



October, 1981

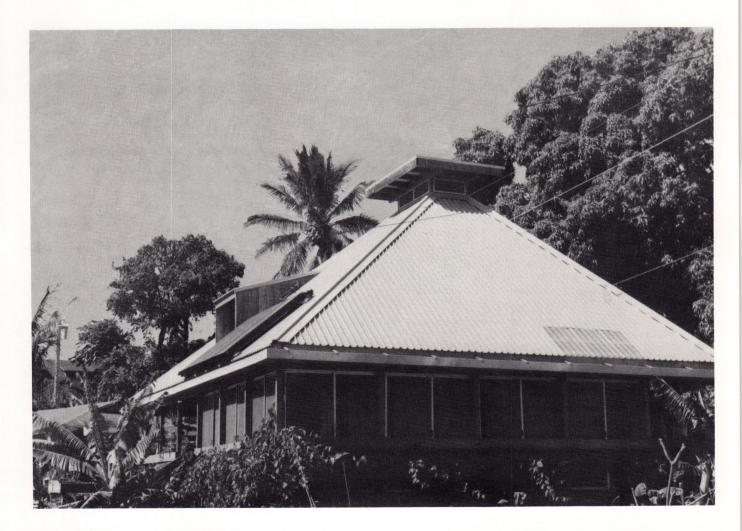
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Aloha United Way

by DONALD D. CHAPMAN, AIA President, Hawaii Society/AIA

Either you or I have been given a 30-day reprieve—depending on whether you read the President's Message, or have to write it. It is definitely a reprieve for me, since past president Jim Rein-



Chapman

hardt authored the following words on Aloha United Way, and it has to be a pleasant one-month vacation from my casual chatter for you. So my short message of introduction is, simply, "Your Aloha Spirit is needed for a truly United Way." Now, here's Johnny! Sorry, here's Jim! Aloha until next month. —Don Chapman

It's Aloha United Way Fund time again!

Yes, I know you're busy, it's been a hard year, you have a lot of receivables out, and all that, but it's time for you to give!

A few facts of interest (maybe not of interest but, at least, of significance):

• Aloha United Way is Honolulu's once-a-year community service activity fund drive! Its success means that all of those individual groups won't be after you all during the $y \in \mathbb{R}^{-1}$.

• Aloha Unned Way supports 60 community groups, including American Cancer Society, Big Brothers/Big Sisters of Honolulu, Boy Scouts of America, Palama Settlement, Salvation Army, YMCA & YWCA, plus 54 others.

• Aloha United Way expends only 8 percent of raised funds on administrative costs. Many comparable agencies expend 25 to 30 percent of their funds on fund raising and administration.

• Aloha United Way raised \$9,065,377 last year from approximately 173,000 contributors. This year's target is an increase of 9.8 percent.

• Aloha United Way contributions by architects last year totaled \$24,675.25. Contributions were made by 66 of 160 firms (including planners and landscape architects) or 41 percent. That's terrible!

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James Reinhardt, AIA

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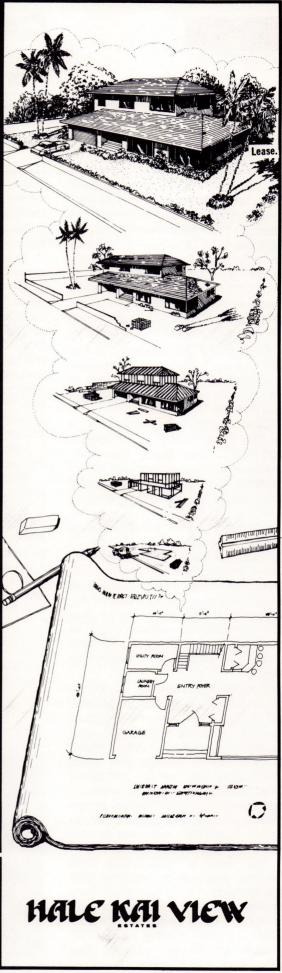
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Countdown for Koolaupoko

by ED TSUKASA Chairman **Development Plan Committee** Kaneohe Neighborhood Board

The adoption of a Development Plan for Koolaupoko that closely follows the policies set forth in the General Plan will be painful for the politicians on the City Council and for many landowners and developers. At issue is the matter of vested or property rights when measured against stated city policy and the expressed desires of the general community.

Concerning population, it is the city's policy to "reduce, or at most maintain, the 1975 proportions of the Island's rural and urban-fringe populations."

Concerning economic activity, it is the city's policy to "maintain agricultural land along the windward coast for truck farming, flower growing, livestock production, and other types of diversified agriculture."

Concerning the natural environment, it is the city's policy to "protect Oahu's natural environment, especially the shoreline, valleys, and ridges, from incompatible development," and to "require development projects to give due consideration to natural features such as slope, flood, and erosion hazards and water-recharge areas."

Concerning housing, it is the city's policy to "encourage residential development near employment centers" and to "encourage residential development in areas where existing roads, utilities, and other community facilities are not being used to capacity," and to "discourage residential development where roads, utilities, and community facilities cannot be provided at reasonable cost."

