SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

INCREMENT I

Ewa Marina Community
Ewa, Oahu, Hawaii

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Ewa Marina Community
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Pursuant to

Chapter 343, Hawaii Revised Status

December 1983

Prepared by:

GACI
926 Bethel Street
Honolulu, Hawaii 96813
533-1725

SECTION 2.0

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SUMMARY

On February 20, 1981, the Department of Land Utilization, City and County of Honolulu, approved the Final Environmental Impact Statement for the total Ewa Marina Community Project (79/SMA-139 L.C.) involving 1,100 acres as a programmatic document subject to filing supplemental EIS statements. Subsequently, the following EIS Supplement Statement for Increment I's 174 acres of the project is presented to specifically address these additional issues for development:

- Drainage/Soils/Grading
- Archaeological/Historical
- Flora/Fauna
- Sewage Disposal/Groundwater Impacts
- Solid Waste Disposal
- Review of Recreational Resources
  - a. Impact on Existing Resources
  - b. Recreational Facilities to be Created
- Visual
- Traffic/Noise/Air Quality/Circulation
- Housing - Unit Count/Type
- Water Commitment
- Impact to Public Services/Utilities

Preparation Notice For

Supplemental Environmental Impact Statements

Approving Agency	:	City & County of Honolulu, Department of Land Utilization (DLU)
Applicant	:	MSM & Associates, Inc.
Agent	:	Gerald T. Takano GACI 926 Bethel Street Honolulu, Hawaii 96813
Project Location	:	Honouliuli, Ewa, Oahu
Tax Map Keys	:	9-1-12: Portion of 5
Request pertinent to other Agencies	:	Conservation District Use Application - State Board of Land & Natural Resources Land Use Boundary - Change State Land Use Commission General Plan Amendment - Department of General Planning and City Council NEPA Requirements (including U.S. Army Corps of Engineers Permit) - U.S. Army Corps of Engineers
Determination	:	EIS Required

I. Proposed Action

The subject property, comprising 174 acres, represents the first increment for development of the total Ewa Marina Community project. The applicant proposes the development of a residential community comprised of 1,290 dwelling units housing with approximately 3,870 residents. Commercial facilities and a park site are also included in the development of this increment.

A. Technical Characteristics

1. The development of this initial increment does not involve the Special Management Area nor does it include any portion of the waterways planned for the overall project area.

2. Housing densities within the subject property average 6.78 units per net acre for the residential areas and 30 units per net for the low-density apartment area. Overall, 143 acres are planned for residential use as against 11 acres for apartment development.

3. The proposed commercial area (5 acres) adjoins the existing Ewa Beach Shopping Center thereby providing the opportunity for an enlarged shopping complex.

4. The proposed park site adjoins Fort Weaver Road and is easily accessible to existing as well as future residents.

5. It is projected that the 1,290 dwelling units will be absorbed over a 5 year period.

B. Economic Characteristics

1. The total cost of the proposed project including land acquisition, infrastructure, design and engineering, processing fees, program management, property taxes and contingencies is preliminarily estimated at $23 million.

2. This project will increase short and long term employment. An estimated 2,322 construction jobs could be made available based on 180 construction workers per 100 housing units. Further, some permanent jobs may be added to the employment market due to the expansion of commercial facilities.

C. Social Characteristics

1. The addition of an estimated 3,870 residents over a five-year period will have some impact on the character and culture of the neighborhood. However, due to the rapid growth of the overall Ewa area, the impact resulting from this growth is somewhat lessened.

   The new residents may represent difference cultures and lifestyles, a different economic bracket and will result in more sharing of public facilities. This addition may enhance the neighborhood's diversity thus representing opportunities for social exchange and interaction which would not otherwise be possible.

On the other hand, some people may view this as a threat to existing lifestyles and habits. These people may feel secure in their current social hierarchies and interactions in which case the new faces may create a feeling of insecurity, particularly at the beginning.

2. The development is committed to provide 10% of the total dwelling units of 129 units for low/moderate income housing.

D. Environmental Characteristics

The preceeding supplemental statements will address the following issues for development of Increment I of the total project:

1. Drainage/Grading/Soils

2. Archaeological/Historical

3. Flora/Fauna

4. Sewage Disposal/Groundwater Impacts

5. Solid Waste Disposal

6. Review of Recreational Resources

   a. Impact on Existing Resources

   b. Recreational Facilities to be created

7. Visual

8. Traffic/Noise/Air Quality/Circulation

9. Housing - Unit Count/Type

10. Water Commitment

11. Impact to Public Services/Utilities

II. Affected Environment

The affected property (174 acres) is an irregular-shaped parcel adjoining Fort Weaver and Papipi Roads along portions of its perimeter and is located next to the Ewa Beach Community. It is presently in sugar cane cultivation and the lands to the north and west are also devoted to cane production. The community of Ewa Beach

located east and south from the affected property is developed predominantly with single family residences with a limited amount of commercial developments and public facilities such as school and parks.

Based on Ordinance #83-26, Ewa Development Plan, approved June 6, 1983, the following uses are proposed for the 174 acres site: 143 acres in residential use, 11 acres for low-density apartment, 5 acres for commercial, 6 acres for parks, and 9 acres for roadways.

Resolution #82-188, Amended Draft No. 2 approved December 22, 1982, General Plan of the City and County of Honolulu, has placed the subject property in the urban fringe classification and has designated the near-by West Beach/Makakilo area as the secondary urban center.

A. Major Impacts

The potential environmental impacts, beneficial or adverse, direct or indirect, are briefly identified in the following discussion.

1. The proposed project will create physical impacts to its surroundings during construction and after the project has been completed. The major impact will be the creation of a residential community housing approximately 3,870 residents. The area's land will be converted from agricultural to urban use.

2. Economic impacts resulting from the proposed project would include direct and indirect income generated by the proposed project (community and individual), effects on employment and the labor force, property taxes, and potential government expenditures for constructing or maintaining necessary public facilities and services to support the proposed uses.

   In addition, the supply of housing will increase in the area and will in turn increase land values.

3. A wide range of social impacts may be attributed to the proposed project. The major impact will be the influx of 3,870 additional people, very likely having difference socio-economic characteristics than the existing Ewa Beach community.

Increased demands for public facilities and services such as fire and police protection, medical services, water, electricity, telephone, sewer, and drainage facilities and streets can be anticipated.

B. Mitigation Measures

The applicant must adhere to all applicable City and County of Honolulu and State of Hawaii regulations, which would govern the construction and operation of the proposed project.

In the environmental impact statement, it will be the responsibility of the applicant to address in a comprehensive manner all potential impacts of the proposed project and mitigating measures.

III. Reasons Supporting Determination

The decision to require an EIS was based on the significant criteria found in Section 1:31 of the EIS Regulations. Specific considerations were as follows:

> "In determining whether an action may have significant effect on the environment, the agency shall consider every phase of proposed action, and expected consequence, either primary or secondary or the cumulative as well as the short- or long-term effect of the action."

Additionally, it was found that the project:

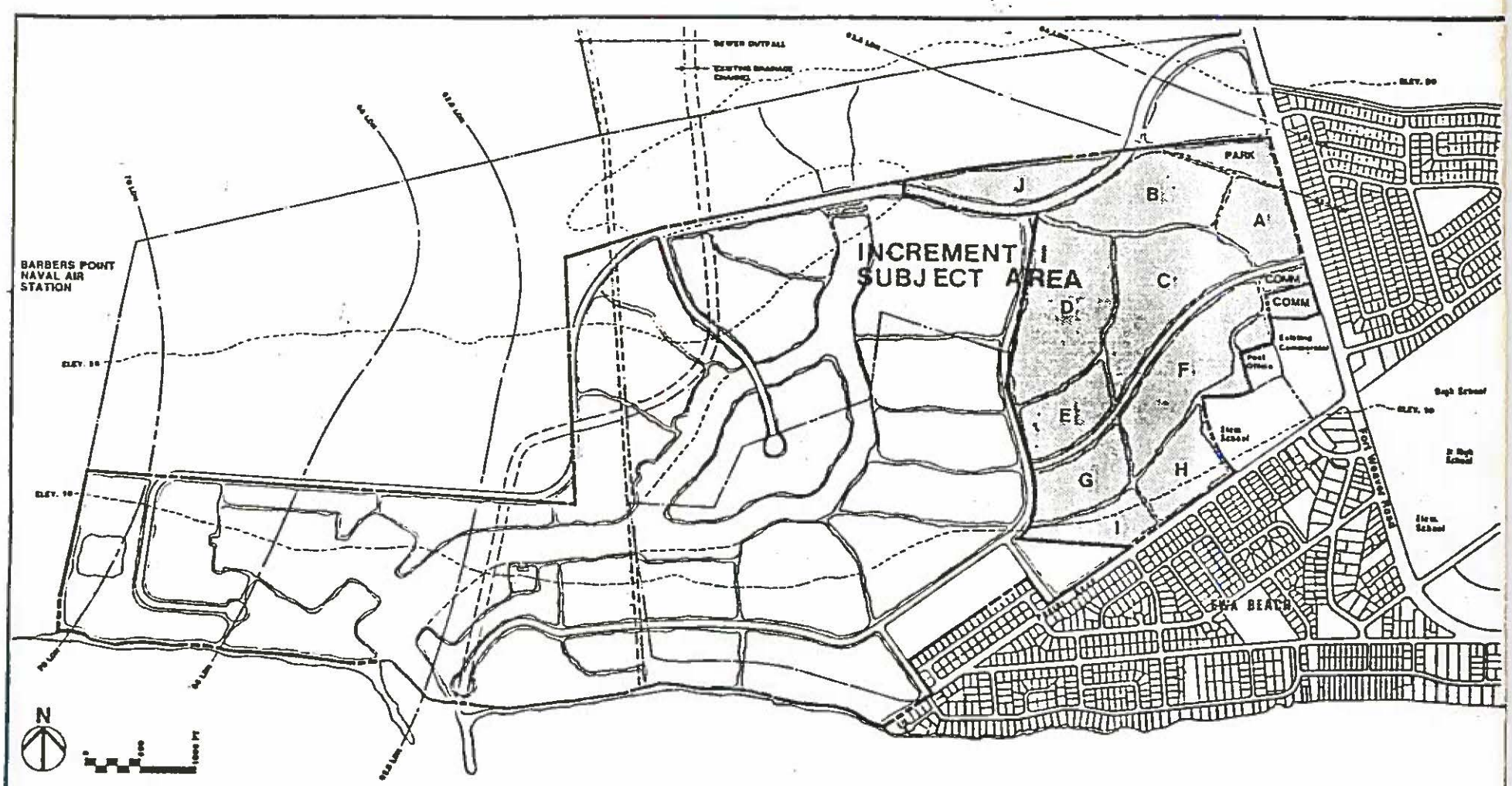
A. "Substantially affects economic or sociological activities."

B. "Involves substantial secondary impacts; such as ... effects of public facilities."

C. "Is individually limited but cumulatively has considerable effect on the environment."

D. "Affects air ... quality or ambient noise levels."

Figure I shows project area, Increment I.



LAND USE SUMMARY – SUBJECT AREA

FIGURE 1

AREA SUMMARY

RESIDENTIAL		: 154.2 ac
R-6	143.0 ac	
A-1	11.2 ac	
COMMERCIAL		: 5.0 ac
PARK		: 5.7 ac
ROADS		: 9.8 ac

TOTAL (SUBJECT AREA) 174.7 ac

LAND USE SUMMARY

PARCEL A	10.0 ac : 10 u/ac	:100 units	PARCEL F	24.5 ac : 5 u/ac	:122 "
B	18.4 ac : 10 u/ac	:184 "	G	10.9 ac : 5 u/ac	: 54 "
C	23.6 ac : 5 u/ac	:118 "	H	11.2 ac : 11.5 u/ac	:130 "
D	25.9 ac : 5 u/ac	:129 "	I	8.3 ac : 8 u/ac	: 66 "
E	10.2 ac : 5 u/ac	: 51 "	J	11.2 ac : 30 u/ac	:336 "

TOTAL (SUBJECT AREA) 154.2 R-ACRES, 1290 R-UNITS

EWA MARINA COMMUNITY
OAHU HAWAII

MSM & ASSOCIATES INC
MASTER DEVELOPERS

PEARSON & WUESTHOFF AIA AICP
ARCHITECTS PLANNERS

DATE
PLAN NUMBER
LU-1

SECTION 5.0

SUPPLEMENTAL EIS FOR FIRST INCREMENT

ENVIRONMENTAL CHARACTERISTS

5.1 DRAINAGE/SOILS/GRADING

Drainage

Drainage for Increment I's residential built-up areas will utilize normal subdivision standards including sub-surface piping, catch basin/manholes, and new ground slopes at about 1.0 percent. Because exisiting ground slopes are approximately 0.3 percent, the proposed disposal of water is through the use of canal-like channels (open or covered) to absorb flows and drain water to the existing drainage channel with ultimate future connection to the proposed marina channel in Increment II. This concept is similar to that which already exists at Ala Moana Park the Ala Wai Canal systems. Such systems absorb, rather than convey, storm flows with ultimate disposal under the principal that water seeks its own level and is, controlled by tidal fluctuations.

Figure 2 shows the ultimate conceptual grading and drainage plan, while Figure 3 identifies specific drainage areas and run-off information for Increment I.

Fig 4 does not show slope

Soils & Grading

As shown in Figure 4, Increment I is located on relatively level, irregular surface sloping. The existing topography has been modified by sugar cultivation leveling and ditching. The subject area is predominantly of fill land, although a small section along the northern boundary is moderately shallow Ewa Silt Clay Loan at 2 - 6% slope. The fill land contains mixtures of coralline/algal carbonates, alluvial debris derived from volcanic rocks and residual clays, as well as churned peat deposits.

Fig 2 does not show that ex & fill is balan

As previously illustrated in Figure 2, the earthwork for development on Increment I is to be approximately balanced with excavation equal to embankment. As a basis of magnitude, a two foot increase in elevation over the entire site would absorb about 3.6 million cubic yards of earthwork. More precise data will require additional investigation involving topographic surveys, preliminary subdivision planning and mass earthwork designs to ensure a balanced earthwork condition for Increment I.

