

1990-03-23-0A-FBA

NEGATIVE DECLARATION  
FOR  
\*MAKAPUU BEACH PARK IMPROVEMENTS\*

**FILE COPY**

TMK: 4-1-14:5  
Waimanalo, Koolauoko, Oahu

- Proposing Agency:** Department of Parks and Recreation, City and County of Honolulu
- Accepting Agency:** Not Applicable
- Project Description:** Development of a parking lot, vehicle barriers, and landscaping at the northwest end of Makapuu Beach Park
- Determination:** An Environmental Impact Statement is not required under Chapter 343, Hawaii Revised Statutes
- Rationale:** There will be no significant adverse effect on native flora, native fauna, and archaeological resources. Vehicular access will be restricted from sensitive dune areas currently denuded of vegetation.
- Contact Person:** Walter M. Ozawa, Director  
Department of Parks and Recreation  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813  
Telephone: 527-6343
- Agencies Consulted:** Department of Land Utilization  
City and County of Honolulu  
  
Department of Land and Natural Resources  
Historic Preservation Division  
State of Hawaii

ENVIRONMENTAL ASSESSMENT  
FOR  
MAKAPUU BEACH PARK IMPROVEMENTS

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Waimanalo, Koolaupoko, Oahu

I. PROPOSED PROJECT

A. SUMMARY

The City Department of Parks and Recreation is proposing development of a parking lot, vehicle barriers, and landscaping at the northwest end of Makapuu Beach Park (see Figure 1). Vehicular access will be restricted from some environmentally sensitive areas of the park now denuded of vegetation.

B. TECHNICAL CHARACTERISTICS

Directly across from the Oceanic Institute, a paved road provides vehicular access from Kalaniana'ole Highway to the northwest end of Makapuu Beach Park (see Figure 2). This park access road forks into two roads about 120 feet makai of the highway. One road forks towards the southeast and leads to an improved portion of the beach park that includes a comfort station, showers, campsites, and gravel parking areas. The other one-lane road forks towards the northwest and leads to tidal ponds at the unimproved northwest end of the beach park.

The City Department of Parks and Recreation proposes to construct moss-rock walls that are 30 inches high on both sides of the entrance of the existing park access road. The 10-foot wide, 190-foot long paved road that forks toward the northwest will be widened to 22 feet and extended to 295 feet. A gravel parking area with the approximate dimensions of 60 feet wide by 260 feet long will be added at the end of the expanded access road (see Figure 3). Low concrete vehicle barriers will be placed around the perimeter of the expanded access road and gravel parking lot. Concrete stanchions will augment barriers around the parking lot. Vehicle access will be limited to the improved road and parking lot in the northwest end of Makapuu Beach Park.

Landscaping improvements will be performed as part of this project. The makai slope of the existing hillside between the expanded northwest fork of the access road and Kalaniana'ole Highway will be excavated to create a gentler slope (see Figure 2). A 520-foot long naupaka hedge will be planted immediately makai of Kalaniana'ole Highway (see Figure 4). A grass lawn will be planted around the perimeter of the expanded access road and gravel parking lot. The lawn area will extend to the naupaka hedge on the makai side of the highway. A grove of milo trees will be planted within the lawn makai and west of the expanded access road and gravel parking lot (see Figure 4). While construction plans call for planting of milo trees mauka of the new parking lot, it is currently not resolved whether trees will be planted in this area. Naupaka will be planted to expand existing clumps along the shoreline.

In order to irrigate landscaping, a water line will be extended from a valve within the improved portion of the beach park. Permanent water lines and sprinklers will be installed within the new lawn area around the expanded access road and gravel parking lot. Temporary water lines and sprinklers will be used to irrigate naupaka planted near the shoreline. Temporary irrigation improvements will be removed once shoreline naupaka plantings become established.

#### C. SOCIAL CHARACTERISTICS

Proposed improvements are intended to beautify the beach park, provide shade trees for park users, and restrict vehicles from driving over and killing shoreline vegetation.

#### D. APPLICABLE LAND USE CONTROLS

Makapuu Beach Park is included within the City special management area and is also within the Limited Subzone of the State Conservation District. Proposed improvements will require either Department of Land Utilization approval of phased minor special management area use permits (SMP) or Council approval of a major SMP. Proposed improvements will also require Board of Land and Natural Resources (BLNR) approval of a Temporary Variance and/or a Conservation District Use Application (CDUA).