The General Plan policy concerning population requires that the Koolaupoko Development Plan provide for a growth in population of about 14,000 people by the year 2000. Existing zoning allows for growth of 34,000 people. The proposed Koolaupoko Development Plan therefore calls for the down-zoning of many acres of residentially zoned land. The people rejoice but many landowners cry out in protest. Just what is at stake?

The land use classification of more than 1,500 acres is being disputed by landowners and developers. These disputed lands have a potential for the building of 9,200 residential units housing a population of 36,000 people. Taken individually, some of these projects appear reasonable. The cumulative effect, however, would be devastating. Rather than providing for a growth in population of 14,000 people for Koolaupoko, there would be a potential for a growth in population of 50,000 people.

Who are these landowners, and where are these lands?

The largest landowner affected is Bishop Estate, with 550 acres of Heeia wetlands being redesignated preservation from residential. The 4,300-unit Heeia Landing project would be disallowed. This project alone, with a potential population of 17,000 people, would be more than adequate to provide for the total population increase projected for Koolaupoko.

The next largest landowner affected is the Castle Trust, which protests the land use designation of lands in Kawainui, Kapaa, Kaelepulu, Kalaheo, Maunawili, Kaopa, Pikoiloa, and Waikalua. Most prominent of these holdings are the 183 acres of Kawainui Marsh where Castle proposes to build 533 residential units.

Not as well known is Castle's contention that an additional 1,005 residential units is feasible for Maunawili. Castle proposes smaller housing developments for the other areas.

Taken together, Castle proposes to build 1,500 to 2,500 residential units on its lands over a period of time to house 10,000 people. In addition to proper zoning, state land use re-classification would be required for some parcels to achieve their objective.

Iolani School is disputing the classification of nearly 300 acres, most of which is currently zoned for



Proposed Mauka Woodlands project site off Kahekili Highway.

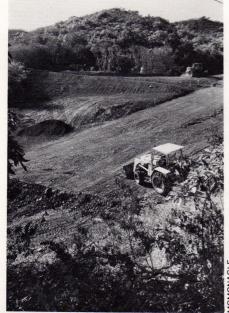
agriculture or preservation. Iolani School claims that it is feasible to build 1,248 residential units on its lands in Kamooalii, Luluku, and Kapalai. Some of Iolani School's lands would also require state land use re-classification to achieve their objective.

Iolani School, like the other disputants, feels that land should be classified and zoned according to its "highest and best use" as perceived by the landowner.

Other major landowners and projects affected are Lone Star Hawaii and its 110-acre, 409-unit Kaopa IV project, and Lewers & Cooke's 150-acre, 350-unit project in Waihee. Both projects have been in the planning stage for several years. Lone Star appears ready to proceed with its project, while Lewers & Cooke is stymied by EPA regulations concerning sewage disposal and the fact that its property lies in a flood plain.

Of more recent vintage is a proposal by Henry Wong and the Mormon Church to develop 125 acres in Waikalua Loko to provide some 300 to 500 housing units. The 125 acres lie in a flood plain and is recommended to be placed in preservation. Henry Wong and the Mormon Church propose to build homes for a mixed market, including homes for the elderly, and for low- and moderate-income families.

Hiram L. Fong of Market City, Ltd., and Alexander & Baldwin, Inc., are others unhappy with the



Landfill at Kahinani Place subdivision off Mokapu Saddle Road.

proposed Development Plan.

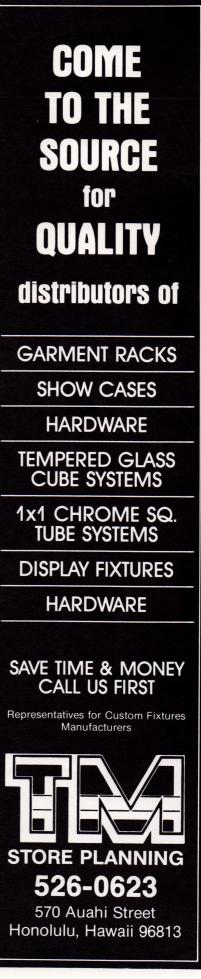
What are some common elements in these disputed land use designations? They are all considered unnecessary by the city's Department of General Planning to fulfill the city's General Plan growth policies for Koolaupoko. Some lie in wetlands, flood plains, or flood prone areas (Heeia, Kawainui, Waikalua, Waihee, Kahaluu), while others are on hillsides with slopes which in places exceed 20 percent (Kaopa, Maunawili, Kamoalii, Luluku).

Very early in the development plan process, the Neighborhood Boards comprising the Koolaupoko Development Area Organization (Waimanalo, Kailua, Kaneohe, and Kahaluu) went on record in support of preserving a "green belt" which would run the length of Koolaupoko, with fingers separating these committees. Most of the contested lands lie within this green belt, and their development would likely be opposed by the affected Neighborhood Boards.

Residents in the area are also very vocal about desiring limited growth and would view the opening up of vast acreages for development with alarm. Residents of Kahaluu oppose a commercial development by Market City, Ltd., which threatens a planned, though not yet built, regional park.