5.2 ARCHAEOLOGICAL/HISTORICAL

On the emerged reef that forms much of the Ewa Plain, chemical weathering produced numerous sinkholes in which significant paleontological and archaeological data have been recovered. Further east on the plain, however, sinkholes appear to become relatively smaller and less numerous. In

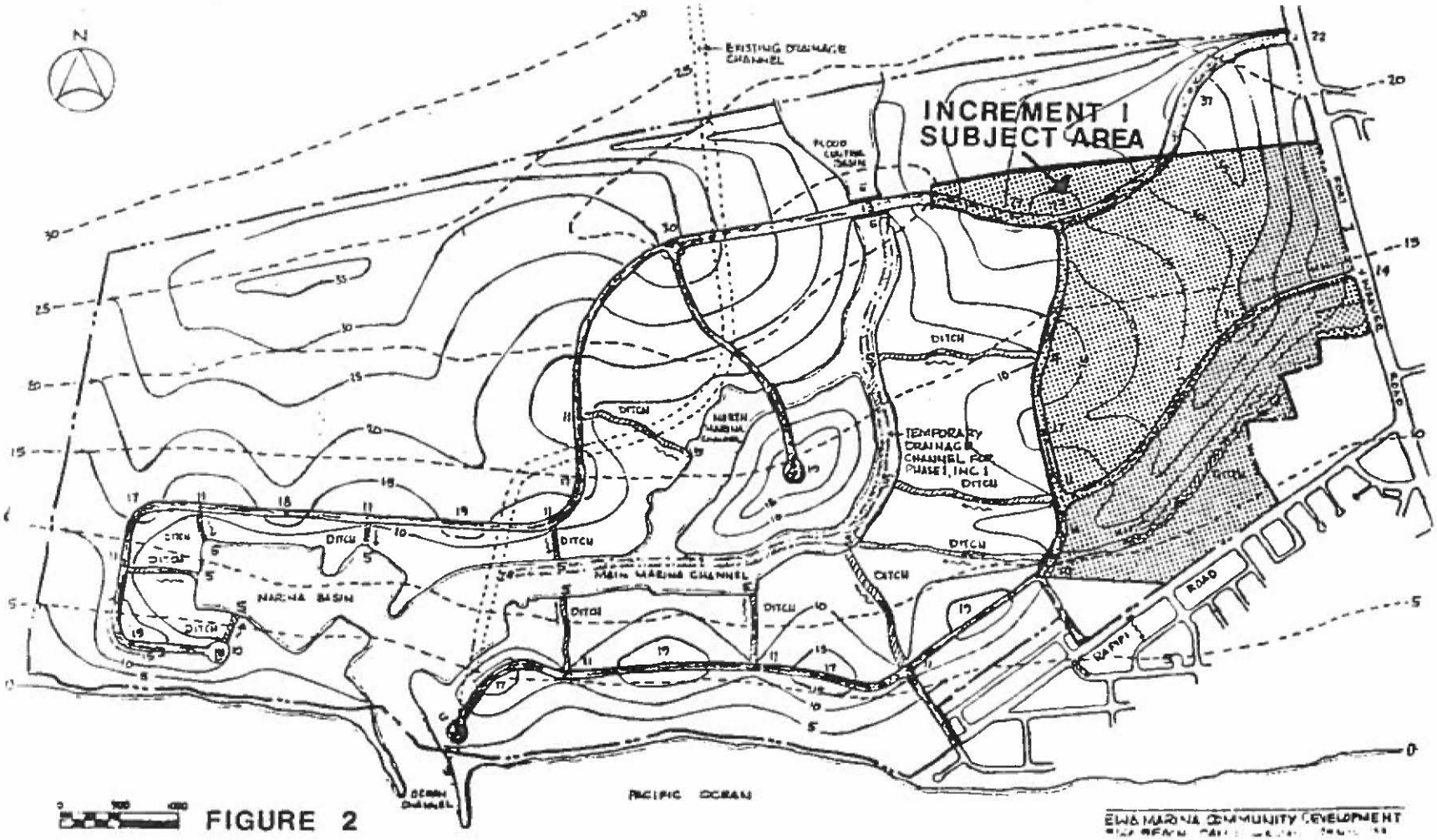
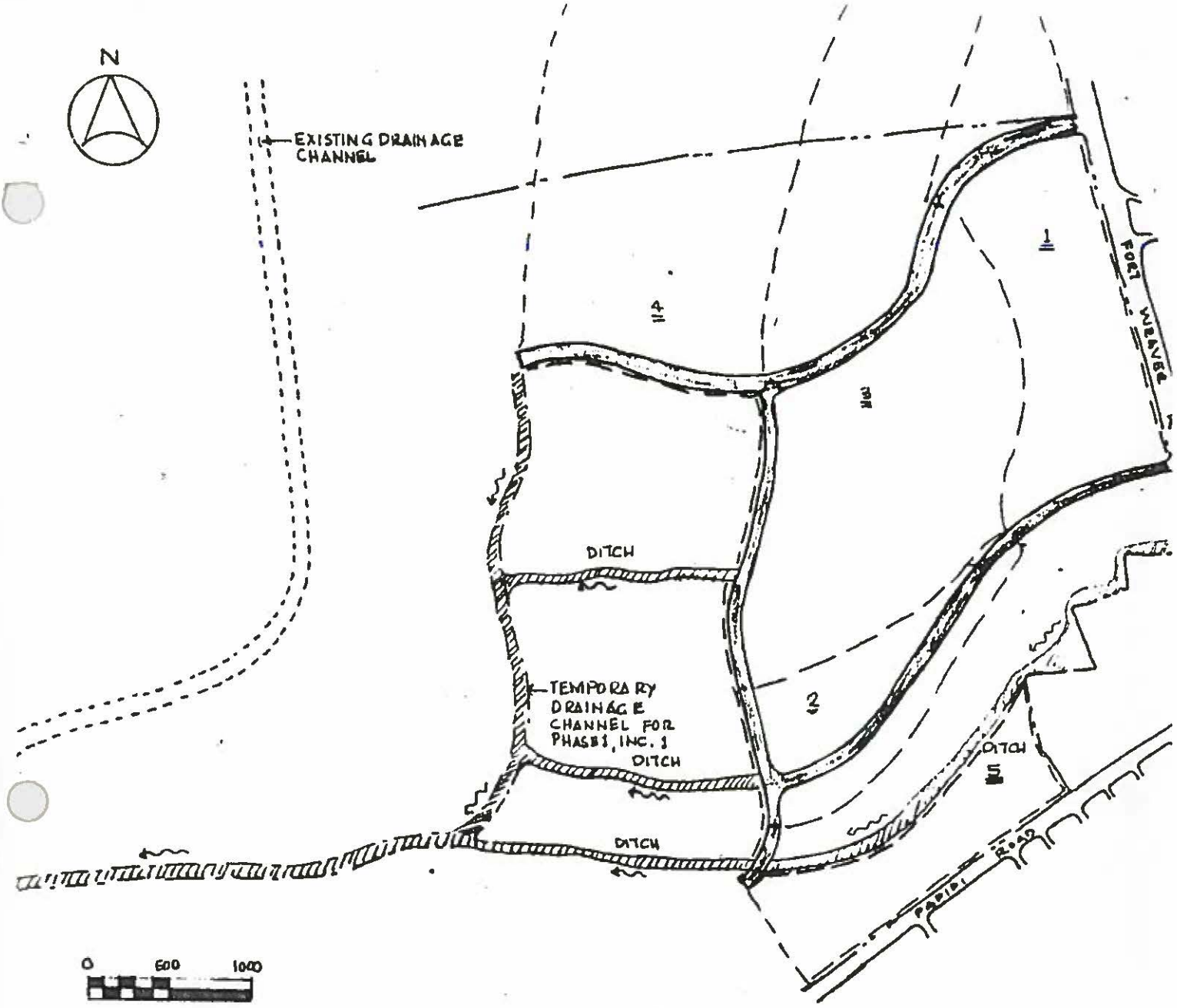


FIGURE 2

EWA MARINA COMMUNITY DEVELOPMENT

ULTIMATE CONCEPTUAL
GRADING & DRAINAGE PLAN



DRAINAGE AREA

NO	EXISTING (AGRI.) AREA	EXISTING (AGRI.) RUNOFF	PROPOSED (RESID) AREA	PROPOSED (RESID) RUNOFF
1	82 ACS	40 cfs	97 ACS	78 cfs
2	215 ACS	108 cfs	50 ACS	55 cfs
3	185 ACS	97 cfs	170 ACS	265 cfs
4	210 ACS	110 cfs	210 ACS	273 cfs
5	249 ACS	87 cfs	34 ACS	49 cfs
	941 ac.	442	541 ac	720

what is the basis for this runoff predictions.

DRAINAGE AREA & RUNOFF
PHASE 1, INCREMENT 1
EWA MARINA COMMUNITY DEVELOPM
EWA BEACH, OAHU, HAWAII 25 NOV '8

FIGURE 3

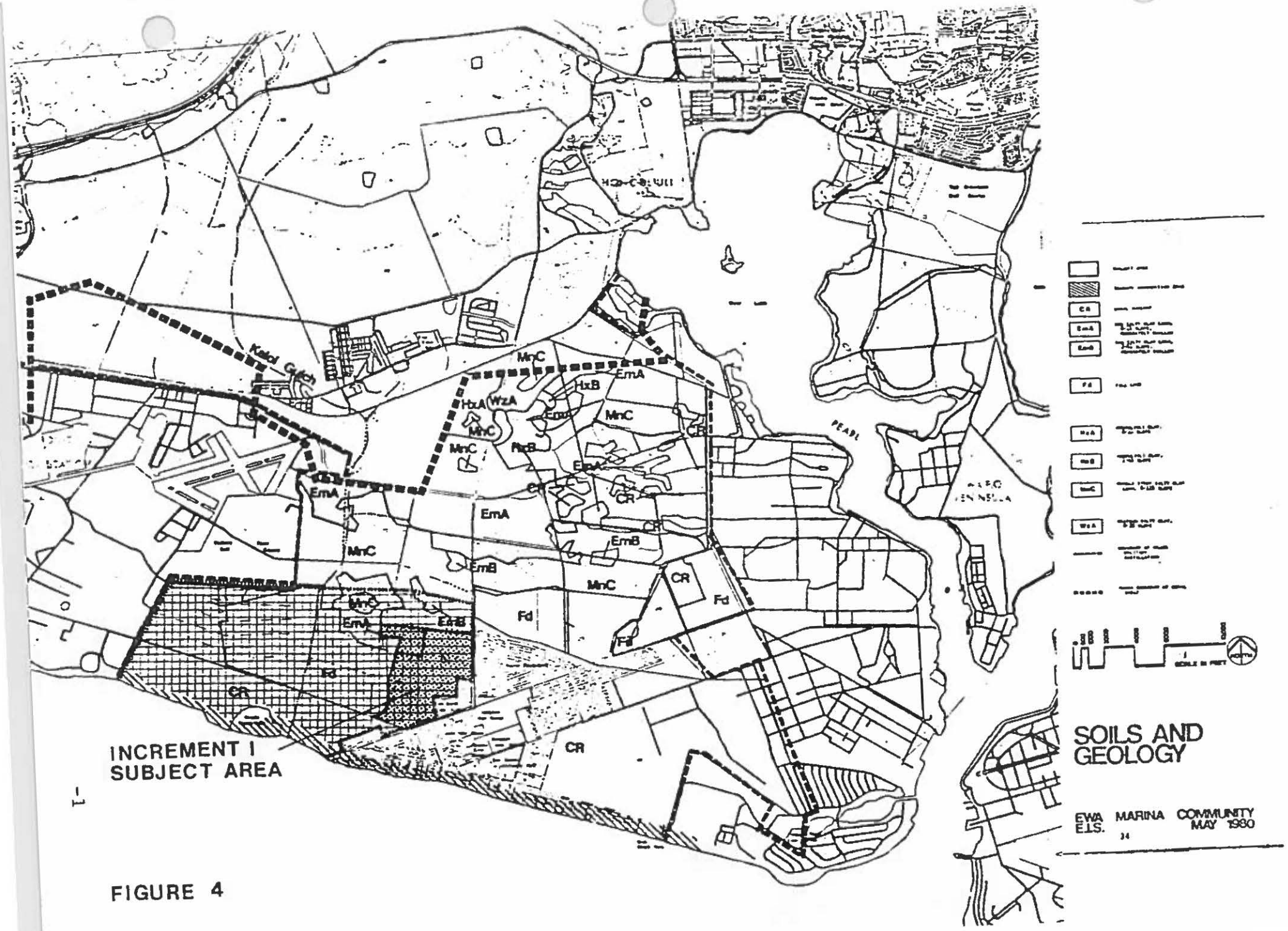

Kalol Gulch
MnC
EmA
HxB
HxA
WzA
EmB
CR
Fd
PEARL
INCREMENT I
SUBJECT AREA
SOILS AND
GEOLOGY
EWA MARINA COMMUNITY
E.I.S.
MAY 1980

FIGURE 4

appear to become relatively smaller and less numerous. In addition, the disturbance resulting from surface preparation, filling, and years of cultivation, have probably eradicated any sinkholes that may have been present in the area of present concern.

As part of the archaeological examination of the total Ewa Manha project area, a test excavation was conducted in the makai edge of Increment I adjacent to the residences along Papipi Road (see Figure 5). The following results were obtained:

> Layer 1 was a dark reddish brown (5YR 2.5/2), sticky, plastic, clay loam extending down to 20 to 25 centimeters below the surface. Peds were coarse, subangular, and friable.
>
> Layer 2 was a motted brown to dark reddish brown clay loam with coarse subangular peds and occasional pebbles and cobbles.
>
> Layer 3 consisted of brown (7.5YR 5/4), slightly sticky, slightly plastic silt with coarse, friable, subangular peds. It contains numerous pebbles to large cobbles of weathered basalt.

