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HAWAII ARCHITECT

October, 1984

Landscape Architecture

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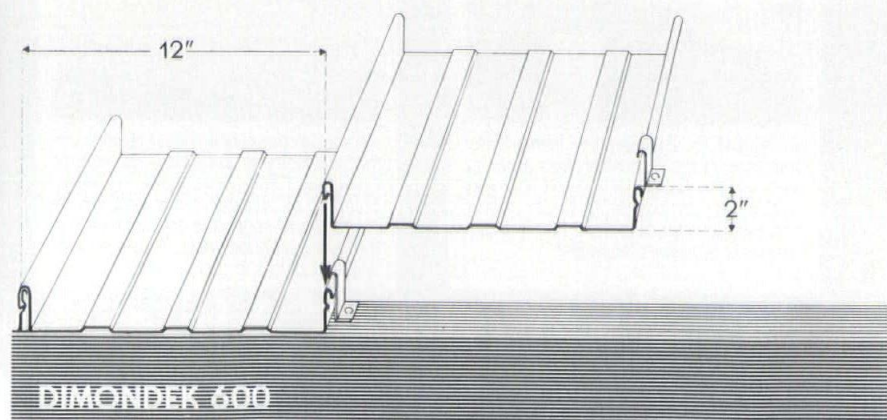
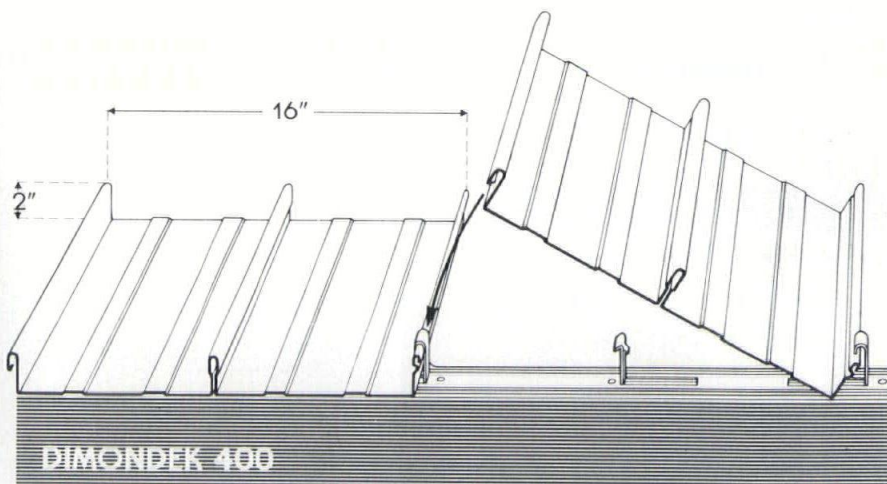
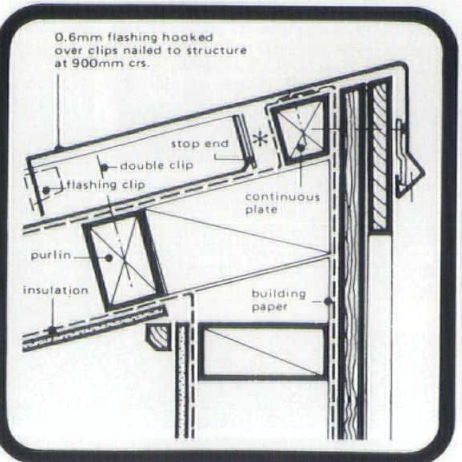
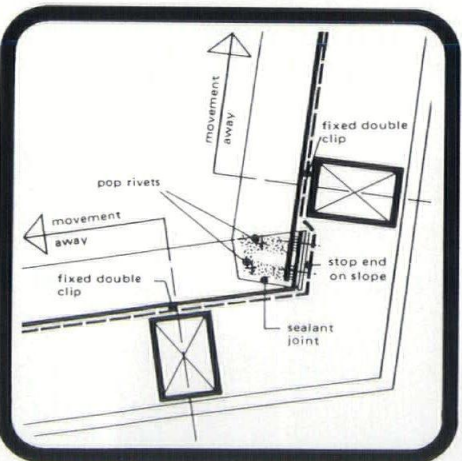
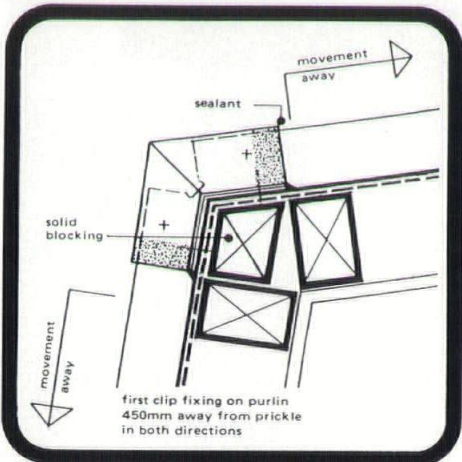
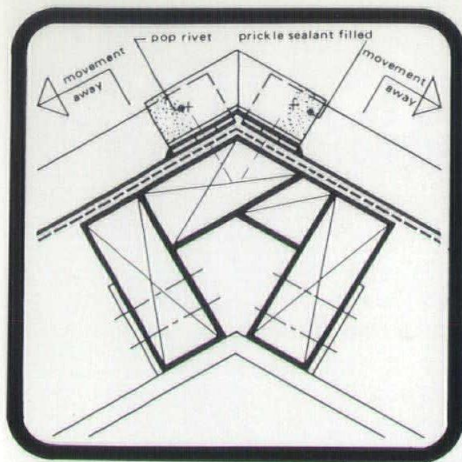
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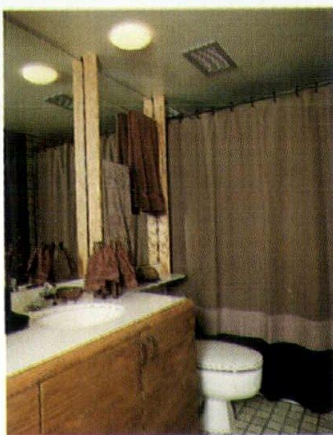
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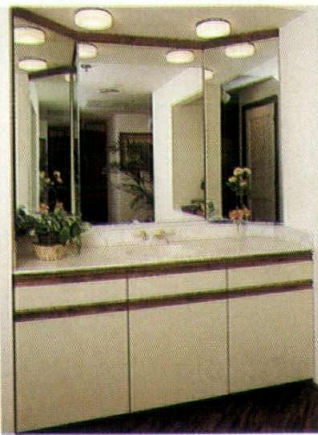
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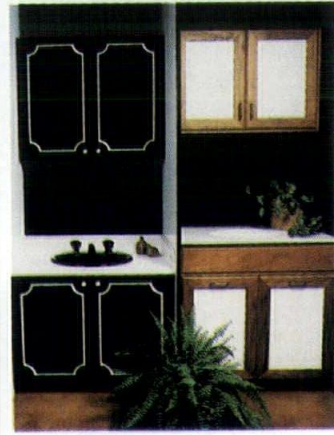
The European look of Stateline's clean, uncluttered cabinet design, "Eulopa," was selected by Mililani for their line of luxury, Executive Homes. The kitchen above features attractive and durable high-pressure almond plastic laminate with Stained Oak trim and continuous pulls.



In this bathroom at Honolulu Tower, Stateline brought the architect's plans to reality through the beauty of Stained Red Oak with white cultured marble. The innovative standing towel rack of Solid Oak is an example of Stateline's versatility.



Another example of architect design custom cabinetry in the bath—this time at Punahou Cliffs Condominium. Here, Stateline utilized high-pressure laminate plastic-faced doors and drawers with Koa trim and continuous pulls. A wide array of laminate colors also are available.



An unusual bathroom treatment by Stateline, above left, in striking black lacquer on Birch with white lacquer molding.

The bathroom at right features quarter-inch CORIAN® inserts framed in solid Teak.

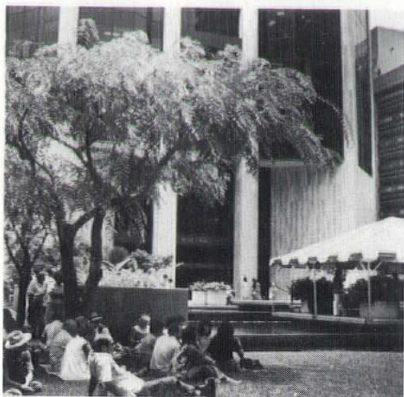
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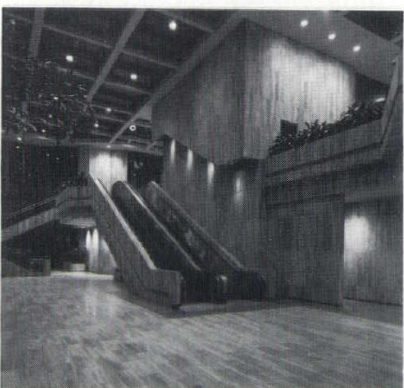




Cover: Kukui Plaza Garden includes acres of gardens with a waterfall, pool, gazebo and barbecue areas. Landscape architect: Donald Wolbrink & Associates. Photo by Tom Witten.



8. Honolulu's Tamarind Park



10. 1984 Design Award Winner



18. The New Halekulani

HAWAII ARCHITECT

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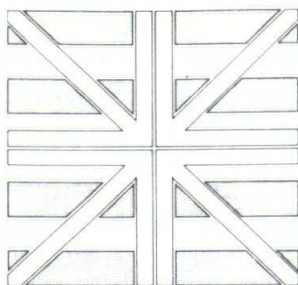
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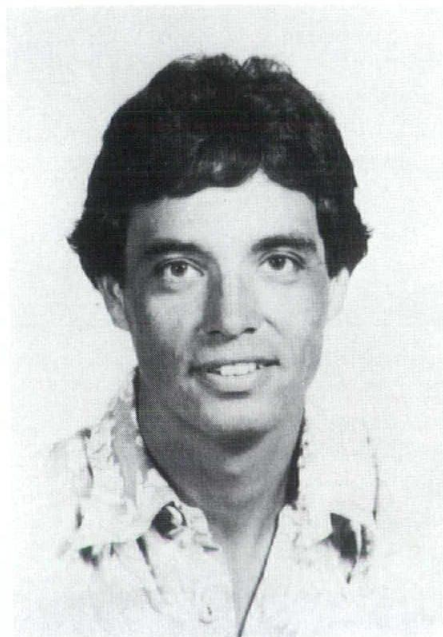
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headlines

It's Not Easy Seeing Green

by Chris J. Smith
President, HS/AIA



I often subscribe to the idea that landscaping is really nature's architectural paintbrush. I have an impression that occasionally we become somewhat oblivious to the wonders of our green environment. All it takes is a quick trip to a real desert or a reminder of the water shortage to be aware of when green is really green.

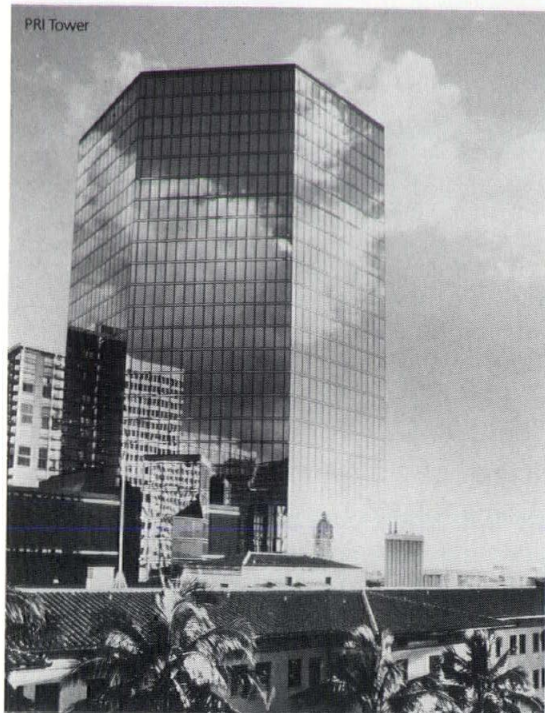
Here in Hawaii we are truly blessed with an unbelievable kaleidoscope of colors. Recent studies indicate that the color green elicits a peaceful and healthy mental response. Scientists also tell us that it is a very difficult color to reproduce. Why? Well, they theorize that our experience of

green is built upon the effects of looking at landscapes made up of multitudinous greens—visualize going over the Pali or Likelike. In other words, we hardly ever are exposed to "one" green, so our perception of green is complex. This partly explains why we use terms like "lush" and "tropical" in describing our delightful landscape.