It has been nearly five years since the General Plan was adopted, and adoption of Development Plans is more than a year behind the original schedule. In the meantime, several projects on lands slated for down-zoning have received at least preliminary approvals by the city, among them a subdivision on the fringe of Kawainui Marsh, the Pulama Gardens PD-H, the Waipualani, Ahuimanu Hills, and Kaalaea subdivisions. and the Mauka Woodlands, Healani Terrace, and A Country Place cluster housing developments.

The ball is now in the City Council's court. Litigation appears certain whether the City Council opts to follow closely the growth policies set forth in the General Plan as proposed by the Department of General Planning, or yields to the claimed vested rights of landowners faced with down-zoning of lands owned. Further delays in the adoption of Development Plans will only compound the problem. **H**





Kawainui: A Pond in the Game

by MICHAEL SHIROMA

Kawainui, that huge expanse of open space nestled below the Kapaa hills, played a far more significant role as a managed resource in the past than it does today. Its ancient system of fishponds and taro *lo'i* had developed and been well tended from the dawn of Hawaiian settlement and as recently as 1925 farmers labored in its gardens growing rice. The marsh's present keepers have chosen not to continue this lineage of agricultural use.

The late Mayor Neal S. Blaisdell recognized the tremendous assets that the area could offer the residents of the windward side for flood control and a park. In 1963, the city and county purchased 750 acres within the marshland for open space and flood control purposes.

Today, nearly 20 years later, this unique wetlands resource is still awaiting park development while arguments continue on proposals by adjoining landowners to build housing along the marsh's periphery.

The marsh, however, cannot wait

forever. Siltation and the overgrowth of introduced and exotic vegetation are rapidly filling up its open waters. Robert Shallenberger, a zoologist who has studied the marsh ecology for several years, notes that the 15 acres of open water he observed five years ago has now dwindled to less than 2 acres.

The latest conflict between housing developers, government, and pro-resource advocates concerns the Honolulu City Council's April 10 granting of a shoreline management permit to Hawaiian Papaya Co., Inc., to build 153 single-family residences on a 39-acre strip of land owned by Castle Estate, Iolani School, and Henry H. Wong. The site fringes the marsh near Castle Hospital, Ulu Po Heiau, and the 20-year-old Kukanono subdivision.

The proposal is a revised, smaller scale version of an application made in 1977 for 764 houses on 236 acres bracketing the marsh. This original application received a negative report on its potential environmental impact on the marsh and was subsequently withdrawn.

The Department of Land Utilization recommended approval of the revised version, however, with the conditions that Hawaiian Papaya conduct an archaeological survey of the site, and that it iron out a precise boundary for the Kawainui wetlands with the U.S. Army Corps of Engineers. Given the previous difficulty and controversial nature of such study, these tasks have the potential to expand into Herculean endeavors.

The approval coalesced community groups who countered the action by filing a suit in Circuit Court that charges the City Council and DLU violated several state and other laws in approving the permit.

Some of these groups have been active in marsh issues since the early 1970s, when Dillingham Land Corp. proposed building a 63-acre shopping center near the Kailua Drive-In. Opponents to the center gathered under the umbrella of an organization sponsored by the Lani-Kailua Outdoor Circle called the Ad Hoc Committee for Kawai-



Kawainui Marsh 1981, looking southwest.

nui. Petitions containing more than 20,000 signatures were collected in opposition to the center, calling for more interpretive uses of the natural and cultural resources of the area

The latest chain of events will call attention once again to the political and judicial decision-making process over land use.

Description of Hawaiian Papaya's project site is eclipsed by references to the marsh, which is acknowledged to be the largest remaining freshwater wetland in the state and is home to at least four endangered species of birdlife.

Similar habitats have recently succumbed to the pressures of urbanization and have been filled such as Waikiki, Enchanted Lakes, and Hawaii Kai. John C. Kraft, a world renowned geo-archaeologist, theorized that Kawainui's embayment might have been induced by the placement of fishpond walls by early Hawaiian engineers. At one time. Ulu Po Heiau may have fronted the sea.

Supporters of the concept of a regional interpretive park at Kawainui, akin to the holistic model designed by architect Robert A. Herlinger, have pointed out the conflicts in resource management that Kawainui represents. State zoning designation, for example, has created a radical interface between urban and conservation districts that offers no buffer between the two.

City and County land use regulation has allowed a sanitary landfill, quarry, drive-in theater, and residential subdivision in the vicinity of the marsh, as well as allowing an auto junkyard, waste water discharge, and model airplane and rocket flying field to impact directly in the marsh.

Previous city park plans have assumed that broad areas of the marsh would be filled and that active, organized recreation use would take place.

Critics claim that a large fire that swept through the marsh in 1975 did not receive an appropriate response. In 1980, the city built an 800-foot road along the Kailua edge of the marsh to facilitate its chore of periodically dredging the sediment and overgrowth clogging Kawainui Stream which drains the marsh. Its failure to apply to the U.S. Army Corps of Engineers for a

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Kawainui

permit to fill, however, resulted in an order to remove the road on the basis that road bed materials might be toxic to marsh life.

The apparent disparity in the condition of two heiaus listed on the Hawaii and National Registers of Historic Places has also been mentioned as an example of government mismanagement in the area. One, Ulu Po Heiau, has had its view corridor to the marsh protected by a Board of Land and Natural Resources authorization to purchase the land beneath it which otherwise might have been developed by its owner.