In addition to the test excavations, an on the ground inspection was conducted of approximately 1.5 miles of cane roads in Increment I and the adjacent area. In addition, the

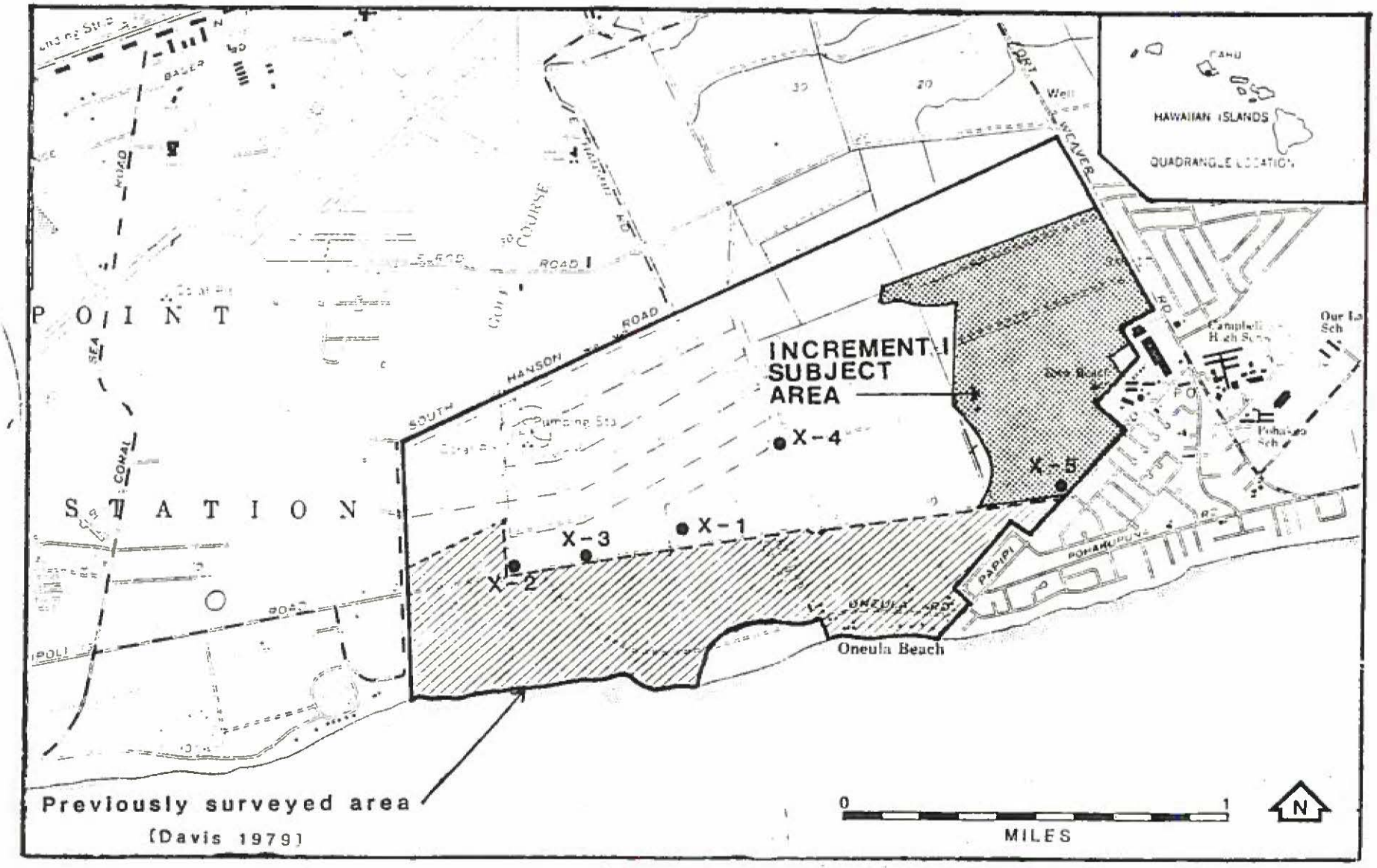


FIGURE 5 Project area showing excavation unit locations

From U.S.G.S. 7.5' Ewa & Puuloa Quadrangles

Water

Potential sources by BWS water exchange with agriculture - brackish water desalting, etc. are consideration's in the future. In times of low rainfall such as the year 1983 the ground water level in the PH aquifer may reach a critical level and water may be in short supply.

Pg - 19

Flora / Fauna

plant is called Castor Bean plant.

Barred dove (Geopelia striata)

Why use scientific names for only 2 plants - none for animals? If using common names - rice birds more commonly known than munias.

This section tends to make reader wonder if a complete scientific survey was undertaken

Drainage -

Does not show ultimate destination of surface runoff from increment I. Figures tend to confuse entire development with increment I. What is impact of runoff? Any on the coastal waters?

limestone quarry and adjacent dump were surveyed to determine whether any evidence of archaeological material was present. Within Increment I and the adjacent area, approximately six miles of cane road were also inspected from a slowly moving automobile to see if any undisturbed areas or areas with more substantial soil deposits were present.

The archaeological work described above was intended to assess the probility that significant archaeological material still exists within the study area by looking for either such material itself (e.g., artifacts or archaeological features) or other data that might shed light on the past environment of the area (e.g., evidence of modern soil formation and transport, historical or physical data of land disturbance or modification, or other pretinent environmental evidence such as land snails and other faunal remains).

No direct evidence of any archaeological or paleontological material was found in Increment I. All of the evidence suggests that the area has been substantially disturbed by sugar cane cultivation during the last 20 years. Therefore, there appears to be no basis for including any portion of Increment I in the Oneula Archaeological District, and no necessity for any futher archaeological investigations in the area.

5.3 FLORA/FAUNA

Increment I is presently under sugar cane cultivation and thereby does not consist of vegetation types found along the southern, coastal areas of the overall project. As such, none of the plant species listed in the Federal Register of proposed threatened and endangered list are known to exist within Increment I.[1] Koahaole, swollen fingergrass (chloris inflata), castor (Ricinus communis), however, are common plants found along the edges of the peripheral roads along Increment I.

Characteristic animals include the banned dove (the most abundant bird), house sparrow, munias, plover, house mice, two species of rat, and the metallic skink. As evident throughout the area, all mammals recorded or probably present are common, introduced, and frequently pestiferous animals; none of them are rare or unusual. Most abundant is probably house mice due to their small size, reproductive capacity, and adaptability to a variety of habitats. Cats were common on cane roads and the predacious mongoose was observed within the cane areas.

Figure 6 illustrates vegetation types for Increment I.

[1] U.S. Department of Interior, Fish and Wildlife Service, 1976, Endangered and Threatened Species, Plants, Federal Register 41 (117 24524-24572)

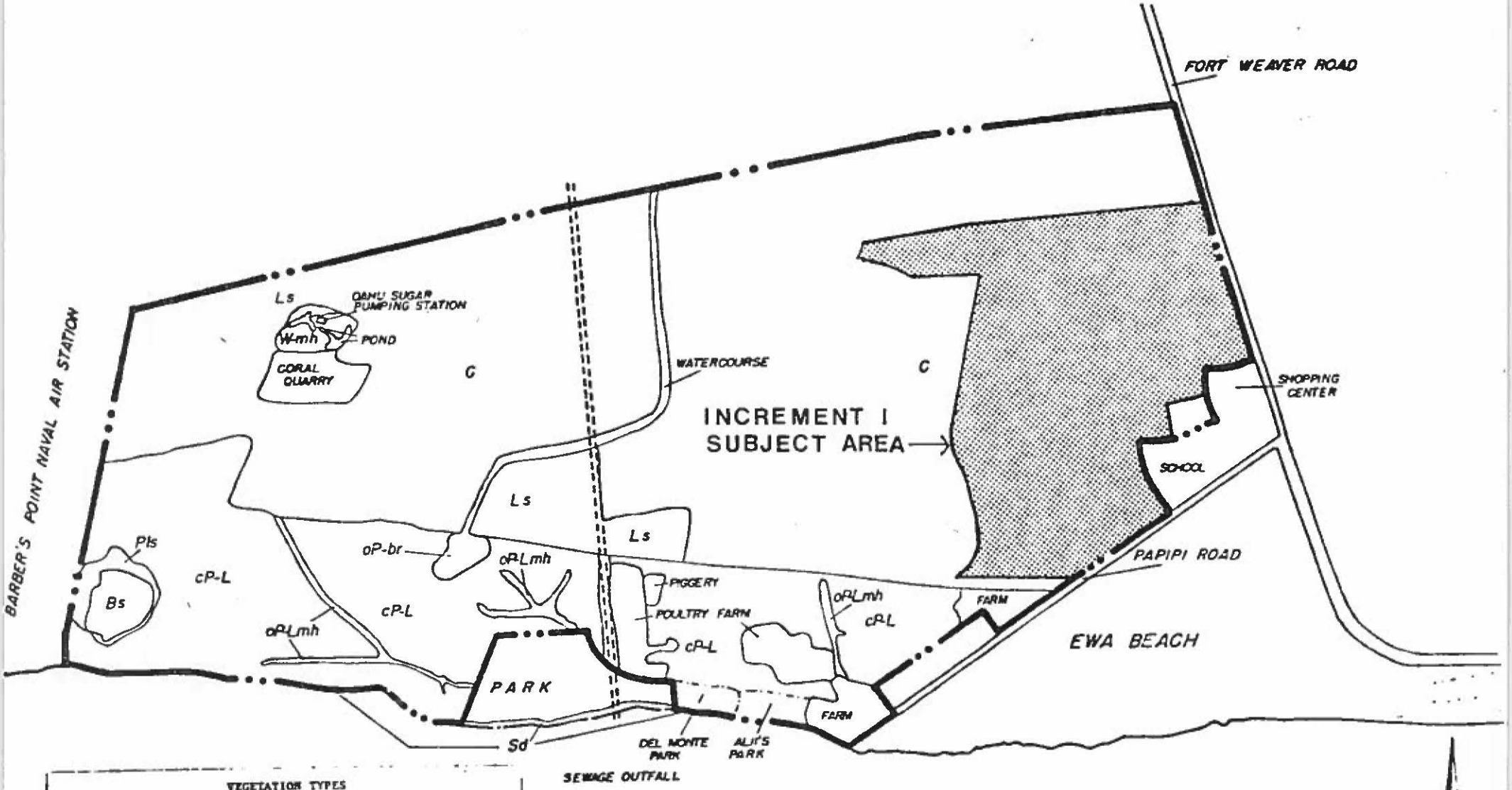
5.4 SEWAGE DISPOSAL/GROUNDWATER IMPACTS

Sewage Disposal. Assuming 1290 residential units with 2.9 individuals per family at a rate of 90 gallons per day design flow, the total Increment I population will generate about 336,690 gallons per day (.34 MGD) of liquid waste.

As previously stated in the generic Environmental Impact Statement, Ewa Marina Community, February 1981, the City's partially completed Honouliuli Wastewater Treatment Plant will have an ultimate capacity of 51 million gallons per day (mgd). Of this flow capacity, 11 mgd has been projected to accommodate for future development between Makakilo and Halawa.

The City has recently completed the Ewa Beach Sewer System which will connect to the Honouliuli WWTP. This system was sized to accommodate an area of approximately 180 acres of the R-6 zoning. As such, the sewer facilities for Increment I appears adequate.

Appendix B, dated May 26, 1983, documents the Department of Public Works concurrence that the existing system will be able to handle approximately 180 acres of anticipated flows southwest of Increment I. In addition, the Department of Public Works' document indicates that later increments of the development can be serviced by directing a sewer line to the Honouliuli Wastewater Treatment Plant located north of the site.



VEGETATION TYPES

Sd	Strand vegetation
Bs	Batis swamp
cP-L	closed Prosopis, Leucaena subcanopy
oP-Lmh	open Prosopis, Leucaena subcanopy, mixed herb layer
oP-Br	open Prosopis, Brachiari, groundcover
Ls	Leucaena scrub
Pls	Pluchea scrub
W-mh	Weedy community, mixed herbs
C	Cultivated, sugar cane fields

FIGURE 6

VEGETATION TYPES OF THE EWA MARINA COMMUNITY PROJECT AREA

Subsequently in December, 1983, the Wastewater Management Division, Department of Public Works, has determined that wastewater disposal specifically for Increment I, was possible if the sewage was discharged into a 24 inch existing interceptor along Pahakupuna Road providing discharge does not exceed .49 MGD.

As such, a new master plan for Increment I and the entire Phase I (730.5 acres) will be submited to supersede previous conclusions within May 26, 1983 Department of Public Works letter.

Groundwater Impacts. No major dredging is planned within the Increment I project boundaries. Furthermore, since cap-rock in the area extends to a depth of over 1,000 feet, penetration of construction activities into the fresh water aquifer is precluded. Thus, no negative impact on ground-water is anticipated as a result of project construction. (See Section 5.10 of this report for a discussion of water commitment and demand resulting from land uses in Increment I.)

5.5 SOLID WASTE DISPOSAL

Refuse collection and disposal for Increment I, is to be provided by the Department of Public Works, City and County of Honolulu, contingent on obtaining approval for increased personnel and trucks. Appendix C, dated May 9, 1983, documents the Department's response. Relatedly, the City and

County is conducting a study of several sites for a new sanitary landfill to serve Leeward Oahu. A solid waste energy resources recovery project may also be implemented in the near future which would lessen the need for a new sanitary landfill.

5.6 RECREATIONAL RESOURCES

A park site of approximately 5.5 acres as shown on Figure 1, will be situated adjacent to Fort Weaver Road in the northerly corner of Increment I. As part of the Park Dedication process, the site will be dedicated, graded, grassed, and provided with all off-site improvements, including the installation of some type of irrigation system at no cost to the City. In the design, the site will also be developed in close coordination with the Department of Parks and Recreation to finalize the location, size, actual configuration, and public access as required by the City.

Increment I's park will have a favorable impact on the surrounding neighborhoods by providing additional recreational resources for activities such as picnicking, sports, and other recreational facilities. Located adjacent to Fort Wever Road on the northeast corner of the project, the park will be highly accessible to both the existing residents of Ewa Beach as well as to new residents.

5.7 VISUAL

The predominantly single-family residences and low-density apartment area along the northerly boundary will be compatible with the existing residences and limited commercial developments and public facilities adjacent to Increment I. This low-rise development, consisting of a residential scale and quality harmonious with adjacent areas, should become an impetus for increased revitalization and maintenance of the Ewa Beach area. In addition, the inclusion of landscape elements within Increment I and along Fort Weaver Road will soften the impact of the new built-environment and strengthen the natural, scenic elements of the area.

5.8 TRAFFIC/NOISE/AIR QUALITY/CIRCULATION

Traffic

Fort Weaver Road, a major two-lane undivided rural arterial, is the only facility providing access from Increment I to Waipahu and east, west, and central Oahu. The State of Hawaii Department of Transportation has scheduled major Fort Weaver Road improvements as follows:

* 4 lane undivided highway from Ewa Beach to Hanakahi Street with provisions for left-turn lanes.

* 4 lane divided highway from Hanakahi Street to the H-1 Freeway with a grade separated crossing at the intersection with Farrington Highway.

* Traffic signals at the following street intersections with Fort Weaver Road, including Nort, Papipi, Kuhina, Geiger/Iroquois Point, Renton Roads, and Hanakahi Street.

As planned by the State, the next road improvement increment will widen and improve Fort Weaver Road up to a point slightly beyond the first entrance to the subject project. Although funding for future improvement work is uncertain at this time due principally to cutbacks in Federal funds and rising costs, the lands required to widen Fort Weaver Road for the next increment have already been acquired with improvement costs projects at approximately $4.5 million.

In the Voorhees & Associates' traffic analysis for the overall Ewa Marina project, it was concluded that upon completion of the above highway improvement, all facilities on or intersecting with Fort Weaver Road would be able to accommodate additional traffic generated by Increment I. It was recommended, however, that double left turns be provided out of the project site from the two access roads onto Fort Weaver Road, with separate left turn and right-turn lanes on Fort Weaver Road at these intersections and at Renton Road and Papipi Road.

Furthermore, Increment I would have a less severe impact on the absorption rate of the anticipated traffic. This slow absorption rate would be accompanied by slow growth in traffic permitting time for adjustments in traffic patterns,

especially for Increment I commuters, and for improvements to the street and highway network and public transportation system.

Noise

There are three sources of noise which are potentially sensitive relative to the project:

1. Construction. An intial short-term period of significant noise generation will occur during the construction period resulting primarily from the use of vehicles and equipment. However, this impact will be mitigated by conforming construction activities to the requirements of Chapter 44B of the Public Health Regulations, "Community Noise Control for Oahu," developed by the State Department of Health.