This also explains why it's tough to handle green as a designer's color. Most color purists will tell you that it's a difficult color to use in a permanent setting, i.e. carpets, walls, etc. It may be vogue and look good in clothing, but when it comes to instances of use like "hospital green," scientists say it's definitely a no-no. It always comes back to the positive mental acceptance we have with a mixture of pure "environmental" greens. Isolated green, a single color, confuses us.

I know it confuses me, because every time I see an isolated green color in the form of a weed I become very disturbed. This directly relates to ol' Carter-Smith's rule that weeds have to be pulled on the weekends, which means that my football programs are missed. I mean if they made weeds purple or Darth Vader black, I'm sure I'd be a little more sympathetic. In fact, a conflict exists in our family. I believe in free enterprise—"let em' grow, may the best plant win." But Sharon is akin to a benevolent dictator. I take that back, a **pure** dictator. I'm glad that she gets her high from the garden. I prefer to get mine while running the back roads of Kahaluu and viewing the Koolau-mountain green. It's definitely less confusing than pulling solitary weeds! HA

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Mention downtown Honolulu and the images that come to mind are the towering concrete and glass structures honey-combed with office suites. The landscaping of downtown has been catapulted to the forefront of images by the completion of Tamarind Park. Unprecedented in size, this privately developed open space acts to anchor the Bishop Street/King Street intersection as the unofficial center of downtown Honolulu.

The bold use of open space is credited to the developer, Northwestern Mutual, and its project representative, Cliff Melim. In featuring landscape architecture, *Hawaii Architect* focuses on this impressive development and, in particular, the designer of the space, James Hubbard. The following excerpts are from an interview with Hubbard in August.

HA: What exactly was your role as landscape architect in the Tamarind Park project?

JH: Well, I actually came into the project very late. I was first approached to take on the job in July of 1982, and the park was subsequently built and dedicated in September of 1983, so I guess it was about 12 months from the time I entered the picture to its completion . . . which was great because I didn't have to wait



The Story Behind Tamarind Park

Jim Hubbard is interviewed
by Michael Chu

around for lengthy decision-making. Things happened very quickly. But because of this I found that extensive planning and construction had already been done, including the roof of the parking structure. It was a "stepped down" system with vertical drops everywhere and a lot of engineering factors were already programmed into its structure causing some major landscape design constraints.

HA: What were some of these constraints?

JH: The overriding constraint was the weight factor. Not only the weight of the plant material and soil but also the large volume of pedestrians that was anticipated. Because of this my design is really a "blanket" that covers the roof of the parking structure. In most areas, the soil is only 18 inches deep and even this had to be extremely lightweight. We eventually settled on cinders and Maui "bottom land" soil which had to be fumigated and shipped over.

My biggest concern was the trees being planted in such shallow soil. I was afraid that a strong gust of wind would blow them over. I

asked that they make some adjustments to the structure. They put in huge planter boxes that go all the way down to the floor of the garage and the large trees that you see in the middle of the park are planted in these boxes. They lost a few parking stalls by doing this but it was essential to achieve the effect.

HA: I would say that the most impressive thing about the park is the instant landscape effect, the large trees that were brought in and the extensive use of water. Was this your concept?

JH: Well it was really Cliff Melim who told me what he wanted the park to look like. He said he wanted lots of trees and flowing water, and lots of sitting spaces and grade changes and things like that. Over a weekend I sketched out a rough plan and that pretty much became the design we followed. In response to the formality of the buildings, the park layout is based on two axes centered on the building entries.

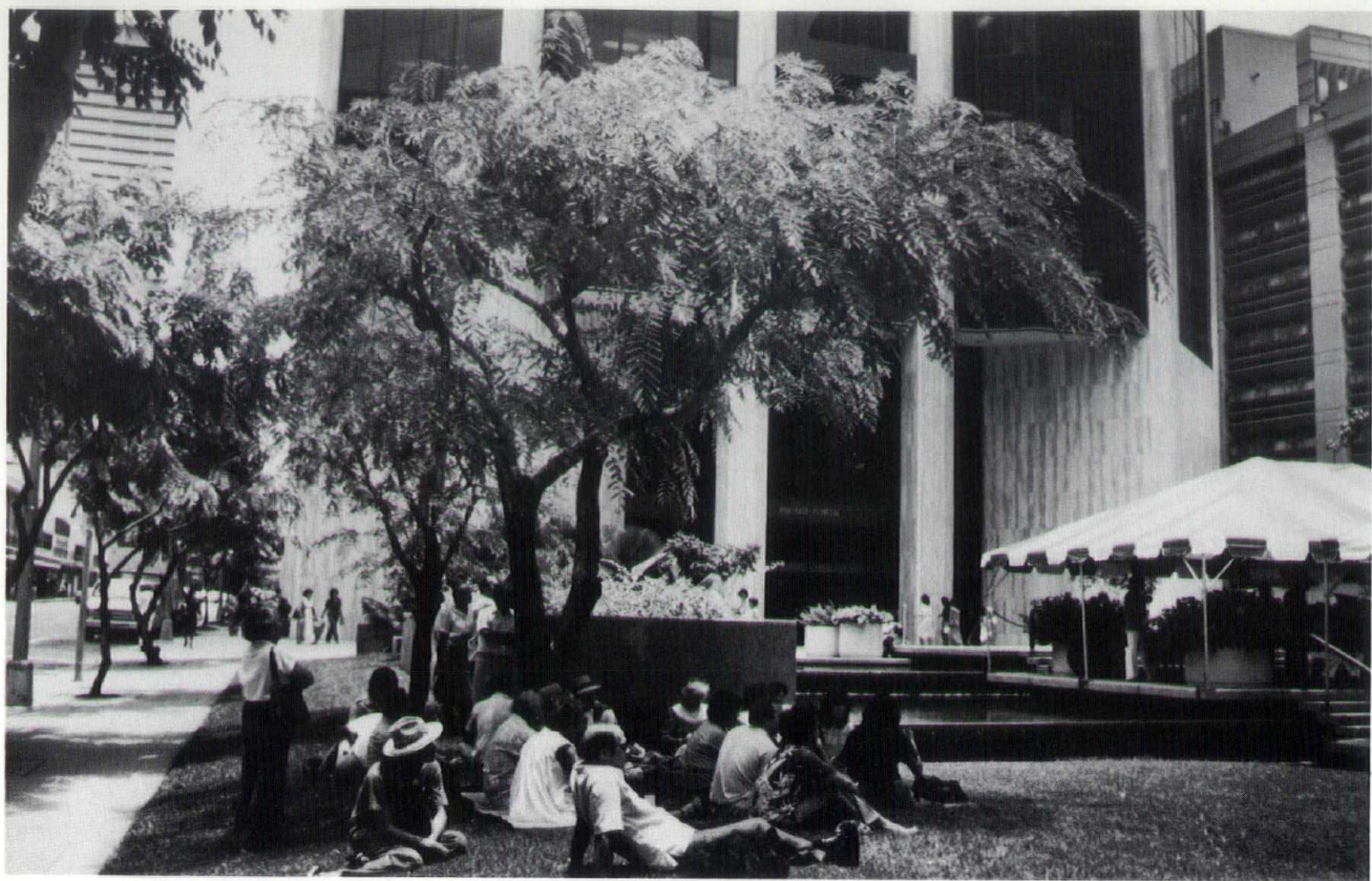
HA: Given the relatively short time frame you had to work within, did you run into any unsurmountable problems?

JH: Not really. Northwestern Mutual had started a nursery out at Mokuleia and that's where we got some of the large trees and the grass. The most wonderful thing about coming in so late was that I could see the building coming up out of the ground. I actually found it easier to design under these conditions. Decisions would come

Editor's Note:

Michael Chu, a landscape architect and member of the *Hawaii Architect* steering committee, coordinated this special issue.

Thanks, Mike, for a job well done.



Pedestrians find shade under the tamarind tree. Mid-day concerts are a special feature of the park. Photo by M. Chu

very quickly. We would meet at the site every week and I could see things being built as I was designing them.

HA: How much influence did *The Social Life of Small Urban Spaces* by William Whyte have on your approach to this project?

JH: Very little. I've never read the book, however Cliff Melim read it and I think it helped him in solidifying in his mind what he wanted. Consequently, he was able to communicate it to me. A lot of the design suggestions from the book such as having a lot of seating and grass areas are pretty common sense. I would have done those

things anyway.

HA: Based on the pedestrian use of the park, I would say that this is a very successful accomplishment. Did it turn out the way you thought it would?

JH: Yes. I'm particularly pleased with the work of the landscape

contractor and the tremendous job that Bishop Square does on the daily maintenance of the place. Interestingly, the lunch hour concerts that are held on the steps were not a design feature. I thought they would have used the grass area, but it seems to work quite well the way they have it set up. **HA**



Tamarind Park is a "blanket" of landscaping over a parking garage. Huge planter boxes reach the floor of the garage. Photo by M. Chu

Pauahi Tower Enhances Urban Environment

Franklin Gray &
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Franklin Gray and Associates/Architects, Inc. and Chapman Desai Sakata, Inc. received a merit award for urban enhancement for their design of Pauahi Tower, Bishop Square.

The program called for a new 28-story office and commercial tower with a second-level entry lobby, comprising 470,000 sq. ft. It would also include one level of subterranean parking, approximately 60,000 sq. ft. A garden park facility of approximately 49,000 sq. ft. would occupy the remaining ground level area. The building was designed to accommodate a medical and dental office floor to

be located in the lower portion of the building.

The project required the demolition of the Alexander Young Building, a five-story office structure of some historic significance. The client, in response to a degree of negative reaction to this aspect of the project, was anxious to create as its replacement a structure and urban space which would contribute dramatically to the enhancement of the downtown environment.

The tower placement and park development were studied in great detail not only to provide efficient pedestrian avenues of egress and

Marble floors and walls adorn main entry lobbies and common corridor areas. Satin brass elevator enclosures and accessory appointments provide accents to the travertine marble, bronze glass and koa wood finishes. Photo by Augie Salbosa



Pauahi Tower, a 28-story office and commercial complex, rises above Tamarind Park in the heart of downtown Honolulu. The design concept was to understate the structural complexity of the building. Photo by Augie Salbosa

exit to the office tower structures, but to develop an "oasis"-type urban park which the downtown population, as a whole, would be able to use.

Another area of design consideration was directed toward creating a compatible melding of the new tower and park with that of the existing office tower and parking structure. In response to these concerns, it was decided to create in the new structure a massing similar in shape to that of the existing tower and to relate the new structure in the same basic manner to the rectilinear site.

The new tower design concept, in answer to the client's desire for a "landmark"-type structure, was to understate the structural complexity of the tower. This was accomplished by simplifying the exterior articulation into byplays of verticality between the bronze glass planes and the travertine-clad columns. The lower level common circulation and commercial spaces were provided with generous ceiling heights.

Architects:

Design Architect: Franklin Gray and Associates/Architects, Inc.

Project Architect: Chapman Desai Sakata, Inc.

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Grassblock Solves a Multitude of Problems

PAVING PARADISE

by Jim Pearson
Department of Land Utilization

Grassblock, grasscrete, puka pavers—there are several names for the parking/driveway surface which allows grass to grow through. There are many reasons why Hawaii's architects should consider using them more than they do now. One reason is aesthetics. We all like to look at a green lawn more than we do paving, but there are other good reasons for using what we will generically call "grassblock" (GB).

One advantage of GB that can be of immediate benefit to a developer is that it allows storm runoff to go directly back into the ground. On larger projects, this can save on the cost of the on-site storm drain piping system. From a community standpoint, reduced concentration of on-site storm drainage can mean reduced off-site systems. Often stream or channel erosion

associated with storm runoff and runoff pollution can be reduced. Increased direct rain water absorption into the soil can mean an increased (and perhaps a cleaner) water supply.

