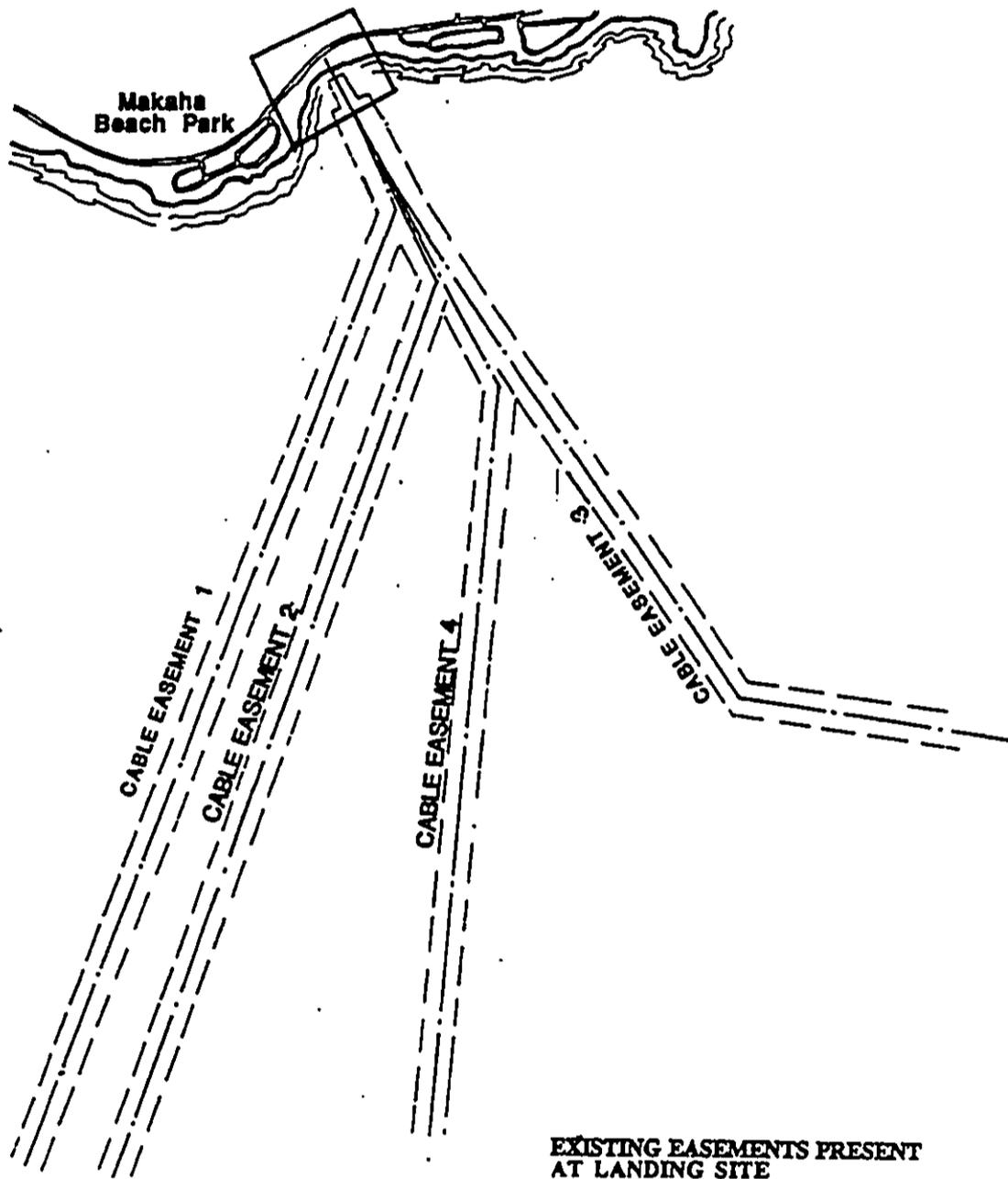


Figure 3. Makaha Easement Map



EXISTING EASEMENTS PRESENT
AT LANDING SITE
Makaha Beach, Oahu



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*Note: More than one cable may occupy an easement.

SECTION 2 PROJECT BACKGROUND

2.1 CABLE TECHNOLOGY

The following is a discussion of existing telecommunication cable technology and the advantages of using fiber optics for the Japan-U.S. Cable Network.

2.1.1 Copper and Fiber Optic Cables

During the later half of the last century and the first half of this century single or dual conductor telegraph cables were utilized for transoceanic telegraphic communications using Morse Code. Between the 1950's and early 1980's, coaxial submarine cables were installed for analog communications over transoceanic distances. Depending on the type, vintage and circuit multiplication methods used, transoceanic coaxial cables had capacities ranging from less than 100 to almost 4000 voice circuits. Because these early submarine cable systems employed transmission of amplified analog electrical signals, distance and capacity were limited and noise accumulation limited the quality of voice and data transmission.

In contrast, digital fiber optic technology, which was first used over transoceanic distances in 1985, relies on the use of optical fibers and light pulses for error free, high speed transmission of voice, data, and video signals. Since fiber optic cables are not susceptible to noise and transmission quality degradation over distance, from the beginning they have provided a far superior quality of transmission compared with previously employed analog coaxial cable systems. Along with the recent dramatic increases in speed of lasers and optical receivers employed for transmission over digital fiber optic cable systems, the introduction of technology in 1998 for simultaneous bi-directional transmission of multiple wavelengths (different colors) of light (known as Wave Division Multiplexing or WDM) has dramatically increased the bandwidth of transoceanic telecommunications. This can be seen when comparing the capacity of older transpacific fiber optic cable system terminating in Hawaii over the last 10 years to that of the proposed Japan-U.S. system:

<u>System</u>	<u>Circuits*</u>	<u>Wavelengths</u>	<u>Line Rate</u>
HAW-4 (1989)	~8,000	1	280 Mbits/sec
HAW-5 (1994)	~16,000	1	560 Mbits/sec
TPC-5 (1996)	~300,000	2	2.5 Gbits/sec
Japan-U.S. (1999)	~6 million	10	10 Gbits/sec

(*Equivalent 64Kbit/sec voice circuits over 2 fiber pairs, excluding circuit multiplication.)

The proposed Japan-U.S. Cable Network fiber optic cables will contain 8 fibers housed in a plastic, copper and steel casing ranging in diameter between 17 to 46mm, depending on over-armorings. Like the telegraph and coaxial cable that preceded it, for the fiber optic cables steel or other protective materials are layered over a deep-water core cable for added strength and abrasion protection in shallower water areas.

2.2 SUBMARINE CABLE ROUTE

The submarine cable route selection process involved identification of areas warranting study, based on a set of minimum evaluation criteria. The criteria included consideration of rapid erosion, giant landslides, drowned coral reefs, seismic activity, dumping areas, ship and airplane wrecks, pipelines, other cables, and the length of routes.

In 1988, 1991 and 1998, studies and surveys were conducted by Seafloor Surveys International (SSI) to identify acceptable routes for submarine fiber optic cable systems. The route selected for the Japan-U.S. Cable Network was one that minimized potential hazards to the installation, and optimized survivability and maintenance of the cable over the projected 25-year lifetime.

The following provides a detailed description of each of these criteria:

2.2.1. Rapid Erosion

The greatest danger to the cable system is in the submarine portion of the route as it is related to the geologically young age of the "Hawaiian Islands and the resulting extremely high erosion rates. Rapid erosion places large volumes of unconsolidated sediment into the shallow waters surrounding the islands. These sediment deposits move rapidly down the steep island slopes when they become unstable. This down-slope sediment movement can be initiated by earthquakes, storm runoff, and storm waves. Installation of cables on steep, sediment-covered submarine slopes should be avoided if possible. Where these slopes cannot be avoided, the cable should traverse as directly up the slope as possible (SSI, August 1991)."

2.2.2 Giant Landslides

Over the past several years, mapping of the Hawaiian Exclusive Economic Zone by the U.S. Geological Survey through the use of the long range Gloria sonar system, a relatively low-resolution, reconnaissance sonar, has discovered a series of large landslides surrounding the Hawaiian Islands (Moore, et.al., 1989). "The primary danger presently posed to the cable by these inactive landslides is their extremely rough surface. The sea floor in the slide areas is known to be littered with huge volcanic boulders. These boulders have been observed from submersibles to often be the size of a house. These slide surfaces pose a serious threat by producing unacceptable cable spans where the cable is draped over individual blocks, as well as the possibility of having the cable getting tangled if it had to be retrieved for repair (SSI, August 1991)."

2.2.3 Drowned Coral Reefs

A series of drowned coral reefs surrounding the islands are considered dangerous to the fiber optic cable system. "Locally steep slopes associated with these reefs could cause unacceptable cable spans in areas where strong bottom currents can be expected (SSI, August 1991)."

2.2.4 Seismic Activity

"The greatest danger to the cable from earthquakes is not the actual fault displacement itself, but the possibility they will initiate movement of unstable sediment deposits on the slopes of the islands. Epicentral locations of earthquakes with magnitude 3 or larger in the Hawaiian region should be avoided by the fiber optic cable (SSI, August 1991)."

"Seismic activity in the Hawaiian Islands is concentrated in the vicinity of the active volcanoes on the Island of Hawaii, where it is primarily related to the on-going volcanic activity. There are also earthquakes related to the tectonic subsidence of the islands due to the load that the growing volcanoes is putting on the earth's crust. These tectonic earthquakes are also concentrated in the area surrounding the island of Hawaii, where the greatest subsidence is taking place (SSI, August 1991)."

2.2.5 Dumping Areas

"A large, presently inactive, explosive dump is located west of Oahu. This dump will have to be avoided by the fiber optic cable. Navy authorities maintain this area has not been used for ordinance disposal since shortly after World War II. However, they advise against laying cables

through the area (SSI, August 1991)."

"Dredge Spoils disposal sites authorized by the U.S. Army Corps of Engineers are also located close to all major island harbors and should be avoided by the cable route (SSI, August 1991)."

2.2.6 Ship and Airplane Wrecks

A complete, high-resolution side-scan survey of the proposed cable route should be carried out to determine that the route is free of man-made hazards such as ship wrecks and lost airplanes. While there have been numerous ships and airplanes lost at sea in the Hawaiian area which have never been located, none were identified along the route of the proposed Japan-U.S. cable.

2.2.7 Other Cables

Active fiber optic cables providing service to Hawaii include two inter-island cable systems (HICS and HIFN) and international cable systems including: PACRIM-East (Hawaii to New Zealand); HAW-5 (California to Hawaii); HAW-4 (California to Hawaii) and TPC-5 (California to Hawaii to Guam to Japan). There are several commercial power cables in the planning stage including the Hawaii deep-water electric transmission cable (from Hawaii to Oahu via Maui), and the Tri-Island power cables (linking Maui, Molokai and Lanai). In addition, the University of Hawaii installed fiber optic cables for neutrino research offshore from Keahole Point north of Kailua, Kona (DUMAND Experiment) and a for monitoring of volcanic activity on the Loihi Seamount offshore of Honu'apo Bay, on the Big Island of Hawaii (HUGO Project).

Along parts of the Japan-U.S. route the cable will have to be laid in close proximity to other communications cables. On the near-shore approaches to Oahu, the proposed Japan-U.S. cable segments will be laid roughly parallel to or will cross the existing international and inter-island cables. In these areas, the recommendations of the International Cable Protection Committee (ICPC, 1885 Plenary Meeting Minutes, Sydney, Australia) have been used as a guideline for engineering separation distances and crossing angles.

2.3 LANDING SITES SELECTION

During the summer of 1989 a study was conducted to select landing sites for a fiber optic cable system. A set of criteria was used to reduce the field of potential landing sites. The advantages and disadvantages of each site were evaluated to provide a basis for comparison.

The following is a brief discussion of criteria for determining landing sites:

2.3.1 Shoreline/Near-shore Conditions

The shoreline and near-shore conditions are a consideration because the depth of the water from the landing site towards the ocean must be deep enough to protect the cable from wave surge. Approximately 50 to 60 feet of water will be required before wave forces diminish to levels where wave action does not affect the cable. Areas with extensive shallow water far from shore (i.e. 4,000'+) were considered difficult or sub-optimal in providing protection during storms and other high wave conditions.

The composition of bottom conditions *limits acceptable landing sites*. Sandy bottoms are preferred near-shore to minimize any possible environmental impacts of anchoring, armoring, or trenching through rock or coral in order to protect the fiber optic cable. Also if the ocean bottom has extensive sand deposits, especially adjacent to the shoreline, the cable can be naturally covered by the shifting sand, providing protection against wave forces.

2.3.2 Public Use Considerations

Due to the potential for difficulties with area users, landing sites in areas of major public use are a consideration in selection. However, as demonstrated during previous fiber optic cable installation operations in the Hawaiian Islands, it is anticipated that impacts to public recreational areas will be minimal given the short-term and relatively minor requirements for installation.

Areas of potential historical and archaeological significance in close proximity to cable landing sites are also considered a constraint to selection, due to the possibility of destroying or damaging a historic site.

2.3.3 Environmental/Natural Resource Considerations

The landing sites should not be within proximity to rare or endangered species or their habitats. Impacts to shoreline and ocean water quality should also be kept to a minimum. Sites which would require extensive ocean anchoring and cable protection work (i.e., shielding/dredging) and/or on-shore excavation in ground conditions which promote soil erosion should be avoided.

2.3.4 Alternative Landing Sites

Two possible alternatives for the Oahu cable installation where land side and underwater conditions would be most suitable include Makaha Beach and Keawaula. Makaha was selected as the preferred landing site because the site exhibits positive characteristics including nominal land side conditions and workable near-shore waters. Other positive features of Makaha include:

1) the low likelihood for discovery of archaeological/historic sites (Discussion with DLNR, Historic Sites Office); 2) existing use as fiber optic cable landing site; 3) available space in the cable station for required for new terminal equipment; and 4) station is manned 24 hours per day, 7 days per week by qualified communications technicians.