2. Automobiles. The development of Increment I is expected to create an insignificant increase in automobile noise. The internal system of roadways is designed to draw traffic through the development via two access roads, one intersecting Fort Weaver Road near the uppermost boundary of the existing residential community, and the other intersecting Fort Weaver Road near the middle of the existing residential area to the east. However, Fort Weaver Road is already quite active and currently generates a significant noise impact on the existing community. Following improvements to this road, the contribution of Increment I to this

source of noise should be minimal and without any significant intensification of noise pollution.

If deemed appropriate, reductions in traffic noise could be achieved by the use of strict controls of vehicular speeds, structures, and the application of green belts, grade separations, berms, and landscaping.

3. Aircraft. Noise from aircraft emanating from Barbers Point Naval Air Station and flight patterns to Honolulu International Airport will impact the subject property. The Navy's AICUZ (Air Installation Compatible Use Zone) study for Barbers Point was used to plan and designate land uses in the Ewa Marina Development to ensure their compatibility with various noise levels. The Navy's compatible use criteria was used in making this determination, generally setting 62.5 LDN as the limiting noise level for housing. In areas whose noise level measures above this level, activity has been limited to those uses within the criteria of compatible use. See Figure 1.

As shown in Figure 1, the upper limit of the 62.5 LDN contour line crosses the subject project at its extreme northeast corner. This corner, including an additional margin below the contour line, is designated for park use. thus ensuring that all residential areas below are located well within the 62.5 LDN zone.

Air Quality

Previous air quality studies for the total Ewa Marina project area (Root, 1979 and Morrow, 1979) have identified five categories of potential air pollution sources associated with the Ewa Marina Community: (1) short term fugitive dust emissions from construction activities, (2) electric power generation, (3) solid waste incineration, (4) power boats, and (5) motor vehicles. Both studies have shown that sources 1 through 4 are either of negligible impact or can be mitigated by typical control techniques. Motor vehicle emissions, however, were identified as the principal potential source of air pollutants. These pollutants include: Carbon Monoxide (CO), Nitrogen Oxides (NO_x), Hydrocarbons (HC), Sulfur Oxides (SO_x), Lead (Pb), and Particulate Matter (PM).

To identify the projected air quality impact for Increment I development, a linear connection factor was applied to the previous air quality study data referenced above to adjust for the lesser number of residents and resultant traffic volume of Increment I compared to the total project area. Because CO comprises the largest function of motor vehicle emissions, the projected level of CO emissions was used as the air quality parameter in conformance to other studies.

The analysis revealed that the State of Hawaii Emission Standards are not expected to be exceed as a result of Incre-

ment I development, even assuming "worst case" meteorological conditions. Air quality monitoring during the following Increment I construction may be initiated to verify these projects.

The linear reduction approximations applied here are considered conservative for they do not reflect increased use of mass transportation services and development of the Barber's Point Deep Draft Harbor with a resulting decrease in eastbound traffic. Additionally, "worst case" meteorological conditions are expected to occur less than 10% of the time and will coincide with peak traffic (when maximum emissions are generated) only a small fraction of this percentage. Thus, the construction and occupancy of Increment I of the Ewa Marina Community appears to result in no long term adverse air quality impacts.

Short-term air quality impact will be primarily the result of on-site construction activity. Suspended particulate levels may be held below state and federal standards by using adequate site specific control measures. Some additional impact may result, however, from increased project-related truck traffic which may cause reduced highway service levels, reduced operating speeds, and increased automotive emissions in the projected area. These impacts could be further aggravated by the widening of Fort Weaver Road which is scheduled for approximately the same time frame.

Internal Circulation

Increment I will be served by two major east-west access roads connecting to Fort Weaver Road, one crossing the north-northwest corner and the other crossing the lower middle portion of the project. Internal residential areas are served through small feeder roads which terminate in cul-de-sacs. All proposed on-site roadways and their connections to existing streets are sized to handle the projected loads and will be constructed according to applicable City and County, State, and Federal Standards.

5.9 HOUSING - UNIT/TYPE

Increment I will include a total of 1290 residential units, including 474 single family homes and 816 cluster units. The proposed housing absorption schedule is as follows:

Development Year	Units Absorbed	Cluster Housing	Single Family
1	200 units	100 units	100 units
2	300 units	200 units	100 units
3	350 units	250 units	100 units
4	300 units	200 units	100 units
5	140 units	66 units	74 units
Total	1290 units	816 units	474 units

With an overall density of 8.37 units per residential acres, Increment I would have a 5 units per acre density of single family and 13.8 units per acre density of cluster

units. Ten percent (10%) of the total proposed housing units or 129 units will be priced at a level which is affordable to those in the low/moderate income category.

As shown in the above schedule, the development of Increment I will have a positive effect on the quality of housing availability, with an average of 258 new units added to the housing market each year through a 5-year period. It is also anticipated that the increase in housing stock will have a minimal effect on land and housing speculation. Development within Increment I may appreciate values of existing homes in the area. This impact, however, is difficult to assess. Property values have been experiencing a slight increase in this area without and independent of the implementation of Increment I, resulting in an increase of local property taxes overtime.

5.10 WATER COMMITMENT

Since the project area lies within the Pearl Harbor Groundwater Control Area, certain restrictions apply to Increment I with respect to sources of water. Nevertheless, the Board of Water Supply has identified the following potential sources to meet demands stemming from the developments in Ewa:

1. Development of wells on Campbell Estate lands such as the Makakilo Well.

2. Diversion of agricultural irrigation water for domestic use whenever large lands are converted to urban use. This will involve working with Campbell Estate and Oahu Sugar Company.

3. Reduction on dependence on Pearl Harbor water sources by development of new water sources elsewhere, such as on the Windward side, Waianae Coast and in Honolulu, thereby freeing water for development of the Ewa Plain.

4. The development of free flowing water at the Hawaiian Electric Waiau Power Plant for incorporation into the municipal system.

5. Development of non-potable water sources for irrigation to free potable water supplies for domestic uses.

6. Development of brackish water resources.

7. Optimization of Board of Water Supply's operations and pumping schedule to improve system flexibility.

A new approach to provide water now under consideration by the Board of Water Supply is to develop a dual water system. Under this approach, the project would incorporate two water systems, one hooked up to potable water source and the other to a non-potable source. Using this dual system, potable water consumption is directed to only those needs requiring high quality water thus considerably reducing demand for potable water and permitting more urban development. Furthermore, the ready availability of non-potable brackish water in this area makes such a system practical.

Where's the source

In the water master plan previously done for Campbell Estate, it was projected that an additional 20 million gallons per day will be required to service all the developments planned for Ewa over the next 20 years (Year 2000). Of this amount, the subject property requires approximately 700,000 gallons per day. This is based on the Board of Water Supply's standard of 500 gallons per dwelling unit per day plus an allowance for commercial use.

As indicated above, the task of providing water is a joint undertaking involving the Estate and all affected developers working with public agencies and other organizations. Negotiations are presently underway with governmental agencies and other entities. A master plan specifically for the project will be provided by Campbell Estate utilizing a dual water system.

5.11 IMPACT ON PUBLIC SERVICE/UTILITIES

Electricity

Electrical power for Increment I will be provided by the Hawaiian Electric Company (HECO). Accordingly, future developments in the Honouliuli region such as Increment I will be handled by the Company on an ad hoc basis provided sufficient advance warning is given to the Company to allow the programmed expansion of facilities as required. Street lighting, telephone, and electrical systems will be underground in accordance with applicable City Ordinances.

Based on HECO's load data, it is estimated that Increment I and subsequent projects including residential, commercial, light industrial, parks, and schools, will consume electrical energy annually as follows:

Residential	120,960,000 KWH
Commercial	17,337,000 KWH
Schools/Parks	1,425,000 KWH
	139,722,000 KWH

Presently, HECO has the capability of servicing the estimated 1290 units of Increment I. Development of more than 1,500 units, however, will require a 46 KV substation on a site that is 105 feet wide, 160 feet deep. Should this be necessary, the site for the substation will be leveled and cleared, with road access provided by the developer. The 46 KV lines to the substation can be strung overhead and the primary 1 distribution system installed underground as required by the City and County of Honolulu Ordinance 2875.

Gas

Gas service required for Increment I will be provided by GASCO, Inc., of Pacific Resources, Inc., which currently provides gas service to the Ewa Beach area. The existing main source of supply is from two 2,000 gallon lpg tanks in a holder station located just east of the elementary school north of Papipi Road in Ewa Beach. The gas is propane with a

heating value of 2.520 BPTU per cubic foot per hour and specific gravity of 1.5; applicable operating pressure is 11" water column (91,300 BTU/gallon).

Gas mains two inches in diameter run from the gas holding station down Papipi and Fort Weaver Roads. Connection to this system will occur where these roads abut Increment I. These gas mains will be required to serve Increment I and will be placed with the other utilities within the major and secondary road systems throughout the project area. Storage facilities will be generated by GASCO, Inc., as required.

Communications

Telephone service for Increment I as required will be provided by the Hawaiian Telephone Company, a subsidiary of General Telephone and Electronics Corporation. Inter-island and mainland calls are handled by a direct dialing system. Extension of telephone facilities to cater to new community development is provided by the Company as required, provided that sufficient advance planning time is allowed.

Although the cost of the telephone manholes and duct system is to be borne by the developer, they will be installed at no cost to the developer. In addition, the Hawaiian Telephone Company will purchase a minimum of 10,000 square feet of land within the development for its switching station, whose location will be determined at a later date.

Since the site is located in a region where television reception is particularly good, cable transmission may not be required. Television cable system for the Ewa area is available through Cable Vision, Inc.

Fire Protection

Fire protection services are provided by the City and County of Honolulu Fire Department for all non-military areas on the Island of Oahu. Increment I will be served by the existing Ewa Beach Fire Station No. 24 located in Ewa Beach at the intersection of Pohakupuna and Fort Weaver Roads. The entire area of Increment I lies within a hypothetical two-mile service radius of the station, which satisfies the service location standards desirable for highly urbanized areas.

The present Ewa Beach facility consist of a 1,250 pumper trucks with a five-man crew on a continuous 24-hour basis. In case of major conflagrations in the local area, backup service would be provided by the Waipahu fire station which has a pumper as well as a ladder truck. Also available under a mutual assistance pact is a fire protection company operated by the United States Navy at Barbers Point Naval Air Station.

Police Protection

Similar to fire protection services, police protection is provided by the City and County of Honolulu Police Depart-

Police Protection

Similar to fire protection services, police protection is provided by the City and County of Honolulu Police Department. The Ewa Beach Community is currently served by the Pearl City Precinct, which operates two 24-hours patrols, Beats 326 and 327, in the area. These two patrol areas effectively divide the Ewa community at Fort Weaver Road. Beat 326 covers Ewa Township and all lands westerly of Fort Weaver Road to Barbers Point Naval Air Station, including Increment I and the beachfront, while Beat 327 oversees the Ewa community mauka of the beachfront and easterly of Fort Weaver Road.

The Pearl City Precinct covers an extensive geographic service area, ranging from Red Hill to Kaena Point. This area is undergoing rapid development, with the consequence that the currently expanding and planned new communities cannot be serviced by existing manpower levels.

Discussions with police officials indicate that in all probability a new "beat" will be necesary to serve Increment I and other new development in Ewa Beach. This will require additional manpower of six patrolmen and a sergeant for one 24-hour patrol units. However, they do not feel that the magnitude of development in Ewa will require construction of substation facilities.

Emergency Medical

Emergency medical services are provided by the City and Count of Honolulu's Department of Health. A total of 12 ambulance units are stationed at strategic points throughout Oahu; the ambulance responding to Ewa Beach is located at the fire station in Waipahu. Discussions with the Health Department officials indicate that Increment I can be adequately served under the existing system of ambulance deployment without placing undue stress on the overall level of service. The Waipahu ambulance, for example, responds currently to demand for service at the rate of 2,500 to 3,000 calls per year. In contrast, the Waikiki-based ambulance manages over 7,000 calls on an annual basis.

School Facilities

When Increment I and subsequent projects for Ewa Marina are developed, the anticipated enrollment by school category is as follows: Elementary, 1,050 students; Intermediate, 280 students; and High, 500 students. This relatively small increase in school age population is due to the anticipated nature of the Ewa Marina Community. The housing density and market range of the project suggests a high percentage of small family units of mature families where children are over high school age.

The Ewa Beach Community is presently served by a complex of schools located south of Increment I at the intersection of Fort Weaver and Papipi Roads. Existing facilities include the following: Ewa Beach Elementary School; Kaimiloa Elementary School; Pohakea Elementary School; Ilima Intermediate School; and Campbell High School. Enrollment at these schools has generally been declining in recent years, particularly in the upper grade levels. As a consequence, it is very likely that Increment I-generated intermediate and high school students can be adequately serviced by the existing facilities.

Although the Department of Education was not contacted in connection with this application, the agency recently reported to the Department of General Planning that adequate facilities are available for student enrollment generated by the total 707 acre Ewa Marina project, including Increment I. This was in connection with the recent amendments to the Ewa Development Plan during the F.Y. 82-83 annual review. Consequently, school facilities for the 174 acre portion of Increment I appear adequate.

SECTION 6.0

APPENDICES

APPENDIX A

COMMENTS AND RESPONSE TO PREPARATION NOTICE FOR SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT INCREMENT I

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

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

CHARLES G. CLARK
DIRECTOR OF HEALTH

In reply, please refer to:
EPHSD-SS

December 6, 1983

Mr. Gerald Takano
GACI
926 Bethel St.
Honolulu, Hawaii 96813

Dear Mr. Takano:

Subject: Request for Comments on Proposed Supplemental Environmental Impact Statement (EIS) for Increment I, Ewa Marina Community Project

Thank you for allowing us to review and comment on the subject proposed supplemental EIS. We have commented previously on the final EIS and have no additional comments to make at this time.

We realize that the statements are general in nature due to preliminary plans being the sole source of discussion. We, therefore, reserve the right to impose future environmental restrictions on the project at the time final plans are submitted to this office for review.

Sincerely,

For MELVIN K. KOIZUMI
Deputy Director for
Environmental Health

G A C I
926 BETHEL STREET HONOLULU, HAWAII 96813 TELEPHONE (808) 533-1725

December 7, 1983 Ref: 05783

Mr. William R. Kramer
Acting Project Leader
Office of Environmental Services
U.S. Department of Interior
Fish & Wildlife Service
300 Ala Moana Boulevard
P. O. Box 50167
Honolulu, Hawaii 96850

Dear Mr. Kramer:

Subject: Preparation Notice for Supplemental Environmental Impact Statements Pertaining to Increment I, Ewa Marina Community Project

Pursuant to your December 5, 1983 letter regarding subject project, please be apprised that the Supplemental EIS is for Increment I only comprising of 174 acres of residential, commercial, and park facilities in the northeast section of the total Ewa Marina Project adjacent to the existing Ewa Beach Community. Your concerns relative to the Marina will be addressed when Supplement EIS is prepared for Increment II of the Project Community.

Thank you very much for you interest in the project.

Yours very truly,

GACI, INC.