A shoreline survey has been conducted and determined that no proposed structure will be within 40 feet of the shoreline. Based on the results, no shoreline variance is necessary for development in the shoreline setback area.

In compliance with permit requirements, the public benefits of proposed improvements outweigh any adverse impacts. Proposed structures will not have any adverse environmental effect and, by limiting vehicular access, will allow the regrowth of sensitive sand dunes and native shoreline vegetation. Proposed landscaping will facilitate passive park use, but may adversely affect shoreline views from Kalaniana'ole Highway.

No development plan amendment or zone change will be required to initiate proposed improvements. The beach park is designated "Parks and Recreation" on the Koolaupoko Development Plan Land Use Map and zoned P-1 on the applicable zoning map. No major public improvements are proposed for the site in the Koolaupoko Development Plan Public Facilities Map.

#### E. ECONOMIC CHARACTERISTICS

City consultants have estimated the fair market value of proposed improvements as \$169,000. The low bid combining all of the improvements described in this Environmental Assessment was \$190,000. Costs will be funded with a capital improvement appropriation by the City Council initiated in the fiscal year 1988-1989.

After necessary permits are obtained, the project will be implemented in several phases during the calendar year 1990. The cost breakdown shown in the following table is based on estimates by City consultants.

Phase 1	Clean, grub, grade, excavate .....	\$ 12,000
Phase 2	Select borrow, base course, AC ..... pavement, moss rock walls, parking barriers, stanchions	60,665
Phase 3	Trash containers and irrigation ..... system	34,576
Phase 4	Topsoil, landscaping .....	<u>62,200</u>
	Total .....	\$ 169,441

#### F. HISTORIC PERSPECTIVE

Like Waimanalo, Kaiona, and Kaupo Beach Parks, Makapuu Beach Park is situated on Hawaiian Home Lands as established under the federal Hawaiian Homes Commission Act of 1920 as amended. In October 1930, the Governor transferred the eastern half of the property to the City for park use by Executive Order. In September 1950, the Governor transferred the western half of the property to the City for park use by Executive Order. During the 1970s, a series of court rulings and State Attorney General opinions held that the Governor did not have legal authority to control use of Hawaiian Home Lands with Executive Orders. In response, the Governor issued two Executive Orders in December 1984 which cancelled all former Executive Orders transferring Hawaiian Home Lands to the City for park use.

Since December 1984, the Hawaiian Homes Commission has leased the site of Makapuu Beach Park to the City for operation and maintenance of a beach park. The current five-year license expires December 28, 1991. In the event that the license is not renewed, the Hawaiian Homes Commission would assume total responsibility for the property.

The last City improvements of the northwestern end of Makapuu Beach Park occurred in 1980 when submerged rock walls were added across the ocean openings of natural sand-lined lava tidal ponds. Presumably this was to reduce wave action. In summer 1981, the Hawaiian Hang Gliding Association placed fill material to create a landing area makai of Kalaniana'ole Highway, just northwest of the park access road (see Figure 4). In January 1988, a private hauling contractor employed by the City Department of Public Works dumped mud and boulders (deposited by flooding of Hahaione Valley) onto the area where the City now proposes to construct a gravel parking lot. Most flooding debris was removed a few weeks later and trucked to Kapaa Landfill. Proposed landscaping improvements in part are intended to beautify the hang-gliding landing field and former stock-piling site.

## II. SUMMARY DESCRIPTION OF THE ENVIRONMENTAL SETTING

### A. TOPOGRAPHY

Elevations in the project area range from about 22 feet (at the park access road makai of the Oceanic Institute) to sea level (along the shoreline and at the west end of Makapuu Beach Park). The hang glider landing area is about the same elevation (17 to 21 feet) as the adjacent section of Kalaniana'ole Highway. The rest of the project area is at least several feet lower than Kalaniana'ole Highway.

The topography and the virtual absence of trees makai of Kalaniana'ole Highway between the Makapuu lookout and the Makai Range Pier in Waimanalo allows drivers an uninterrupted panoramic view of the ocean.