The other, Pahukini Heiau, located adjacent to the Kapaa Sanitary Landfill, is surrounded by mountains of garbage. An estimated 1,000 acres of the marsh itself was declared eligible for inclusion in the National Register in 1979 because of its significance as a major component of a much larger cultural district.

People resolving these value

conflicts often use the natural sciences as a crutch in the search for quantitative answers or clues to zoning classification and the EIS process, but scientific testimony in these cases is often narrowly directed, piecemeal, or incomplete.

Its utility can also lack meaning. An example of this is the effort to define a wetlands boundary or label an ecosystem by mapping changes in vegetation species and water level. How can a decision be made if the species overlap and the water level changes?

Kawainui Marsh in its present condition could not adequately support the wildlife, variety of ecosystems, and interrelatedness of cultural and natural environments that interpretive park advocates desire. Restoration of taro *lo'i* and diverse agricultural production have been suggested along with further archaeological work as part of a "Directional Plan" that can evolve to incorporate anticipated future resource discoveries and social needs within the Kawainui ahupua'a.

The core of the marsh, once rehabilitated and cleared of its overgrowth, would be a natural preservation area that might fulfill its flood control function by using a traditional method of separated ponds and water areas.

A comprehensive regional study relevant to these matters had never been undertaken until this spring when DPED initiated an \$80,000 baseline study funded by the state Office of Coastal Zone Management. The study will be used by the Kawainui Marsh Technical and Policy Advisory Committee which began a three-year process in early 1980 to develop a marsh management plan.

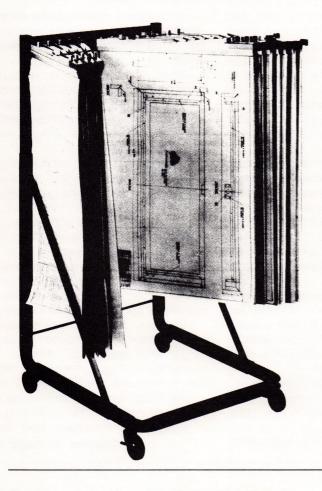
The advisory committee, one of the first interdisciplinary efforts of its kind, is a task force composed of representatives from appropriate government agencies, landowners, businesses, and community organizations.

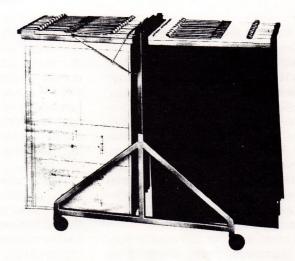


Kawainui Marsh c. 1898.

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H-3: Must ...

by RYOKICHI HIGASHIONNA Director State Department of Transportation

The Koolau mountain range is a formidable barrier that physically separates much of Windward Oahu from the major urbanized areas on the leeward side of the Koolaus, especially the Primary Urban Center of Oahu (Kahala to Pearl City), as well as the fast growing industrial area near Barbers Point. Bridging this Koolau barrier are Pali Highway, which was upgraded 20 years ago, and Likelike Highway, which likewise was opened 20 years ago.

At that time, both Pali and Likelike Highways were intended to provide links between Kailua/ Kaneohe and Downtown Honolulu. However, in the 20 years since both trans-Koolau bridges have been in operation, major land use changes have occurred on both sides of the Koolaus.

On the leeward side extensive economic growth has taken place all the way out toward Barbers Point, while on the windward side the resident population has continued to grow especially in the area from Kailua to Ahuimanu. This combination of growth on both sides of the Koolaus has, over the years, resulted in a steady increase in trans-Koolau traffic on both Pali and Likelike Highways, a growing percentage of which is now destined for areas as Pearl Harbor, Halawa, Pearl City, Waipahu, Campbell Industrial Park, and others.

Historical plots of traffic volumes on both Pali and Likelike Highways have revealed that over the years the build-up of traffic begins earlier and earlier, to the point that today traffic begins to build up sharply at around 5 a.m. and is at its highest point between 6:30 to 7 a.m.

We also have on an average more people in each vehicle as well as higher bus ridership. Very few dispute the fact that something needs to be done to improve trans-Koolau transportation.

The Department of Transportation (DOT) has been studying this problem for years and is currently pursuing a total program to improve trans-Koolau transportation — a program that is both shortrange and long-range in terms of the types of projects being developed.

Since there is an immediate need to improve the current operation of Pali and Likelike Highways, several short-range improvements are being examined. These improvements include:

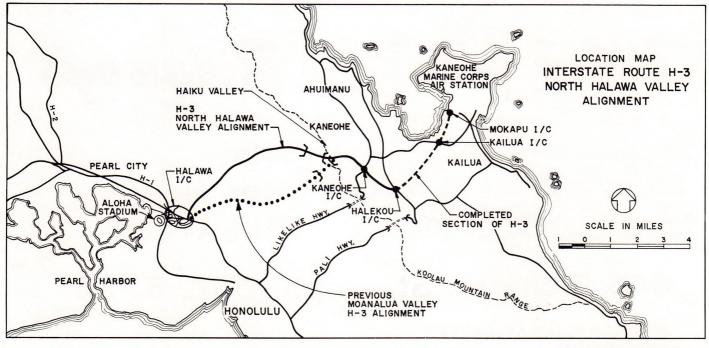
• The addition of a Honolulubound lane on Likelike Highway between Kam IV Road and Kalihi Street.