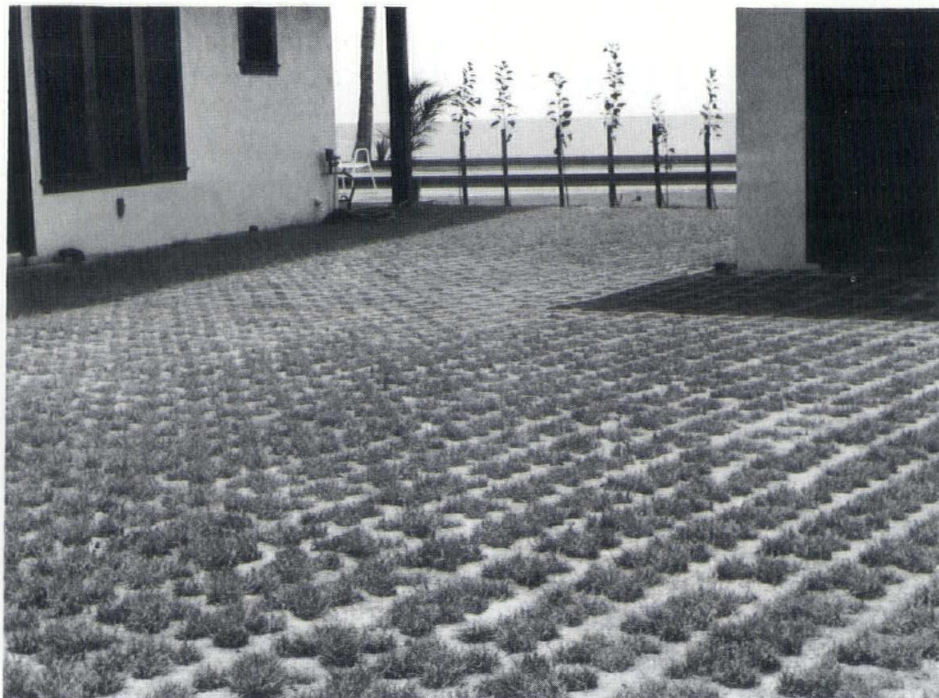
Tests prove that the parking area and site around a GB installation is cooler. A concrete (or worse yet, black asphalt) lot absorbs and radiates the sun's heat back into the air and into buildings around it. Hawaii's year-round cooling needs make GB a natural for this reason. (Barefooters will note a particularly direct advantage of the coolness of GB over concrete or asphalt/concrete).

All of these benefits of GB have direct applicability to Hawaii where grass remains green all year long. We have a year-round need for cooling, the soil is generally permeable, and an abundant clean

water supply is of concern. Also, we should be particularly protective of our Hawaiian environment and sensitive about our "green" tropical image and how it relates to tourism.

So, why hasn't GB been used more if it's so great? For one thing, the Honolulu Comprehensive Zoning Code (CZC) does not specifically mention that it is allowed for required parking and driveways. The code requires an "all-weather surface for all required parking and driveways" and it further defines an all-weather surface as "asphaltic concrete and reinforced concrete or any other similar surface as determined to be acceptable by the Building Department." A 1977 interpretation letter by the building department specifically approved HC&D's "grassblock" product if installed over an appropriate subbase. HC&D's "Grasbloc" or the poured-in-place "Grasscrete" (by Bomanite Company) have seen successful but limited use in Hawaii in private residences, cluster and planned development projects. One of the most visible installations is in the Burger King/Academy of Arts parking lot on Beretania Street. Here, however, the extremely heavy traffic has made it a less than perfect showpiece for the product.

Hawaii's construction industry has two commercial products readily available (see illustrations). HC&D has "Grasbloc," a tick-tack-toe shaped block designed to be laid end-to-end. Bomanite



Grass planted in the pukas will eventually cover the driveway. In addition to being aesthetically pleasing, grass is cooler than conventional paving. Photo courtesy of Bomanite of Hawaii, Inc.

Announcing The Second Annual HAWAII ARCHITECT YEARBOOK

The December *Hawaii Architect* magazine will be a special year-end issue featuring the work of HS/AIA members. Projects are currently being accepted for this issue.

SUBMITTAL REQUIREMENTS

A. Projects must have been completed in the last five years.

B. Each submittal must include:

1. Three to six photos with captions and photo credits
2. The architectural firm's name and address
3. The client's name
4. Names of contractors and consultants
5. The date of completion
6. A brief description indicating materials and construction methods used, the design problem and solution, etc.

C. Submittals must be accompanied by payment for printing costs (\$208 per page for black and white or \$364 per page for four-color which includes tax. Color separations must be provided.) Full pages only; one page minimum per project.

D. Deadline for space reservation is Oct.

15. Materials must be received by Oct. 31.

Submit project materials to the HS/AIA office, attention Karen St. John, 233 Merchant St., Honolulu 96813.

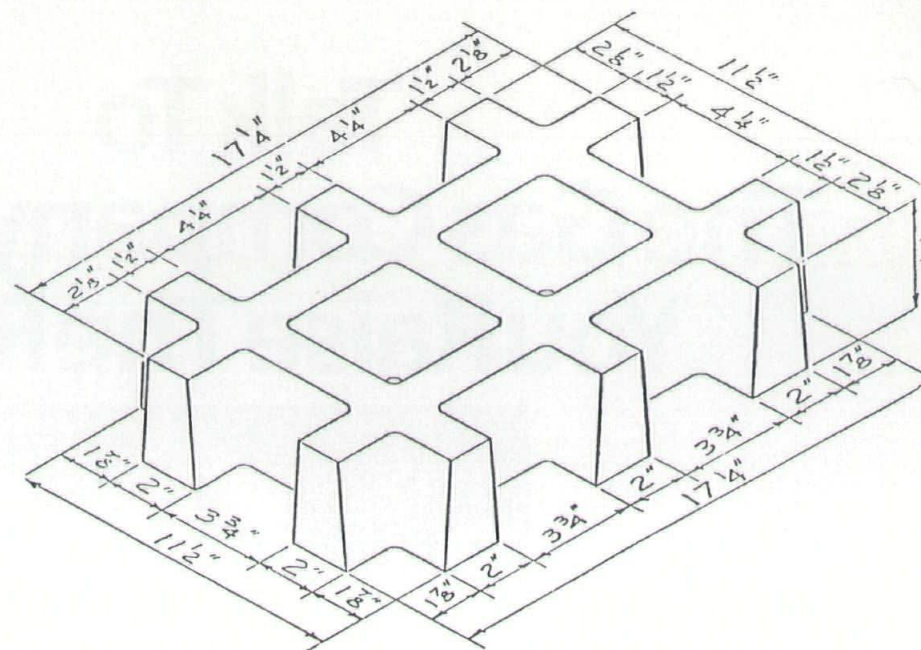
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Hawaii is the exclusive installation licensee for "Grasscrete," a process where concrete is poured around a plastic form, which is then burned out leaving the holes for planting of grass. "Geoblock" is a product produced in Wisconsin by Presto Products. It is a 12"x36"x4" deep heavy plastic interlocking grid. It is available in Hawaii through the company on a project-by-project basis. A noninterlock version is available for light duty installations.

After the grassblock is laid (or grasscrete is poured) over a sand base, the pukas are filled with top soil and seeded or plugged with a hardy grass such as zoysia or temple grass. Then a certain amount of maintenance and watering is required. But how does this system compare to concrete or asphalt?

In a recent application in Dayton, Ohio, the city "paved" a municipal lot with a grassblock-type product. Then, they carefully monitored cost, environmental and energy factors. They concluded that the lawned parking lot was superior to asphalt paving in life-cycle dollar cost, primary energy and maintenance costs. Other benefits Dayton identified were storm water runoff and piping reduction, summer surface heat reduction and user satisfaction.

We at the Department of Land Utilization (DLU) have been promoting GB pavers in cluster and planned development housing projects for guest parking areas, emergency access drives, required ohana unit parking and other medium to limited use areas. A particularly appropriate use of grassblock is for churches where the need for parking is often limited to Sundays and some evenings. Since the CZC parking requirements do not distinguish a limited-use parking requirement from an everyday use, GB can serve these special conditions well. Also, many churches are in residential areas where excessive paving might be particularly unsightly. Other advantages for GB-type church parking is that the blocks can be laid by relatively unskilled volunteer church members and, if associated with a church school or child care facility, the surface can



double as a "softer" playfield.

The city's new Land Use Ordinance as proposed will specifically allow GB and perhaps this will promote its use. But the

real key to its increased use will have to come from architects, landscape architects, developers and builders who can see its visual, functional and economic benefits.

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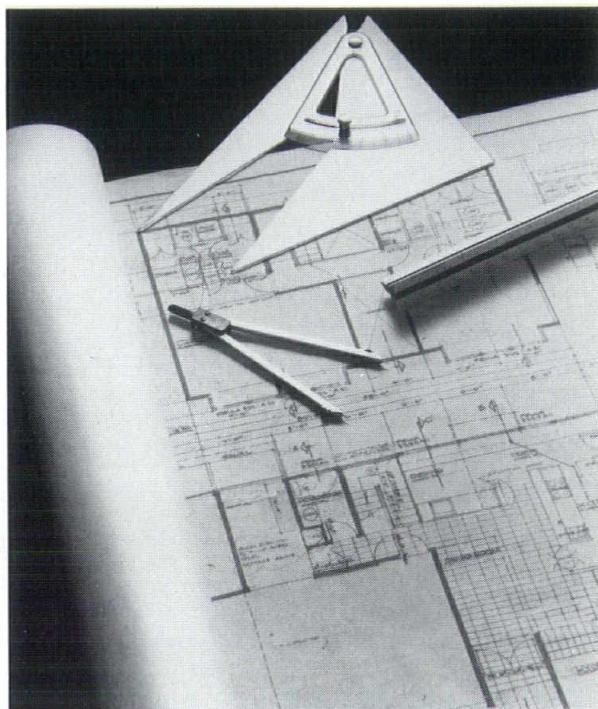
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ASLA Presents Malama Aina Award

by Michael Miyabara, ASLA
Woolsey, Miyabara & Associates, Inc.

The Hawaii Chapter of the American Society of Landscape Architects (ASLA) has initiated the Malama Aina Award which recognizes individuals, groups or agencies that have supported or served the profession of landscape architecture or have been active in the preservation and enhancement of the Hawaiian landscape.

It is perhaps significant that the award begins in our 25th year of statehood, for Hawaii has experienced such dramatic and rapid change during those years. Marked by massive construction of buildings, freeways and other developments, the Hawaiian landscape has been transformed seemingly overnight to reflect the contemporary built environment. While there still are many places that have remained relatively unchanged, much of what has been the traditional perception of Hawaii has been permanently altered.

Although change in itself is neither good nor bad, the products of change can be. The Malama Aina Award was born to give recognition to those efforts that effect a positive change in the Hawaiian landscape either through preservation and conservation of the natural environment or the enhancement and enrichment of the built environment.

The Hawaii Chapter ASLA is proud to announce that the Malama Aina Award recipient for 1984 is The Outdoor Circle, represented by Mrs. Celia Podorean. The organization, formed in 1912 as an adjunct to The Indoor Circle of the Kawaihau Church, became active early in its dedication and appreciation of the Hawaiian landscape. In 1924, members became offended by a

large billboard displaying "a pickle" at the entrance to Kapiolani Park. In a successful effort they were able to ban billboards from the Hawaiian landscape. They had become the guardians of the natural beauty and environment of Hawaii.

Today The Outdoor Circle has about 3,000 members with branches on Oahu, Kauai, Maui and Hawaii. There are various

working committees including a Signs Committee, a Park Committee, and a Landscape and Planting Committee. A special Youth Program educates Hawaii's children about the adverse effects of litter on the environment. Beautification awards are presented which recognize not only projects designed and implemented successfully, but also those which display evidence of proper maintenance and care.

For the past 72 years, The Outdoor Circle has contributed greatly to the enhancement and preservation of the Hawaiian landscape. Sharing the same concerns as landscape architects, members have been extremely successful in their actions to protect Hawaii's beauty. Therefore, they are certainly worthy of recognition and most deserving of this, the first annual Malama Aina Award. **HA**

ASLA: A National Perspective

by Thomas P. Papandrew, ASLA
Belt, Collins & Associates International

According to Thomas P. Papandrew, American Society of Landscape Architects (ASLA) National Vice President and director of planning for Belt, Collins and Associates Intl., ASLA represents over 7,000 U.S. and Canadian landscape architects in public, private and academic practice. More than 60 members belong to the Hawaii chapter. Members play a major role in the design, planning and management of the land, and share a commitment to achieving a balance between preservation, use and management of our nation's resources.