### B. SOILS

Soils at the hang glider landing area and most of the site of the proposed parking lot and access road are imported fill material. Makai of the proposed parking lot and access road, soils consist of beach sand or exposed lava flows. The proposed water line hookup to the improved portion of Makapuu Beach Park will be located on an exposed lava flow.

The lava flows at Sea Life Park and Makapuu are relatively unweathered because of their short geological age of about 30,000 years. They were created during the last eruption before the Koolau Volcano became dormant.

### C. WIND/RAINFALL

Makapuu Beach Park is basically a dry and windy area. Onshore tradewinds between 10-30 mph predominate. Median annual rainfall at Makapuu is only 26.1 inches. Most rain falls during winter storms.

### D. DRAINAGE/WATER RESOURCES

There are no drainage channels across the west end of Makapuu Beach Park. There are no potable surface or ground water sources underlying the beach park.

Sea Life Park maintains a salt water well within the project area. Salt water is pumped within a buried concrete pipe to the Oceanic Institute. Waste water from Oceanic Institute aquaculture ponds flows to the ocean in a shallow swale along the west end of the beach park.

#### E. SHORELINE/OFFSHORE CONDITIONS

Except for few man-made walls, there is a continuous white sand beach from Bellows Air Force Station to the western end of Makapuu Beach Park. This beach extends inland of two shallow sand-lined lava tidal ponds at the northwest end of the beach park. The waterfront of the middle of the beach park consist mostly of rugged lava flows. The waterfront of about the southeastern third of Makapuu Beach Park is basically a wide sand beach.

A gentle surfing site suitable for beginners is located a little northwest of Makapuu Beach Park (makai of the eastern end of Kaupo Beach Park). A relatively dangerous board surfing site is located offshore of the lava shoreline in the middle of the Makapuu Beach Park. A very popular, and often dangerous, bodysurfing area is located offshore of the southeast end of the park.

Offshore water quality and water circulation are excellent at Makapuu. The predominant onshore tradewinds create choppy conditions while southerly and light winds create smooth conditions.

The beach at the southeast side of the beach park accretes during calm periods and erodes when surf is high. The beach inland of the lava tidal ponds at the northwest end of the park is relatively stable and sheltered from wave action.

#### F. NATURAL HAZARDS

The adopted September 1987 Flood Insurance Rate Map indicates that a 100-year tsunami would inundate most of the northwest end of Makapuu Beach Park. Flood elevations can reach an estimated 18 to 20 feet, potentially flooding most of the northwest end of the park. Ground elevations range from sea level to 21 feet (the highest point within the hang glider landing field).

Published studies of shoreline fluctuations do not address the northwest end of Makapuu Beach Park. The beach mauka of the tidal ponds is sheltered from harsh wave action and is stable compared to many other beaches on Oahu.

In geologic time, it is possible that volcanic eruptions could resume in the rift zone extending through Koko Head, Koko Crater, Sea Life Park, and Rabbit Island. However, for the next several human generations, the risk of renewed volcanic activity is negligible.

#### G. VEGETATION

The water line from the improved portion of the beach park will be across lava flows thickly carpeted with low native coastal vegetation. Several species, including beach sandalwood, are now rarely found along Oahu's shorelines.

There are scattered clumps of naupaka along the shoreline of the project area. These clumps will be enlarged and protected as part of the landscape improvements.

The remainder of the project area is either denuded of vegetation or predominantly covered with common introduced species of grasses and shrubs. Most exotic vegetation is located in the strip between Kalaniana'ole Highway and the proposed access road expansion and gravel parking lot.

#### H. FAUNA

There are no known rare or endangered species of animals at the northwest end of Makapuu Beach Park that would be affected by this project.

#### I. EXISTING LAND USES

The rocky shoreline in the middle of Makapuu Beach Park is primarily used by fishermen. The lava tidal ponds and beach at the northwest end of the park are used by picnickers and families with small children. Hang gliders land in the level area makai of Kalaniana'ole Highway, immediately northwest of the access road to the northwest end of the beach park. Large portions of the northwest end of the beach park are sporadically used for parking by beach park users.