Gerald T. Takano

Gerald T. Takano

GTT:it

United States Department of the Interior

FISH AND WILDLIFE SERVICE
300 ALA MOANA BOULEVARD
P. O. BOX 50167
HONOLULU, HAWAII 96850

IN REPLY REFER TO:
ES
Room 6307

RECEIVED
DEC 6 1983
GACI, INC.

DEC 5 1983

Mr. Walter K. Tagawa
M.S.M. and Associates, Inc.
33 South King Street, Room 410
Honolulu, Hawaii 96813

Dear Mr. Tagawa:

The Service has reviewed the Preparation Notice for the Supplemental Environmental Impact Statement pertaining to Increment I, Ewa Marina Community Project, which was forwarded to us with your letter of October 27, 1983. We are concerned about the cumulative effects of the subdivision and marina development on the coastal marine environment as expressed in our letters of March 18, 1980 and July 9, 1980 (Copies enclosed). The comments and concerns of our previous correspondence were not adequately covered in the previous "generic" EIS for the Ewa Marina. Our comments remain valid and need to be addressed in this EIS.

Specifically, the EIS should discuss plants, animals and habitat resources, such as wetlands and sinkholes, present within or adjacent to the project area. Discussion should be expanded to address the primary and secondary effects of:

1. Urban drainage in regard to nutrient enrichment, sedimentation and toxic substances on adjacent coastal water systems.

2. The development of the water supply system on upper watershed areas. Potential water sources need to be identified. If surface water diversion is being considered, the impacts this will have on stream flow and associated fauna should also be discussed.

3. Soil erosion and sedimentation on water resources. The location of sediment berms and basins should be specified in the EIS. We recommend that water, rather than chemicals or petroleum products, be used for dust control.

We appreciate this opportunity to comment.

Sincerely,

Original signed by

William R. Kramer
Acting Project Leader
Office of Environmental Services

Enclosures (2)

cc: GACI, DLU, OEQC, NMFS-WPPO, HDAR, HDF&W

ES
Room 6307

March 18, 1980

TRH 3-18

Mr. Richard Senelly
Urban 9
926 Bethel Street
Honolulu, Hawaii 96813

Re: EIS Preparation Notice,
Ewa Marina Community
Project, Ewa, Oahu, HI

Dear Mr. Senelly:

We have reviewed the referenced environmental impact statement preparation notice dated February 27, 1980. The accompanying project description was too brief for us to give specific responses, hence we are providing you with some of our general concerns for the protection of fish and wildlife resources. When these concerns are addressed in the EIS, we will be able to evaluate project impacts in greater detail.

The U.S. Fish and Wildlife Service is generally concerned about the welfare of all fish and wildlife resources and their habitat. With reference to the proposed project, we suggest that you address the following issues and subjects in your EIS.

A survey of the project area should include description of existing upland, wetland, and marine fauna and flora. Special attention should be given to waterbird and endangered species on the fastland, and with the extensive developments proposed on the coast, a nearshore marine survey should be conducted.

Impacts on the existing resource need to be addressed for the terrestrial, freshwater and marine ecosystems.

Terrestrial considerations should discuss the displacement or elimination of species through the replacement of vegetated tracts with developed urban properties. Obviously, many plants and animals will be impacted directly by habitat destruction, but others will be impacted secondarily by construction and urban dirt, noise, and physical proximity.

Water supply needs, solid waste and sewage disposal, residential development and water diversions will affect the surface and groundwater systems, and their impacts must be thoroughly considered. Ideally, the developer should ensure that water leaving the project site is as nearly possible the same quality, volume, and rate of flow as that which prevailed before the development.

Soil disturbances are unavoidable with any construction activity. We believe that the impacts resulting from these disturbances can be minimized by preventing eroding soil losses through prompt revegetation and soil stabilization, the use of soil catchment systems during and after construction, and by limiting disturbed worksites to the smallest areas practicable.

Marinas, docks, piers, and other recreational facilities along the shoreline pose threats to vital habitat areas, water circulation, and water quality. The excavation of canals and boat basins in terrestrial areas is a questionable activity to us for a variety of reasons. These include problems such as accelerated runoff, disruption of natural food chains by creating "sinks" for nutrients and dense saline waters, and the creation of still water areas which become traps for silt and organic ooze which turn anaerobic. These all degrade benthic and water quality. Extensive dredging activities for fill or navigational purposes will degrade coral reef habitat and other submerged vital areas.

We suggest therefore any marina facilities be in well-flushed water areas, and that any structures extending into water areas be on elevated pilings rather than solid fill. Dredging should be performed only where absolutely necessary, and then, spoils should be disposed of in contained upland sites or deep water rather than in wetland areas.

To protect coastal waters from sedimentation, toxic pollution and increased nutrient loads, the development plans for central sewage systems should ensure that no leaching occurs through groundwater systems, and that outfall placement is adequate to provide rapid dispersion and dilution.

You have also suggested that some beach park development will be taking place. This is encouraging, because we believe that facilitation of public entry to shoreline areas should be addressed in the early planning process.

Thank you for the opportunity to comment on this EIS Preparation Notice.

Sincerely yours,

Original Signed by
Maurice H. Taylor

Maurice H. Taylor
Field Supervisor
Division of Ecological Services

cc: DLU, OEQC, NMFS, HDF&G
TRH:kjc:3/17/80

United States Department of the Interior

FISH AND WILDLIFE SERVICE
300 ALA MOANA BOULEVARD
P.O. BOX 50167
HONOLULU, HAWAII 96850

IN REPLY REFER TO:
ES
Room 6307

July 9, 1980

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

Re: Ewa Marina Community DEIS
Honouliuli, Ewa, Oahu

Dear Sir:

We have reviewed the subject DEIS and have the following comments to offer:

General Comments

The materials and conclusions regarding project impacts on fish and wildlife values appear to lack depth and be highly subjective. Based on our review of fieldwork in the area, it appears that the terrestrial regime is not unique, however, marine communities are another issue.

Being familiar with nearshore areas of Hawaii, we believe that the brief fish surveys conducted to date are inadequate to assess potential impacts of the project. Projects of a similar nature such as the boat basin at Hawaii Kai, and numerous marinas in Florida have had significant long-term impacts on the surrounding marine environment.

Based on reconnaissance surveys in the Ewa Beach area, we have observed that coral cover is slight, however, large mats of marine algae provide suitable rearing areas for fish and invertebrates. We do not think that visual observations of 100 fish is a statistically significant sample size or method to compute biomass for the areas. We suggest that the developer coordinate additional studies with this office or Hawaii Division of Fish and Game.

The project plans seem to be no further along than during the EIS preparation notice phase. Material provided for review was conceptual

in nature and could apply to development anywhere. It is difficult to assess potential impacts of the project without sufficient design detail. For example, the sewer outfall siphon under the marina is of concern to environmentalists as well as state engineers and should be reviewed by both groups. However, methodologies of dredging the marina, developmental plans after its construction and contingency plans to assure maintenance of water quality are not presented here for review. This could result in possible complications at a later date when permits are reviewed and methodologies or structures may be unsuitable.

The presentation of several matrices giving the planner's opinion of total project impact is hardly conclusive. We disagree with several of the values assigned in environmental categories and suspect that other values listed can be changed to make one alternative or another seem relatively attractive. We suggest that a session with concerned governmental planners and perhaps a public meeting may be appropriate to define problems and put them in perspective with the proposed project.

Specific Comments

Page 36, Paragraph 2. If the jetties will cause sand accumulations at Oneula Park, will they also cause erosion at Barbers Point?

Page 36, Paragraph 3. The statement comparing the relative value of the existing environment to wildlife to that of a highly urbanized area is highly subjective. The coastal strand and other habitat edges in the project area are valuable to local species and proposed mitigation may be inadequate.

Page 37, Paragraph 5. The DEIS states that the aquifer under the project lands is not going to be developed for a water supply. If this changes in the future, will marina dredging cause salt water intrusion?

Page 38, Paragraphs 3 and 4. The jetties will provide new habitat for marine species. The statement that fish productivity will increase and that rocky substrate will mitigate natural habitat losses is speculative and misleading. We don't agree that the marina, jetty or dredged entrance channel will decrease turbidity or increase primary productivity, in fact the opposite usually occurs (e.g. Hawaii Kai, Ala Moana Park Lagoon).

Page 38, Paragraph 6. What type of artificial recirculation is proposed if turnover is inadequate? Will this be an afterthought or part of a water quality contingency plan?

Page 49, Table 1-11. When we view the "cumulative benefits" of the proposed and alternative plans for development, they all appear to fall into the adverse category. If this is the case, how can the project be justified? This is one table where cumulative values provide insight.

In the other "detailed" alternative matrices cumulative values have little meaning if one factor biases the grouping. For example (in Table 1-2) if dredging a channel and building a jetty destroy local habitat, other lesser perturbances such as boat slips, material deposition and parking lot use can't mitigate or average the impacts caused by dredging and fill operations.

Page 74, Paragraph 2. We believe that the studies conducted should be placed in an appendix to the EIS. As a minimum, studies should be referenced so they can be identified and located.

Page 76, Paragraph 6. We don't agree that the lack of live coral cover necessarily makes the nearshore "an ecologically depressed environment". As previously mentioned, marine algae found in the area may provide valuable habitat.

Page 77, Paragraph 3. Identify the study and provide details.

Page 77, Paragraph 5. A sample size of 100 fish is hardly significant. Crop densities presented with Hawaii Department of Fish and Game studies (Reference?) are misleading.

Page 83, Paragraph 2. Regarding the discussion on longshore transport, the verbal description doesn't appear to be consistent with the contour map in Figure II-5. Have any studies shown that western movement of sand is non-existent or insignificant? If so, what are the details of such studies?

Page 84, Paragraph 1. Earlier, the EIS alluded to possible beach formation and the creation of new surf zones caused by jetty placement. How will these cumulative changes effect wave refraction and subsequent sand transport? If sand movement is onshore and offshore rather than lateral, will there be a constant dredging problem in the marina and entrance channel caused by sand movement?

Page 124, Paragraph 1. On page 5 under the title "Proposed Project: Its Need and Purpose", the statement is made that "...construction of the proposed marina can alleviate the current and anticipated (boat slip) shortage". However, the plan under Marina Description states that 80 percent of the marina will be for the project community residents. We fail to see how this project will alleviate the public's need for dockage in leeward Oahu.

Page 124, Paragraph 4. Is it anticipated that the boat launching sites are truly public, or are they privately managed with public use on a fee basis?

Page 126, Jetty Sections. The typical sections of the entrance channel jetties show a dredged coral core. We would like more information on the suitability of coral for such purpose, and an explanation of containment of coral particles by the armor stone.

Page 131, Paragraph 5. Clark (1977) [1] cites that water replacement times for marinas in the two to four day range are acceptable for maintaining water quality. Ten days or more for replacement is clearly unacceptable. What design or operational alternatives are being explored to reduce the turnover time in upper reaches of the marina? Are dead end channels really necessary for overall project success?

Page 133, Paragraph 2. If the Kalio Gulch is going to present a known water quality problem with occasional flooding, wouldn't a reasonable item of mitigation be to divert the flow to an area outside the marina? If the marina is polluted occasionally by floodwaters, what is the anticipated recovery time for aquatic life therein?

Page 140, Paragraph 4. We don't believe turbidity will decrease in the project area as a result of channel dredging or jetty placement.

Page 142, Paragraph 9. If erosion along channel walls is anticipated, why isn't bank stabilization done during the construction phase?

Additional Comments

To further aid the planner and developer in mitigating project impacts, we recommend the following be considered:

1. The entire perimeter of the marina should have a buffer strip of natural vegetation at least 50 feet wide, to prevent soils and pollutants from entering the marina.

2. The storm water collection system for the proposed development should divert flows to a location(s) outside the marina. This measure will reduce pollutants (fertilizer, petroleum products, paving leachates, silt, etc.) from entering confined marina waters.

3. The project should be constructed in manageable segments so that disturbed areas are minimal in size. They must be stabilized with vegetation immediately following building activity. Temporary silt catchment basins during the construction phase should be used. These measures will prevent excessive sheet erosion and subsequent silting of the marina and nearshore marine waters.

4. Any over-the-water facilities should require such location for operation.

---

1. Clark, John R. 1977. Coastal Ecosystem Management. A Technical Manual for the Conservation of Coastal Zone Resources. Wiley-Interscience. 928 p.

5. Piling-supported docks, floating docks and mooring systems are preferred over solid fill dockage. These measures should allow better circulation, however, extensive dockage areas of any type will reduce wind-induced mixing of marina waters.

6. Materials used in dock construction should not be treated with anti-fouling chemicals, and concrete pilings and posts should be fully cured prior to installation.

7. Haul-out and dry land storage facilities should be explored as an alternative to extensive marina construction.

8. Live-aboard facilities and privileges should not be permitted except for transient boaters.

9. Public access to the marina should be incorporated into a detailed plan for the project. Access should include launching sites for trailerable boats, sufficient parking spaces and developed recreation areas (picnic facilities, restrooms, fishing docks, etc.)

10. Activities in the marina significantly impacting water quality in the marina and surrounding marine waters should be responsive to remedial requirements by public authorities.

11. Dredging materials from the entrance channel of the marina should be stored or used on contained terrestrial areas or disposed of at an approved deepwater site. If studies can show that coral fill will not have a local long-term adverse impact on water quality, such material could be used in jetty construction.

12. Additional studies should be conducted and include comprehensive nearshore physical and biological surveys, modeling studies of sand transport and water turn-over rates to determine the least environmentally damaging project design.

Please contact us if we can be of further assistance in this matter.

Sincerely yours,

Nevin D. Holmberg

Nevin D. Holmberg
Deputy Project Leader
for Ecological Services

cc: ARD-E
HDF&G
NMFS
EPA, San Francisco
USACE

G A C I
926 BETHEL STREET HONOLULU, HAWAII 96813 TELEPHONE (808) 533-1725

December 7, 1983 Ref: 05783

Mr. Clarence S. Fujii
Acting Chief, Engineering Division
Department of Army
Pacific Ocean Division,
Corps of Engineers
Ft. Shafter, Hawaii 96858

Dear Mr. Fujii:

Subject: Preparation Notice for Supplemental Environmental Impact Statements Pertaining to Increment I, Ewa Marina Community Project

Pursuant to your November 30, 1983 letter regarding subject project, please be apprised that the issue of flood prone areas will be further addressed when a supplemental EIS is prepared for Increment II of the Ewa Marina Community. The Supplemental EIS for Increment I addresses other specific issues identified by the Department of Land Utilization, City & County of Honolulu on October 17, 1983.

Thank you very much for your interest in this project.

Yours very truly,

GACI, INC.

Gerald T. Takano

Gerald T. Takano

GTT:it

DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, CORPS OF ENGINEERS
FT. SHAFTER, HAWAII 96858

November 30, 1983

GT/WT
RECEIVED
DEC 6 1983
GACI, INC.