The public service and external affairs programs of ASLA exemplify the diversity of the organization. For example, ASLA and its individual members are members of the International Federation of Landscape Architects (IFLA). This organization focuses on the global concerns of the profession, providing an

international forum for landscape architectural education and natural resource stewardship. The international issues at the very heart of survival, the continuing evolution of man and this planet, are at the heart of IFLA's vision. At the extreme, ASLA has representation on the American Society of Testing Materials (ASTM). The latest issue to be resolved is not just the color of green for vinyl tennis fence cover, but the specification of the pigmentation.

Papandrew invites readers to learn more about ASLA. "Our current president is Tak Ueda and we are represented on the national board of trustees by Alan Clarke of Tongg, Clarke and Mechler. For more information about ASLA, I invite you to contact Tak, Alan or me. Nationally, contact Mr. Edward Able, Executive Vice President, ASLA, 1733 Connecticut Ave., N.W., Washington, D.C. 20009." **HA**

Throughout its history the Halekulani has held a special meaning to many people. Literally translated as "House Befitting Heaven," Halekulani was named over a hundred years ago by the area's Hawaiian fishermen who found comfort on its beach and under the trees. Over the years the Halekulani became synonymous with the graciousness, charm and aloha spirit of Hawaii.

The Halekulani as we know it traces its modern roots to 1907, when Robert Lewers began a residential hotel consisting of a beachfront house and five bungalows. In 1917 the hotel was purchased by Juliet and Clifford Kimball. The Halekulani expanded and in the late 1920's the original Lewers House was torn down and the distinctive main building was constructed. Designed by C.W. Dickey, the building established the architectural character of the Halekulani. The structure, restored and refurbished, stands today as the centerpiece of the new Halekulani.

In 1962 the Halekulani was sold to the Norton Clapp family. By then the hotel included the main building and 37 one- and two-story bungalows. Twenty years later, the Halekulani was sold to its present owner, the Halekulani Corporation, a subsidiary of Mitsui Real Estate Development Co., Ltd. of Tokyo, marking the beginning of a new era for the Halekulani.

It was recognized at the start of the recent construction project that certain key principles would have to be adhered to through every aspect of the development. Chief among these was the need to retain the qualities of the old Halekulani that gave it its unique character. While perhaps intangible and a function of imagery and perception, the physical design of the Halekulani needed to capture the essence of its earlier spirit. Another important element was to retain the hotel's famous hospitable atmosphere and quality of service housed within an environment of elegance and serenity.

The design team responded to these criteria with an overall scheme that realized the potential

Enhancing the Essence of the Halekulani

by Michael Miyabara, ASLA
Woolsey, Miyabara & Associates, Inc.



for a modern, world-class hotel while keeping in mind the idea of the old Halekulani. Architecturally, the main building was retained and restored to its previous splendor through massive interior renovation work. Its famed double-pitched roof profile was repeated in the new buildings. Suites and various function rooms were designed and furnished to reflect the rich history of Halekulani.

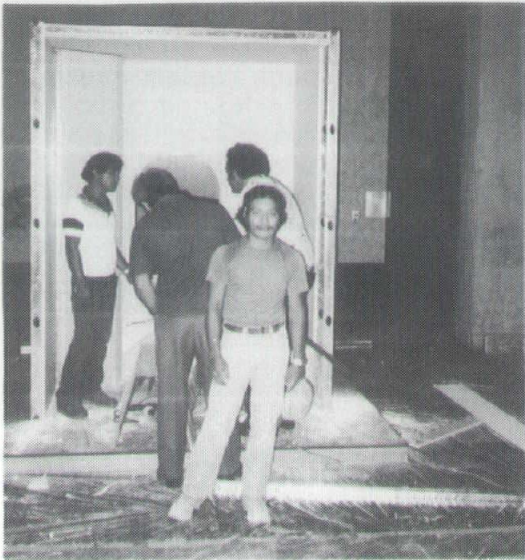
The landscape played a large part in the mental picture of the

The old kiawe tree stands behind the House Without a Key. Killingsworth, Stricker, Lindgren, Wilson & Associates designed the new Halekulani. Photo by Julius Shulman

Halekulani. The old kiawe tree, tall, swaying coconuts, and hau trees were a part of the romance. The kiawe still stands as well as most of the coconuts which were retained

Continued on page 38

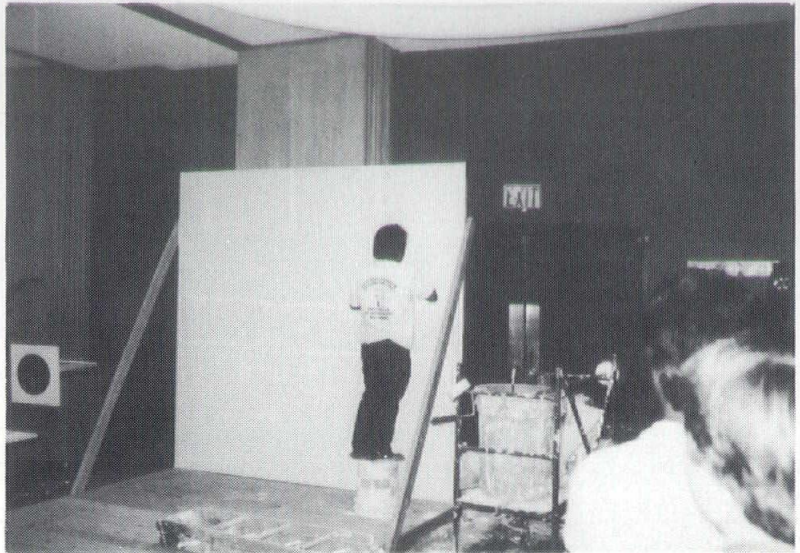
PROFESSIONAL EDUCATION AND THE COMPETITIVE SPIRIT



Our Gypsum Drywall Contest winner, Rosendo Guillermo, is shown here next to his winning entry. Judges Richard Doral (Doral Construction), Bob Farmer (Group Builders) and Vince Nihipali (V&C Drywall) had their work cut out for them in determining the winner, as all entrants had to read blueprints and build the same structure from the ground up.

The Gypsum Drywall Contractors of Hawaii host an annual Promotion Display and Drywall Contest for the betterment of the industry and the education of members and industry associates alike.

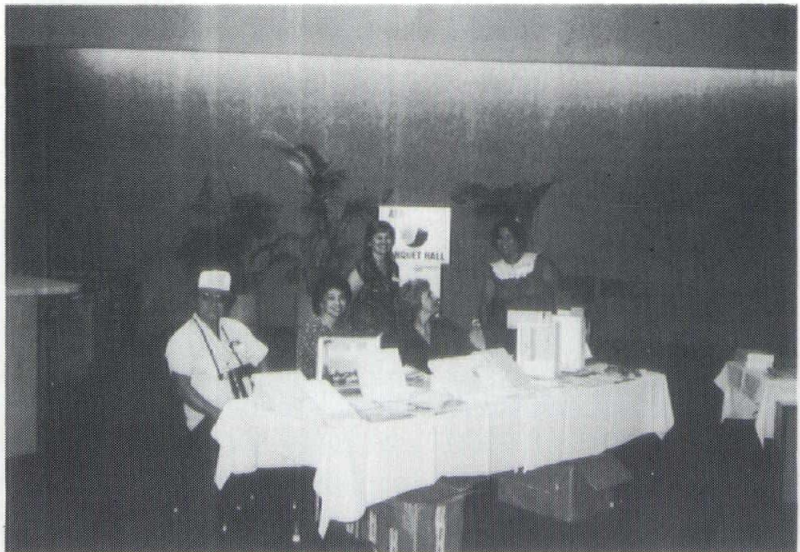
This year the event was held at the Ala Moana Banquet Hall on Friday August 24. The turnout was heavy, and the displays and contest were exciting and informative.



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And while the contestants were hard at work, architects, designers and contractors observed the contest and picked up the latest technical information from the material suppliers who helped sponsor this event. Our hats are off to all those people who helped make this annual Promotional Display and Contest such a rousing success.

Creative Solutions to Irrigation Limitations

by Janet Thebaud Gillmar, ASLA

With the current drought forcing water conservation measures in Hawaii, it is timely to assess the place of landscape irrigation and determine the practical means and extent of possibly saving irrigation water.

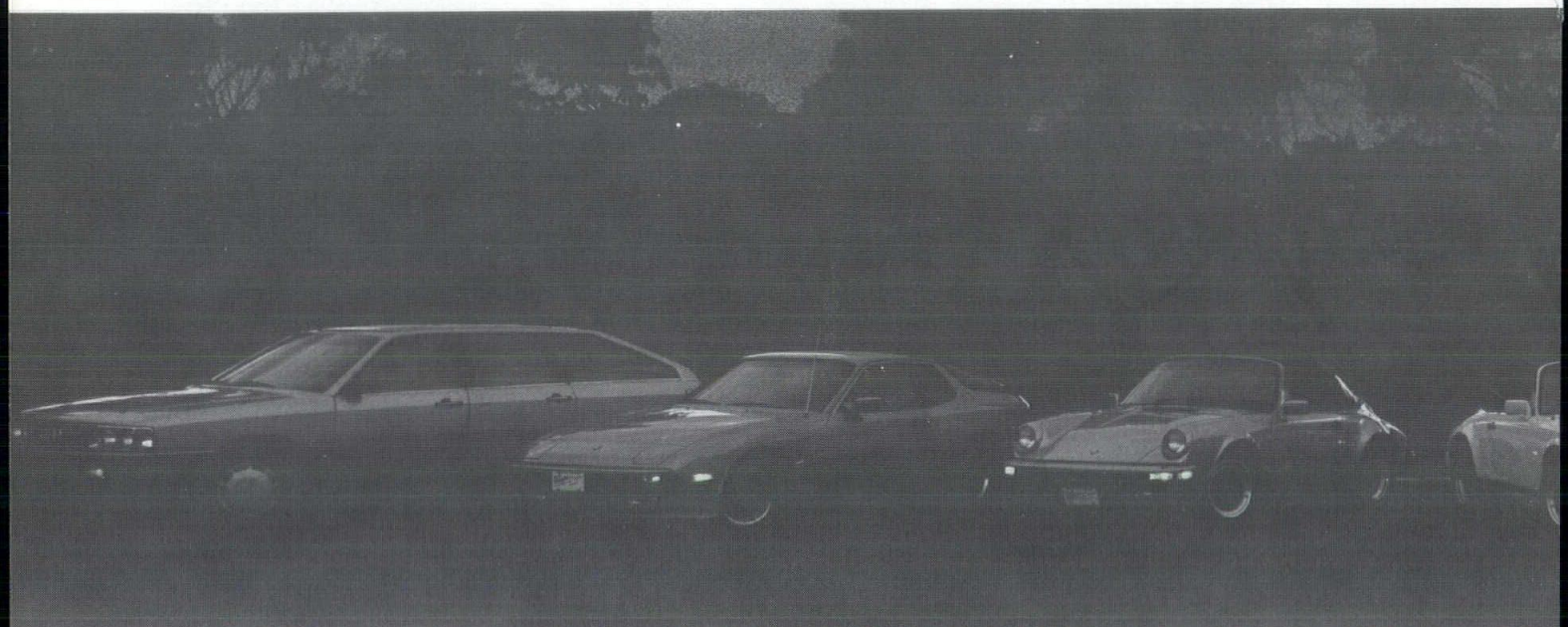
A lush, green tropical paradise is

the dominant image of Hawaii for most residents and visitors. This landscape identity is formed by lush green urban and resort landscapes which complement the natural beauty of the generally green mountain scenery and rich blue tones of the ocean. The maintenance and enhancement of

this landscape is critical to the continued viability of a major part of Hawaii's economy—the visitor industry. The current "brownout" of extensive grassy areas in Honolulu parks starts to erode that green image in a disturbing way.

Although the dominant image is one of lush greenness, most of urban Honolulu, the resort areas, and the agricultural lands depend on irrigation water to maintain their landscapes. The Honolulu Board of Water Supply estimates that 10-30 percent of residential water usage goes for irrigation.