The northwest end of Makapuu Beach Park is the only authorized site for recreational hang gliders to land on Oahu (see Appendix A). Hang gliders have been using this current landing area since about 1973. Presently, about 200 Oahu residents participate in the sport of hang gliding. Hang gliders now find the existing landing area is most suitable for landing when tradewinds are blowing from the east or northeast. During typical tradewind conditions, hang gliders approach their Makapuu landing area from the northwest, parallel to and slightly makai of Kalaniana'ole Highway.

#### J. HISTORIC SITES AND ARCHAEOLOGICAL RESOURCES

There are no surface archaeological resources because of modern land disturbances. It is unlikely that there are subsurface artifacts of historic or prehistoric Hawaiian uses in the project area.

#### K. AIR QUALITY, NOISE, AND NUISANCES

There are no significant nuisances which would affect use of the northwest end of Makapuu Beach Park. Exhaust emissions and noise from traffic on Kalaniana'ole Highway are hardly noticeable in the area where improvements are proposed.

#### L. TRAFFIC AND ROADS

Kalaniana'ole Highway provides vehicular access to Makapuu Beach Park. The highway is usually not congested near Makapuu. Traffic sporadically is slowed on weekends by eastbound vehicles making left turns to the beach park and by westbound vehicles making left turns to Sea Life Park.

#### III. SUMMARY OF POTENTIAL IMPACTS AND MITIGATION MEASURES

Proposed structures will not have any significant adverse environmental effect and, by limiting vehicular access, will allow the regrowth of sand dunes and native shoreline vegetation. Proposed landscaping will facilitate passive park use, but may adversely affect shoreline views from Kalaniana'ole Highway and use of the hang glider landing area.

While construction plans call for planting of milo trees mauka of the new gravel parking lot, it is currently not resolved whether trees will be planted in this area. Trees along the strip between the highway and the proposed parking lot would totally block shoreline views from the highway and make it impossible for hang gliders to safely land at the existing landing area. The proposed naupaka hedge along the makai side of the highway in places may interfere with motorists views of the shoreline, but will not pose a significant safety hazard to hang gliders.

Milo trees makai of the new parking lot and expanded access road will not significantly affect shoreline views or cause eddies in wind patterns at the hang glider landing field if their tops are pruned or their growth is stunted by salt spray and strong tradewinds. An isolated, mature milo tree at the western tip of Makapuu Beach Park, immediately makai of the highway, has been stunted by winds to an elevation of about ten to twelve feet. The existing milo tree is indicative of the kind of growth to be expected of newly planted milo trees.

To avoid irreversible damage to animals in the Oceanic Institute's salt water ponds, the City contractor will be instructed to notify the Sea Life Park Operations Office whenever excavation is proposed in the general vicinity of the buried salt water intake pipe. An emergency repair crew will be standing by to take necessary measures in the event the pipe is accidentally damaged.

#### IV. ALTERNATIVES CONSIDERED

The "no project" alternative was considered and rejected. It is not desirable public policy to allow unrestricted vehicular access within beach parks.



**V. DETERMINATION**

An Environmental Impact Statement is not required under Chapter 343, Hawaii Revised Statutes.

**VI. REASONS SUPPORTING DETERMINATION**

There will not be significant adverse effect on native flora, native fauna, and archaeological resources. Vehicular access will be restricted from areas currently denuded of vegetation.

APPENDIX A  
LETTER FROM HAWAIIAN HANG GLIDING ASSOCIATION

# HAWAIIAN HANG GLIDING ASSOCIATION

P.O. Box 26265

Honolulu, Hawaii 96825

January 3, 1990

Dear Mr. Meller,

Thank you for contacting our organization regarding the proposed improvements to the field adjacent to our landing area at Makapuu.

We are very concerned about safety for both the general public and our members. The field in question is directly under the final approach to our landing area. Due to the nature of unpowered aircraft it is not always possible to land exactly at a given destination. This field acts as a safety area in the event of landing which is short of our field. To place obstacles in this area (ie. trees, cars, fences, etc.) is a hazard to safety.

The Hawaiian Hang Gliding Association and its members have been using this field for over 15 years. We have expended a considerable amount of effort improving this area by clearing both the field we land on and the field in question. Before we started cleaning this area it was covered with weeds, trash, appliances, and Hale koa. We procured hundreds of cubic yards of fill material and improved an area that was rugged lava rock. This project was started in May, 1981 with the help of Mr. Erwin Lane of the Dept. of Parks and Recreation.