Keawaula, like Makaha Beach, exhibits positive site characteristics, serves as a landing site for other fiber optic cables, and is manned by qualified communications technicians. However, the Keawaula Cable Station lacks the space for terminal equipment required for the Japan-U.S. Cable Network, and expansion of the existing station to accommodate the new equipment would not be practical.

SECTION 3

CONSTRUCTION ACTIVITIES

3.1 OVERVIEW

Construction of the project will include all work necessary to 1) install of terrestrial ductlines between the cable station and the beach, 2) prepare the landing sites, 3) landing the cable and installing the cable within the new manholes, and 4) making building improvements to accommodate the cable system.

Proposed construction will take place in three phases. The first phase will include all work necessary to install a PVC ductline system from the Makaha Cable Station to a new beach manhole to be located adjacent to the existing beach manhole and making improvements at the cable station to accept the new cable system. The second phase will be in conjunction with the cable landing and will entail trenching the beach and nearshore area and placement of temporary landing targets. The third phase will involve actually landing the submarine fiber optic cable, installing the cable into existing ductlines, and beach restoration. The following provides a detailed description of each of these phases.

3.2 PHASE 1 - TERRESTRIAL FACILITIES

Terrestrial improvements to be installed include: 1,800 lineal feet of PVC ductlines from the Makaha Cable Station to a new beach manhole to be located adjacent to the existing AT&T beach manhole. The ductlines will be 4-inch PVC and will be placed within the highway right-of-way. The new manhole will be concrete reinforced and measures 5 feet wide, by 10 feet long, by 6 feet high. The location of the terrestrial facilities is shown in Figure 4. A typical section of the trench between the cable station and the beach is shown in Figure 5. Two grounding anodes will be placed as follows: 1) adjacent to the beach manhole and 2) approximately 25 meters along the duct system or near the entry from the highway to the cable station. Total construction time is estimated at three weeks.

3.3 PHASE 2 - LAND-SIDE ACTIVITY

Construction activity on land will include the excavation of a trench to expose the existing ductlines on the beach and the placement of range targets on the east and west sides of Farrington highway to guide the cable laying process. There are currently eight cables within an existing 10-foot wide easement on the beach. (See Figure 3). The work on the beach requires the

Figure 4. Terrestrial Facilities

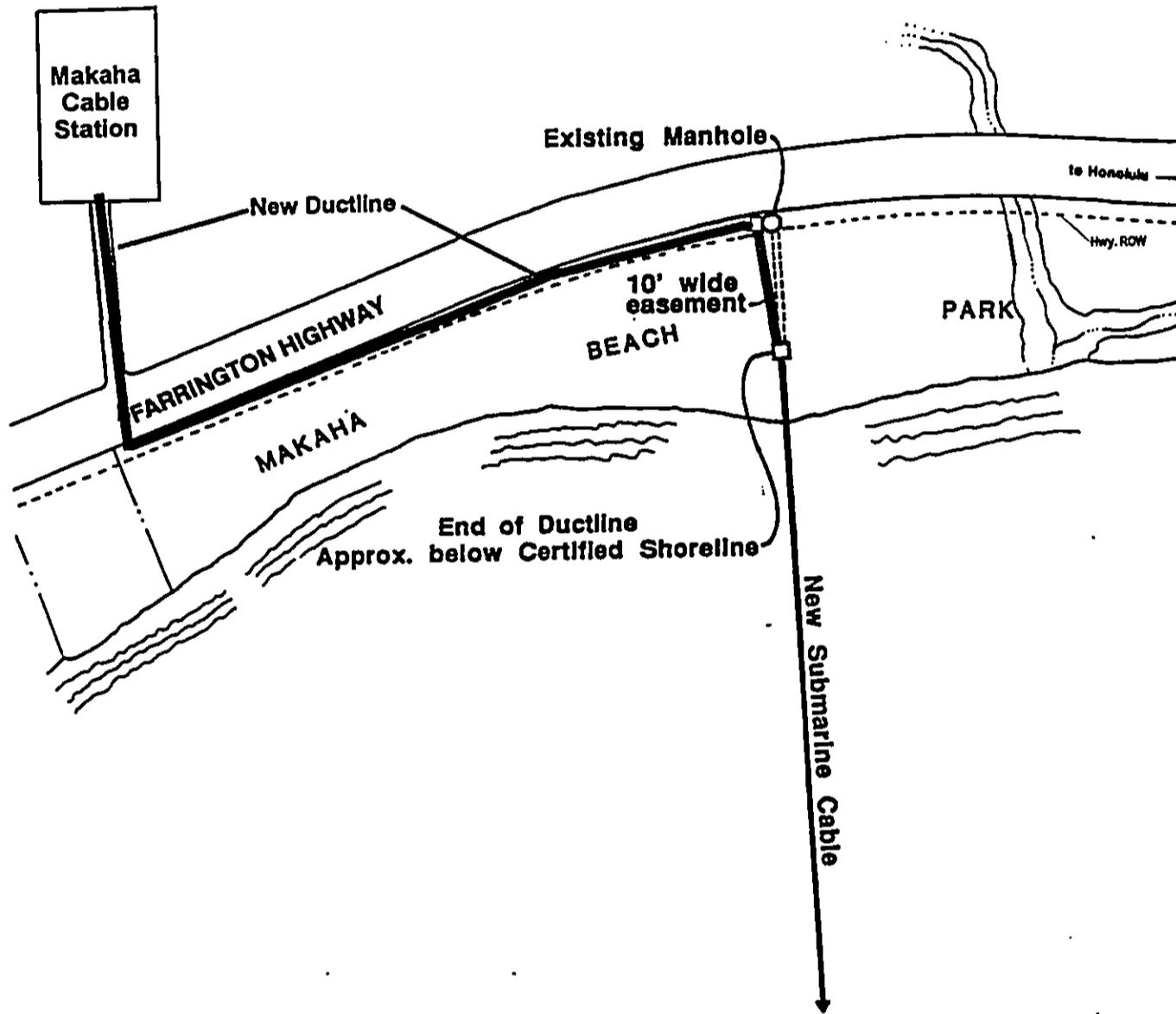
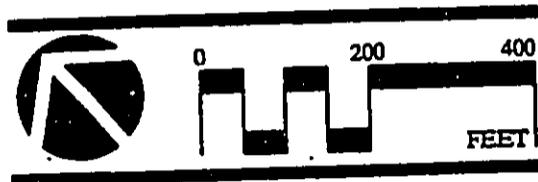


Figure 4
Cable Alignment Plan
Makaha Beach, Oahu



AT&T JAPAN-U.S. CABLE SYSTEM

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December 1998

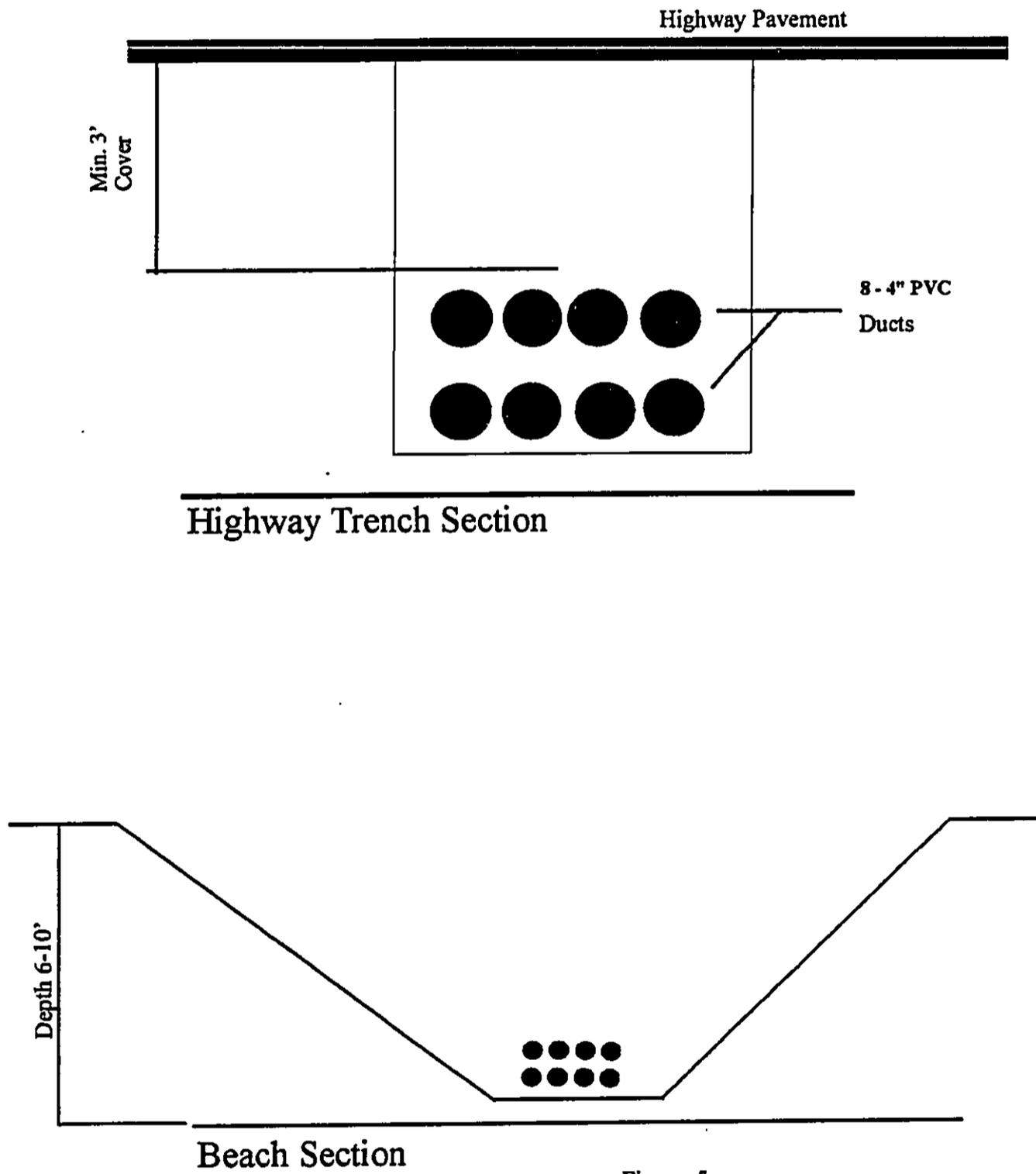


Figure 5
TYPICAL TRENCH SECTIONS

JAPAN-U.S. CABLE SYSTEM

R.M. Towill Corporation December 1998

excavation of sand to expose the trench that contains the existing ductlines. The ductlines are directly buried in the sand and extends 50 feet from the manhole toward the ocean. During the construction period, as required, temporary sheet piling may be placed in the sand to keep the exposed trench from collapsing. The upper layer of sand will be removed by machinery (either clamshell or backhoe). Layers of the sand that are closer to the existing ductlines will be removed manually. The excavated sand will be stored on the beach adjacent to the work site for later placement back into the excavated trench. Approximately 496 (6' x 248' x 9') cubic yards of sand will be excavated and will be placed adjacent to the cable easement on the beach. During the period of actual construction (excavation of the trench), that portion of the beach will be temporarily closed to beach users (approximately 5 days).

Two range targets (alignment markers) will be placed on land just prior to the landing of the cable to aid in the cable laying process. The first range target will be placed on the eastern edge of the Farrington Highway right-of-way. The other movable target will be placed approximately 150 feet behind the front range target east of the highway right-of-way. The range targets will be placed on temporary structures and will be removed following the cable landing. The range targets will not disrupt traffic movements along Farrington Highway.

3.4 PHASE 3 - CABLE LANDING PROCESS

The cable landing process includes the use of the land side range targets (alignment markers) to assist in the alignment of the cable as it is being installed. The cable laying ship may be assisted by two tugboats to maintain proper alignment of the cable ship. This assistance is essential to ensure that the cable is placed within the submarine and beach cable easement. Once the cable laying ship is properly aligned, the cable will be pulled to shore through the use of a land-side winch. Once the cable is placed within the existing steel conduit, the leading end of the cable will be pulled through into the beach manhole. Additional cable will be pulled ashore and this additional cable will be placed into the duct that leads to the cable station. Once the lead end of the cable is secured in the cable station, the cable will also be secured within the beach manhole.

The greatest danger to a cable system is the submarine (underwater) portion of the route, and this necessitates more construction effort than the land side activity. Protection of the cable and public safety are the major factors for ensuring the fiber optic cable is covered or anchored in nearshore waters. Approximately 50 to 60 feet of water will be required before wave forces diminish to levels where wave action does not affect the cable. For public safety and to protect the cable from abrasion on the beach and in the near shore surge zone, the cable is protected by

trenching and armoring.

From the mean high water mark the cable will be placed in trench for a distance of approximately 30 feet seaward. **Figure 6** shows a section through the area on the beach and in the water. The work in this nearshore area requires the removal of sand which covers the existing ductlines. For this process, machinery will be used to remove the upper layers of sand. A hydrojet will be used to remove the remaining sand. If necessary, sheet piling may be placed temporarily in the water to prevent the sand from reentering the open trench. If necessary, sandbags will supplement the use of sheet piling. In the water, screens will be placed to reduce potential for increased turbidity. The sand that is removed will be stored onshore for later backfilling.