Mr. Gerald Takano
GACI
926 Bethel Street
Honolulu, Hawaii 96813

Dear Mr. Takano:

Thank you for the opportunity to review and comment on the preparation notice for a State of Hawaii supplemental EIS for Increment I, Ewa Marina Community Project. The following comments are offered:

a. We have received an application for a Department of the Army permit. The processing of the application has been suspended pending receipt of information from the applicant for the preparation of a Federal EIS.

b. The site of the proposed community development is designated Zone D, or area of undetermined but possible flood hazards, according to the Flood Insurance Study for Oahu prepared by the Federal Insurance Administration (FIA). Under the FIA flood study, flood-prone areas have not been identified for these areas. See enclosure 1 for the project site relative to the coastal flood plain areas which are subject to tsunami inundation.

Sincerely,

Clarence S. Fujii
Acting Chief, Engineering Division

Enclosure

DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, CORPS OF ENGINEERS
FT. SHAFTER, HAWAII 96858

November 30, 1983

Mr. Gerald Takano
GACI
926 Bethel Street
Honolulu, Hawaii 96813

Dear Mr. Takano:

Thank you for the opportunity to review and comment on the preparation notice for a State of Hawaii supplemental EIS for Increment I, Ewa Marina Community Project. The following comments are offered:

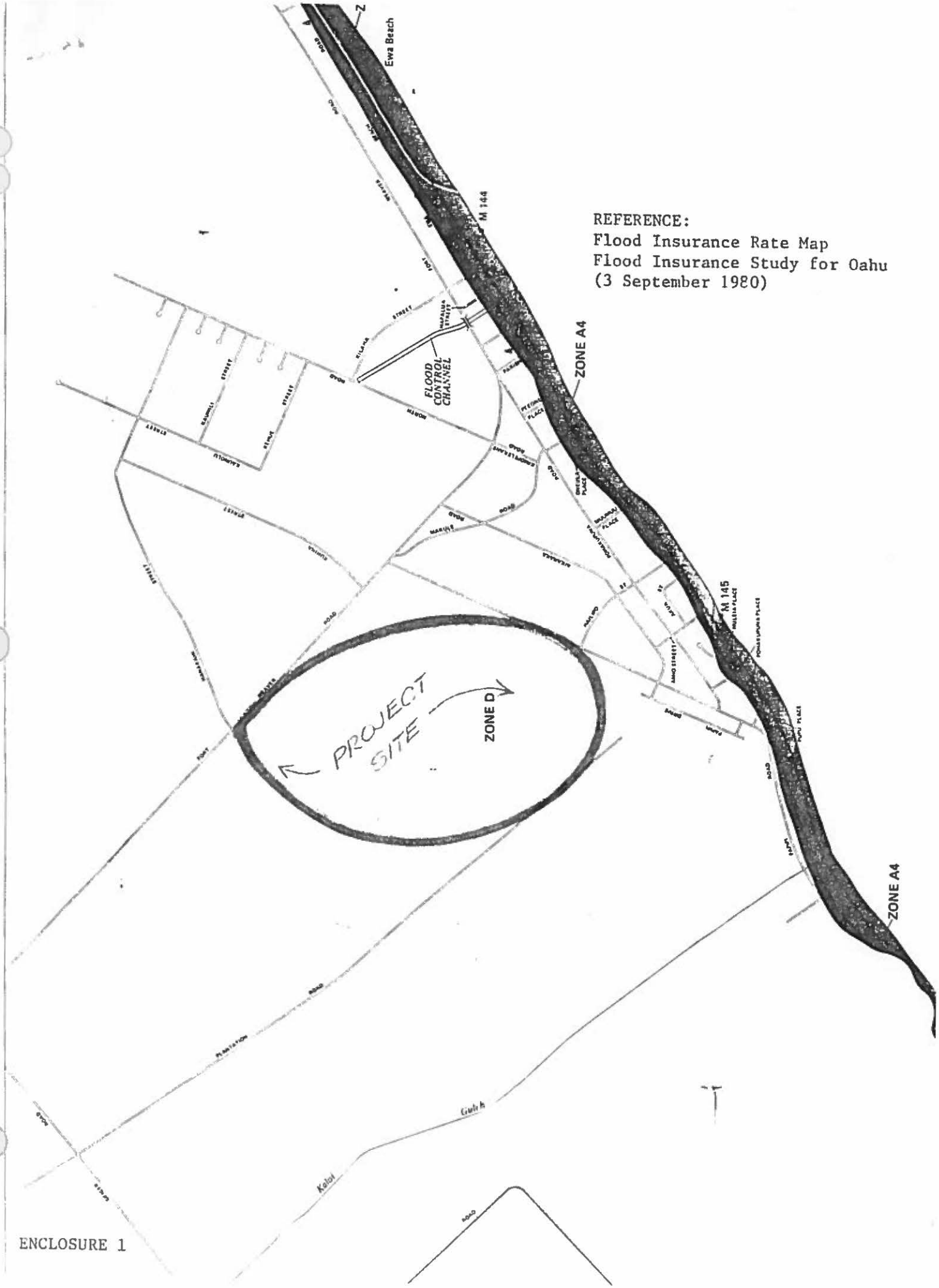
a. We have received an application for a Department of the Army permit. The processing of the application has been suspended pending receipt of information from the applicant for the preparation of a Federal EIS.

b. The site of the proposed community development is designated Zone D, or area of undetermined but possible flood hazards, according to the Flood Insurance Study for Oahu prepared by the Federal Insurance Administration (FIA). Under the FIA flood study, flood-prone areas have not been identified for these areas. See enclosure 1 for the project site relative to the coastal flood plain areas which are subject to tsunami inundation.

Sincerely,

Clarence S. Fujii
Acting Chief, Engineering Division

Enclosure



REFERENCE:
Flood Insurance Rate Map
Flood Insurance Study for Oahu
(3 September 1980)

ENCLOSURE 1

G A C I
926 BETHEL STREET HONOLULU, HAWAII 96813 TELEPHONE (808) 533-1725

December 7, 1983 Ref: 05783

Mr. Ralph Kawamoto
Department of General Planning
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Kawamoto:

Subject: Preparation Notice for Supplemental EIS for Increment I, Ewa Marina Community Project, Ewa, Oahu, Hawaii

Pursuant to your November 30, 1983 letter regarding subject project, please be apprised that the Supplemental EIS for Increment I addresses specific concerns as identified by the Department of Land Utilization, City & County of Honolulu on October 17, 1983. Additional information related to item 1 of your concerns, however, can be obtained from the Petition for Boundary Amendment for Agricultural to Urban, as presented to the Land Use Commission, October 7, 1983. Detailed information on items 2 and 3 will be developed as the project progresses.

Thank you very much for your interest in the project.

Yours very truly,

GACI, INC.

Gerald T. Takano

Gerald T. Takano

GTT:it

DEPARTMENT OF GENERAL PLANNING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

EILEEN R. ANDERSON
MAYOR

WILLARD T. CHOW
CHIEF PLANNING OFFICER

RALPH PORTMORE
DEPUTY CHIEF PLANNING OFFICER

November 30, 1983

Mr. Walter K. Tagawa, President
M.S.M. & Associates, Inc.
33 South King Street, Room 410
Honolulu, Hawaii 96813

Dear Mr. Tagawa:

Ewa Marina Community Project, Increment I
Preparation Notice for Supplemental EIS

Items of interest to us are as follows.

1. The relationship of the project to existing and proposed land use plans for the area, e.g., State Land Use Classification, and the City's General Plan, Development Plan, Zoning, etc.

2. The type, timing and costs of additional public services and facilities required to support the project.

3. Description of the surrounding communities and how the proposed project will relate to this setting.

Otherwise, we feel the preparation notice adequately identifies the various environmental concerns on a broad basis. Discussion of the concerns, with the inclusion of information from other detailed studies, should provide an adequate basis for the evaluation of the EIS.

Sincerely,

Ralph Kawamoto

RALPH KAWAMOTO
Planner

APPROVED:

W. T. Chow

WILLARD T. CHOW

cc: Mr. Gerald Takano, GACI

G A C I
926 BETHEL STREET HONOLULU, HAWAII 96813 TELEPHONE (808) 533-1725

December 7, 1983 Ref: 05783

Mr. Jack K. Suwa
Chairman
Board of Agriculture
Department of Agriculture
1428 South King Street
Honolulu, Hawaii 96814

Dear Mr. Suwa:

Subject: Preparation Notice for Supplemental Environmental Impact Statements Pertaining to Increment I, Ewa Marina Community Project.

Pursuant to your November 30, 1983 letter regarding subject project, please be apprised that the Supplemental EIS for Increment I addresses specific concerns as identified by the Department of Land Utilization, City & County of Honolulu on October 17, 1983.

Other issues such as those presented by the Department of Agriculture, however, will be considered during the public inspection period of the EIS Supplement for Increment I.

Thank you very much for your interest in the subject project.

Yours very truly,

GACI, INC.

Gerald T. Takano

Gerald T. Takano

GTT:it

GEORGE R. ARIYOSHI
GOVERNOR

JACK K. SUWA
CHAIRMAN, BOARD OF AGRICULTURE

SUZANNE D. PETERSON
DEPUTY TO THE CHAIRMAN

State of Hawaii
DEPARTMENT OF AGRICULTURE
1428 So. King Street
Honolulu, Hawaii 96814

Mailing Address:
P. O. Box 22159
Honolulu, Hawaii 96822

November 30. 1983

RECEIVED
DEC 2 1983
GACI, INC.

Mr. Gerald Takano
GACI
926 Bethel Street
Honolulu, Hawaii 96813

Dear Mr. Takano:

Preparation Notice for Supplemental Environmental Impact Statements Pertaining to Increment I, Ewa Marina Community Project
TMK: 9-1-12: Portion of 5 - 174.7 acres

The Department of Agriculture has reviewed the subject preparation notice and offers the following comments.

According to the application, Increment I consists of 174.7 acres and represents the first phase of development of the total Ewa Marina Community project. The project site is on the easternmost portion of the total proposed project area and abuts Ewa Beach town.

The entire Increment I site is presently in sugarcane cultivation and the lands to the north and west are also devoted to cane cultivation.

The subject property is classified as "Other Important Agricultural Land" according to the Agricultural Lands of Importance to the State of Hawaii (ALISH) system. The Soil Conservation Service Soil Survey identifies the soils as: (1) Fill land (Fd) which is nearly level, (2) Ewa silty clay loam, moderately shallow (EmA) with 0 to 2 percent slopes which is used for sugarcane, truck crops, and pasture, (3) Ewa silty clay loam, moderately shallow (EmB) with 2 to 6 percent slopes which is used for sugarcane, truck crops, and pasture, and, (4) Mamala stony silty clay loam (MnC) with 0 to 12 percent slopes which is used for sugarcane, truck crops, and pasture. EmA, EmB, and MnC soils have crop capability classifications of IIs, IIe, and IIIs, respectively (soils with moderate to severe erosion or excess water problems).

The subject property has Land Study Bureau Overall Productivity Ratings of "B77i" and "C72i". By this method of classification, the property has fair to very good productivity potential for most agricultural uses.

On November 15, 1983, we commented on a petition for an amendment to the State Land Use Agricultural District Boundary for the 181 acre area to the west of the subject property (see attached Memorandum to the Department of Planning and Economic Development, Docket No. A83-558). We noted that Oahu Sugar Company recently reviewed all its cultivated lands to identify those to be kept or phased out of sugar production, on the basis of relative operating costs for irrigation water pumpage, yield potential, and other factors. Most of the Ewa Marina Community project area, including the subject 174.7 acre site, are among the lands to be kept in production.

We concluded that Oahu Sugar Company should be allowed to continue cultivation on the lands within the project area until such time as the land is actually needed for development. We believe that the company should be permitted to continue cultivation in the area surrounding the subject property.

Other issues that should be addressed in the supplemental EIS are the impacts of the subject development upon land productivity, agricultural production, and competition for use of water resources in the region. Specific losses to Oahu Sugar Company in terms of income, employment, and other agricultural factors should be discussed. Explanation should be offered as to why a productive area of the plantation is being developed first, rather than a site closer to the shoreline which is not in sugarcane.

Thank you for the opportunity to comment.

Sincerely,

Jack K. Suwa

JACK K. SUWA
Chairman, Board of Agriculture

Attachment

G A C I
926 BETHEL STREET HONOLULU, HAWAII 96813 TELEPHONE (808) 533-1725

December 8, 1983 Ref: 05783

Mr. Joseph Conant
Department of Housing &
Community Development
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Conant:

Subject: Preparation Notice of Supplemental Environmental Impact Statement, Ewa Marina Community Project, Increment I

Pursuant to your November 29, 1983 letter regarding subject project, please be apprised that "low and moderate income housing" will as prescribed by City & County of Honolulu guidelines and definitions. Any options of provisions for the 10% of units for low and moderate income families, however, will be exercised. In addition, the specific types of units and locations will be detailed subsequent to the subject Supplemental EIS for Increment I.

Thank you very much for your interest in the project.

Yours very truly,

GACI, INC.

Gerald T. Takano

Gerald T. Takano

GTT:it

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813
PHONE 523-4181

EILEEN R. ANDERSON
MAYOR

JOSEPH K. CONANT
DIRECTOR

CHARLES K. TORIGOE
DEPUTY DIRECTOR

November 29, 1983

Mr. Gerald Takano
GACI
926 Bethel Street
Honolulu, Hawaii 96813

Dear Mr. Takano:

Subject: Preparation Notice of Supplemental Environmental Impact Statement - Ewa Marina Community Project, Increment I

We have reviewed the subject notice and are pleased that the developer will be providing 10% of the units for low- and moderate-income families. However, we request that the EIS address the following:

1. Definition of "low- and moderate-income housing." These units must be affordable to families earning an average of 80% of the median income.

2. Clarification of where the units will be located, what type of units (apartment or single family) and size (studio, one-bedroom, two-bedroom, etc.) of the units to be provided.

Thank you for informing us of your proposal. We look forward to receiving a copy of the draft EIS.

Sincerely,

JOSEPH K. CONANT

cc: MSM & Associates, Inc.

G A C I
926 BETHEL STREET HONOLULU, HAWAII 96813 TELEPHONE (808) 533-1725

November 30, 1983 Ref: 05783

Mr. Paul T. Oshiro
Chairman
Ewa Neighborhood Board #23
91-784 Makule Road
Ewa Beach, Hawaii 96706

Dear Mr. Oshiro:

Subject: Preparation Notice for Supplemental Environmental Impact Statements Pertaining to Increment I, Ewa Marina Community Project

Pursuant to your November 28, 1983 recommendation on the potential impact of subject Increment I on the public education system, please be apprised that the Dept. of Education did report to the Department of General Planning that adequate facilities are available for projected student enrollment generated by the total Ewa Marina project, including Increment I. The Department of Education, however, will be able to directly comment on the subject during the public inspection period of the EIS Supplement.

Thank you for your comments on the subject project.

Yours very truly,

GACI, INC.

Gerald T. Takano

Gerald T. Takano

GTT:it

EWA NEIGHBORHOOD BOARD NO. 23
91-784 Makule Road
Ewa Beach, Hawaii 96706

RECEIVED
NOV 30 1983
GACI, INC.