• A study of the feasibility of providing a reversible bus lane on Likelike or Pali Highway.

• An examination of the feasibility of prohibiting truck traffic from using either Pali and/or Likelike Highways during the peak periods.

However, these improvements are, as their title implies, "shortrange improvements," and it is recognized that long-range improvements are also needed.

The long-range improvement is of course Interstate Route H-3. H-3 is a four-lane Interstate and De-Continued on Page 14



HAWAII ARCHITECT



Or Bust?

by BOYCE R. BROWN Attorney for Plaintiff Stop H-3 Association

Commentary

H-3 is a textbook example of how bureaucratic inertia can frustrate even the best planning efforts. Although H-3 has been in the news for a decade, surprisingly few people have an accurate understanding of what the state actually proposes to build.

If one reflects on the proposed H-3 route, several observations become apparent. First, in order for a Kailua commuter to reach H-3, he must take the Pali to Castle Junction, and turn onto Kamehameha Highway to the proposed Halekou Interchange. The Kaneohe commuter must take Likelike to the proposed Kaneohe Interchange. In other words, the majority of windward residents must get on either Pali Highway or Likelike Highway before they can even get to H-3.

The obvious question arises: How many commuters, once on Likelike or Pali Highways, would voluntarily leave those highways to cross the Koolaus on H-3 to reach Halawa? The answer, not surprisingly, is very few.

At present, less than 15 percent of trans-Koolau commuter trips lead to work destinations north of the airport and less than 10 percent lead to work destinations north of Pearl Harbor. What appears to be taking place is a phenomenon wherein 85 percent of the trafficbound commuters wish for H-3 not because they would use it but rather because they assume everyone else will use H-3 and they can continue to use the Pali or Likelike highways.

H-3 connects Kaneohe Marine Corps Air Station and Pearl Harbor. Very few commuters want to go to either of these locations.

Why, then, was the route selected? In 1967, when the original corridor studies were prepared, the recommended alignment was through Kalihi Valley. In terms of planning and traffic service — taking people where they actually want to go - it was the obvious choice.

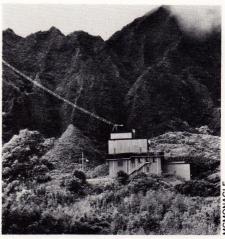
Because of community opposition, the route was shifted to Moanalua Valley, the first available empty valley. What was lost in the shift were the planning choices which dictated the Kalihi alignment. A highway that started out to serve over 85 percent of the windward commuters became one of marginal utility serving less than 15 percent of the commuters.

H-3 was not the result of a careful examination of highway needs vis-a-vis planning. The original allocation of interstate mileage to Hawaii was part of the political bargain struck at statehood. With statehood came 30 miles of interstate highway without regard to whether or not the mileage was needed, useful, or contributed to sound growth.

What is likely to be the effect of H-3 on Windward Oahu? In order to address this question, one must understand the history of zoning and planning for Windward Oahu.

Several decades ago Kaneohe Bay was envisioned as the future site of the second deep draft commercial harbor for Honolulu. A population of 215,000 was projected for Windward Oahu. The Kahaluu end of Kaneohe Bay was zoned industrial and a significant part of the bay was designated to become industrial-zoned land created by using the material dredged to create the deep draft harbor.

Large tracts of land were zoned for residential, commercial, and resort use in anticipation of the industrialization of Kaneohe Bay. In 1964, a general plan for Honolulu was adopted in haste to meet a requirement of the City Charter. Virtually all existing zoning was incorporated into that general plan with the understanding that zoning would be adjusted to conform to detailed land use maps which would be prepared.



Omega Navigation Station, Haiku Valley.

H-3 was not on that general plan. Nevertheless, the proponents of H-3 argued that H-3 was necessary to service the future population of 215,000 people on the windward side.

In the mid-70s the state recognized that windward growth should be redirected to Central Oahu and an effort was made to retain the rural character of Kahaluu, Waiahole, Waikane, and points north.

The 1977 Honolulu General Plan allocates 14 percent of Oahu's population to the windward side. Based upon the state Department of Planning and Economic Development's (DPED's) projections for Oahu's population in the year 2000 which were in use in 1977, this would have resulted in a windward population of 150,500, a 30 percent reduction in prior population estimates.

Based upon current DPED projections, which were confirmed by the 1980 census, the projected windward population was reduced further to 132,000, plus or minus 5 percent. This represents a 38 percent reduction in the general planned population for Windward Oahu.

The 1980 census indicates that Continued on Page 16

H-3: Must . . .

Continued from Page 12

fense highway that when completed will go from the Halawa Interchange near the Aloha Stadium, through North Halawa Valley to the Kaneohe Marine Corps Air Station. When completed H-3 will be part of the total network of Interstate and Defense highways that includes H-1 and H-2. This network will connect all of the major military installations on Oahu, and will serve as the major highway network on Oahu.