Most of the ground water sources in Hawaii have already been developed and are in use. So far, proposals for increasing the water supply have not proved



Left to right: Audi 5000S Wagon,
Porsche 944, Porsche 911
Carrera Targa, Porsche 911 Carrera
Cabriolet, Audi 4000S,
Porsche 911 Carrera Coupe,
Porsche 928S, Audi 5000S.



viable. Desalinization processes, for example, still involve too much extra expense. While nonpotable water is used for some agricultural irrigation and isolated cases of landscape irrigation, widespread use of treated effluent might entail a potential public health problem. Use of either roof catchment, brackish, or effectively treated effluent water for landscape irrigation would generally entail additional infrastructure costs for piping and/or water storage facilities. It would appear there is no easy, practical way to substantially add to existing irrigation water supplies.

Good landscape design has always included respect for the microclimate of the site. Irrigation

water limitations simply highlight that necessity—and encourage creativity. Local landscape architects and their clients have responded to this situation in a variety of ways and in varying degrees. Design solutions for the most part have incorporated the traditional water-saving principles outlined in an article, "The Less Thirsty Tropical Garden," which Paul Weissich and I wrote for this magazine four years ago (May, 1979). Landscape architects cite projects using more drought-tolerant plant materials, somewhat more gravel as a groundcover, and more zoning of landscapes according to irrigation needs. A number of familiar tropical-looking plants are fairly drought-resistant


once well established.

Several landscape architects have increasingly stressed to their clients the importance of experimenting to find the optimum level of irrigation needed for their plants. People are more apt to overwater than underwater, and plants do not do as well if overwatered.

Drip irrigation systems, originally considered a good potential watersaver, are being used mostly for planter boxes. They generally are too vulnerable to damage in open planting areas.

Decreasing the water budget can mean increasing the budget for construction and maintenance of landscape improvements. For

Continued on page 38



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Creating New Landscapes Above the Ground

ROOF AND DECK GARDENS

by Thomas S. Witten, ASLA
Phillips, Brandt, Reddick & Associates

With the increased scarcity and high values of urban lands, a premium has been placed on open space. One result of higher densities has been the increased utilization of roofs or decks as open space. This type of construction has required new and unique considerations for professional interaction and a new set of design and construction standards. In Hawaii the execution of roof or deck gardens is not new. The financial feasibility of such gardens is greatly enhanced due to increased land values and growing public desire for open space and recreational amenities.

Since this space occurs over a structure, it is an integral part of the architectural, mechanical and structural design considerations. As an open space element, part or all of the roof deck space falls into the domain of the landscape architect. In roof deck garden design, each job is specific and unique with solutions requiring the coordinated expertise of several professionals.

Almost anything accomplished at grade in the landscape can be theoretically done in a rooftop situation. However, in practice there are many constraints that act to limit rooftop development. The primary issues to be confronted are basic but formidable: the weight of the garden or deck

features must be borne by the structure beneath it; the construction and maintenance of a waterproof condition over interior space is mandatory; mechanical systems such as drainage, irrigation, and electrical systems must be accommodated; rooms must be provided for transformers, irrigation controls, pump rooms for fountains and the like; and, a life support system for plant material must be developed in an artificial situation. Accessibility of the areas during construction is often limited, which puts constraints on construction methods and the use of materials.

All of these issues are technically manageable, but it is the cost of making these accommodations that inevitably becomes the final constraint.

To accomplish a successful rooftop development, there are several important design and construction requirements that require special attention. Briefly reviewed, they are:

- Protecting the integrity of the roof and structure. The single most important consideration concerning rooftop landscape construction, the roof waterproofing, must be of exceptional security and longevity and

Tamarind Park, an urban plaza built over a parking garage, brings new activities to the center of downtown Honolulu. Landscape architecture was done by James Hubbard (see interview on page 8). Photo by Tom Witten





The Amfac Center rooftop garden features a boardwalk, trellised seating areas and mature plantings. Landscape architecture was done by George Walters. Photo by Tom Witten.

protected from damage.

- **Load-bearing capacity.** Established by the structural engineer, the maximum load-bearing capacity of the roof must never be exceeded. In projecting construction, the roof structure can usually be strengthened to accommodate heavier loads. This constraint can be overcome if care is exercised in the selection and location of materials. Typically a minimum additional dead load limit of 125 psf between columns is needed to accommodate construction of a roof garden, although the loads above columns and at the bearing edges of a roof can be much greater.
- **Positive drainage.** Drainage for roof gardens must be just as effective in carrying off water as the basic roof. In most cases there is no need to duplicate or add a larger system and the same system used by the building is adequate. Roof drains, as well as all others used in the roof garden, should be

designed to collect both surface and lateral subsurface drainage water.

- **Long-term lightweight planting medium.** The critical factors in the formulation of a suitable planting medium for roof garden planting are light weight, ability to hold nutrients for plant growth, and capability of developing a firm but easily drained soil structure. Commercially developed ready-mix soils are available, but a suitable soil mixture can be prepared from locally available ingredients.
- **Adaptation to climate, winds, sun and shade.** Consideration should be given to the design and placement of use areas and facilities on a rooftop. Locally, the greatest problem is with wind and requires special selection and installation of plant materials and any vertical structures.
- **Optimum irrigation.** The relatively thin, well-drained soil mixtures used in roof gardens

cannot provide plants with the sub-surface water normally available to ground level plantings. To prevent the planting medium from drying out and causing damage or loss of plant materials, a sub-surface irrigation system with automatic controls is the most reliable and cost effective method of watering plants and lawns on roofs.

- **Selection of paving, structural materials, site furnishings and water as a design element.** In consideration of the viewers from surrounding buildings, the color, tone, texture and contrast of construction materials is an important design element. Materials should also be selected for their light weight and durability.
- **Provisions for necessary utilities.** Water and electricity are required for most roof garden applications and should be integrated into the design at an early stage. Standard 110-120 volt A.C. electrical supply is sufficient for most garden uses (lighting, cooking, appliances, fountains, and irrigation controllers) and water pressure for irrigation systems should be provided at a minimum level of 35 psi to a maximum of approximately 70 psi and must contain suitable backflow prevention devices.
- **Public safety and security.** There is a need to alleviate psychological fears as well as provide for physical barriers for safety due to the fact that most roof gardens are several stories above ground level.
- **Ease of maintenance.** Not unlike successful gardens on the ground, most roof gardens require consistent, good maintenance. This includes watering, fertilizing, shearing, pruning, bracing, raking, removal of debris, replanting, repair and adjustment of irrigation and lighting equipment, and the clearance of obstructions in the drainage system.

With these design issues addressed, the opportunities in

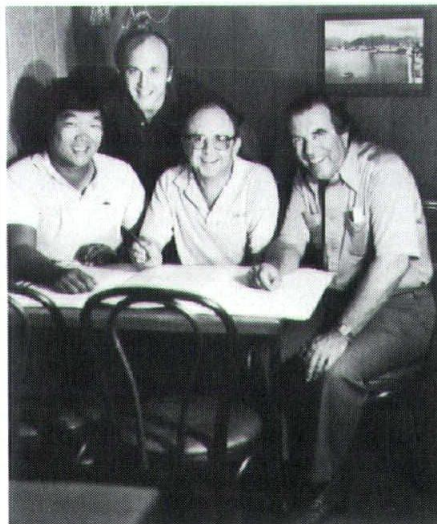


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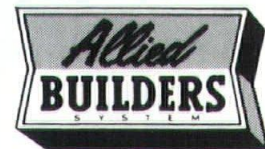
Skippers Restaurant, Windward City Shopping Center

Allied teamwork was more crucial than usual because our clients were in Seattle. And because it was their first business venture in Hawaii, they were understandably anxious about coordination and control on a job site 3,000 miles across the ocean. By the time final plans were in hand, the deadline was just four weeks away. The job required reinforcing the roof and opening the ceiling for



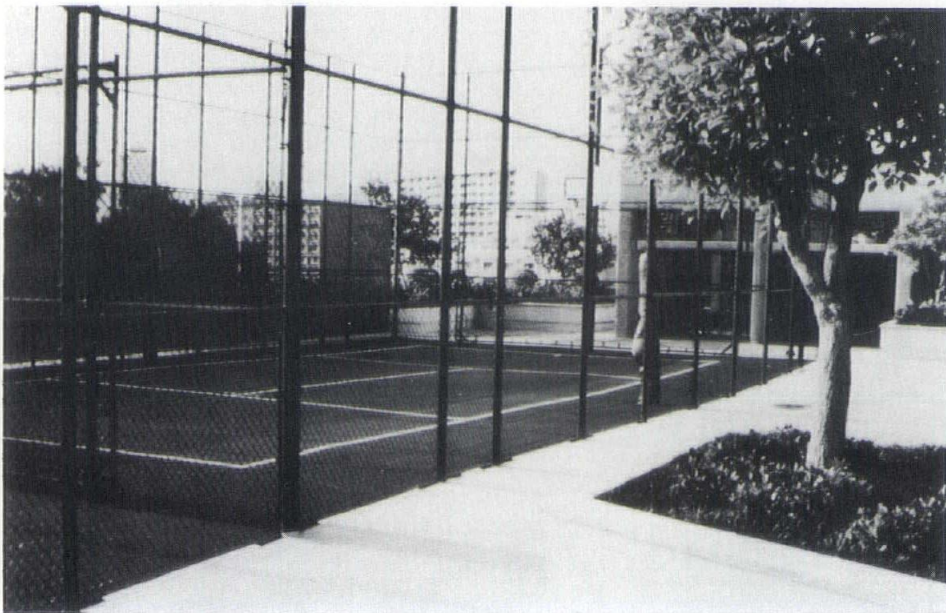
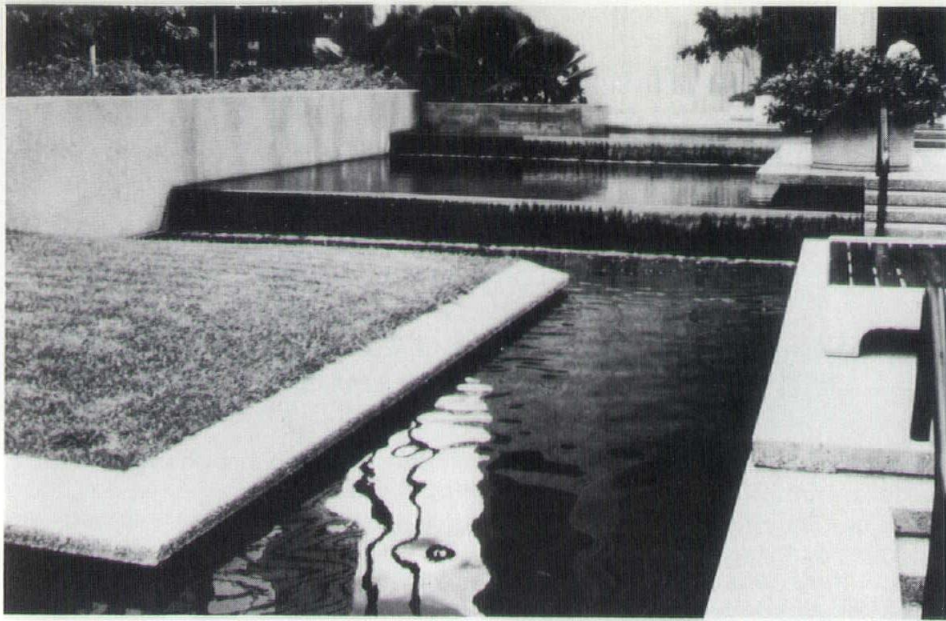
The Team:
Stanford Chur, Project Manager,
Allied Builders Systems
John Greer, Jim Dixon,
Skippers Restaurant
Geoff Patterson, Architect

skylights. The Skippers mainland design had to be adapted to local codes. Inside, a nautical theme was created with porthole-style mirrors, rough lumber, and brass fittings. Allied teamwork came into play with smooth organization, efficiency, and good timing. As we built a restaurant, we built confidence, too. Right on schedule. And we've already completed Skippers number two.