November 28, 1983

GACI
926 Bethel Street
Honolulu, HI 96813

Attention: Mr. Gerald Takano

Gentlemen:

Re: Preparation Notice for Supplemental Environmental Impact Statements Pertaining to Increment I, Ewa Marina Community Project

Reference is made to correspondence dated October 27, 1983 from M.S.M. and Associates, Inc., regarding a preparation notice for Supplemental Environmental Impact Statements pertaining to Increment I of the Ewa Marina Community Project.

The preparation notice was a topic of discussion at the November 10, 1983 meeting of the Ewa Neighborhood Board #23. The Board voted to recommend that the Department of Education be consulted regarding the potential impact of this development upon the public education system. The projected increase in the number of public school students created by this development should be carefully correlated with the expansion of present schools or in the development of new schools.

Thank you for allowing us to offer our comments regarding this matter.

Very truly yours,

Paul T. Oshiro
Chairman
Ewa Neighborhood Board #23

PTO:bn

cc: Neighborhood Commission
Patsy T. Mink

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

PROJECT OFFICES

WAIMEA OFFICE
P. O. BOX 125
KAMUELA, HAWAII 96743

KEAUKAHA OFFICE
P. O. BOX 833
HILO, HAWAII 96720

RECEIVED
NOV 28 1983
GACI, INC.

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P. O. BOX 1879
HONOLULU, HAWAII 96805

PROJECT OFFICES

MAUI OFFICE
P. O. BOX 22
KAHULUI, MAUI 96732

MOLOKAI OFFICE
P. O. BOX 198
HOOLEHUA, MOLOKAI 96729

KAUAI OFFICE
P. O. BOX 332
LIHUE, KAUAI 96766

November 23, 1983

Mr. Gerald Takano
GACI
926 Bethel Street
Honolulu, HI 96813

SUBJECT: Ewa Marina Community Project
Supplemental EIS Preparation Notice

Reference is made to your letter of October 27, 1983 requesting comments on the subject project.

The Department of Hawaiian Home Lands has reviewed the Supplemental EIS Preparation Notice and has no comments to offer at this time as the proposed project does not affect our lands.

Thank you for affording us the opportunity to respond to the EIS.

Sincerely yours,

Melvyn S. Jones
for Georgiana K. Padeken
Chairman

GKP:RF:GW:jk

file

GEORGE R. ARIYOSHI
GOVERNOR

DIRECTOR
WAYNE J. YAMASAKI
DEPUTY DIRECTORS
ADAM VINCENT
JONATHAN K. SHIMADA, Ph.D.
CHERYL D. SOON

IN REPLY REFER TO:

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
HONOLULU INTERNATIONAL AIRPORT • HONOLULU, HAWAII 96819

November 25, 1983

AIR-EP
83.2958

Mr. Gerald Takano
GACI
926 Bethel Street
Honolulu, Hawaii 96813

Dear Mr. Takano:

Subject: Preparation Notice for Supplemental Environmental Impact Statements Pertainint to Increment I, Ewa Marina Community Project

Please be advised that we have forwarded our comments to our Statewide Transportation Planning Office for comment consolidation and submittal to you.

Thank you for the opportunity to comment on this matter.

Very truly yours,

OWEN MIYAMOTO
Airports Administrator

G A C I
926 BETHEL STREET HONOLULU, HAWAII 96813 TELEPHONE (808) 533-1725

December 7, 1983 Ref: 05783

Mr. Michael J. Chun
Director & Chief Engineer
Department of Public Works
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Chun:

Subject: Preparation Notice for Supplemental EIS for Increment I, Ewa Marina Community Project, Ewa, Oahu, Hawaii

Pursuant to your November 22, 1983 response to subject project, please be apprised that on May 26, 1983 confirmation was obtained on the Ewa Interceptors Sewer capability to handle approximately 180 acres of R-6 zoned properties of total Ewa Marina Community project in area southwest of Increment I. (See attachment) Subsequently, the Wastewater Management Division, Department of Public Works, has determined that wastewater disposal for Increment I was possible if the sewage was discharged into the 24 inch existing interceptor along Pohakupuna Road providing discharge does not exceed .49 MGD.

As such, a new master plan for Increment I and the entire Phase I (730.5 acres) will be submitted to supersede previous May 26, 1983 letter. In addition, a drainage master plan for Increment I is anticipated for submittal to the Drainage Section, Division of Engineering.

Thank you very much for your interest in the project.

Yours very truly,

GACI, INC.

Gerald T. Takano

Gerald T. Takano

GTT:it

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

EILEEN R. ANDERSON
MAYOR

MICHAEL J. CHUN, Ph.D.
DIRECTOR AND CHIEF ENGINEER

MAURICE H. KAYA
DEPUTY DIRECTOR

WT/GT

RECEIVED
NOV 29 1983
GACI, INC.

ENV 83-398

November 22, 1983

Mr. Gerald Takano
GACI
926 Bethel Street
Honolulu, Hawaii 96813

Dear Mr. Takano:

Re: Preparation Notice for Supplemental EIS for Increment I, Ewa Marina Community Project, Ewa, Oahu, Hawaii

In response to M.S.M. & Associates, Inc.'s letter of October 27, 1983, we request that the following information be discussed in the subject supplemental EIS.

1. The proposed sewer system that will be utilized to convey sewage generated from the project area to the Honouliuli WWTP. For your information, the Ewa Beach sewer system was not designed to accommodate flows from the project area.

2. The proposed drainage system to be constructed for Increment I including major drains proposed to handle the runoff from the entire project area. A drainage master plan should be submitted to the Drainage Section, Division of Engineering, for approval.

Me ke aloha pumehana,

Michael J. Chun

MICHAEL J. CHUN
Director and Chief Engineer

cc: Division of Engineering
Division of Wastewater Management

G A C I
926 BETHEL STREET HONOLULU, HAWAII 96813 TELEPHONE (808) 533-1725

November 30, 1983 Ref: 05783

Captain Michael Dallam
CEC, U. S. Navy
Facilities Engineer
Headquarters
Naval Base Pearl Harbor
Box 110
Pearl Harbor, Hawaii 96860

Dear Capt. Dallam:

Subject: Preparation Notice for Supplemental EIS for Increment I, Ewa Marina Community Project, Ewa, Oahu, Hawaii

Pursuant to your November 22, 1983 letter regarding subject project, please be apprised that the Supplemental EIS is for Increment I only, comprising of 174 acres of residential, commercial, and park facilities in the northeast section of the total Ewa Marina Community project and does not cover the marina. The marina issue will be addressed when supplemental EIS is prepared for Increment II of the Ewa Marina Community.

Thank you very much for your interest in the project.

Yours very truly,

GACI, INC.

Gerald T. Takano

Gerald T. Takano

GTT:it

HEADQUARTERS
NAVAL BASE PEARL HARBOR
BOX 110
PEARL HARBOR, HAWAII 96860

IN REPLY REFER TO:
002A:QLB:jam
Ser 2387

22 NOV 1983

W1/G1
RECEIVED
NOV 23 1983
GACI, INC.

Mr. Gerald Takano
GACI
926 Bethel Street
Honolulu, Hawaii 96813

Dear Mr. Takano:

MSM & Associates, Ltd. Request Regarding
Ocean Channel for Proposed Ewa Marina

Thank you for this opportunity for Naval Base Pearl Harbor and Pacific Division, Naval Facilities Engineering Command (PACNAVFACENGCOM) to further respond to the Ewa Marina Development.

The Navy in the past has mainly voiced objections to development on the Ewa Plain due to the noise effects that military and civilian aircraft have had and will have over the area for many years. However, development compatible with current Naval Air Station, Barbers Point (NAS BARPT) operation is possible if land use and design techniques consistent with the upcoming Barbers Point AICUZ are developed.

The Navy's present concern is with the entrance channel project, based on the littoral process and its resultant effects on Nimitz Beach. This beach, located directly adjacent to the development, is an important military recreational area. Any negative impact on this beach environment will severely affect NAS BARPT personnel. If modifications or increased maintenance of the beach and recreational structures are required, the result could be increased costs to NAS BARPT.

Sincerely,

M. M. DALLAM
CAPTAIN, CEC, U. S. NAVY
FACILITIES ENGINEER
BY DIRECTION OF THE COMMANDER

Copy to:
MSM & Associates, Ltd.

G A C I
926 BETHEL STREET HONOLULU, HAWAII 96813 TELEPHONE (808) 533-1725

December 2, 1983 Ref: 05783

Mr. George D. Curtis
Joint Institute for Marine
and Atmospheric Research (JIMAR)
1000 Pope Road
Honolulu, Hawaii 96822

Dear Mr. Curtis:

Subject: Preparation Notice for Supplemental Environmental Impact Statements pertaining to Increment I, Ewa Marina Community Project

Thank you very much for your November 22, 1983 response to subject project. Pursuant to your comments on item b, noise, please be apprised that the area within the 62.5 LDN designation of the Navy's AICUZ 1976 study has been set aside specifically for a park to ensure that all residential areas are located well within the 62.5 LDN zone. JIMAR, however, will be able to further comment on the subject during the public inspection period of the EIS Supplement.

Yours very truly,

GACI, INC.

Gerald T. Takano

Gerald T. Takano

GTT:it

University of Hawaii at Manoa

Joint Institute for Marine and Atmospheric Research (JIMAR)
1000 Pope Road • Honolulu, Hawaii 96822
Cable Address: UNIHAW

November 22, 1983

GACI
926 Bethel St.
Honolulu, Hawaii 96813
ATTN: Mr. Gerald Takano

Subject: Supplemental EIS, Ewa Marina Community Project, Increment I

Dear Mr. Takano:

We have reviewed your preparation notice on the subject EIS. We offer comments in two areas:

a) Tsunami hazard - although a small portion of the makai section of the increment is in an evacuation zone, there is no significant hazard to structures in the area. The primary impact would be from residents evacuating the Ewa Beach community, upon a tsunami warning.

b) Noise - I note a "62.5 L_{DN}" line across the mauka corner, which is set aside for a park. "62.5" implies an accuracy which is not feasible in aircraft noise projections of this type, but it is probable that the increment is exposed to a level between 60 and 65 dB. This is considered high for residential areas, by most standards (e.g. the EPA levels document). If these data are from the AICUZ study performed several years ago, it should be reviewed and possibly updated, as it was somewhat contraversial at the time.

Sincerely,

George D. Curtis
JIMAR

GD:vo

cc: Dr. Doak Cox, Environmental Center
Cdr. Jon Carlmark, USN Third Fleet

G A C I
926 BETHEL STREET HONOLULU, HAWAII 96813 TELEPHONE (808) 533-1725

December 2, 1983 Ref: 05783

Mr. Kazu Hayashida
Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96813

Dear Mr. Hayashida:

Subject: Preparation Notice for Supplemental Environmental Impact Statement pertaining to Increment I, Ewa Marina Community Project

Pursuant to your November 18, 1983 response to subject project, please be apprised that item 1, installation of dual water system will be addressed in the EIS Supplement as an approach under consideration with the Board of Water Supply. Item 2, impact on groundwater from construction of canals, will be addressed when Supplemental EIS is prepared for Increment II of the Ewa Marina Community which encompasses the marina.

It is also understood that the developer will be required to install the necessary off-site water facilities in accordance with Campbell Estates water master plan.

Thank you very much for your interest in the subject project.

Yours very truly,

GACI, INC.

Gerald T. Takano

Gerald T. Takano

GTT:it

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

November 18, 1983

RECEIVED
NOV 23 1983
GACI, INC.

Mr. Gerald Takano
GACI
926 Bethel Street
Honolulu, Hawaii 96813

Dear Mr. Takano:

Subject: Your Letter of October 27, 1983, on the Preparation Notice for Supplemental Environmental Impact Statement Pertaining to Increment I, Ewa Marina Community Project

Thank you for allowing us to review the environmental assessment for Increment I of the Ewa Marina Community Project.

Although the assessment mentions that the environmental impact statement will address sewage disposal/groundwater impacts and public services/utilities impacts, we suggest that the EIS address the following specific items:

1. The alternative of installing a dual water system to meet the demand for the development.

2. The impact on groundwater from the construction of canals, if applicable.

In addition to the foregoing, the developer will be required to install the necessary off-site water facilities in accordance with the water master plan which Campbell Estate is presently preparing for all the proposed developments on their lands in Ewa.

If you have any questions, please contact Lawrence Whang at 527-6138.

Very truly yours,

KAZU HAYASHIDA
Manager and Chief Engineer

cc: MSM & Assoc., Inc.

G A C I
926 BETHEL STREET HONOLULU, HAWAII 96813 TELEPHONE (808) 533-1725

December 2, 1983 Ref: 05783

Mrs. Emiko I. Kudo
Director
Department of Parks & Recreation
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mrs. Kudo

Subject: Preparation Notice for Supplemental Environmental Impact Statement
Ewa Marina Community Project, Increment I

Thank you very much for your November 17, 1983 confirmation of the acceptance of Increment I's proposed park site and subsequent recommendations to proceed with City and park dedication requirements.

Please be apprised that park requirements and coordination with the Department of Parks & Recreation will be discussed in the EIS Supplement. Concurrently, however, Mr. Jason Yuen will be contacted to clarify park requirement details.

Yours very truly,

GACI, INC.

Gerald T. Takano

Gerald T. Takano

GTT:it

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

EILEEN R. ANDERSON
MAYOR

EMIKO I. KUDO
DIRECTOR

SAM L. CARL
DEPUTY DIRECTOR

OSCAR K. ASAHI
EXECUTIVE ASSISTA

November 17, 1983

Mr. Gerald Takano
GACI
926 Bethel Street
Honolulu, Hawaii 96813

Dear Mr. Takano:

SUBJECT: PREPARATION NOTICE FOR SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
EWA MARINA COMMUNITY PROJECT, INCREMENT I
TMK: 9-1-12

We have reviewed the Preparation Notice for Supplemental Environmental Impact Statements for the Ewa Marina Community Project, Increment I, and offer the following comments.

We have determined that the proposed park site as shown on Plate LU-1 is acceptable. Since the number of dwelling units proposed for development in the 174-acre project area has been established, the planning of the size and configuration of the proposed park site should begin. It is important that the park site meet City and park dedication requirements. Please contact Mr. Jason Yuen of our Advance Planning Section at 527-6315 to discuss the park requirements.

Early approval of the park site will make the planning process of the project easier.

Thank you for the opportunity to comment on the Ewa Marina Community Project.

Sincerely yours,

Emiko Kudo

(Mrs.) EMIKO I. KUDO, Director

EIK:vc

G A C I
926 BETHEL STREET HONOLULU, HAWAII 96813 TELEPHONE (808) 533-1725

December 2, 1983 Ref: 05783

Mr. Rikio Nishioka
State Public Works Engineer
Division of Public Works
Department of Accounting & General Services
State of Hawaii
P. O. Box 115
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

Subject: Ewa Marina Community Project, Increment I
Preparation Notice for Supplemental Environmental Impact Statements

Pursuant to your November 8, 1983 request to be a consulted party for the subject project, please be apprised that we have contacted Mr. Herbert Ishida in this regards. As such, we have informed Mr. Ishida that the Division of Public Works will be able to directly comment on the specific concerns during the public inspection period of the EIS Supplement.