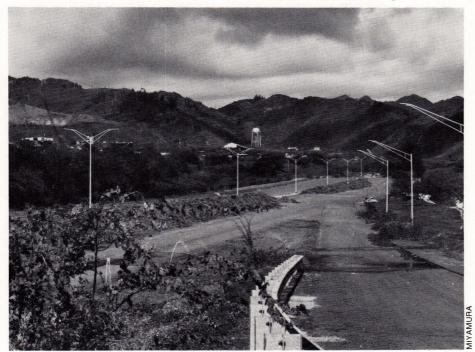
Presently, a 10.7-mile section of H-3 remains to be constructed. The estimated construction cost of this uncompleted section of H-3 is approximately \$450 million in 1980 dollars, of which the federal government will pay 90 percent and the state the remaining 10 percent.

The decision to pursue H-3 as the long-range solution to improving trans-Koolau transportation first starts with the determination of long-range trans-Koolau transportation needs based on planning guidelines established by pertinent local land use plans and documents, such as the State Plan, state land use controls, the Oahu General Plan, and the proposed development plans of the City and County of Honolulu.

These plans project a continued growth of residential population for Windward Oahu, much of this growth being projected for the Ahuimanu-Kaneohe-Kailua area.

At the same time, the primary economic activity and many of the jobs on Oahu continue to be projected for areas on the leeward side of the Koolaus; a substantial amount of this growth in economic activity is expected to occur between Halawa and Pearl City in the Primary Urban Center, and within the designated Secondary Urban Center in Ewa.

The resulting travel demand forecasts for the year 2000 concluded that nearly one-third of the peak-hour trans-Koolau traffic is expected to be headed to the area between Pearl Harbor to Barbers Point. This traffic is expected to use H-3, thus allowing Pali and



H-3, Halawa Valley: the end of the road today.

Likelike Highways to better serve trans-Koolau traffic headed for Downtown Honolulu.

Also as part of the trans-Koolau planning effort, nearly 20 different alternatives to H-3 were examined, several of which called for major upgrading of Pali and Likelike Highways. These upgrade alterations included new automobile viaducts, bus viaducts, widening the existing highways, a fixed guideway system in Nuuanu or Kalihi Valley, and making Pali or Likelike a one-way reversible highway.

The results clearly showed that H-3 is the best alternative since it has the necessary capacity, can best serve the windward to Pearl Harbor-Barbers Point trans-Koolau traffic, and disrupts no homes.

The Pali and Likelike upgrade alternatives, in addition to not being able to directly serve the windward to Pearl Harbor-Barbers Point traffic, were also strongly rejected by the residents of Kalihi and Nuuanu Valley since these alternatives are projected to result in severe disruption to the existing communities in both valleys.

The federal government after an extensive review of all trans-Koolau alternatives concluded that the upgrade alternatives were not prudent and that H-3 is indeed the best alternative to solving the longrange trans-Koolau transportation problem. The federal government has since given approval for the design and construction of H-3 to proceed as soon as the current injunction on the project is lifted.

In addition, a 1980 city Department of General Planning study* of Development Plan impacts concluded that:

"Regardless of transit system, Trans-Koolau drivers on Pali and Likelike Highways (without H-3) will encounter three or more hours of congestion in the afternoon."

The congestion in the morning peak period will force a spreading of the travel demand and congestion over several hours. The study recommended that:

"Based on the city's long-range planning, city policy (is) to acknowledge an H-3 alignment to allow its implementation — contingent on EIS approval (and) funding availability." It should be pointed out that the

* "Development Plan and Land Transportation Impact Analysis," Department of General Planning, City and County of Honolulu, April 1980. most recent draft of the Development Plans does show H-3.

Finally, the planning for H-3 has taken into consideration numerous measures to mitigate the impacts of H-3. Collectively, these mitigation measures, which DOT is committed to carrying out, are the most extensive set of mitigation measures ever committed to as part of any highway project in Hawaii. Some of the major mitigation measures are as follows:

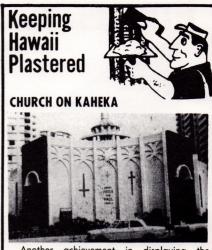
• As part of the H-3 project the U.S. Geological Survey (USGS) will conduct an extensive survey of the streams along the windward and leeward sections of H-3. This survey will be conducted before, during, and after construction and will be used to monitor and control erosion control measures and construction impacts on streams.

• Consideration will be given to landscaping H-3 with plants that will have the least impact on the surrounding plants. The possibility of utilizing native plants will also be explored.

• The final design will be coordinated with the Board of Water Supply to assure the groundwater impacts are avoided. Coordination with the board will continue during construction, and in the event conditions are encountered during construction that will significantly threaten Oahu's water supply, construction will stop on that section directly endangering the water supply until a solution acceptable to the Board of Water Supply is agreed upon.

• The state DOT will cooperate with the City and County of Honolulu in monitoring land use and development trends on Windward Oahu, including the impact of H-3 on such trends. The state DOT also will cooperate with the city and county in the implementation of measures proposed to achieve the General Plan objectives for Windward Oahu.

These mitigation measures are a good indication of the extent of planning that has gone into the H-3 project. The need for H-3 is obvious, the federal funding for H-3 is committed, and federal approvals to start the design and construction of H-3 have been received. All that is needed is to clear the legal hurdles. IA



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* Based upon proper taxpayer elections and subject to opinion of counsel Deering, Deering, & Walther. Their opinion and full particulars available in franchise offering circular upon request.