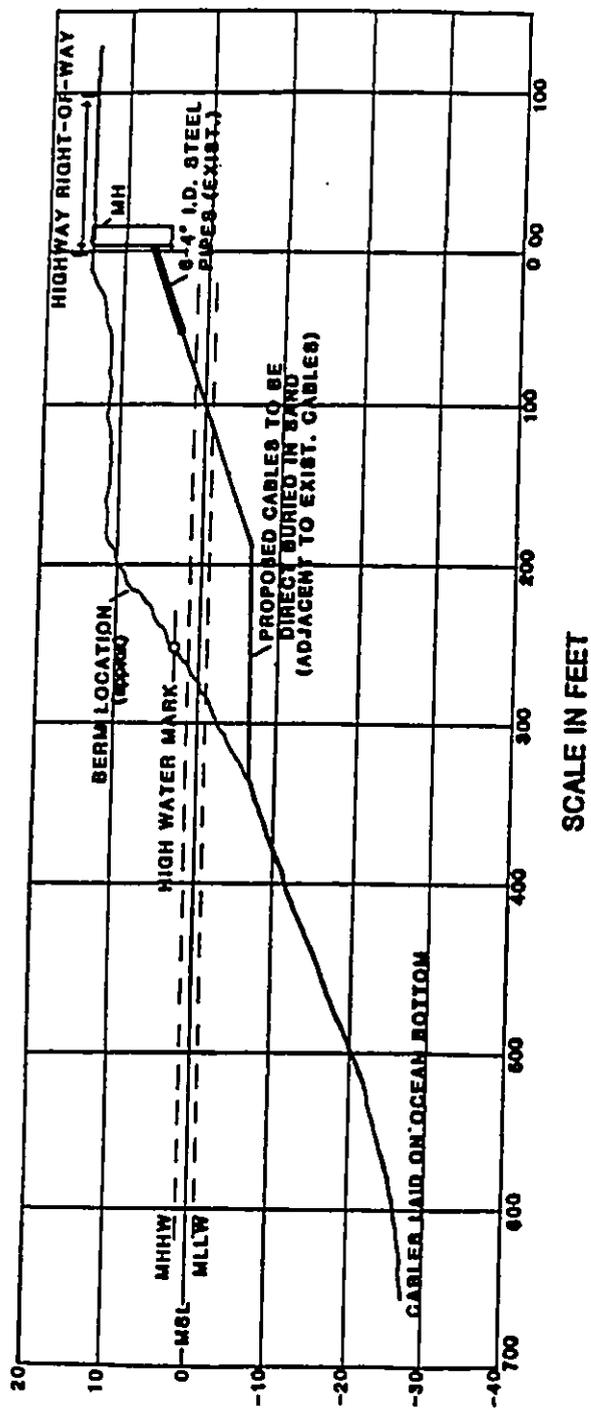
A cable laying ship provided by the cable supplier will serve as the primary means of laying the fiber optic cable. The following procedures describe the activities involved during the cable landing operations:

The cable ship will approach the landing site using the two range targets to align the ship as it approaches the shore. The range targets will be placed by a cable receiving party according to previously surveyed coordinates. Once the ship approaches the shore landing to the minimum depth allowable, it will fix its position relative to the landing site using tugboats, side-thrusters, or other means. As the ship fixes its position, it will begin laying out cable.

The ship will lay cable while its personnel attach suspension floats at regular intervals to the cable. As the cable is lowered to the water, it will float, allowing it to be pulled toward shore using a winch, small motor boat, or other mechanical means.

The shore landing will be specially prepared to accept the cable. As the cable nears the shore, it will be fed into the steel conduit previously buried in the sand and pulled to the manhole. When the cable is secured in the manhole, it will be temporarily anchored while the divers readjust the suspension floats in the water to obtain a proper nearshore to shoreline alignment.

Figure 6. General Bottom Profile



GENERAL BOTTOM PROFILE
Makaha Beach, Oahu

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R. M. TOWILL CORPORATION

December 1998

The near shore zone within 100 feet of the shoreline has a bottom depth of -15 feet and within 200 feet it is -20 feet. The bottom within 200 feet of the shoreline is predominantly sand.

Once the cable is aligned, the divers will cut the remaining floats away, allowing the rest of the cable to sink to the ocean bottom. Approximately 1,000 feet of the cable will be encased in an armor protection from the end of the steel pipe seaward. This encasement will provide the cable protection in the nearshore area. The cable will be permanently installed in the manhole at this time. Once the cable has been secured, the open trench will be backfilled and efforts taken to restore the beach as much as practicable to its original preconstruction condition.

Following this action, the cable ship will commence cable laying operations to the next landing site. The ship will follow a prescribed survey route until it reaches the other landing site where the end of the cable can be similarly connected.

3.5 SAFETY CONSIDERATIONS

During the construction phase on the beach (approximately 7 to 10 calendar days), the portion of the beach which contains the open trench will be barricaded from public entry. During the construction period, a security guard will be posted at night and weekends to ensure public safety and integrity of the job site.

During the cable laying process (approximately two days for each cable landing depending on the weather conditions), the nearshore waters will be closed to ocean activities (surfing, diving, boating, swimming) to ensure the safety of ocean users. The area that will be closed will be approximately 100 to 150 feet wide and 2,000 to 5,000 feet long. The actual area may be more or less depending on the tides. This short-term "closure" of nearshore water areas will be achieved by publishing a notice to advise mariners to avoid the area. Further, during the cable laying process, project personnel will advise beach users to avoid the project site both on land and in the water via small powered water crafts.

3.6 SCHEDULE AND ESTIMATED COST

Cable landing operations associated with the two Japan-U.S. Cable Network segments terminating at Makaha are tentatively scheduled during the 4rd quarter of 1999. Construction costs for the project are as follows: 1) Cable station upgrade - \$3 mil; 2) Terrestrial ductlines and manhole = \$100,000; 3) Beach preparation and cable landing - \$100,000+.

SECTION 4

DESCRIPTION OF THE AFFECTED ENVIRONMENT

4.1 PHYSICAL ENVIRONMENT

4.1.1 Climate

Makaha Beach is located along the Waianae coast of the Island of Oahu. The average annual temperature is 75 degrees Fahrenheit, with northeasterly tradewinds from the ocean at speeds of 18 to 23 miles per hour. The average annual rainfall is 20 inches.

4.1.2 Topography, Geology, Soils

The project location is within a portion of the Makaha Beach Park that lies at the base of the Waianae Mountains. The beach slopes to the water's edge at a slope of approximately 5 percent. The predominant soil type classified by U. S. Department of Agriculture, Soil Conservation Service is (BS) Beaches. Beaches have no value for agriculture but where accessible they are highly suitable for recreational uses.

Impacts. With respect to the segment of the cable to be installed subsurface, no long term surface impacts are anticipated since the project involves temporary excavation and filling with the same material. The excavated portions will be returned, as much as practicable, to its original preconstruction condition.

4.1.3 Hydrology

There are no perennial streams in the subject area. Groundwater for the area is basal in sediments and is not a source for domestic use (Atlas of Hawaii, 1983).

Impacts. No adverse impacts are anticipated on surface water or groundwater since the project will not alter existing drainage patterns or have any water requirements.

4.1.4 Terrestrial Flora/Fauna

The area's flora is limited to a 20-foot strip extending from the edge of Farrington Highway. Plant materials include, Bermuda grass, coconut trees, and hau trees. No rare or endangered species of plants are known to inhabit the site. Existing flora and fauna of the project site consists mainly of introduced species.

With respect to animal wildlife for the area, no rare or endangered animals are known to inhabit the site. The area has a dry climate and sparse vegetation and does not provide good habitats for rare animals.

Impacts. Because the project area does not contain any rare plants or animals, adverse impacts are not anticipated. As part of the proposed development the exposed areas within the cable easement will be replanted to ensure stability of the site.

4.1.5 Marine Flora and Fauna

The proposed cable landings along the nearshore zone are characterized by substrates of sand with various forms of bottom sediments ranging from a combination of rocky cobble and coral interspersed by further offshore sand deposits at Makaha Beach. Species normally found along the nearshore zone include various small fishes, sea urchins, crabs, algae, and other marine invertebrate. The intertidal zones of each of the proposed landing sites are occasionally subjected to high wave energy which in part helps to explain the relatively low diversity of species.

Rare and threatened species which may be found along these areas include the protected green sea turtle and, during the winter months, humpback whales. There is no current evidence that nesting of green sea turtles has occurred at Makaha Beach. Oahu is the most heavily urbanized of the Hawaiian Islands and beaches at the proposed cable landings are often frequented by humans which would serve as a deterrent to selection of a suitable undisturbed nesting site.

Humpback whales, another protected species, are also rarely observed offshore of the cable landing sites. As noted in a previous survey of Sandy Beach, Oahu, "[Herman, 1979], humpback whales tend to be found in regions remote from human activities, thus relatively fewer numbers of whales are seen around Oahu as compared to other islands."

Impacts. It is anticipated that as the fiber optic cable is laid that most, if not all of the marine organisms present would simply move out of the way for the temporary duration of work. Upon completion it is expected that the cable would eventually bury itself in areas with loose sand and sediments.

A previous study conducted in 1992 noted the following with regard to impacts to marine organisms from the laying of submarine fiber optic cables:

"In the shallower areas along the route, there are areas where the cable will cross hard substratum and there is a greater possibility of impact to benthic and fish communities. Impacts associated with these construction activities primarily include removal of benthic communities in the cable path, and the generation of turbidity which may impact surrounding communities. The small scale of the proposed activities that would be necessary to protect the cable in shallow water would produce little sediment, and over a relatively short period of time (Sea Engineering, January 1992)."

"Another concern may be with disturbance to threatened or endangered species. Assuming that deployment of the cable occurs during the period of time that humpback whales are in island waters, it is anticipated that the impacts to whales would be minimal. The deployment of the cable from shallow water to shore should not take longer than one day. In general, this deployment is done by bringing the cable laying ship into about the 60 foot isobath; from this point to shore the cable is buoyed up using floats and small craft are used to maneuver the cable into the appropriate alignment and into shore."

"The probable source of local impact to whales would be the production of noise by the cable laying ship and smaller vessels used to bring it ashore. There are variable and conflicting reports as to the impact of vessel traffic on whales. Evidence from the northwest Atlantic and northeast Pacific suggest behavioral changes by whales in response to vessels, but they may show considerable fidelity to specific areas despite vessel traffic (major shipping, trawler activity, etc.; Brodie 1981, Matkin and Matkin 1981, Hall 1982, Mayo 1982). In contrast Jurasz and Jurasz (1980) found a sharp decline in humpback whale numbers in Glacier Bay, Alaska with increases in vessel activity. In a short term study, Bauer (1986) found no correlation between vessel and whale numbers as well as no net movement offshore at Olowalu, Maui in 1983-84. However, a six year study suggested a major offshore movement of mother-calf pods off Maui with increased vessel traffic (Glockner-Ferrari and Ferrari 1985, 1987). This study alone cannot be used to determine whether the observed reductions in sighting around Maui is correlated with vessel traffic; there is no consistent baseline information or comparative studies on humpback whale habitat utilization around Maui which may corroborate the trends reported by Glockner-Ferrari and Ferrari (Tinney 1988)."

"With respect to the response of individual humpback whales, there is sufficient information to demonstrate that boating and other human activities do have an impact on behavior (Bauer and Herman 1986). Thus it is probably valid to assume that impact to whales could occur if

individuals are within several kilometers of the cable deployment. However as noted above the impacts (here noise) are not expected to last for more than one day, and all activities will be concentrated in a very small area."

"Sea turtles are permanent residents in inshore Hawaiian habitats thus the potential exists for problems during the construction phase if it entails dredging. The generation of fine particulate material from dredging appears not to hinder the green turtle in Hawaiian waters; at West Beach, green turtles moved from an offshore diurnal resting site about one kilometer offshore to a point about 200m from the construction site within days of the commencement of dredging and the generation of turbid water. The turtles appeared to establish new resting areas in the turbid water directly offshore of the construction site (Brock 1990a). The reason(s) for this shift in resting areas is unknown but may be related to the turtles seeking water of poor clarity to possibly lower predation by sharks (a major predator on green sea turtles)."

"Any construction activity that generates fine particulate material will lower light levels and in the extreme, bury benthic communities. Sedimentation has been implicated as a major environmental problem for coral reefs. Increases in turbidity may decrease light level resulting in a lowering of primary productivity. When light levels are sufficiently decreased, hermatypic corals (i.e., the majority of the corals found on coral reefs) will eject their symbiotic unicellular algae (zooxanthellae) on which they depend as source of nutrition. However, in nature corals will eject their zooxanthellae and survive (by later acquiring more zooxanthellae) if the stress is not a chronic (long-term) perturbation."

4.1.6 Scenic and Visual Resources

The area is generally void of man-made structures, except for the road, and beach park amenities such as showers and toilet facilities.

Impacts. For seven to ten days there will be a temporary impact on coastal views due to construction activities. During beach construction prior to the cable landing, the beach portion of the project will have construction equipment and a mound of sand from the excavated trench. During the two cable landings, the beach will temporarily used by construction equipment.

The beach and roadway surfaces will be returned to its existing condition at the conclusion of the cable installation. Excess material not utilized for fill will be removed and disposed of in accordance with applicable County and State regulations. Based on the relatively small scale and

nature of proposed construction, no long-term or significant impacts are anticipated.

4.1.7 Historic/Archaeological Resources

The project site does not contain any known sites of historic or cultural significance. The new beach manhole and trench will be constructed adjacent to existing facilities previously excavated in the beach to lay other transoceanic cables. The new ductline will follow the shoulder of the existing Farrington Highway and the cable station driveway. The proposed work will be within the existing cable easement.

Impacts. No short or long term impacts are expected from the development of the proposed project. However, should any unidentified cultural remains be uncovered during cable installation, work in the immediate area will cease and the appropriate government agencies will be contacted for further instructions.

4.1.8 Beach Erosion and Sand Transport

Within 100 feet of the shoreline the bottom depth is -15 feet, and within 200 feet it is -20 feet. The bottom within this 200 feet is predominantly sand. The existing submarine cables are laid directly on the ocean bottom except for that portion of cable near the shoreline. This portion is covered with sand.

Impacts. The proposed project is not expected to impact beach processes. Upon completion of construction activities, the construction crew will make every reasonable effort to return the ground to existing preconstruction contours through use of existing graded materials for backfill.