We are willing to cooperate with any effort that does not cause a safety hazard. Please keep the following facts in mind when you are planning your improvements:

1. Modern Hang Gliders need a low and fairly "flat" approach to the landing field.
2. Large amounts of "black top" cause hot air currents to rise which makes it more difficult to land precisely.
3. Trees are an obvious hazard from collision in addition to creating turbulence which could result in reduced control of the aircraft.
4. Cars and other permanent structures directly in the flight path are a hazard to both the pilot and the public.

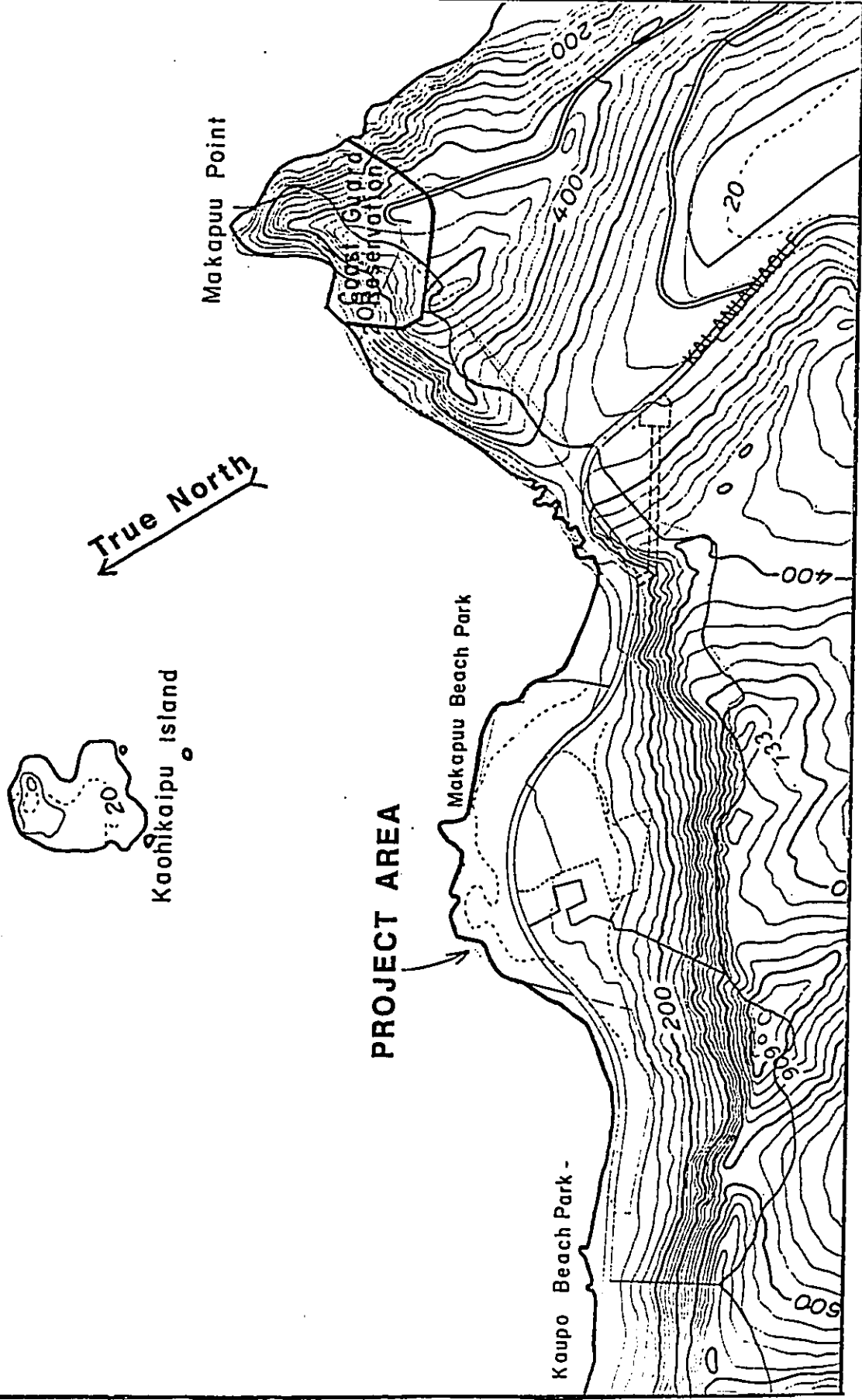
Makapuu is the only Hang Gliding site on the island of Oahu. If our field is effectively reduced in size due to obstacles surrounding it, we will not be able to use this area safely. Without a safe place to land there can be no Hang Gliding on Oahu.