H-3: Bust

Continued from Page 13

the present windward population is 122,000 people? Is a highway of the magnitude and impact of H-3 necessary to serve an increase in population of 10,000 people? The obvious answer is that it is not, particularly when the increase consists of men, women, and children and only a small part of that increase will be trans-Koolau commuters, with even fewer commuting to Pearl Harbor and Central Oahu.

Whereas in the beginning the state Department of Transportation (DOT) argued that H-3 was necessary to serve the then-projected year 2000 population of 215,000, after that growth projection disappeared with the 1977 General Plan, they now argue that H-3 is needed to permit windward residents to work in Central Oahu. Aside from violating every rule of good planning which encourages people to live near their jobs and discourages long commutes, this verbal flip-flop by DOT is illogical.

Those among the existing 120,000 population who are employed on the leeward side already have jobs. Unless DOT is making the assumption that a significant percentage of windward residents who now work in the area between Waikiki and Pearl Harbor will guit their jobs and take jobs in the Central Plain, this new-found reason for H-3 is unsupportable.

Now let us consider the reality instead of the rhetoric. In 1973, Eckbo, Dean, Austin & Williams (EDAW) were hired by the State of Hawaii to study the social and economic impact of H-3 on Windward Oahu. That study is remarkable in that it was uncompromisingly honest. I understand EDAW hasn't received a DOT job since.

The conclusions of that study included:

 Due to development induced by H-3 construction, the study area would experience change at roughly twice the rate as compared with



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H-3: Bust

no H-3.

• The total level of development by 1995 with H-3 would be roughly twice that attained without H-3.

• The unique character of the semi-rural Kahaluu area (with its vestiges of a Hawaiian pattern of life that can never be duplicated) will be altered drastically.

In summary, the EDAW report concluded that H-3 would be a social and economic disaster for Windward Oahu from Kahaluu north.

Consider for a moment what H-3 is in planning terms: poorly located, providing bad access and traffic service directly contrary to the limited growth goals on the General Plan, and inevitably leading to widespread social and economic disruption for those parts of Windward Oahu which are now rural in character.

And what will this boondoggle cost?

The Department of Transportation has stated that the cost to build H-3 will be \$386,152,000. But this figure is very misleading since it is based on 1979 costs for roadway construction (\$242,201,000) and 1977 costs for tunnel construction (\$127,371,000) and an unspecified base year for calculating the cost of right-of-way acquisition (\$16,580,000).

By referring to Federal Highway Administration (FHWA) Construction Cost Indexes and adjusting the 1977 tunnel cost to reflect cost increases between 1977 and 1979 of 35 percent, the cost in 1979 dollars for the tunnels increases to \$171,950,850 for a total project cost adjusted to 1979 dollars of:

Roadway	
Construction	\$242,201,000
Tunnel Construction	171,950,000
Right-of-way	16,580,000
Total	\$430,731,000

Between 1979 and the end of the

HAWAII ARCHITECT

second quarter of 1980, the last year for which the FHWA Construction Cost Index is available, costs for highway construction increased by another 22 percent, an increase of \$133,537,800, for a total project cost of \$564,268,000 expressed in mid-1980 dollars.

DOT projects about nine years will be necessary to complete construction of H-3. Assuming that the rate of inflation will be as low as 8 percent per annum (the current rate is 15.2 percent), the cost of the highway would escalate another 60 percent, adding \$338.5 million to the cost of the highway for a total of \$902.8 million. If inflation exceeds 8 percent, the cost will top \$1 billion. Since 1973, the average rate of inflation in the highway construction industry has been 12.5 percent a year - a pace that doubles costs every six years. If inflation continues at its historical rate, \$1 billion may turn out to be a conservative estimate of the cost of H-3.

A billion dollars is an unconscionable amount of money to spend to construct a highway which will serve a 10,000-person increase in the population of Windward Oahu. A billion-dollar highway to serve an increase in population of only 10,000 people must be the worst cost/benefit ratio ever for a highway. It must be kept in mind that Honolulu's trans-Koolau highway demand is only a problem during peak hours for commuters.

Although DOT has persistently played down the possibility, a 1976 amendment to the Federal Highway Act makes it possible to transfer all of the funds allocated for H-3 to other transportation projects in Honolulu. Let your imagination room and consider what \$1 billion could do for Oahu's transportation future.

A scaled-down trans-Koolau project could be built such as, for example, a two-lane reversible facility through Kalihi Valley with a



H-3: Bust

single new tunnel.

Interchanges could be constructed wherever needed to eliminate bottlenecks. Greatly improved bus service or other transit alternatives such as a light rail trolley system could be built. The existing on and off ramps could be re-

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designed to better accommodate traffic flow.

Literally, almost anything goes as long as the substitute transportation project serves the transportation needs of Honolulu.

The substitute projects are not limited to trans-Koolau projects. With a little bit of bureaucratic flexibility, we could abandon H-3 and redirect the money to other transportation projects. The choice is not either build H-3 or lose \$1 billion of economic activity, but rather redirect that \$1 billion to a variety of projects based upon need and conformance to General Plan objectives.