4.1.9 Noise From Construction Activity

For the proposed Makaha Beach landing, noise will be generated during the construction phase of the project. Cable laying and excavation equipment and machinery will be used, which will be sources of noise.

Impacts Noise generated from machinery can be mitigated to some degree by requiring contractors to adhere to State and County noise regulations. This includes ensuring that machinery are properly muffled. Some work at night may be required. Night activities include cable splicing, cable pulling, operation of machinery, etc.

Boats (tugs and a small craft) that are used during the construction period will also be a source of

noise. The impact of noise from these vessels cannot be mitigated. The noise impact will be temporary in nature and will not continue beyond the construction and cable laying period.

4.1.10 Air Quality

Air quality in the proposed project areas of Makaha Beach is good due to low emission levels and the almost continual presence of tradewinds or on-shore breezes. The major factor affecting air quality in these areas is vehicular traffic.

Impacts. During the excavation process, loose sand and dirt may be cast into the air by wind. The release of sand into the air can be prevented by requiring the contractor to periodically wet down the work area. The areas that are used for the placement of the range targets will also be exposed during the construction period. The target sites should be similarly wetted to control fugitive dust. The work sites will be returned to their original state after the cable laying process is completed.

Operation of construction vehicles and small support vessels are expected to temporarily contribute carbon monoxide pollutants in the vicinity of the projects.

4.1.11 Water Quality

Open coastal waters at Makaha Beach are rated Class "A" by the State Department of Health. The shallow waters of these beaches experience considerable turbidity even when surf is minimal. Offshore waters are very clear with excellent underwater visibility over reef slopes. Water temperature and salinity are normal for ocean water in these areas, with evidence of fresh water inflow along the shores.

Impacts. It is anticipated that potential for increased turbidity may occur in nearshore waters of the project sites during the trench excavation and backfilling operations. Silt screens may be erected by the construction crew to lessen and minimize effects of turbidity.

4.2 SOCIO-ECONOMIC ENVIRONMENT

4.2.1 Population

According to the 1990 Census, the resident populations within the Makaha area numbered 7,990 and in the Waianae area numbered 8,880. The population of Honolulu County as of 1994 was 836,000 and is projected to increase to 999,500 by 2010 (The State of Hawaii Data Book, 1994).

Impacts. No adverse impacts on existing resident and worker populations in the project site areas is expected. The project will be beneficial to these communities by providing short term employment opportunities associated with the construction activities. Installation of the new cable system will increase international band width and improve connectivity to Japan and the U.S. mainland.

4.2.2 Surrounding Land Use

The predominant use that will be affected is the use of the beach park. On both ends of the beach park are residential uses. On the southern end (towards Waianae) of the beach park are single family residential homes. On the northern end (towards Kaena) of the beach is a multi-family condominium structure. The land on the eastern side of the park across Farrington Highway is undeveloped land. This land is overgrown with trees and shrubs common to the area.

Impacts No long term impacts are expected from the development of the proposed project. However, development will temporarily impact land and shore side recreational uses. During construction the portions of the shore side area will have to be closed for safety reasons. Lateral access will be provided in designated areas. When completed the cable route will result in very little to no visible impact to the surrounding area.

4.3 PUBLIC FACILITIES AND SERVICES

4.3.1 Transportation Facilities

The project site is served by Farrington Highway (State Route No. 930). The right-of-way width fronting the project site is 50 feet. Bus service is provided on Route 51. Average departure times along this section of roadway are approximately once every 30 minutes. No disruption of bus service is anticipated.

Construction of ductlines between the cable station and the beach manhole will required trenching along the shoulders of Farrington Highway. Eight (8) PVC ducts will be installed within a trench that provides a minimum of three (3) feet of cover above the ductlines.

Impacts. Construction of the ductlines will impact traffic in the area where work is taking place. In order to minimize impact the following actions will be taken to facilitate traffic flow: 1) construction will not take place during peak traffic periods, 2) one-lane will be available at all times for traffic movement, 3) no work will be scheduled on the weekends, and 4) no open trenches will be allowed at the end of each work day.

Construction activities on the beach will last two to three days and duct installation is expected to take seven to ten days and are not expected to impact the existing traffic or bus services. The cable installation (cable landing) is expected to take one to two days during two separate period in late October and early November.

4.3.2 Recreational Facilities

Makaha Beach Park is located in the vicinity of the proposed project site. The entire park is used for swimming, sunbathing, skindiving, fishing and picnicking. Surfing occurs primarily along the western end of the park. Throughout the year the park is the site for a number of international and local surfing competitions.

The proposed action will only marginally disrupt recreational activity on a small portion of the beach while the excavation activity takes place. During the cable landing phases of the project, activity in the water will need to be temporarily suspended for approximately one or two day for the safety of the beach and ocean users.

Impacts. No long term impacts are expected from the development of the proposed project. However, development will temporarily impact recreation uses on a small portion of the beach. During construction a limited portion of the park will have to be temporarily closed for safety reasons. Every effort will be made to coordinate construction activities with the City and County of Honolulu, Parks and Recreation Department in order to avoid a conflict with surf competitions. Impacts will be short term, lasting only until construction is completed.

SECTION 5

RELATIONSHIP TO STATE AND COUNTY LAND USE PLANS AND POLICIES

5.1 THE HAWAII STATE PLAN

The Hawaii State Plan (Chapter 226, Hawaii Revised Statutes) provides a guide for the future of Hawaii by setting forth a broad range of goals, objectives, and policies to serve as guidelines for growth and development of the State. The proposed project is generally consistent with the Hawaii State Plan. The following objectives of the State Plan are relevant to the proposed project:

Section 226-10.5: Economy - Information Industry. The proposed project serves to assist in the State's objective of positioning Hawaii as the leader in information services in the Pacific Rim. The proposed project will continue development and expansion of Hawaii's telecommunications infrastructure and will help to accommodate future growth in the information industry.

Section 226-14: Facility Systems - In General. The proposed project supports the State's goals for achieving telecommunications systems necessary for Statewide social, economic, and physical objectives.

Section 226-18: Facility System - Energy/Telecommunications. The proposed project will help to ensure adequate and dependable telecommunication services for Hawaii by promoting efficient management and use of existing and proposed facilities and by promoting installation of new telecommunications cables.

5.2 STATE FUNCTIONAL PLANS

The Hawaii State Functional Plan (Chapter 226) provides a management program that allows judicious use of the State's natural resources to improve current conditions and attend to various societal issues and trends. The proposed project is generally consistent with the State Functional Plans. The following objectives of the State Functional Plans are relevant to the proposed project:

Education Implementing Action A(4.(c.): The proposed project will help to ensure adequate telecommunication services necessary for Hawaii's schools objectives.

5.3 STATE LAND USE LAW

The State land use classification of the project site is: "Conservation" for the ocean and beach to the high water mark (Figure 7) and a portion of the cable station site. No land use change is required for the cable landing. Construction activity in the water will require a CDUP. Further coordination with the State Department of Transportation, Harbors Division, and the Coast Guard is required to advise mariners of the proposed cable landing.

5.4 COUNTY ZONING.

Zoning for Makaha Beach (TMK: 8-4-01: 12) is general preservation (P-1) (Figure 8). The access driveway to the cable station is zoned R-1. The cable station site is split zoned P-1 and R-1. No zoning change will be required to the ductline installation. For the P-1 zoning, the LUO cites the following:

"5.10 Preservation districts: Purpose and intent.

(a) It is intended that all lands within a state-designated conservation district be zoned P-1 restricted preservation."

and,

"5.10-1 Preservation uses and development standards.

(a) Within the P- 1 restricted preservation district, all uses, structures and development standards shall be governed by the appropriate state agencies."

According to the LUO because the proposed activities are in the State Conservation District, development standards would be governed by the Department of Land and Natural Resources (DLNR), through the CDUP process. Therefore, no zoning change will be required for the Makaha Beach landing site.

5.5 CITY AND COUNTY OF HONOLULU GENERAL PLAN

The General Plan of the City and County of Honolulu provides a statement of long range social, economic, environmental, and design objectives for the Island of Oahu and a statement of policies necessary to meet these objectives. A specific objective of the General Plan relating to the proposed project is the maintenance and expansion of existing utilities systems. The proposed project is generally in conformance with the goals and objectives of the City and County General

Plan.

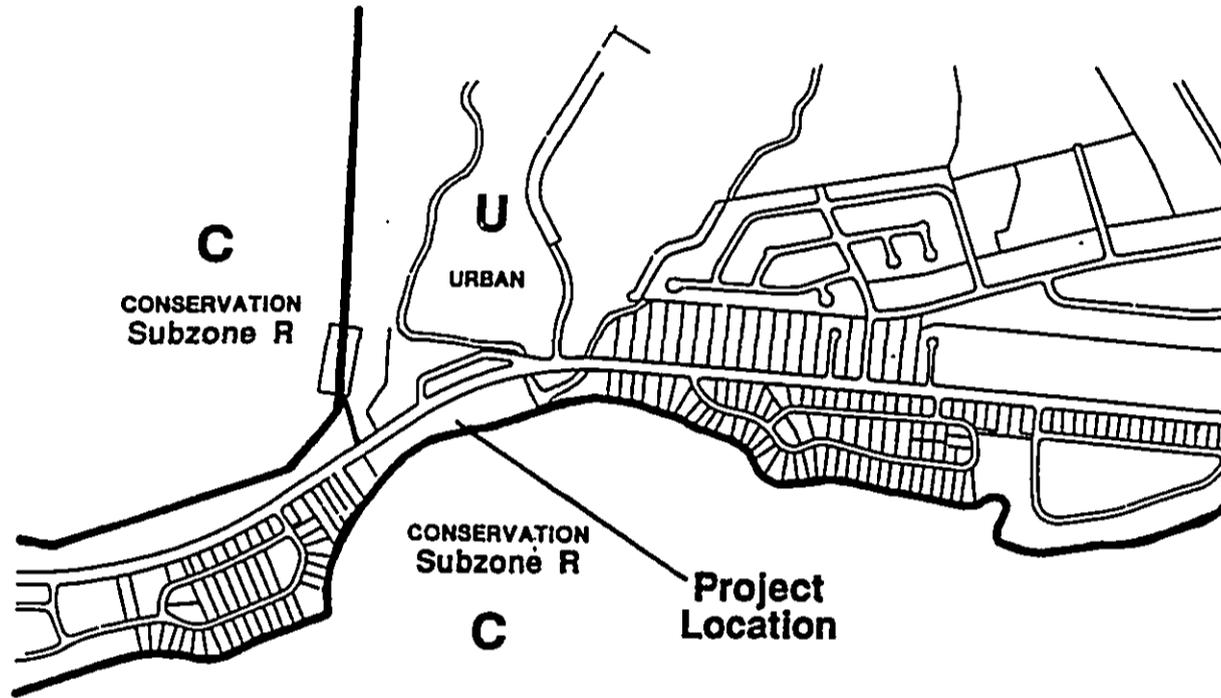
5.6 SPECIAL MANAGEMENT AREA

The City and County of Honolulu has designated the shoreline and certain inland areas of Oahu as being within the Special Management Area (SMA). SMA areas are felt to have a sensitive environment and should be protected in accordance with the State's coastal zone management policies. The proposed landing site areas are within the SMA Boundary as defined by the City and County of Honolulu (Figures 9).

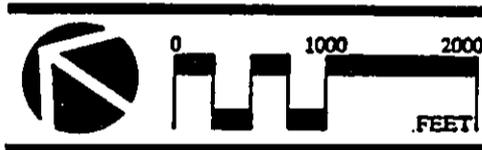
According to preliminary discussion with DPP (January 1999), SMA permits may not be required for development of the proposed Makaha Beach based on the following:

1. SMA permits were previously filed and approved for the proposed landing site. Potential for impacts related to earthwork and construction were addressed during these prior permits. There were very few to no impacts associated with the previous cable landings.
2. The site has already been prepared to accept a new fiber optic cable. The only work required will involve excavation to expose the end of the ductlines and placement of the fiber optic cables into the ductlines. Therefore, no major new land-side construction work will be necessary. However, a minor permit is required for the installation of the new ductlines and manhole.
3. Only a very small portion of the SMA would be subject to the proposed activity. The ends of the ductlines which will accept the cables have been designed to terminate at the certified shoreline.