Please help us preserve this beautiful activity which is enjoyed by both the participants and spectators alike. Thank you.

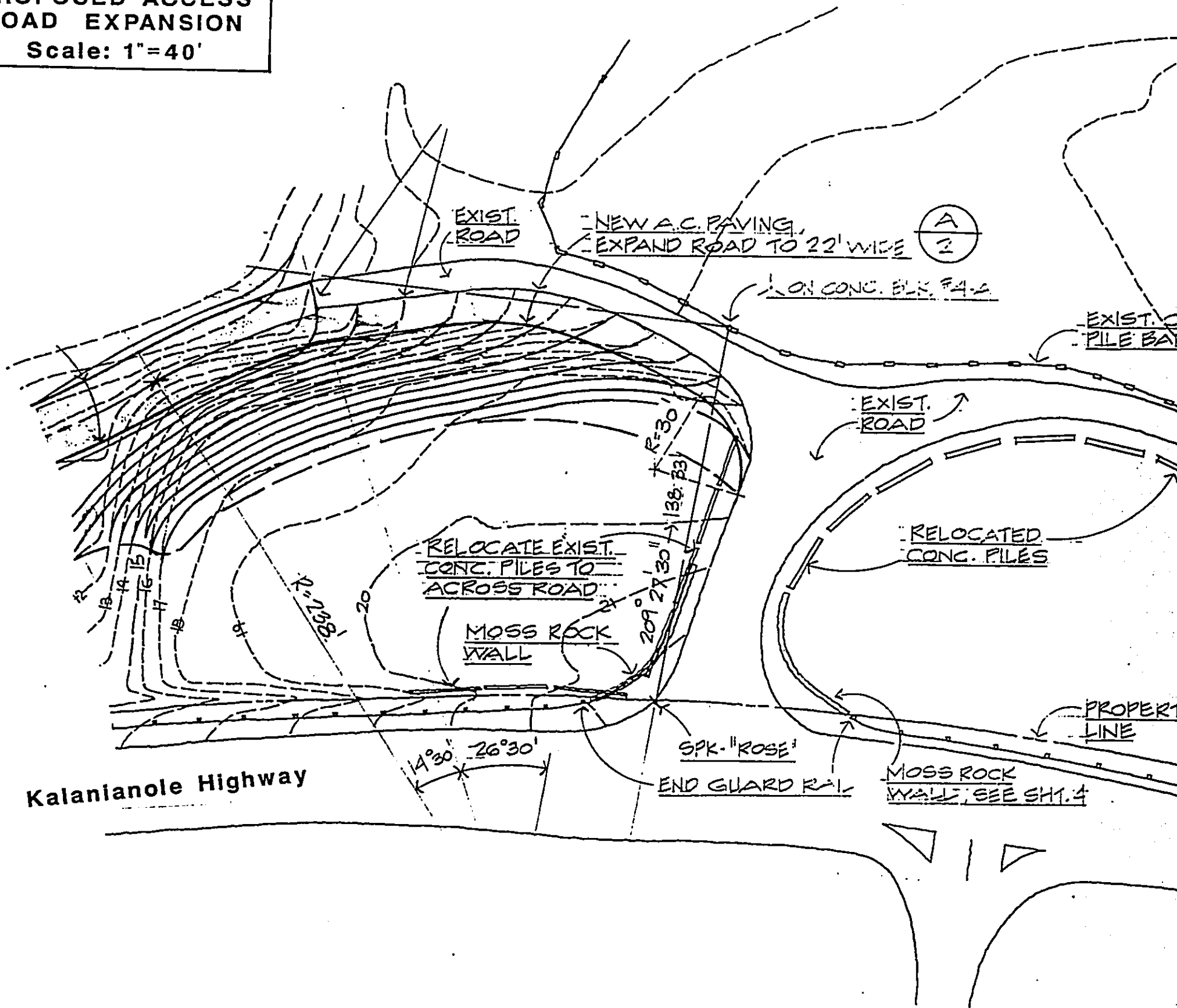