Thank you very much for your interest on the subject project.

Yours very truly,

GACI, INC.

Gerald T. Takano

Gerald T. Takano

GTT:it

GEORGE R. ARIYOSHI
GOVERNOR

HIDEO MURAKA
COMPTROLLER

MIKE N. TOKUMI
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

LETTER NO. (P) 1925

NOV 18 1983

Mr. Gerald Takano
Group Architects Collaborative, Inc.
926 Bethel Street
Honolulu, Hawaii 96813

Dear Mr. Takano:

Subject: Ewa Marina Community Project, Increment I
Preparation Notice for Supplemental
Environmental Impact Statements

We have reviewed the subject preparation notice and would like to be a consulted party in the preparation of the supplemental environmental impact statement.

If there are any questions, please call Mr. Herbert Ishida of the Planning Branch at 548-3921.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

HI:jl

November 15, 1983

MEMORANDUM

To: Mr. Kent N. Keith, Director
Department of Planning and Economic Development

Subject: Petition for an Amendment to the State Land Use District Boundaries
A83-555 (HSH and Associates, Inc.)
Agricultural to Urban
Marina-Oriented Residential Community
TMK: 9-1-12: 7, 8, 9, 11, 12, 13, 16, 17, por. 6
Oneula, Ewa, Oahu - 181 acres

The Department of Agriculture has reviewed the subject petition and offers the following comments.

According to the petition, the applicant is seeking to reclassify approximately 181 acres of land from the Agricultural District to the Urban District for the development of residential units and associated facilities. The subject area is to be part of a 707.6 acre master-planned area to be known as the Ewa Marina Community.

The northern 85+ acres of the subject area are utilized for production of sugarcane by Oahu Sugar Company (OSC). The southern 96 acres are not cultivated but support " ... low intensity agricultural activities including 42 acres for egg production and poultry production" (Petition, page 2). The leases for these activities have been terminated since mid-1980 and the remaining operations are on a month-to-month arrangement (Petition, page 33).

The reference to the Soil Conservation Service Soil Survey is correct. It should be noted that the Agricultural Lands of Importance to the State of Hawaii (ALISH) system was jointly developed by the Soil Conservation Service, University of Hawaii College of Tropical Agriculture, and the State Departments of Agriculture, Planning and Economic Development, and Land and Natural Resources. The subject area has Land Study Bureau Overall Productivity Ratings of B77i, E115, and Urban. By this method of classification, the "E" -rated area has good to very good productivity potential for sugarcane, pineapple, and vegetable crops.

While the loss of 413 acres in sugarcane cultivation (including the 86 acres in the present petition) as a result of the development of the entire Ewa Marina Community project may not have significant adverse effects

on the economic viability of the Oahu Sugar Company, we believe that the company should be allowed to continue cultivation on the lands within the project area until such time as the land is actually needed for development. The company recently reviewed all its cultivated lands to identify those to be kept or phased out of sugar production, on the basis of relative operating costs for irrigation water pumpage, yield potential, and other factors. The subject property is among the lands to be kept in production.

Plan Inc., an egg operation, currently leases twelve (12) acres on a month-to-month basis from the Campbell Estate in the project area and maintains a 40,000 layer facility at its Ewa site. Industry experts consider this operation to be "good-sized" as Oahu egg-laying operations go. A company spokesman stated that to phase out and re-establish their operation in another location would take approximately 5 to 10 years.

The petition does not state whether any action will be taken to lessen the impact of the termination of the egg operation or any other existing agricultural operations as a result of the proposed project. This raises the following questions:

(1) What are the replacement costs for the operations affected by the proposed project?

(2) Have any of these operations expressed an interest in relocation?

(3) If so, will relocation lands be made available and at what cost?

(4) What lease terms can relocated farmers expect?

(5) Are there any dwellings or facilities to be moved and/or rebuilt?

According to the Statistics of Hawaiian Agriculture, 1982, Oahu egg producers supplied 84 percent of all eggs produced in the State in 1982. During that same year, the total market supply of eggs in the State was 22.25 million dozens, of which 16.85 million dozens (75 percent) were produced locally (Statistics, page 83 and 84). The Poultry and Eggs Industry Analysis No. 2 (submitted to the Governor's Agriculture Coordinating Committee on January 27, 1982) states that except for milk production, eggs are the only livestock commodity presently being produced at such a high level of self-sufficiency in Hawaii (Analysis, page 3).

The Department of Agriculture strongly supports agricultural self-sufficiency for Hawaii, pursuant to the mandates, objectives, policies, and actions found in the following documents:

(1) The State Constitution which mandates that the State shall "... increase agricultural self-sufficiency ..." (Article XI, Section 3).

(2) The Hawaii State Plan (Chapter 226, HRS) which contains a policy promoting economically competitive activities that increase Hawaii's agricultural self-sufficiency [Section 226-7 (b)(10) of the Hawaii Revised Statutes].

(3) The State Agriculture Plan (May 3, 1982) which contains several policies and implementing actions related to increasing agricultural self-sufficiency.

The petition notes that the Board of Water Supply recently adopted a dual water system plan for the Ewa area, and detailed planning is in progress (Petition, page 9 and 10). However, the petition does not indicate the total domestic water demand required for the total 737.6 acre project, nor the impact on agriculture resulting from the withdrawal of water from sugarcane irrigation and its reallocation to other uses.

The petition concludes that excavations for the proposed marina and waterway system will not significantly affect the amount of seawater contamination of groundwater in the project area (Petition, page 36). What level of increased salinity is considered not significant? We are aware that OSC has an irrigation water pumping station to the west of the project area and five (5) pumps to the northeast of the project area. Is there any possibility that salinity concentrations in these wells could rise as a result of the excavation of the waterways? Soils become saline as a result of the use of saline irrigation water, especially in dry areas where the accumulated salts are not washed out by frequent rainfall or by freshwater flushing. Saline soils have a retarding effect on the growth of sugarcane, thus reducing the yields from plants in the affected area.

The petition also states that " ... there should be a tendency for groundwater to move seaward rather than the reverse" (Petition, page 36). Would the excavation of the waterways and marina result in a groundwater flow out of the excavated area at a rate significantly greater than what presently occurs?

If this petition is approved, we recommend the following conditions:

1. Allow Oahu Sugar Company to continue production on any of its lands in the petition area until construction of each phase actually requires the conversion of such lands.

2. Provide for the relocation of the existing poultry/egg operation at Petitioner's expense to comparable lands at lease terms sufficient to maintain the economic viability of the operation.

For your information, please find attached a copy of our comments on the previous boundary amendment petition (Docket A79-469).

Thank you for the opportunity to comment.

Jack K. Suwa

JACK K. SUWA
Chairman, Board of Agriculture

Attachment
cc: DLNR
OSP
PTan, Inc.
Oahu Sugar Company, Ltd

G A C I
926 BETHEL STREET HONOLULU, HAWAII 96813 TELEPHONE (808) 533-1725

December 2, 1983 Ref: 05783

Mr. Douglas G. Gibb
Chief of Police
Police Department
City & County of Honolulu
1455 South Beretania Street
Honolulu, Hawaii 96814

Dear Mr. Gibb:

Subject: Preparation Notice for Supplemental Environmental Impact Statements pertaining to Increment I, Ewa Marina Community Project

Pursuant to your November 14, 1983 letter in response to subject project, please be apprised that comments will be welcomed during the public inspection period after the submittal of the Supplemental Environmental Impact Statement.

Your interest and concern in the progress of this project is greatly appreciated.

Yours very truly,

GACI, INC.

Gerald T. Takano

Gerald T. Takano

GTT:it

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
1455 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96814 • AREA CODE (808) 943-3111

EILEEN R. ANDERSON
MAYOR

DOUGLAS G. GIBB
CHIEF

WARREN FERREIR
DEPUTY CHIEF

OUR REFERENCE EC-JS

November 14, 1983

Mr. Walter K. Tagawa
M.S.M. & Associates, Inc.
33 South King Street, Room 410
Honolulu, Hawaii 96813

Dear Mr. Tagawa:

Subject: Preparation Notice for Supplemental Environmental Impact Statements pertaining to Increment I, Ewa Marina Community Project

The Honolulu Police Department will be interested in the progress of this development, especially as it relates to the impact on traffic safety and public services. We would appreciate receiving the supplementary statements as they are developed and will reserve comment until that time.

Sincerely,

DOUGLAS G. GIBB
Chief of Police

By Edwin Ross
EDWIN ROSS
Assistant Chief of Police
Administrative Bureau

APPENDIX B

May 26, 1983 Letter from

DEPARTMENT OF PUBLIC WORKS

City and County of Honolulu

CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

EILEEN R. ANDERSON
MAYOR

MICHAEL J. C
DIRECTOR AND C

MAURICE I
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RECEIVED
JUN 1 1983
GACI, INC.

WPP 8

May 26, 1983

Mr. Walter K. Tagawa
President
M.S.M. and Associates, Inc.
33 S. King Street, Rm. 410
Honolulu, Hawaii 96813

Dear Mr. Tagawa:

Subject: Rezoning of Ewa Marina Community
TMK: 9-1-12

We wish to clarify our comments in our letter of May 9, 1983 (301-14-0344). Although the public sewers are inadequate to accommodate the entire Ewa Marina Development, the existing Ewa Interceptor Sewer was designed to handle anticipated flows from the approximately 180 acres of R-6 zoned properties shown in yellow on the attached map. You may construct a sewer line to the existing Honouliuli Wastewater Treatment Plant to service the rest of the proposed development.

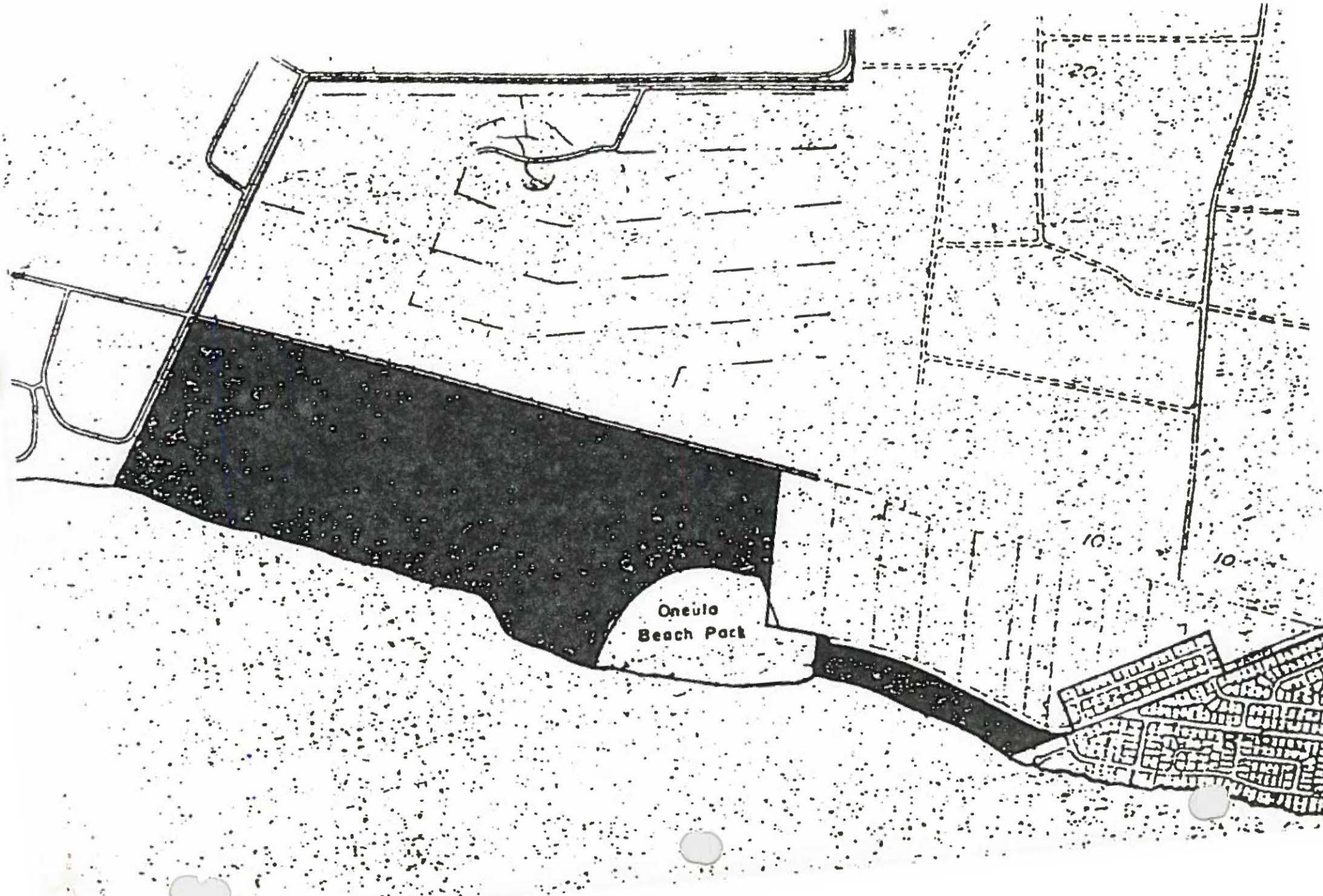
If there are any questions, please call Jay Hamai at 523-4067.

Me ke aloha pumehana,

for MICHAEL J. CHUN
Director and Chief Engineer

Attachment

cc: Dept. of Land Utilization
Division of Engineering
Public Service Section


Oneula
Beach Park
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APPENDIX C

May 9, 1983 Letter from

DEPARTMENT OF PUBLIC WORKS

City and County of Honolulu

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

EILEEN R. ANDERSON
MAYOR

MICHAEL J. CHUN
DIRECTOR AND CHIEF
MAURICE H.
DEPUTY DIRECT

301-14-03

May 9, 1983

Mr. Walter K. Tagawa, President
M.S.M. & Associates, Inc.
33 South King Street, Room 410
Honolulu, Hawaii 96813

Dear Mr. Tagawa:

Subject: Your Letter 97878 of April 18, 1983, Relating to the Rezoning of Ewa Marina Community
TMK: 9-1-12

We have reviewed your proposal to rezone the Ewa Marina Community and have the following comments to assist you in your rezoning application:

Engineering:

We have no comment.

Refuse Collection & Disposal:

We can provide refuse collection to this large development if we assume that necessary increases in personnel and trucks will be approved.

Sanitary Sewers:

Public sewers are inadequate to handle the increase in flows from the proposed development.

Me ke aloha pumehana,

MICHAEL J. CHUN
Director and Chief Engineer

cc: Division of Refuse Collection and Disposal
Division of Wastewater Management
Department of Land Utilization