Figure 7. State Land Use Boundaries



LEGEND
 Conservation District Subzones
 R Resource



STATE LAND USE
 Makaha Beach, Oahu

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December 1998

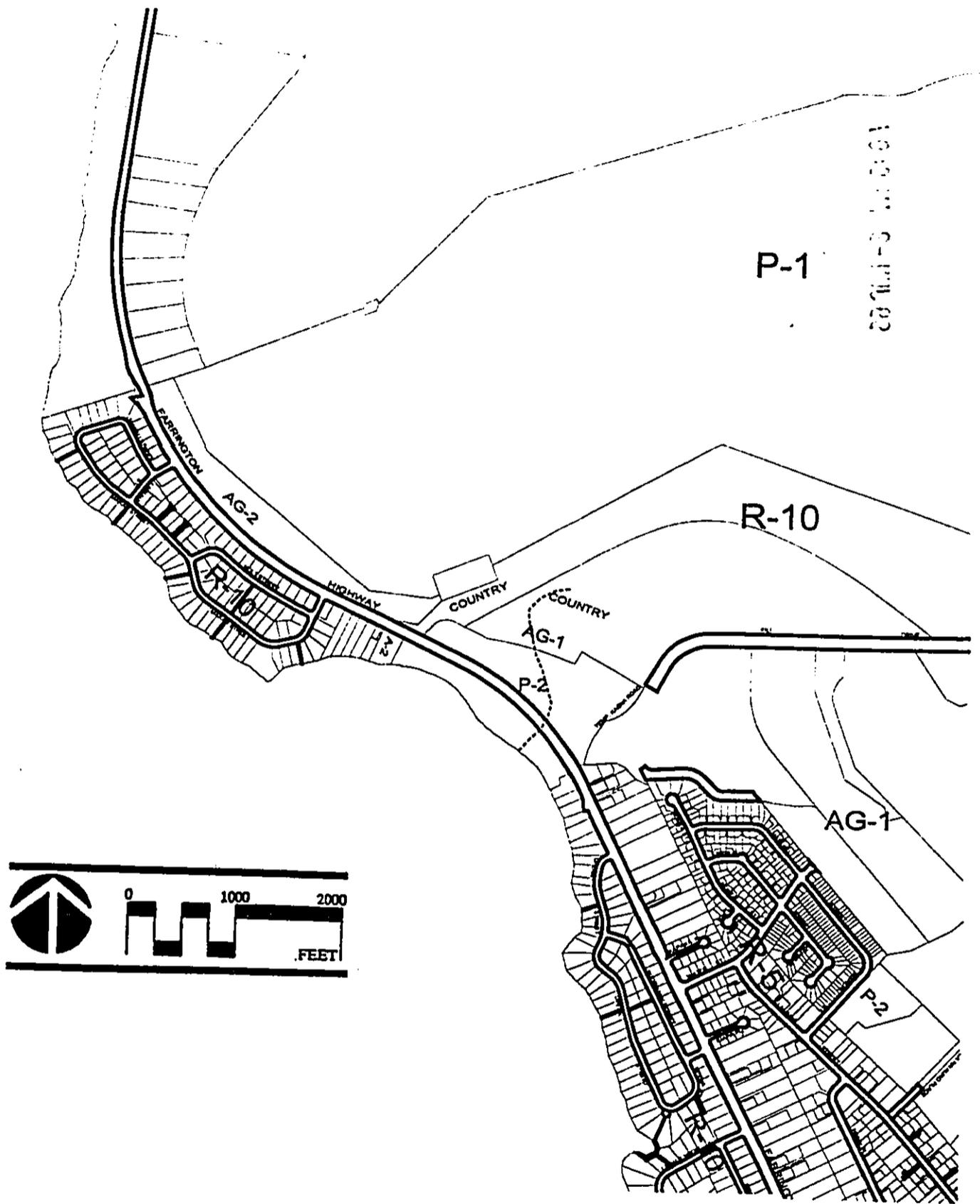


Figure 8. Zoning

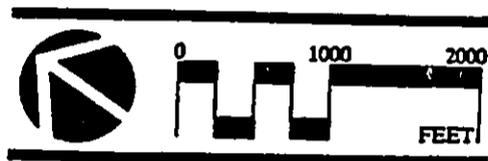
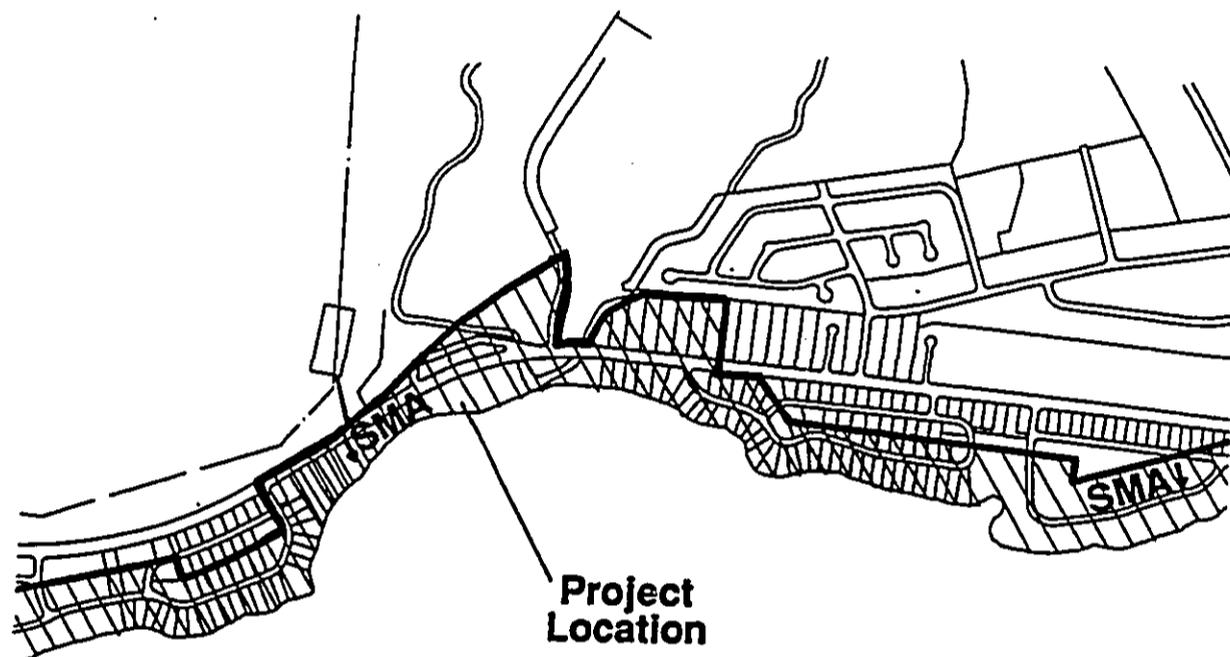
COUNTY ZONING
Makaha Beach, Oahu

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Figure 9. SMA Boundary



**SPECIAL MANAGEMENT AREA
(SMA) BOUNDARY
Makaha Beach, Oahu**

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5.7 SHORELINE SETBACK VARIANCE

A Shoreline Setback Variance (SSV) will be required for the proposed landing site because the project will require siting cables from the certified shorelines, to the open end of the ductlines that would accept the fiber optic cables. The proposed project, therefore, will be subject to the provisions of the Shoreline Setback Rules and Regulations of the City and County of Honolulu.

SECTION 6

ALTERNATIVES TO THE PROPOSED ACTION

6.1 NO ACTION

The no action alternative would result in:

- a. The lost opportunity for enhanced telecommunications connectivity between Hawaii, Asia and the continental U.S. required to meet the exploding public and private demand for digital voice, video, data and internet services;
- b. Lost employment opportunities which would have been realized in conjunction with the cable laying, conduit construction, and subsequent maintenance and operation activities;
- c. Lost tax revenues for State government from the cable vendor, and increased public and private telecommunications usage; and
- d. Lost attainment of the City and County of Honolulu General Plan's objective of expansion of existing utilities systems.

6.2 ALTERNATIVE SITES

The owners of the Japan-U.S. Cable Network selected the Waianae Coast of Oahu for landing of two segments of the system based on the availability of AT&T's existing undersea cable stations, and associated infrastructure, which are operated and maintained on a 24 hour per day, 7 day per week basis by a qualified local onsite work force.

AT&T owns and operates two undersea cable stations: one located at Makaha Beach and the other at Keawaula. Both locations have a number of in-service fiber optic cable landings, the locations are interconnected and both stations are tied into a local fiber optic network on the island. Based on previous feasibility studies, route surveys and a successful history of installation and operation of cable over the last 35 years, both Makaha and Keawaula were considered uniquely suitable sites for termination of the Japan-U.S. Cable Network. However, only the Makaha Cable Station had sufficient space available to accommodate the new

telecommunications equipment required for the Japan-U.S. cables.

6.3 ALTERNATIVE TECHNOLOGY

Satellites. Satellites represent one of the alternative technologies occasionally considered suitable in lieu of fiber optic cables. However, satellites are not a feasible alternative for the Japan-U.S. Cable Network because of extreme disadvantages associated with the use of satellites which include:

1. Transmission delays due to technical and atmospheric limitations involving the distance the radio waves must travel;
2. Visual and aesthetic intrusion caused by the need for ground stations and radio antennas which must be constructed to accept the satellite transmissions; and
3. Difficulties associated with "double hops" which occur when data must be retransmitted in order to establish a secure voice circuit.

In comparison with satellites, fiber optic technology is the only means of providing the capacity necessary for high speed digital transmission quality and capacity required for the Japan-U.S. Cable Network.

6.4 RECOMMENDED ACTION

The recommended action is to proceed with the establishment of the proposed submarine fiber optic cable system with landings at Makaha Beach.

SECTION 7
RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF
THE ENVIRONMENT AND THE MAINTENANCE AND
ENHANCEMENT OF LONG-TERM PRODUCTIVITY

No short-term exploitation of resources resulting from development of the project site will have long-term adverse consequences. The appearance of the land portion of the existing site will not be altered. The cable may be visible on the ocean bottom portion of the project site and will alter its appearance.

Once construction activities are completed there will be no affect on recreational activities, marine life, or wildlife.

Long-term gains resulting from development of the proposed project include provision of higher capacity and more reliable telecommunications systems (by means of fiber optic cables). The proposed project will maintain and enhance economic productivity by increasing connectivity with Asia and the U.S. mainland and competitive telecommunications service.

SECTION 8
IRREVERSIBLE / IRRETRIEVABLE COMMITMENT OF
RESOURCES BY THE PROPOSED ACTION

Development of the proposed project will involve the irretrievable loss of certain human and fiscal resources. However, the costs associated with the use of these resources should be evaluated in light of recurring benefits to the State of Hawaii and the City and County of Honolulu.

It is anticipated that the construction of the proposed project will commit the necessary construction materials and human resources (in the form of planning, designing, engineering, construction labor, landscaping, and personnel for management and maintenance functions). Reuse for much of these materials and resources is not practicable. Although labor is compensated during the various stages of development, labor expended for project development is non-retrievable.

SECTION 9 SUMMARY OF IMPACTS AND EIS DETERMINATION

9.1 SUMMARY OF IMPACTS

9.1.1 Physical Impacts

No long term negative physical impacts are anticipated with the implementation of the proposed action. Short-term, construction related impact such as noise and dust are anticipated, but should be adequately mitigated through the use of sound construction practices.

Beneficial impacts of the project are those related to the provision of increased capacity, reliability and speed of telecommunication facilities to the islands.

9.1.2 Impacts on Public Services

No long term negative impacts are anticipated to public services being provided by AT&T.

9.1.3 Socio-Economic Impacts

No long term negative impacts are anticipated to the socio-economic environment as a result of the implementation of the proposed action. Short-term benefits of this project is the creation of employment in the construction industry.

9.2 NEED FOR AN ENVIRONMENTAL IMPACT STATEMENT (EIS)

Because no long term adverse impacts are anticipated resulting from the proposed fiber optic cables it has been determined that an environmental impact statement is not required.

9.3 SIGNIFICANCE CRITERIA

According to the Department of Health Rules (Chap. 11-200-12), an applicant or agency must determine whether an action may have a significant impact on the environment, including all phases of the project, its expected consequences, both primary and secondary, its cumulative impact with other projects, and its short and long-term effects. In making the determination, the Rules establish a Significance Criteria to be used as a basis for identifying whether significant environmental impacts will occur. According to the Rules, an action shall be determined to have a significant impact on the environment if it meets any on of the following criteria:

- (1) *Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;*

The proposed action will not entail the loss or destruction of any natural or cultural resource.

(2) *Curtails the range of beneficial uses of the environment;*

The proposed fiber optic cable project is being built within a previously developed complex of communication cables and therefore will limit certain types of development; however, existing recreation activities will be impacted in the short-term.

(3) *Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS; and any revisions thereof and amendments thereto, court decisions, or executive orders;*

The proposed action does not conflict with the State's long-term environmental policies or goals and guidelines.

(4) *Substantially affects the economic or social welfare of the community or state;*

The proposed action could have a substantial affect on the economic welfare of the community and state by providing greater communications access and providing band width capacity for new technologies.

(5) *Substantially affects public health;*

The proposed action will not have a substantially affect on public health.

(6) *Involves substantially secondary impacts, such as population changes or effect on public facilities;*

The proposed action will not have adverse secondary impacts.

(7) *Involves a substantial degradation of environmental quality;*

The proposed action will not have a substantial degradation of environmental quality. The proposed site is within an urban environment and in an area previously developed.

(8) *Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions;*

The proposed project is part of a large telecommunications network that will interconnect Japan and the far east, with Hawaii and the continental U.S. This system will provide additional connectivity and capacity to the existing systems currently serving Hawaii

through the Makaha Cable Station. One of the reasons the Makaha site was selected was because there would be no impact to the ocean environment.

(9) *Substantially affect a rare, threatened or endangered species or its habitat;*

The proposed project will not impact any rare, threatened or endangered species or its habitat.

(10) *Detrimentially affects air or water quality or ambient noise levels;*

The proposed project will not detrimentally impact air or water quality.

(11) *Affects or is likely to suffer damage buy being located in an environmentally sensitive area, such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters;*

The proposed project will not be developed in an environmentally sensitive area.

(12) *Substantially affects scenic vistas and view planes identified in county or state plans or studies; and*

The proposed project will not impact any scenic vistas or view planes.

(13) *Requires substantial energy consumption.*

The proposed development of the Japan-U.S. Cable Network will require the consumption of energy, both during its construction and for its operations. The project, however, cannot be considered a substantial energy user.