We should take advantage of the Mainland experience and benefit from their mistakes. Mainland experience uniformly has been that freeways are self-fulfilling prophecies. They generate their own traffic until their capacity is reached, thereby creating a demand for more freeways, and the cycle repeats itself. In fact, even DOT concedes that if H-3 is built, about 24 percent of the projected trans-Koolau rush hour traffic would be at-

"... freeways are selffulfilling prophecies. They generate their own traffic..."

tributable to the very existence of H-3.

In light of these considerations as well as others, it is not surprising that of 17 trans-Koolau alternatives studied by the Federal Highway Administratin in 1979, H-3 had the third worst cost benefit ratio. The second worst was TH-3 (the sixlane version) which had a negative worth and was abandoned.

Logic would indicate one of the other alternatives ought to be selected. Unfortunately politics are not a logical business. The mayor, who has shown herself to be a person of substantial integrity on other issues, appears to be unwilling to buck her former boss on H-3.

It is unfortunate that so much potential for the future of Honolulu may be lost because of bureaucratic intransigence and a refusal to abandon a project that is out of step with the future.

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GEORGE AKAHANE Chairman Planning & Zoning Committee

The adoption of Development Plans (DPs) alone will not guarantee a control over the future development of land on Oahu. The Comprehensive Zoning Code (CZC) and zoning district maps must also be amended to enforce the guidelines established by DPs; otherwise building permits will continue to be issued according to the existing zoning regulations, in spite of their conflict with the DPs.

To prevent this, the DP text calls for imposing interim development controls (IDC) on areas where the DPs are more restrictive on the type

ORD. NO.	DATE OF ADOPTION	AREA OF CONTROL	PURPOSE	TYPE OF CONTROL	DATE OF EXPIRATION
4655	10/26/76	Kaneohe Town Center	stop development of high rise buildings.	a maximum limit of 40 feet imposed on Apartment, Business and Industrial districts.	6/30/82 or the date of adoption of DP and pursuant to zoning ordinances for the area.
4656	10/26/76	Kailua Town Center	same.	same.	same.
77-84	9/12/77	Island of Oahu	control develop- ment of more than one dwelling unit, churches and vacation cabins on agriculturally zoned lot.	no building permit will be issued except by obtaining a variance from the City Council.	6/30/82 or the date of adoption of a new agri- cultural zoning regulation.
77-96	9/29/77	Ewa Beach area	prevent develop- ment of residential (other than a single family home) apartments and industrial structures without public sewer connections.	no building permit will be issued.	6/30/82 or the date of approval of Ewa DP and availability of the Honouliuli Sewage Treatment Plant and System for hook-ups.
78-87	9/22/78	McCully-Moiliili- Kapahulu area	reduce height and indirectly intensity of buildings.	limit maximum height of buildings as follows . Apartment 40' . Business and Industrial buildings 30' . Eleemosynary buildings 60'	6/30/82 or the date of adoption of DP and pursual to zoning ordinances for the area.
79-67	8/3/79	Kapahulu-Kaimuki- Waialae Nui area	same	limit maximum height of buildings as follows . Apartments 40' . Business and Industrial 30'	same
79-80	10/24/79	Waialae-Kahala area	same	same	same
30-104	12/29/80	Waianae Coast area	same	limit maximum height of buildings as follows . Preservation 25' . Agricultural 25' . Low density apts. 30' . Hotels 70' . Businesses 40' . Industrial 60'	same
30-105	12/29/80	Salt Lake area	same	limit maximum height of buildings as follows . Apartments 40' . All others 30'	same

and intensity of land use and building heights than the existing zoning. The purpose here is to temporarily protect those areas from development in excess of DP limits, until such time that permanent and appropriate amendments to the zoning code and maps are made.

Since 1974, the City Council has sponsored 17 IDC ordinances, effectively controlling a rush of building permit applications while final ordinances establishing Waikiki and Kakaako special design districts and Diamond Head, Punchbowl, and Chinatown historic, cultural and scenic districts were being drafted.

Nine of the 17 IDC ordinances are still in effect. These are geared to the adoption of Development Plans and corresponding zoning ordinances. (See table.)

IDC ordinances have been a very strong and effective tool for controlling development partially because they are not an adjunct to the zoning or building codes and therefore are not open to appeals for variances from zoning or building boards of appeals.

As a growth management tool, the IDC ordinances have two major limitations. They are meant to be a temporary measure while the permanent detailed laws are being drafted. Therefore, extension of the effective time of such ordinances beyond 2 to 2½ years may be considered unreasonable, particularly if during this time no diligent effort is made toward preparation and adoption of the more permanent laws.

Another limitation is that IDC ordinances are usually drafted without the benefit of adequate research and analysis required to respond to the specific needs of an area. For this reason they are abstract and crude instruments for controlling development.

It is important that the council's adoption of IDC ordinances or extension of existing ones, in conjunction with DP ordinances, are based on:

1—A firm timetable by the Department of Land Utilization for preparation of the new zoning regulations and district maps.

2—Refinement of IDC restrictions so that they are more reflective of the DP guidelines rather than a moratorium on development.

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