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Creative solutions to limited urban space constraints can be found in many Honolulu buildings. Water flows over a parking garage in Tamarind Park (top). Planters and seating create an oasis on the Central Pacific Bank roof deck (center). The HMSA Center recreation deck provides sport courts for employees (bottom). Landscape architect for Tamarind Park: James Hubbard. Landscape architect for Central Pacific Bank and HMSA Center: Phillips Brandt Reddick and Associates. Photos by Tom Witten

rooftop garden design are unlimited within regulatory constraints. Knowledge of zoning and building codes and other government agency requirements is essential. Building code requirements dictate specific design and use constraints for these spaces through requirements for fire safety (materials) and exiting (barriers). The opportunity for zoning codes to influence design concepts through floor area bonuses for providing open space at street and roof deck level needs to be encouraged. The HCDA has adopted a large-scale, long-range plan for Kaka'ako which includes a significant commitment to rooftop and deck development.

There is a variety of executed rooftop gardens and decks that include various levels of landscape intensities for various purposes. From residential condominium recreational areas and private corporate gardens to public plazas, the need to take advantage of these open spaces is ever increasing. Technological improvements in waterproofing membranes and lightweight durable construction materials have advanced in recent years to provide the landscape architect with the tools necessary to execute roof gardens which enhance all types of development.

With technological expertise in hand and the time-tested experience of existing roof deck gardens locally and across the nation, the landscape architect will advance roof and deck developments and continue to create new landscapes.

HA

Honolulu's New Land-Use Ordinance

Its Effects on Open Space and Landscaping

by Barbara A. Moon
Department of Land Utilization

The new Land Use Ordinance (LUO) which will ultimately replace the Comprehensive Zoning Code (CZC) addresses three generally accepted functional benefits of open space: providing recreational opportunities; maintaining natural resources; and encouraging attractive, visually pleasing neighborhood design through landscaping and related amenities.

Most LUO changes focus on the

third benefit and respond to two basic community concerns. First, there is a perceived need for more open space and landscaping in areas where denser development is to occur. Second, there is a lack of clarity in existing regulations on the nature of desired open space and landscaping.

Predictably, a "loss of open space" concern surfaced most prominently in our review of apartment districts. In response, a

maximum building area (lot coverage) limit is proposed for apartment and apartment mixed use (AMX) districts. This is related to lot size, as shown below.

Requirement % of Lot

District A-1, AMX-1

Less than 7,500 sq. ft. 60%

A-2, AMX-2

7,500 sq. ft.—20,000 sq. ft. . 50%

A-3, AMX-3

Over 20,000 sq. ft. 40%

We are also proposing to add a public open space bonus option to the new business mixed-use district, BMX-3 (old B-3). This would allow up to 1.0 Floor Area Ratio (FAR) more than the district density maximum of 2.5.

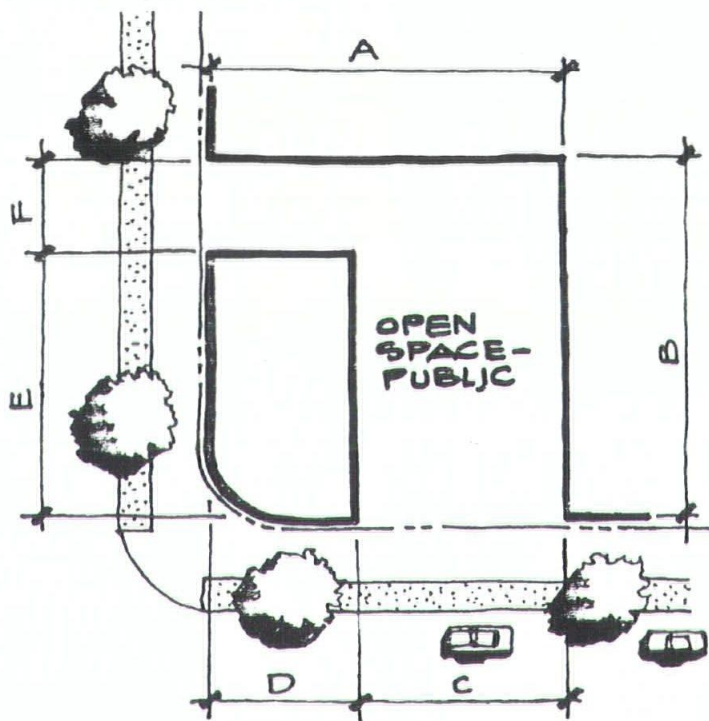
In some cases, new landscaping requirements would be added, or existing requirements adjusted. This is in response to a concern about the "uglification" of some of our more functional urban spaces and an acknowledgement of residual benefits, e.g. energy savings, of landscaping.

For parking lots, we proposed increasing from 4 to 5 percent the total area landscaping requirement, and decreasing the minimum planter area required from 100 sq. ft. to 50. We also propose screening requirements for outdoor trash storage areas and loading and service areas. Parking structures would be required to provide screening when they abut residential, apartment or apartment mixed-use districts.

The term "open space" has semantic implications far beyond the powers of zoning or the scope of the LUO. "Open space" is often shorthand for major policy concerns about the conversion of land from one use to another. Often it reflects what is believed to be lost, e.g. "loss of open space." As noted earlier, this loss is felt most keenly in multifamily housing development.

Unfortunately, the CZC exacerbates the situation with a lack of clear or precise purpose.

Sketches included in the Land Use Ordinance, such as the one shown here, help to explain public space requirements.



$$(A+B+C+D+E+F) \times 20\% \leq C+F$$

PERIMETER CALCULATION

OPEN SPACE, PUBLIC

Open space is treated as something of an ambiguous concept, having different meanings in different contexts.

Many of our proposals to bring more clarity to LUO regulations may be regarded as "cosmetic" in nature, but they should be reviewed carefully, especially definitions, since they will definitely impact on future project approvals.

For example, we have added a definition of "open space," to complement the existing definition of public open space. Open space would be any portion of a zoning lot and must be free of structures. It could be publicly or privately owned, and may or may not be accessible to the general public. It can include parks, playgrounds, playfields, botanical gardens, fountains, reflecting pools, walkways, and nonbuildable easements. Under this definition, open space must be: unobstructed to the sky except for roof eaves and overhangs; located at finish grade; and not used for parking, maneuvering of vehicles, or storage of equipment or refuse. A required yard may be considered open space.

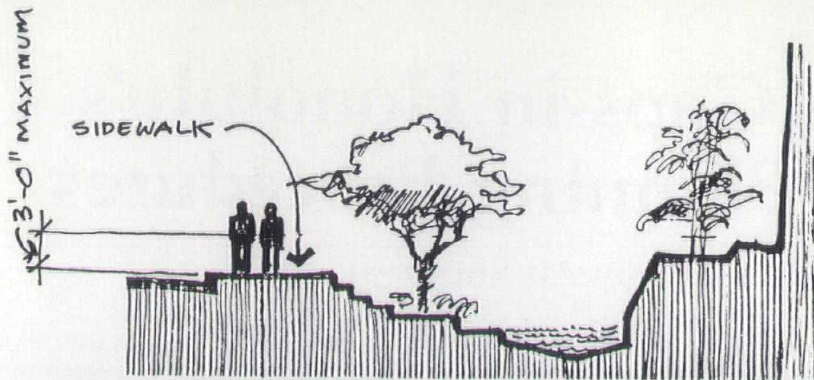
Public open space would be the same as open space and, in addition, must adjoin a street for at least 20 percent of its perimeter; be no more than three feet above an adjoining sidewalk; and have a minimum 50 percent area landscaped.

The definition of "landscaped" has been revised to provide more flexibility and to recognize waterworks and rock gardens as desirable landscaping features.

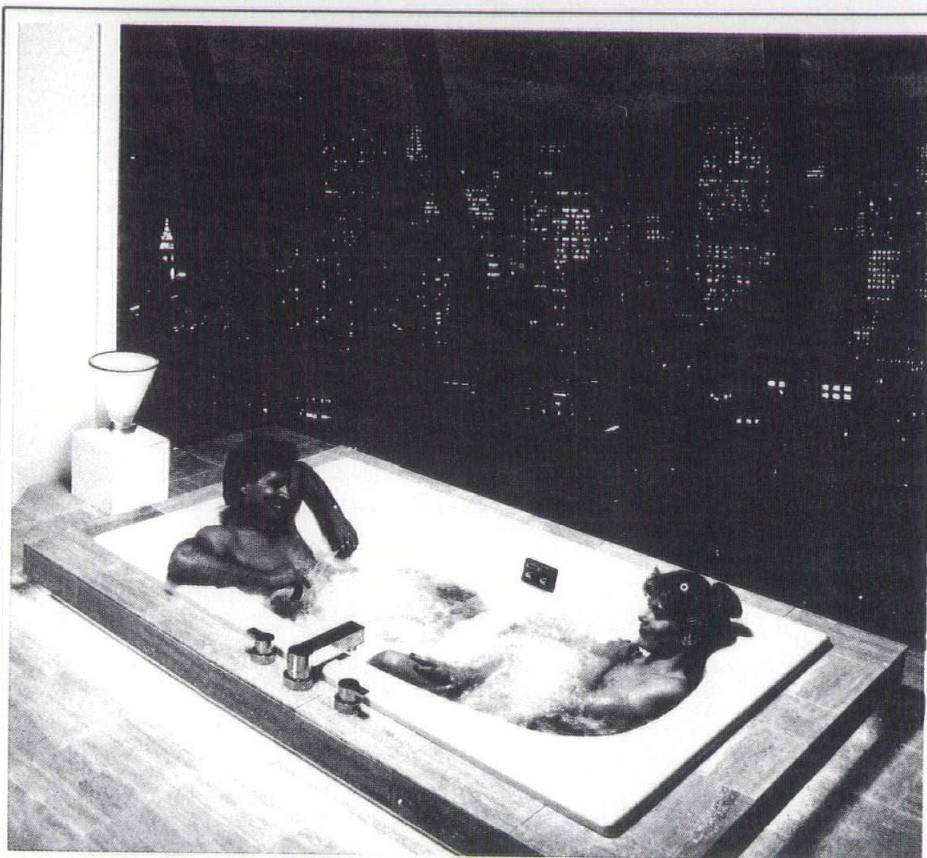
We have also done some major reorganization in the LUO, added a new subsection, "Landscaping and Screening," covering regulations applicable in all zoning districts, and clarified when parking and loading would be allowed in required yards.

We feel these proposals, which are available for public review and comment at this time, respond to those basic concerns that can be appropriately addressed by zoning. We welcome any comments or suggestions for improvements in this area as the LUO public review period progresses.

HA



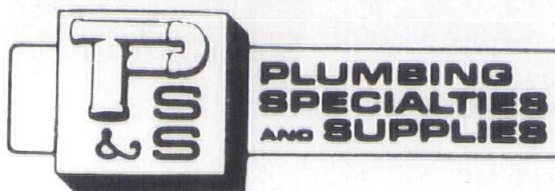
To qualify for the public open space bonus, the perimeter of the open area cannot be more than three feet above the adjoining sidewalk or public street.



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Gaps in Honolulu's Planning Procedures

by Ali Sheybani, AICP

The Honolulu general plan (GP) contains the city's social objectives and policies as solutions to functional problems relating to transportation, housing, population distribution and physical environment. The development plans (DPs) are relatively detailed schemes for implementing the physical objectives of the GP. These two documents combined form Honolulu's planning guide for public and private actions. The short experience with this planning package, completed in 1981, reveals certain gaps in the process.

The city charter requires that in preparing the DPs, the chief planning officer give the people of areas likely to be affected the opportunity to present facts and arguments relative to matters

under study. The charter fails to require the same for preparation of the GP. As a result, the people's scope of required participation is limited to the neighborhood and DP areas without a feeling of responsibility for island-wide planning issues.

While the majority of residents in each of the nine council districts has a voice in major planning decisions through the district's council member, the majority of residents polled by districts (six out of nine) does not always represent the island-wide residents' majority. Therefore, the decisions on island-wide issues have no legislative spokesperson or lobbyist. This has often led to reluctance on the part of the districts' elected officials to agree

to an island-wide referendum vote on issues that do not have the support of the majority of residents polled by districts.

The mosaic of well conceived DPs does not necessarily form a desirable island-wide plan. There are many public or private services with island-wide scope such as airports, harbors, solid waste disposal sites, hospitals, universities and shopping centers that could not be justified within any of the DP planning areas.

There is no requirement for a detailed island-wide plan to interrelate the area-wide plans. For example there is no island-wide plan showing transportation modes, routes and terminals, or a utility plan indicating the location of major facilities and their tributary areas.