SECTION 10
NECESSARY PERMITS AND APPROVALS

10.1 STATE

Department of Land and Natural Resources

Conservation District Use Permit

Right-of-Entry

Establishment of Offshore Easement

Office of State Planning

Coastal Zone Management Consistency Review

Department of Health

Section 401 Water Quality Certification

Department of Transportation

Permit to Work in Ocean Waters

Highway Easement

10.2 CITY AND COUNTY OF HONOLULU

Department of Planning and Permitting

Shoreline Setback Variance

10.3 FEDERAL

U.S. Army Corps of Engineers

Department of the Army Permit, Section 404/Section 10

SECTION 11
CONSULTED AGENCIES AND PARTICIPANTS
IN THE PREPARATION OF THE ENVIRONMENTAL
ASSESSMENT

(Comments received are in Section 12)

11.1 FEDERAL AGENCIES

U S. Army Corps of Engineers
U.S. Fish and Wildlife Service
National Marine Fisheries Service
U.S. Coast Guard

11.2 STATE AGENCIES

Department of Land and Natural Resources
 Land Division
 Historic Preservation Division
Department of Health
Department of Transportation
 Harbors Division
 Highways Division
Department of Business, Economic Development & Tourism
Office of Environmental Quality Control

11.3 CITY AND COUNTY OF HONOLULU

Department of Planning and Permitting
Department of Design and Construction
Department of Parks and Recreation
Department of Transportation Services
Board of Water Supply
Fire Department

11.4 INDIVIDUALS AND GROUPS

Waianae Neighborhood Board

SECTION 12
COMMENTS AND RESPONSES TO THE
DRAFT ENVIRONMENTAL ASSESSMENT



DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

March 22, 1999

99 MAR 25 PM 1:45

REPLY TO
ATTENTION OF

Operations Branch

DEPT OF THE ARMY
ENGINEER DISTRICT
CITY & COUNTY OF HONOLULU

Ms. Jan Naoe Sullivan
Director of Planning and Permitting
City and County of Honolulu
650 South Street
Honolulu, Hawaii 96813

Dear Ms. Sullivan:

This letter responds to your request dated March 10, 1999, for our review of the draft Environmental Assessment for the AT&T Japan-U.S. Cable Network. I have determined that a DA permit will be required for this project, and we presently processing their permit application.

If you have any questions concerning this determination, please contact William Lennan of my staff at 438-9258, extension 13, and reference File No. 990000226.

Sincerely,

George P. Young, P.E.
Chief, Operations Branch

420 Waiakamilo Road
Suite 411
Honolulu Hawaii 96817-4941
Telephone 808 842 1133
Fax 808 842 1937
eMail rmtowill@i-one.com



R. M. TOWILL CORPORATION
SINCE 1930

Planning
Engineering
Environmental Services
Photogrammetry
Surveying
Construction Management

May 4, 1999

Mr. George Young, Chief
Operations Branch
U.S. Army Corps of Engineers, Honolulu
Fort Shafter, Hawaii 96858-5440

Dear Mr. Young:

SUBJECT: Draft Environmental Assessment for AT&T Japan-US Fiber Optic Cable Network at
Makaha Beach, Oahu

The following is in response to your letter of March 22, 1999. We will continue to coordinate our efforts with your office to secure a Department of the Army permit for this project.

Thank you for your comments. Should you have additional comments or questions, please contact me.

Very truly yours,

Chester Koga, AICP
Project Manager

U.S. Department
of Transportation

United States
Coast Guard



Commander
Fourteenth Coast Guard District
Prince Kalaniana'ole Federal Building

600 Ala Moana Blvd., 9th Floor
Honolulu, HI 96850-4982
Staff Symbol: dpl
Phone: (808) 541-2126
FAX: (808) 541-3103

11011

APR 7 1999

99 APR -9 P11 2:07

Jan Naoe Sullivan
Director, Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, HI 96813

Dear Madam:

This is in response to your letter of March 10, 1999 concerning the Environmental Assessment for the AT&T Japan-U.S. Cable Network at Makaha Beach, Oahu, Hawaii.

The Coast Guard has reviewed the Environmental Assessment and has no comments regarding the impact on resources along the shoreline and within the shoreline setback area. Please provide us an opportunity to comment if there are any proposed changes to the project's scope of work.

The Coast Guard's project office in this matter is CDR Rick Beseler, District Planning Officer. He may be reached at (808) 541-2126 or rbeseler@d14.uscg.mil if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "G. T. Goodwin".

G. T. GOODWIN
Captain, U. S. Coast Guard
Chief of Staff

420 Waiakamilo Road
Suite 411
Honolulu Hawaii 96817-4941
Telephone 808 842 1133
Fax 808 842 1937
eMail rmtowill@i-one.com



R. M. TOWILL CORPORATION
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Planning
Engineering
Environmental Services
Photogrammetry
Surveying
Construction Management

May 4, 1999

Captain G. T. Goodwin
U.S. Coast Guard, 14th Coast Guard District
300 Ala Moana Boulevard, 9th Floor
Honolulu, Hawaii 96850-4982

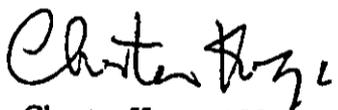
Dear Capt. Goodwin:

SUBJECT: Draft Environmental Assessment for AT&T Japan-US Fiber Optic Cable Network at
Makaha Beach, Oahu

The following is in response to your letter of April 7, 1999. We will advise your office and post a notice to mariners to advise them of the cable laying operations in Hawaiian waters.

Thank you for your comments. Should you have additional comments or questions, please contact me.

Very truly yours,


Chester Koga, AICP
Project Manager

BENJAMIN J. CAYETANO
GOVERNOR



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4186
FACSIMILE (808) 586-4186

59 APR 28 AM 8:19

OFFICE OF ENVIRONMENTAL QUALITY CONTROL
HONOLULU

April 22, 1999

Jan Sullivan, Director
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Attn: Steve Tagawa

Dear Ms. Sullivan:

Subject: Draft Environmental Assessment (EA) for AT&T Japan-US Fiber Optic
Cable Network at Makaha Beach, Oahu

In order to reduce bulk and conserve paper, we recommend printing on both sides of the pages in the final document. In addition we have the following comments to offer:

Multiple or phased actions:

Section 1.2, *Project Location*, notes that 6 transpacific and 2 interisland cables are currently located at Makaha Beach, having been installed in 6 different years between 1972 and 1996. This draft EA represents the 7th installation of cable. Please describe your agency's policy on limitation of location of such facilities at a public recreational site.

Number 8 of the significance criteria analysis, Section 9.3, mentions that this project is part of a large complex. Section 11-200-7 of Hawaii Administrative Rules prohibits segmentation of larger projects and requires that full disclosure of impacts be made on projects in their entirety. In the final EA please describe fully the complex of facilities.

Hazards:

Section 2.2.5, *Dumping Areas*, describes a large explosive dump of disposed ordnance west of Oahu. Please discuss the possibility of a new cable deto-

Jan Sullivan
April 22, 1999
Page 2

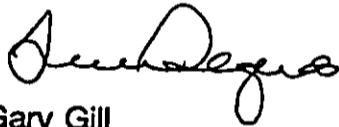
nating the dump or individual pieces of ordnance. In the final EA fully discuss this possible scenario, including impacts to human and marine environments, and what measures will be taken to reduce or eliminate these impacts.

Contacts:

Please document all contacts in the final EA, including those made during the pre-consultation phase, and include copies of any correspondence.

If you have any questions please call Nancy Heinrich at 586-4185.

Sincerely,



for Gary Gill
Interim Director

c: Wade Higa, AT&T
Chester Koga, RM Towill

420 Waiakamilo Road
Suite 411
Honolulu Hawaii 96817-4941
Telephone 808 842 1133
Fax 808 842 1937
eMail rmtowill@i-one.com



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Construction Management

May 4, 1999

Mr. Gary Gill, Interim Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Mr. Gill:

SUBJECT: Draft Environmental Assessment for AT&T Japan-US Fiber Optic Cable Network at Makaha Beach, Oahu

The following is in response to your letter of April 22, 1999.

1. Multiple or Phased Actions: The proposed action is not part of a larger action in Hawaii, rather the project in Hawaii is but a small part of the Japan-US cable network that interconnects Japan and the far east, with Hawaii and the continental U.S. Some of the existing cables landed at Makaha will interconnect with this new system, while others will not. Therefore, this project should be viewed as an independent action.

The choice to choose Makaha as the cable landing site was due, in large part, to the availability of space that the Makaha Cable Station. Whether or not other cables will be installed at Makaha is speculation at this time.

2. Hazards. The proposed cable will be placed to avoid the ordnance dumping area. The proposed cable will not pose any risk to human activity at Makaha Beach. Further, because the cable is placed on the sand bottom at Makaha, there is little risk to the marine environment.
3. Contacts. Comments received on this project will be appended to the Final EA.

Thank you for your comments. Should you have additional comments or questions, please contact me.

Very truly yours,

Chester Koga, AICP
Project Manager

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhikawa Building, Room 655
601 Kamehameha Boulevard
Kapolei, Hawaii 96707

TIMOTHY E. JOHNS, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
JANET E. KAWELO

99 APR -8 AM 8:59

AGRICULTURE RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES
ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

March 29, 1999

Jan Naoe Sullivan, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

LOG NO: 23143 ✓
DOC NO: 9903EJ25

Dear Ms. Sullivan:

**SUBJECT: Chapter 6E-42 Historic Preservation Review -- Draft Environmental Assessment for Japan - U. S. Cable Network Submarine Fiber Optic Cable Landings, Cable Station Improvements, and Shore-End Improvement at Makaha Beach, O'ahu
Makaha, Wai'anae, O'ahu
TMK: 8-4-01:012; 8-4-02:014**

Thank you for the opportunity to review this project to construct and install a new transpacific submarine fiber optic cable system to link Japan, Hawaii and California. The new cable and associated ductlines and manholes will be placed near existing cable easements at Makaha beach. Ground disturbance for this project includes a new ductline within the Farrington highway and Makaha Cable station road easements and excavation of a new beach manhole adjacent to the existing beach manhole.

A review of our records shows that there are no known historic sites located within the project areas. The proposed new duct line which parallels Farrington Highway along its *makai* edge is in an area unlikely to contain historic sites due to the periodic erosion of sand due to heavy surf. Because it is unlikely that historic sites will be found, we believe that this project will have "no effect" on historic sites.

In the unlikely event that historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity must stop and the State Historic Preservation Division must be contacted at 692-8015.

If you have any questions please call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027.

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

EJ:jk

c: Bill Lennan, CEPOH-CO-OR, Regulatory Branch/Department of the Army, U. S. Army Engineer District, Honolulu, Ft. Shafter, Hawaii 96858-5440

420 Waiakamilo Road
Suite 411
Honolulu Hawaii 96817-4941
Telephone 808 842 1133
Fax 808 842 1937
eMail rmtowill@i-one.com



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Construction Management

May 4, 1999

Mr. Donald Hibbard, Administrator
Historic Preservation Division
Kakuhihewa Building, Room 555
Kapolei, Hawaii 96707

Dear Mr. Hibbard:

SUBJECT: Draft Environmental Assessment for AT&T Japan-US Fiber Optic Cable Network at
Makaha Beach, Oahu

The following is in response to your letter of March 29, 1999. This is to confirm that in the unlikely event that historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity will stop and the State Historic Preservation Division contacted at 692-8015.

Thank you for your comments. Should you have additional comments or questions, please contact me.

Very truly yours,

Chester Koga, AICP
Project Manager



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

OFFICE OF PLANNING

235 South Beretania Street, 6th Fl., Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Ref. No. P-8019

April 1, 1999

Mr. Chester Koga
R.M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817-4941

Dear Mr. Koga:

**Subject: Hawaii Coastal Zone Management (CZM) Program Federal Consistency for
AT&T Fiber-Optic Cable Landings at Makaha Beach, Oahu; Department of the
Army Permit File No. 990000233**

This responds to your letter dated March 19, 1999, requesting CZM consistency review for the AT&T fiber-optic cable landings at Makaha Beach, Oahu. According to the U.S. Army Corps of Engineers, the cable landings can be authorized under General Permit GP95-002 for Utility Lines In, Under or Above Waters of the United States. Individual CZM consistency reviews are not routinely required for authorizations by the Corps under GP95-002 because CZM general consistency was previously issued for this general permit. We have reviewed the project and do not have any objections to the general permit authorization.

This determination is not an endorsement of the project nor does it convey approval with any other regulations administered by any State or County agencies, such as the Conservation District Use Permit, the Special Management Area Permit and the Shoreline Area regulations. Thank you for your cooperation in complying with Hawaii's CZM Program. If you have any questions, please call John Nakagawa of our CZM Program at 587-2878.

Sincerely,

David W. Blane
Director
Office of Planning

1999/CLOG-242

BENJAMIN J. CAYETANO
GOVERNOR
SELI F. NAYA
DIRECTOR

BRADLEY J. MOSSMAN
DEPUTY DIRECTOR

David W. Blane
DIRECTOR, OFFICE OF PLANNING

'99 APR 12 AM 9 40
Tel.: (808) 587-2846
Fax: (808) 587-2824

DEPT. OF PLANNING
OFFICE OF PLANNING
CITY & COUNTY OF HONOLULU

Mr. Chester Koga
Page 2
April 1, 1999

cc: U.S. Army Corps of Engineers, Operations Branch
U.S. National Marine Fisheries Service, Pacific Area Office
U.S. Fish and Wildlife Service, Pacific Islands Ecoregion
Department of Health, Clean Water Branch
Department of Land & Natural Resources,
Planning & Technical Services Branch
✓ City & County of Honolulu, Department of Planning & Permitting

420 Waiakamilo Road
Suite 411
Honolulu Hawaii 96817-4941
Telephone 808 842 1133
Fax 808 842 1937
eMail rmtowill@i-one.com



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Construction Management

May 4, 1999

Mr. David W. Blane, Director
Office of Planning
235 South Beretania Street, 6th Floor
Honolulu, Hawaii 96813

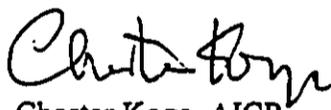
Dear Mr. Blane:

SUBJECT: Draft Environmental Assessment for AT&T Japan-US Fiber Optic Cable Network at
Makaha Beach, Oahu

The following is in response to your letter of April 1, 1999. This is to confirm that a General Permit
has been applied for from the U. S. Army Corps of Engineers.

Thank you for your comments. Should you have additional comments or questions, please contact me.