Sincerely,

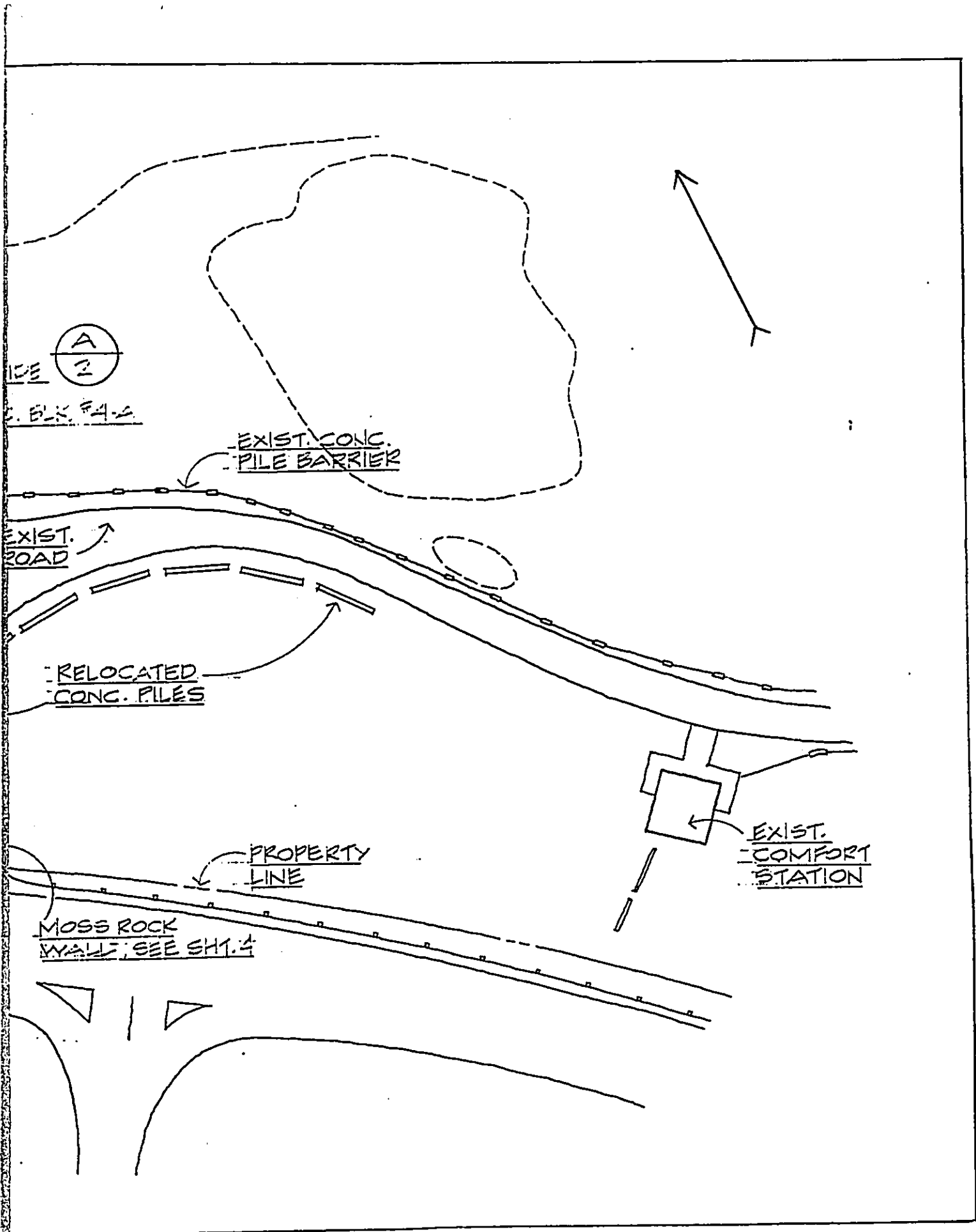
  
Craig Crow

**FIGURE 1**  
**LOCATION MAP**  
**Scale: 1" = 1000'**



**FIGURE 2**  