While DPs provide detailed schemes for implementation of physical objectives and policies of the GP, there are no equivalent detailed programs for implementation of nonphysical objectives and policies of the GP such as economic activity, housing, health, safety, culture, recreation and education.

To improve upon the existing system of planning, the following amendments to the city charter could be considered.

1. Requiring the chief planning officer to give the people of the city likely to be affected by the GP, or GP amendments under preparation, reasonable opportunity to participate in the process.
2. Requiring the GP document to include, in addition to a residential population distribution map, long-range general maps on the circulation, public housing, employment and recreation systems.
3. Requiring all other city departments, besides the department of general planning, to prepare relatively detailed programs for implementing and accomplishing the objectives and policies of the GP. In preparing such plans the people of affected areas would be given the opportunity to participate in the process. Approval and annual amendment of such programs would be by ordinances similar to DP ordinances.

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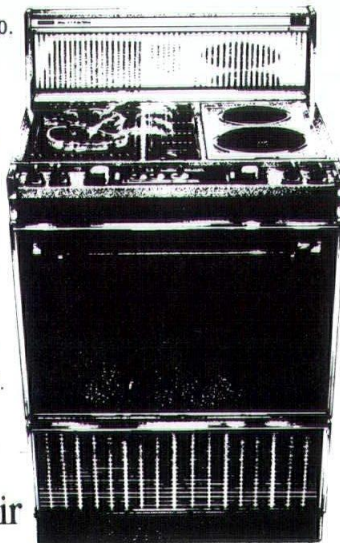
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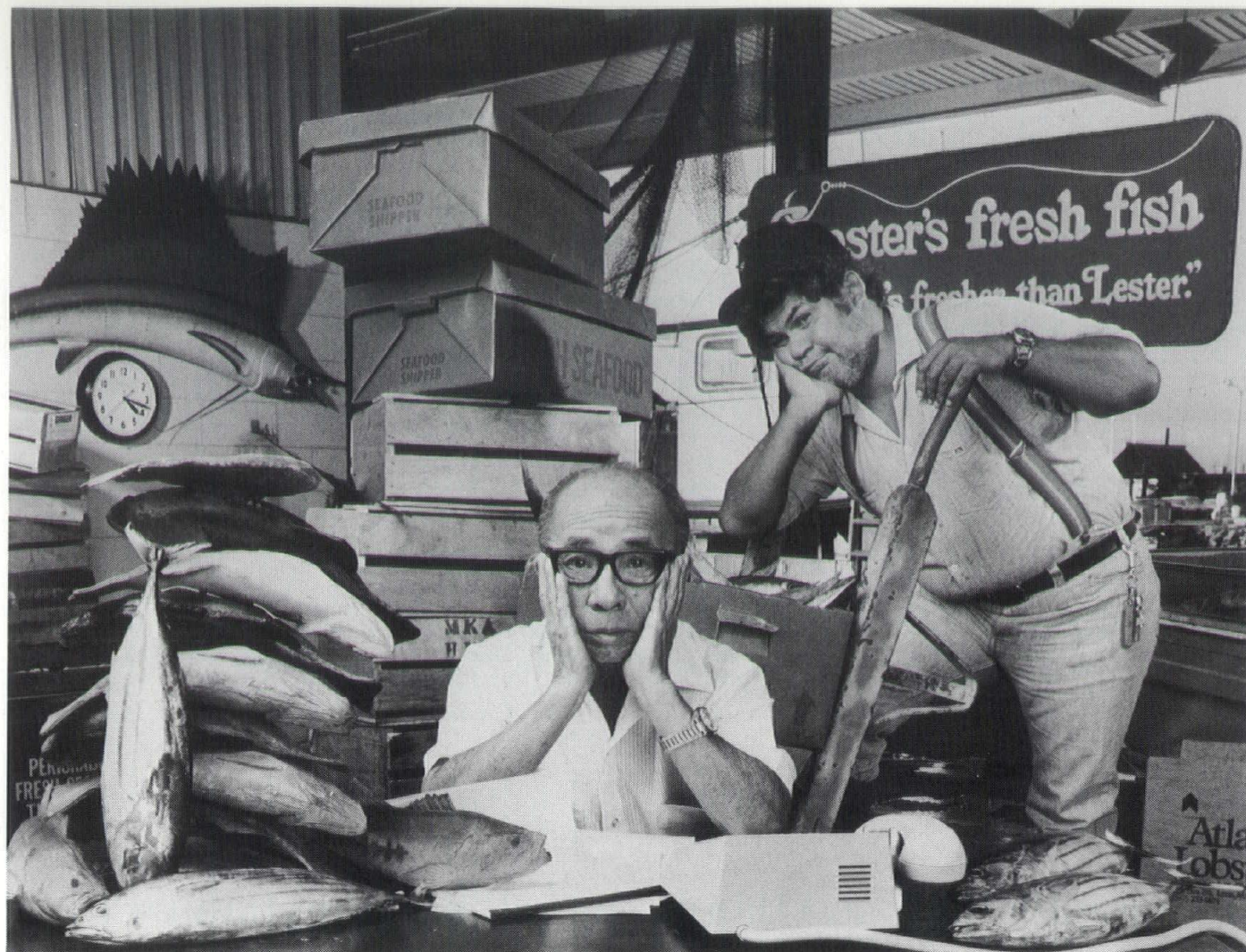
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Until recently the bathroom was the most neglected room in the house. The typical bathroom is a small room with three fittings for a bath, basin and water closet. After the kitchen, the bathroom is the most highly serviced room in the house. This results in a conglomeration of pipes that must be concealed in a small space.

When considering the planning or renovation of a bathroom, there are several basic questions that need to be asked. How many bathrooms are needed? Where should they be placed? How many people will be using each room? How much storage space is required? What activities are planned for each room—exercise, relaxing, reading, or even watching television?

Bathrooms are most in demand in the morning, when members of the family are getting ready to face the day, and at night when they are ready to crawl into bed. Therefore, the bathroom should be located near a bedroom and, ideally, each bedroom should have its own bath. If there is space and money for only one bathroom, it should be centrally located.

A bathroom should be comfortable, safe, easy to use and easy to clean. Rounded corners and streamlined surfaces simplify cleaning and reduce the risk of injury. Water is a natural hazard in the bathroom and precautions should always be taken to ensure the safety of family members, especially the young and old.

When planning a bathroom, imagination is one of the designer's best tools. A quick face lift is usually very easy to achieve. Mirrors can expand the space visually and wallcovering can add color, charm and pizzazz. Using different materials such as tile, wood or plastic laminates can give new life to an old space. Changing common fittings like cabinet handles or plumbing fixtures can also help create a new mood or style.

Today a bathroom can be anything we want it to be. With a little imagination and a knowledge of the possibilities, we can create a bathroom that is a positive pleasure instead of a functional necessity.

HA

Imagination: A Designer's Best Tool

by Rici Guild Roberts, ASID Associate Member
Philpotts, Obayashi & Associates Inc.



Today's bathrooms combine the traditional and the modern sometimes incorporating natural materials and accessories to help create the mood of the space.
Photo by Augie Salbosa

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The Evolution of the Lua **Bathrooms I Have Known**

by Vance Borland, Jr., ASID
Contract Commercial Interiors, Ltd.

It is with awe that I realize that the human race not only survived, but thrived and multiplied entirely without the benefit of a modern bathroom. I can remember in my early youth living in a then modern apartment house complete with flush plumbing, although it was shared with the other apartments on the floor and one had to go out along an outside porch hallway to get to it. I don't know how the grownups felt about it, but we kids thought the whole thing a marvel (except for the one winter we lived there).

Then comes my recollection of living in a really modern house with a complete bathroom inside. There were three adults and two children and one bathroom, but in those days we didn't know that everyone should not only have their own bedroom (including children) but preferably their own bath, at worst shared with only one person. Back then the architect left the lavatory washbasin out in the hall so that the occupants had only to wait their turn for the tub or toilet. We all thought it quite "uptown."

Now, many years later, as a designer I find that people have developed what sometimes seems to be an inordinate involvement with this facility. The questions that arise are endless. Shouldn't the husband and wife enjoy total privacy from each other? Should the tub and shower be combined or separate? Should there be an enclosed water closet? Are there enough cupboards to hold the household supply of linens? Are

there enough cabinets to hold all ointments, lotions and makeup we need to prepare ourselves for the world to see us (which now clearly includes the man of the house in the most modern lifestyles)? Where do the hair dryer, electric shaver and all the other electrical appliances plug in (and get stored when not in use)?

By the time these decisions begin to gel, the questions involving aesthetics begin to get everyone's attention. These days the first question is frequently about plants. They can hang, sit, cluster, scatter or you might just knock out a wall and add one on the outside (for privacy) so that you don't feel so confined and can contemplate the great outdoors while going through your ablutions. About this time someone realizes that a bidet has not been included in the floor plan. So it's back to square one on the floor plans because at least the plumbing should be in place in case you decide later you really need one.

Now that we have let the outside in, we are ready to consider "decorating." This involves color, of course, which in turn involves tile, paint and wallcovering, soft

lighting which will provide nice ambient light as well as task lighting, towels, art work and whatever else it may take to create a cozy, inviting atmosphere.

Following the standard dictum that "form follows function," now is the time to reflect on function itself, and how the space must perform for a particular client. We won't dwell on the most fundamental function as it seems clear to everyone involved (though it hasn't been mentioned unless someone asks about a padded seat). Let's move on to its role as reading room. This calls for a combination bookcase/magazine rack, some place for newspapers and an ashtray for those who are old-fashioned and still smoke.

Next we will consider its value as a retreat, which is a real consideration if you share a studio apartment or an open plan one-bedroom condominium. Even in larger and more standard households, it is especially important to the wife and mother that the bathroom be a place where she can escape from all her role playing and be comfortably alone. It seems no one wants an audience for a mud pack, a facial scrub, or that moment of truth when one puts both hands on a well-



Before: A standard minimal bathroom is functional but small and spare. Photo by Lowell Barnhart, ASID.



supported counter and leans into the mirror with the lights on full to assess what can be done. On the happier side, a good long bubble bath or perhaps time spent in a tub with all those jets and swirls can massage you gently into a nicer sense of reality than you left when you closed the door.

Either the architect or interior designer should have had the foresight to install a speaker, tied into the house's sound system. If not, a Walkman can be hidden among the towels. Since we are trying to soothe and please all the senses, obviously sound can't be left out entirely.

Although the magazines show slipper chairs with side tables for a wine bottle and one glass, I have never been able to manage furniture in the bathrooms of my clients. If we eliminate the bidet it might work. It is logical that there should be a comfortable place to sit while a mud pack dries.

Sinks and counters must draw our attention because they must not only be beautiful, they must work. When I was a child, my sister and I loved to watch our mother sit down at her vanity and do her

In the reworked space, a tiled double sink replaces the bathtub. A tiled shower, which opens next to the toilet, was installed in space taken from a long closet in the adjacent master bedroom. Photo by Lowell Barnhart, ASID.

makeup (in those days all powder and dry ingredients). Today's makeup products seem to be all liquids and to need the constant use of water for the process. The old pipe-supported sink wouldn't do at all. What's needed is lots of counter and a surface that bottles won't easily break against. Then, so that the working couple can get to work on time, two sinks are almost a necessity and worth every nickel for the hard feelings they save. In the evening, they can both get ready to go out for dinner at the same time with some degree of unmitigated self-attention.

Children's bathrooms need none of these niceties, and they are a place you can recover a little of the budget overrun developed in the master bath. The youngsters only need a sink with a medicine cabinet above, a one-piece shower with all curved corners for no mold

and easy wipe up by a grownup, and of course the lua itself (without a padded seat). Although this may sound merely functional, it works and saves some money for the guest bath.

The guest bath is going to be seen by others and used by "company." While it can be rather minimal both in size and function (needing only a lua and a sink), it should make a statement, even if it isn't a "theme" design. It is best that both the architect and the interior designer take this room seriously, or else our customer will pick up some of those magazines at the grocery store and do it herself.

With all the foregoing client expectations taken into account, I find it hard to understand why a client will say (when presented with the cost sheets) "How could so small a room cost all that much?" The other expensive room in a house (the kitchen) can be understood as it is a matter of providing sustenance for the family. "But for just a bathroom?" Which is when the husband decides to just put in the basics (shower, sink and lua) and fix it up later.