Very truly yours,


Chester Koga, AICP
Project Manager



99 APR 14 AM 8:27

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P.O. BOX 621
HONOLULU, HAWAII 96809

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

April 12, 1999

Ref: PS:EH

Ms. Jan Naoe Sullivan, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Ms. Sullivan:

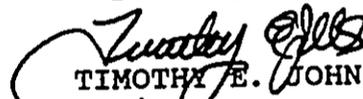
Subject: Environmental Assessment for AT&T Japan-U.S.
Cable Network at Makaha Beach, Oahu

We have completed our review of the subject document and note that it is recognized that a Conservation District Use Permit, Right of Entry on State lands, and establishment of an Offshore Easement will be required for the proposed project.

These permits and approvals will be necessary to obtain from the Board and Department of Land and Natural Resources.

Thank you for the opportunity to comment on the subject document.

Very truly yours,


TIMOTHY E. JOHNS
Chairperson

420 Waiakamilo Road
Suite 411
Honolulu Hawaii 96817-4941
Telephone 808 842 1133
Fax 808 842 1937
eMail rmtowill@i-one.com



R. M. TOWILL CORPORATION
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Construction Management

May 4, 1999

Mr. Timothy E. Johns, Chairperson
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Johns:

SUBJECT: Draft Environmental Assessment for AT&T Japan-US Fiber Optic Cable Network at
Makaha Beach, Oahu

The following is in response to your letter of April 12, 1999. We will coordinate our design and construction activities with your Department. As part of this project a Conservation District Use Permit and a Grant of Easement request will be filed with the Department.

Thank you for your comments. Should you have additional comments or questions, please contact me.

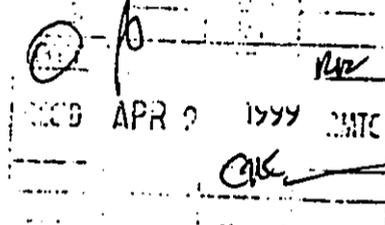
Very truly yours,

Chester Koga, AICP
Project Manager

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

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

JEREMY HARRIS
MAYOR



JAN NAOE SULLIVAN
DIRECTOR

LORETTA K C CHEE
DEPUTY DIRECTOR

April 22, 1999

1999/SV-2 (ST)

Mr. Chester T. Koga, AICP
R. M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817-4941

Dear Mr. Koga:

Draft Environmental Assessment (EA)
AT&T Japan-U.S. Fiber Optic Cable Network at Makaha Beach
Makaha, Oahu, Tax Map Keys: 8-4-1: por. 12; 8-4-2: por. 41

We have reviewed the Draft EA for the above-referenced project and have the following comments:

SECTION 3.3 PHASE 2 - LAND-SIDE ACTIVITY

The final EA should clarify whether the estimated 496 cubic yards of sand to be excavated also includes sand from below (makai) the certified shoreline (within the Conservation District). This section should also clarify where the construction equipment (i.e., back hoes, etc.) will be stored and how they will be secured. This section should also include an exhibit which illustrates what the "range targets" look like and how they are installed.

SECTION 3.4 PHASE 3 - CABLE LANDING PROCESS

This section should clarify how large an area of the beach will need to be closed during this process. In addition, several exhibits should be provided which illustrate the cable laying procedure (i.e., the location of the winch and cable pulling apparatus).

SECTION 3.5 - SAFETY CONSIDERATIONS

An exhibit should be provided which illustrates the area of the near shore waters which will have to be closed from ocean activities (i.e., surfing, diving, etc.) during the two-day cable laying process.

Mr. Chester T. Koga, AICP
Page 2
April 22, 1999

SECTION 3.6 - SCHEDULE AND ESTIMATED COSTS

The Draft EA indicates that the project is scheduled for the fourth quarter of 1999. We note that fall is the beginning of the high surf season that is experienced in this area during the winter months. We question the scheduling of the project at this time and at a minimum, would like to see a discussion of contingency plans should high surf conditions occur once the project has been initiated.

SECTION 5.6 - SPECIAL MANAGEMENT AREA

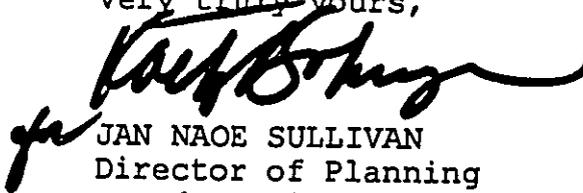
Insofar as the proposed project will utilize existing cable easements, a Special Management Area Use Permit (SMP) will not be required pursuant to Section 25-1.3(2)(M), Revised Ordinances of Honolulu.

SECTION 8 - IRREVERSIBLE/IRRETRIEVABLE COMMITMENT OF RESOURCES

The final EA should clarify what is the "irretrievable loss of certain environmental" resources. According to previous sections of the Draft EA, there are no long-term environmental impacts which are anticipated from this project.

Please call Mr. Steve Tagawa of our staff at 523-4817 if you have any questions regarding this matter.

Very truly yours,


JAN NAOE SULLIVAN
Director of Planning
and Permitting

JNS:am

posse doc no. 3862

420 Waiakamilo Road
Suite 411
Honolulu Hawaii 96817-4941
Telephone 808 842 1133
Fax 808 842 1937
eMail rmtowill@i-one.com



R. M. TOWILL CORPORATION
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May 17, 1999

Ms. Jan Naoe Sullivan, Director
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813
Attn: S. Tagawa

Dear Ms. Sullivan:

SUBJECT: Draft Environmental Assessment for the AT&T Japan-US Cable Network at Makaha Beach, Oahu

Thank you for your comments of April 22, 1999. We would like to offer the following in response to you inquiries:

1. Section 3.3, Phase 2 - Landside Activity -- The sand to be excavated will be stored on shore adjacent to the work area and will be moved by an excavator or bulldozer. This equipment is "tracked" and therefore will be able to move on the sand. No sand will be excavated from submerged areas. The range targets will be mounted on poles. The targets are shaped as a triangle and a diamond. They are approximately 4 feet across. A drawing of the target location is attached as Figure 1. The a plan of the range target shown as Figure 3. The construction equipment (winch, excavator, bulldozer and crane) will be store on site within a define area. A barricade will be set up to direct the public away from the machinery.
2. Section 3.4 Phase 3 - Cable Landing Process -- The area to be closed is approximately 200 to 500 feet from the cable alignment. The remaining area will be available for use by the public. Persons wishing to cross the cable alignment will be directed around the work area. Project personnel in the water and on land will direct the public around the work area. A schematic of the work area layout is attached as Figure 1 and Figure 2.
3. Section 3.5 Safety Considerations -- see No. 2 above.
4. Section 3.6 - Schedule and Estimated Costs -- When scheduling the work, safety is considered and not compromised. In the event of very high surf (greater that 5 feet), the only work that will require suspension is the installation of the cable protectors where divers will need to work in the

RECEIVED
'99 JUN 1 PM 12:01
DEPT. OF PLANNING
& PERMITTING
C & C OF HONOLULU

Ms. Jan Naoe Sullivan, Director
Page 2

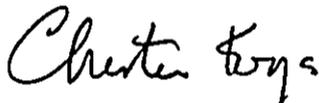
near shore areas. The pulling of the cable from the cable ship to shore can still proceed as the cable ship can remain outside of the areas affected by the surf. Further, the work area will be barricaded to prevent the public from entering the work area on shore. In the water, work boats will be used advise ocean users of the hazards.

5. Section 5.6 Special Management Area -- The requirement of a SMP is noted.

6. Section 8 - Irreversible/Irretrievable Commitment of Resources -- There will not be a loss of environmental resources. As clarification, we will re-word the paragraph to indicate the there will be use of construction materials and human resources on the project.

Should you have additional comments please contact me.

Very truly yours,



Chester Koga, AICP
Project Manger

Attachments (3)

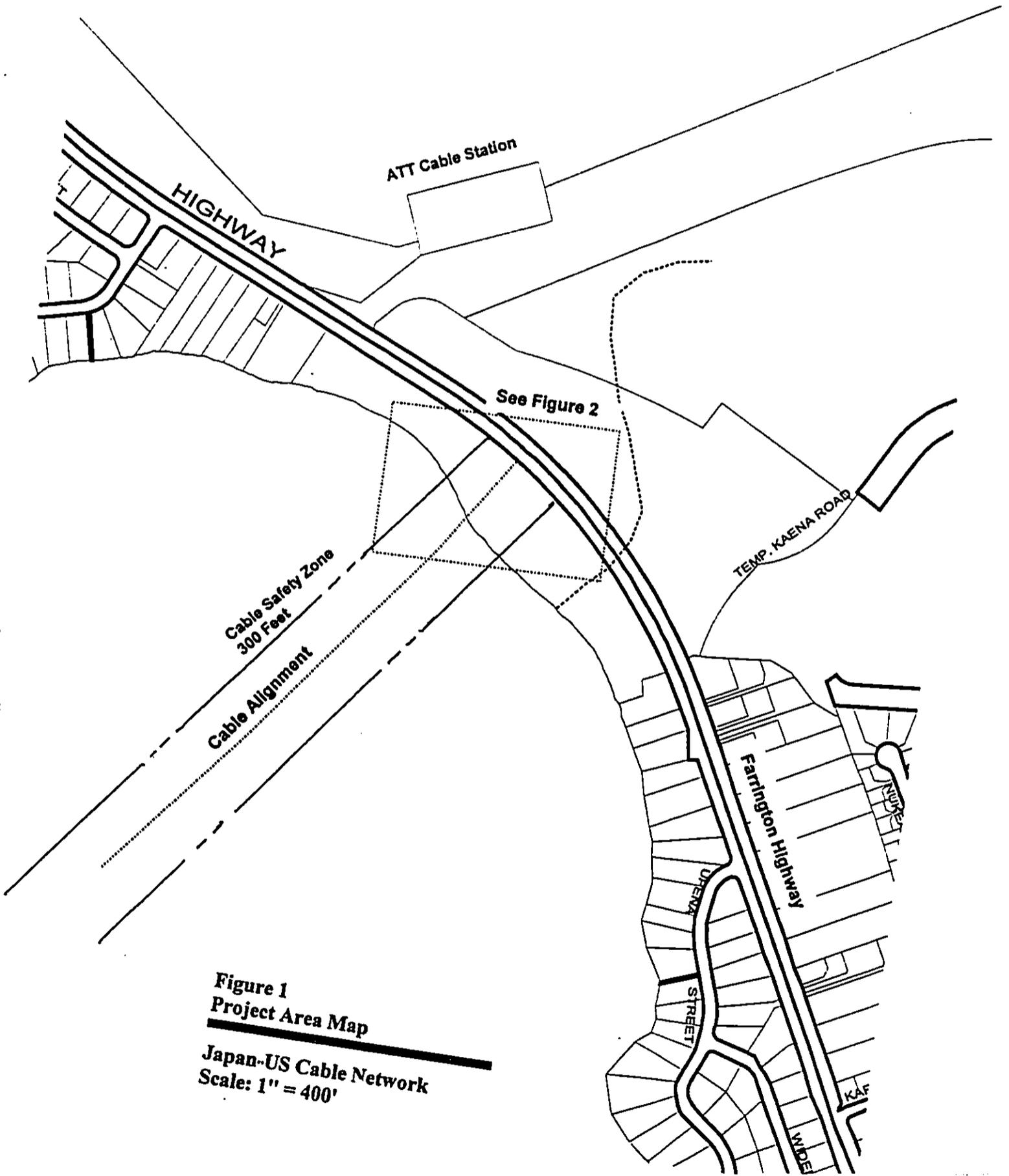
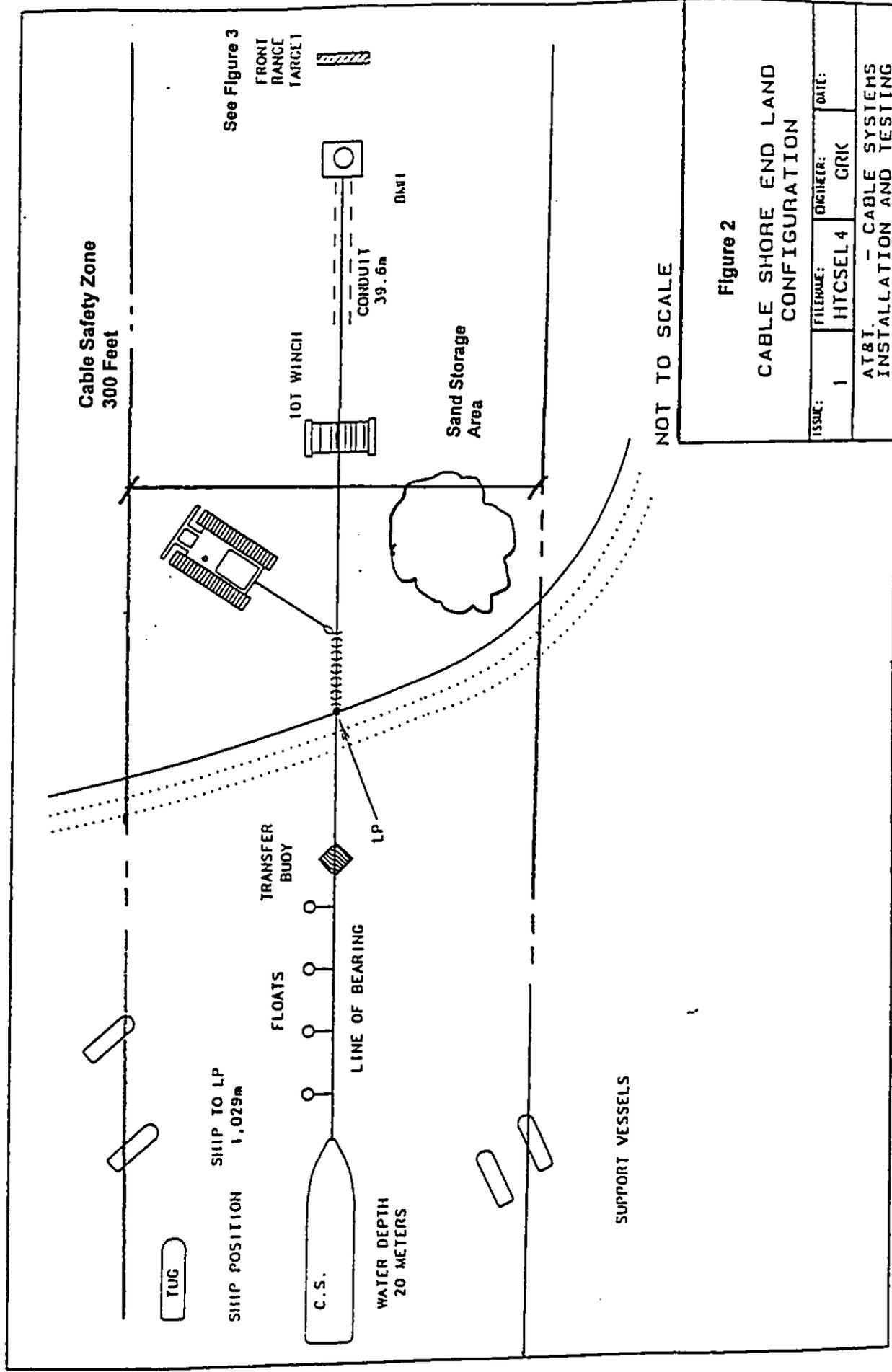