**PROPOSED ACCESS**  
**ROAD EXPANSION**  
Scale: 1"=40'







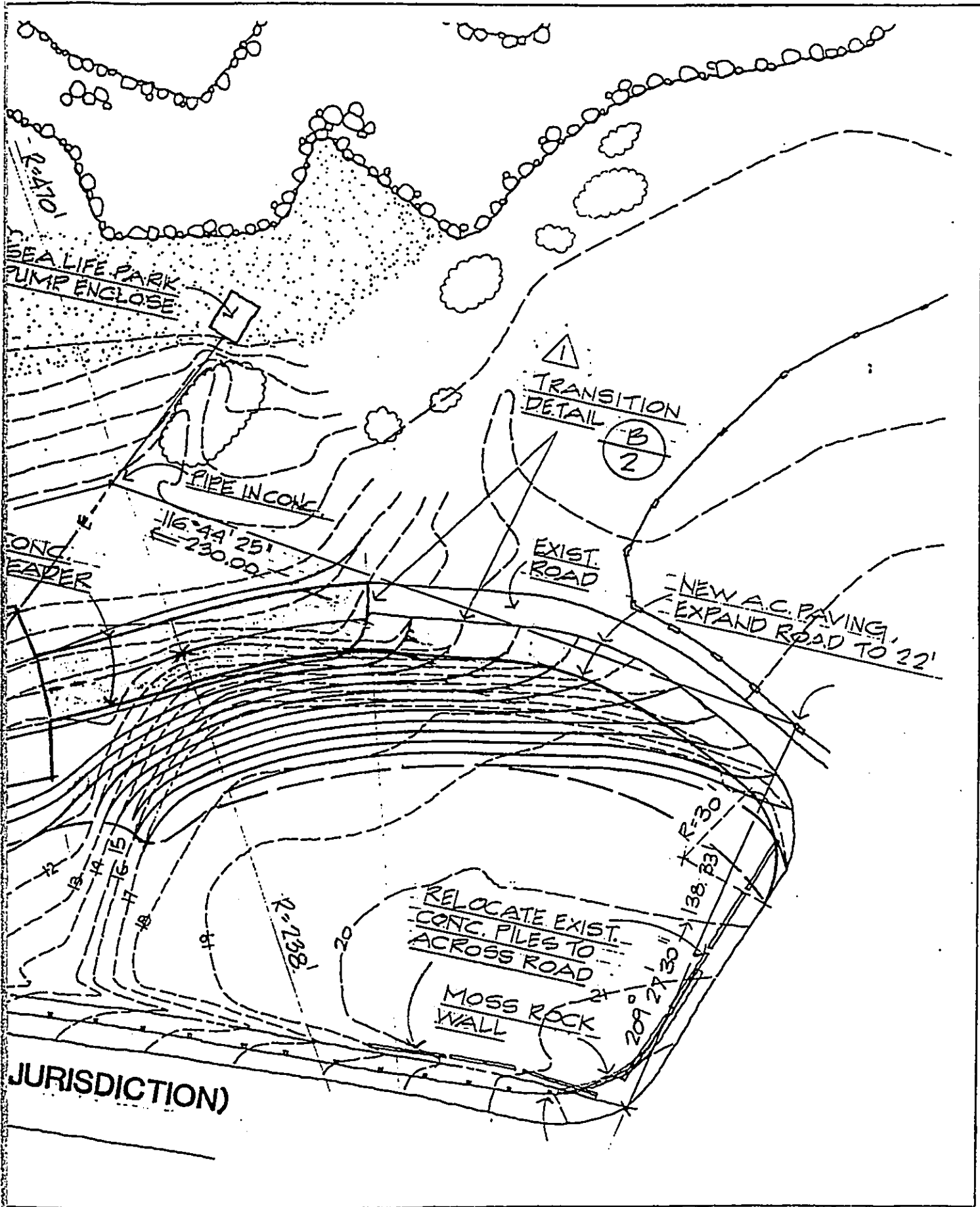




FIGURE 4  
LANDSCAPING PLAN  
Scale: 1"=40'