HA

"It seems no one wants an audience for a mud pack, a facial scrub, or that moment of truth when one puts both hands on a well-supported counter and leans into the mirror with lights on full to assess what can be done."

new members

by Lyna Burian, AIA

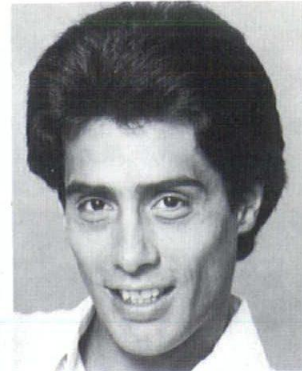
LORRIE DALTON, Associate Member, is an interior designer with Media Five Architects. She is originally from Seattle and came to Hawaii after she graduated from the University of Washington with a Bachelor of Fine Arts in Interior Design in 1975. She enjoys aerobics, traveling and gourmet cooking, not necessarily in that order.



Dalton



Kushimaejo



Lagareta

CURTIS KUSHIMAEJO, Associate Member, is a designer-draftsman at Gerald Lum, Inc. Born and raised in Honolulu, he graduated from the University of Hawaii with a Bachelor of Architecture degree in 1980. In his spare time, he enjoys photography and stained glass.

BRUCE LAGARETA, Professional Affiliate, has his own firm, Bruce Lagareta, General Contractor, with diversified services ranging from construction management and project administration to general contracting. He has an A.A. in Photo-Journalism from Los Angeles Valley College, and a B.A. in Photo-Journalism from the University of Hawaii. He also holds a Master of Science in Public Health/Communications from the University of Hawaii, and a

Journeyman's Certification by the Carpenters' Union. He was born in Los Angeles and has been in Hawaii for 16 years. He and his wife, Wendy, have a daughter, Koalani. His hobbies include woodworking, surfing, skiing, travel and medicine.

MICHAEL F. KRYNEN, Associate Member, is with Detweiler Architects and Associates. He hails from Australia and has been in Hawaii for ten years. He received his Bachelor of Architecture degree from the University of Hawaii in 1982. Among other things, he enjoys "functional" art,

including lighting design, which won him a recent award. His other hobbies include sailing, swimming, chess, photography, and a BMW motorcycle.

BENJAMIN B. LEE, AIA, is a Project Manager with M and E Pacific. Originally from San Francisco, he received his Bachelor of Architecture degree from Arizona State University in 1967 and moved to Hawaii the same year. He is married to June, and he enjoys skiing.

PHILIP D. HAISLEY, JR., Associate Member, is a Project Manager at TRB/Hawaii. He received his Bachelor of Architecture degree from the University of Hawaii in 1983 and a Bachelor of Fine Arts from the University of Colorado in 1974. He also studied at the U.S. Military Academy in West Point for two years. Originally from El Paso, Texas, he came to Hawaii in 1967. He and his wife, Victoria, have two children. His special interests range from hiking, swimming and scuba to computers, gardening and guitar.

WARREN H. CHOY, Associate Member, is also working at TRB/Hawaii. He received his Bachelor of Architecture degree from the University of Hawaii in 1980. Warren is a kamaaina, born and raised in Honolulu. His hobbies are tennis, computers and photography.



Krynen



Lee



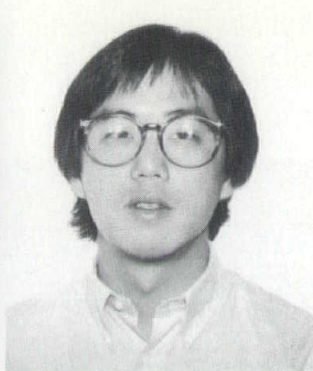
Haisley



Choy



Kim



Matsunaga

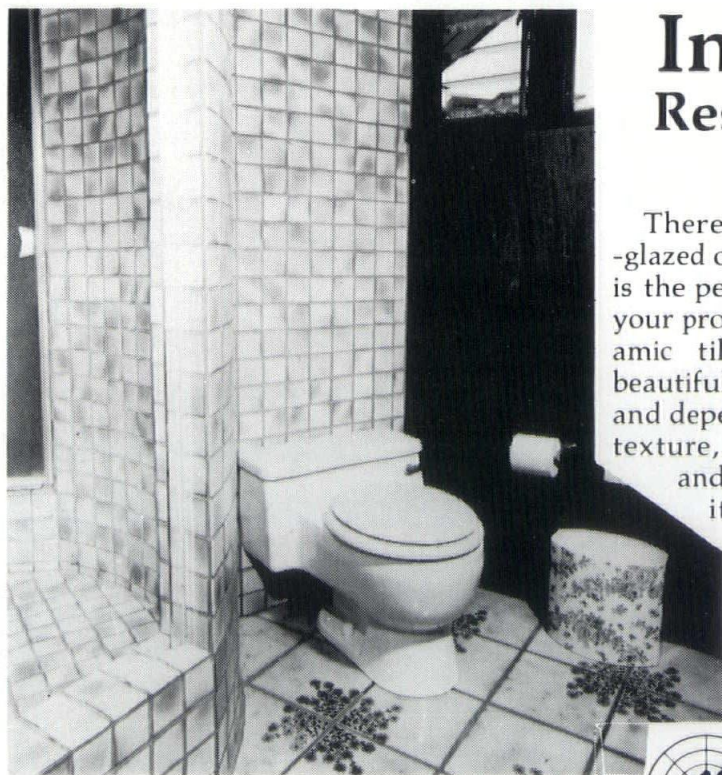
KANG MYUNG KIM, AIA, is a Project Architect with Sam Chang Architects. He is originally from Seoul, Korea, and graduated from the Yon Sei University in Seoul with a Bachelor of Engineering in Architecture degree in 1966. He and his wife, Kong Soo, have two children. He loves swimming and sketching nature.

PAUL R. RIES, Associate Member, works with Robert H. Hartman, AIA, Architect. He hails from St. Petersburg, Florida, and came to Hawaii in July 1983. He has a Bachelor of Design degree from the University of Florida and, until recently, was enrolled in the Master of Architecture program at the U.H. Paul enjoys sailing,

bicycling, photography and graphic arts.

LEE MASTERS, AIA, is one of the principals in the firm Laber, Masters, and Huxley. He received his Bachelor of Architecture degree from Arizona State University in 1972, and an Associate in Arts from the College of San Mateo in California. He is originally from the San Francisco Bay Area, and spent 10 years in Arizona before coming to Hawaii six-and-a-half years ago. His hobbies include sailing, travel and art.

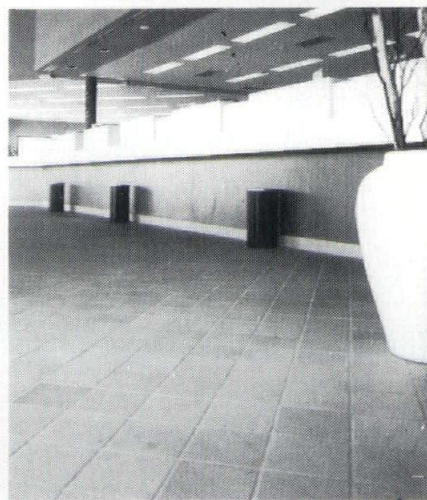
LORRINT. MATSUNAGA, AIA, is a principal with Urban Works, a newly formed architectural firm. He holds a Master of Architecture degree and a Bachelor of Arts Environmental Design degree from the University of Washington in Seattle. Lorrin is another kamaaina, born and raised in Pearl City. He worked in Seattle after his postgraduate work and moved back to Hawaii in 1982. He and his wife, Karen, have a three-year-old son. His main hobby is tennis.



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Elmer Botsai, president-elect of the Hawaii Society/AIA, accepts two checks from Steve Hidano, Building Industry Association of Hawaii representative to the National Association of Home Builders, on behalf of students in the University of Hawaii School of Architecture. The checks, for \$500 each, were presented to Botsai at a recent BIA meeting from the BIA of Hawaii and NAHB scholarship funds. Photo courtesy of BIA of Hawaii.

Students Announce First Exhibition

The ASC/AIA University of Hawaii Chapter, has announced that its first major exhibition will be held at the Hamilton Library from Oct. 7-28. The exhibition will display outstanding student work in architecture, urban design, and interior architecture.

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Sumicom, Inc., the United States marketing arm of Sumitomo Corp., has added a computer-aided-design (CAD) software package. The CAD I0 program is designed specifically for use on the Sumicom System 830 and is ideally suited for architects, interior designers and space planners, landscape designers, mechanical engineers and other professionals using diagrams and schematics.

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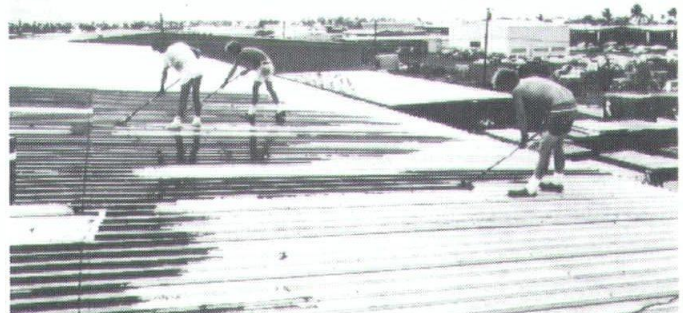
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Continued from page 21

instance, while the fundamentals of good soil preparation and nutrient levels are always important, they become more important as the need for water conservation grows. Mulches, which are often desirable for weed control and appearance, become increasingly important. Good soil preparation and extensive areas of effective mulch material increase landscape construction and maintenance budgets.

The need for more disciplined, finely tuned use of irrigation water is beneficial in several respects. It moves clients toward finding optimum water irrigation levels which may require less water than they have been applying; it

requires more use of fundamentally good construction and maintenance practices in soil preparation and use of mulches; and it encourages clients and designers to jointly develop ways to use water resources wisely and effectively. **HA**

Halekulani

Continued from page 18

or relocated. Several transplanted coconuts were estimated to be at least 60 years old. The hau trees were replaced due to their poor physical condition. Most of the remaining trees were stored and later reused in the new landscape.

Two large open courts were designed to preserve the sense of spaciousness, in contrast to maximizing building floor area. One court acts as a setting for the

the main swimming pool. Expenses of grassed lawn areas were used both to visually create openness and to function as usable outdoor spaces.

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Above all, the design of the landscape was intended as part of a total experience that was both a remembrance of things past and a vision of dreams to be fulfilled. **HA**

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The second annual Great Hawaiian Pumpkin Party, a special event for the School of Architecture at the University of Hawaii at Monoa and the U.H. Foundation, is slated for Sunday, Oct. 28 from 7 to 10:30 p.m. in the Grand Ballroom of the Pacific Beach Hotel.

The colorful costume party will include an exhibit of pumpkins carved and sculpted by U.H. architecture students, an auction of the unique and fantastical pumpkin creations, a costume contest with prizes for winners in eight categories, dancing to live music, pupus and beverages.

Admission, at \$20 a person, includes two cocktails or soft drinks, however, admission is free to children under 80 pounds who are accompanied by an adult.

Tickets may be purchased from U.H. architecture students, the Hawaii Society/The American Institute of Architects, the U.H. School of Architecture, or the U.H. Foundation. Phone 948-7225, 948-6676 or 545-4242 for more information.



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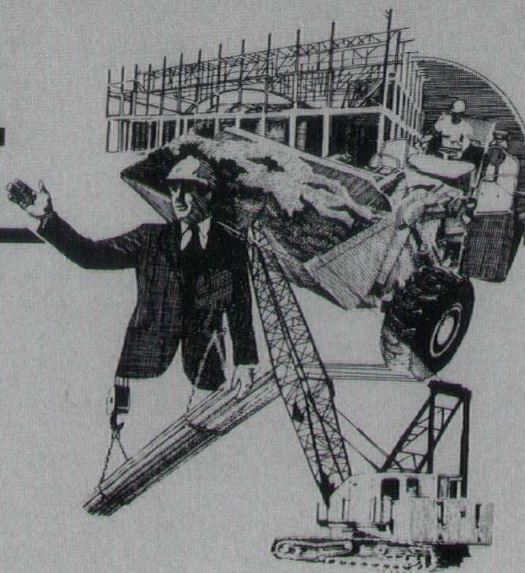
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