Figure 1
Project Area Map
Japan-US Cable Network
Scale: 1" = 400'



NOT TO SCALE

Figure 2
CABLE SHORE END LAND
CONFIGURATION

ISSUE:	1	FILENAME:	HTCSEL4	ENGINEER:	GRK	DATE:	
AT&T - CABLE SYSTEMS INSTALLATION AND TESTING							

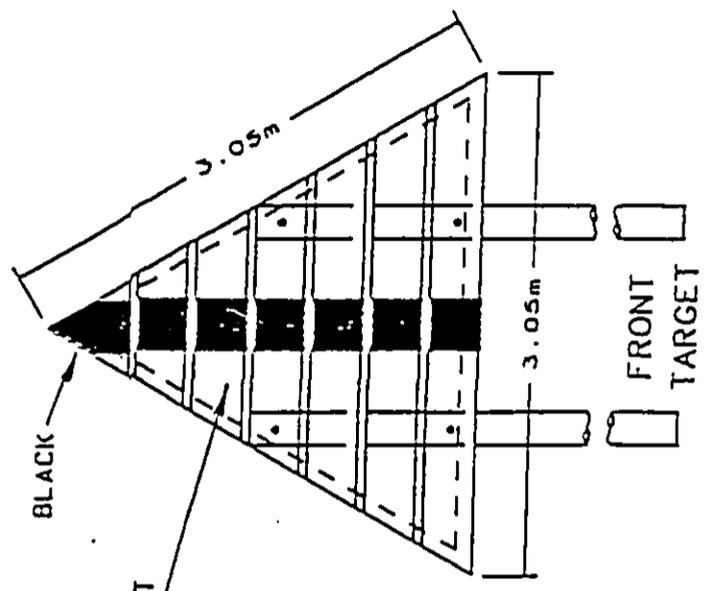
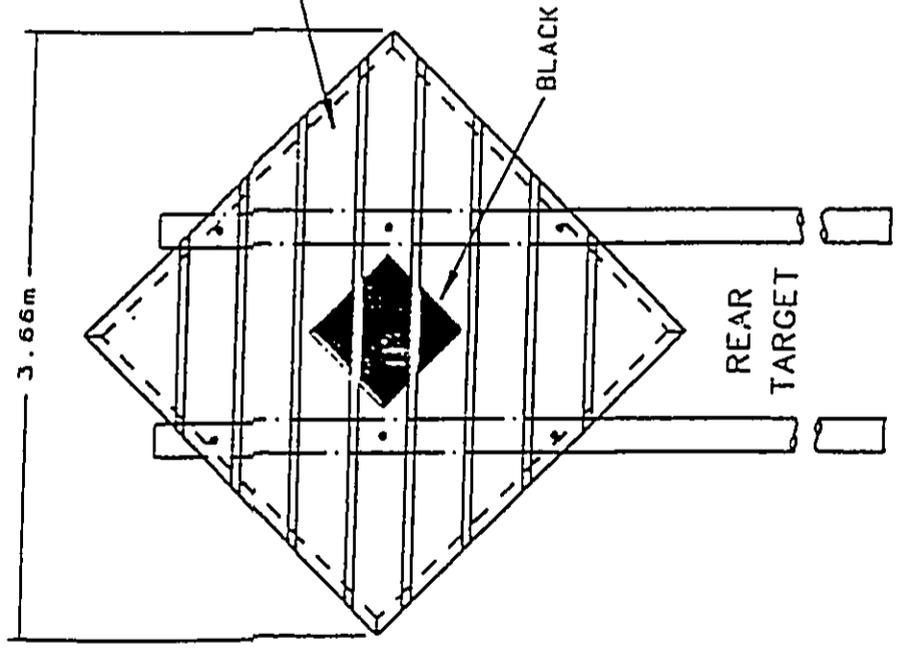


Figure 3

NOTE: ALL DIMENSIONS IN METERS.

TYPICAL RANGE MARKERS

ISSUE:	FILED:	ENGINEER:	DATE:
3	TARGET3	GRK	
AT&T - CABLE SYSTEMS INSTALLATION & TESTING			

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96843

99 APR 21 AM 8:29



CITY AND COUNTY OF HONOLULU
April 19, 1999

JEREMY HARRIS, Mayor
EDDIE FLORES, JR., Chairman
FORREST C. MURPHY, Vice Chairman
KAZU HAYASHIDA
JAN M.L.Y. AMII
BARBARA KIM STANTON
CHARLES A. STED

CLIFFORD S. JAMILE
Manager and Chief Engineer

TO: JAN NAOE SULLIVAN, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: 
CLIFFORD S. JAMILE

SUBJECT: YOUR TRANSMITTAL OF MARCH 10, 1999 ON
THE DRAFT ENVIRONMENTAL ASSESSMENT FOR
THE AT&T JAPAN-U.S. CABLE NETWORK, MAKAHA
BEACH, OAHU, TMK: 8-04-01: 12; 8-04-02: 41

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the proposed project. We have the following comments to offer:

1. We have no objections to the proposed additions to the existing fiber optic cable system.
2. The construction plans should be submitted for our review and approval.
3. There are three water services in the project vicinity. One 2-inch water meter serves the cable station and two 2-inch water meters serve Makaha Beach Park.
4. Our cross-connection control and backflow prevention requirements will be determined when the construction plans are submitted. Civil and mechanical plans for the cable station should be included as part of this submittal.

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

420 Waiakamilo Road
Suite 411
Honolulu Hawaii 96817-4941
Telephone 808 842 1133
Fax 808 842 1937
eMail rmtowill@i-one.com



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May 4, 1999

Mr. Clifford S. Jamile, Manager
Board of Water Supply
630 South Beretania Street
Honolulu, Hawaii 96813

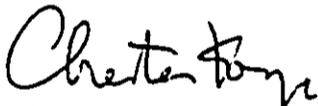
Dear Mr. Jamile:

SUBJECT: Draft Environmental Assessment for AT&T Japan-US Fiber Optic Cable Network at
Makaha Beach, Oahu

The following is in response to your letter of April 19, 1999. We will coordinate our design and construction activities with your agency to ensure compliance with applicable rules and regulations.

Thank you for your comments. Should you have additional comments or questions, please contact me.

Very truly yours,


Chester Koga, AICP
Project Manager

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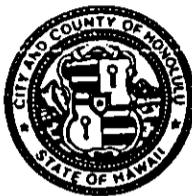
DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 10TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4182 • FAX: (808) 523-4054

99 APR -6 AM 9:34

JEREMY HARRIS
MAYOR

DEPT OF PLANNING
AND PERMITTING
CITY & COUNTY OF HONOLULU



WILLIAM D. BALFOUR, JR.
DIRECTOR

MICHAEL T. AMII
DEPUTY DIRECTOR

April 1, 1999

TO: JAN NAOE SULLIVAN, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: WILLIAM D. BALFOUR, JR., DIRECTOR

SUBJECT: ENVIRONMENTAL ASSESSMENT, CHAPTER 343, HRS
PROJECTS WITHIN THE SHORELINE SETBACK

We have reviewed the above referenced document and do not anticipate any adverse impact on beach resources.

We wish to convey, however, that Makaha Beach Park is an international surfing destination and a popular site for many surfing tournaments throughout the year. The right-of-entry permits to conduct any construction in the beach area should be submitted well enough in advance to avoid conflicting with long-standing surfing tournaments.

Thank you for the opportunity to review and comment on the Environmental Assessment relating to the AT&T Japan-U.S. Cable Network Project.

Should you need further information, please have you staff contact Mr. Don Kusunoki, Leeward District Manager, at 671-0561.

W.D. Balfour, Jr.
WILLIAM D. BALFOUR, JR.
Director

WDB:ry

420 Waiakamilo Road
Suite 411
Honolulu Hawaii 96817-4941
Telephone 808 842 1133
Fax 808 842 1937
eMail rmtowill@i-one.com



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Environmental Services
Photogrammetry
Surveying
Construction Management

May 4, 1999

Mr. William D. Balfour, Jr., Director
Department of Parks and Recreation
650 South King Street, 10th Floor
Honolulu, Hawaii 96813

Dear Mr. Balfour:

SUBJECT: Draft Environmental Assessment for AT&T Japan-US Fiber Optic Cable Network at
Makaha Beach, Oahu

The following is in response to your letter of April 1, 1999. We will coordinate our design and construction activities with your office. We will be avoiding periods when there will be surfing meets at Makaha. A right-of-entry will be sought for the work on the beach.

Thank you for your comments. Should you have additional comments or questions, please contact me.

Very truly yours,

Chester Koga, AICP
Project Manager

CLB

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

99 APR 26 AM 8:46

JEREMY HARRIS
MAYOR

CITY & COUNTY OF HONOLULU



CHERYL D. SOON
DIRECTOR
JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

April 22, 1999

TPD3/99-01238R

MEMORANDUM

TO: JAN NAOE SULLIVAN, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

ATTN: STEVE TAGAWA, STAFF PLANNER

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: AT&T JAPAN-U.S. CABLE NETWORK

In response to your March 10, 1999 memorandum, the draft environmental assessment for the subject project was reviewed. Section 4.3.1, Transportation Facilities, states that construction of the ductlines will impact traffic on Farrington Highway, which is a State Department of Transportation (SDOT) facility. Therefore, this project should be coordinated with the SDOT. We have no objections or other comments regarding the transportation or traffic impacts of this project.

Should you have any questions regarding this matter, please contact Faith Miyamoto of the Transportation Planning Division at Local 6976.

CHERYL D. SOON

420 Waiakamilo Road
Suite 411
Honolulu Hawaii 96817-4941
Telephone 808 842 1133
Fax 808 842 1937
eMail rmtowill@i-one.com



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May 4, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

SUBJECT: Draft Environmental Assessment for AT&T Japan-US Fiber Optic Cable Network at
Makaha Beach, Oahu

The following is in response to your letter of April 22, 1999. We will coordinate our design and construction activities with the State Department of Transportation.

Thank you for your comments. Should you have additional comments or questions, please contact me.

Very truly yours,

Chester Koga, AICP
Project Manager

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU

3375 KOAPAKA STREET, SUITE H425
HONOLULU, HAWAII 96819-1869

99 MAR 22 PM 1:48

JEREMY HARRIS
MAYOR



DEPT OF PLANNING
and PERMITTING
CITY & COUNTY OF HONOLULU
ATTILIO K. LEONARDI
FIRE CHIEF
JOHN CLARK
DEPUTY FIRE CHIEF

March 18, 1999

TO: JAN NAOE SULLIVAN, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: ATTILIO K. LEONARDI, FIRE CHIEF

SUBJECT: ENVIRONMENTAL ASSESSMENT, CHAPTER 343, HRS
PROJECTS WITHIN THE SHORELINE SETBACK

PROJECT NAME : AT&T JAPAN-U.S. CABLE NETWORK
LOCATION : MAKAHA BEACH, OAHU
TMK : 8-4-1: 12 AND 8-4-2: 41
STAFF PLANNER : STEVE TAGAWA
HFD INTERNAL NO. OL 99-049

This is in response to your memorandum dated March 10, 1999, regarding the Environmental Assessment (EA) for the subject project. We agree with your Finding of No Significant Impact for this project and concur that an Environmental Impact Statement is not necessary.

Should you have any questions, please call Battalion Chief Charles Wassman of our Fire Prevention Bureau at 831-7778.

Attilio K. Leonardi
ATTILIO K. LEONARDI
Fire Chief

AKL/CW:bh

420 Waiakamilo Road
Suite 411
Honolulu Hawaii 96817-4941
Telephone 808 842 1133
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eMail rmtowill@i-one.com



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Construction Management

May 4, 1999

Chief Attilio K. Leonardi
Fire Department
3375 Koapaka Street, Suite H425
Honolulu, Hawaii 96819-1869

Dear Chief Leonardi:

SUBJECT: Draft Environmental Assessment for AT&T Japan-US Fiber Optic Cable Network at
Makaha Beach, Oahu

The following is in response to your letter of April 22, 1999. Thank you for taking time to comment on this important project. Should you have additional comments or questions, please contact me.

Very truly yours,

Chester Koga, AICP
Project Manager

REFERENCES

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Bauer, G.B. and L. M. Herman. 1986, *Effects of Vessel Traffic on the Behavior of Humpback Whales in Hawaii*. Prepared for NMFS, Honolulu Laboratory, Hawaii, 140+pp.

Brock, R. E. 1982. *Summary of Observations on the Green Sea Turtle Population in the Area Fronting the West Beach Project Site Report*. Prepared for West Beach Estates, Honolulu, EAC Report No. 90-06. 18 p.

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