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THE ADMIRAL CLAREY BRIDGE RECEIVES ANOTHER AWARD

In the past few months the Admiral Clarey Bridge project has received several awards including awards from the American Society of Civil Engineers Hawaii Section and the Consulting Engineers Council of Hawaii. To follow suit the Hawaii Section of the American Society of Mechanical Engineers (HI-ASME) has also made an award to this project awarding its 1999 Project/Design Outstanding Achievement Award. Be assured that HI-ASME is not merely copying the other organizations. The Admiral Clarey Bridge project is the recipient of the 1999 HI-ASME award because it scored highest based on mechanical engineering design concept, economic feasibility, social benefits, and environmental preservation.

The mechanical engineering portion included the pontoon and transition spans using hydraulic lift units and winches and cables to provide the 650-foot-wide navigation channel in Pearl Harbor. This project rates very high for design concept and economic feasibility by meeting its goals using good innovative engineering methods to overcome unique problems. Rather than relying on the typical movable bridge drives the designer chose to develop a system that is less expensive and less difficult to maintain. The design of the hydraulic lift cylinders is also impressive. The social benefits derived from the increased accessibility of Ford Island are substantial for both the military and the civilian communities.

The Admiral Clarey Bridge project was submitted by Parsons Brinckerhoff Quade & Douglas, Inc. a member of the bridge design/build team headed by the joint venture of Dillingham Construction Pacific, Ltd. and Manson Construction and Engineering Co. of Seattle.

The Zipper Lane and Zipmobile

Officially known as the "Interstate Route H-1 Contraflow and Shoulder Lane Waiawa Interchange to Keehi Interchange," or Zipper Lane with its Zipmobile was honored as the 1999 HI-ASME Project/Design Outstanding Achievement Award runner-up. The scoring for first and second place was very close.

Everyone who lives along the Leeward Coast, Central Oahu, or the North Shore and who has to commute to downtown Honolulu daily is well aware of the Zipper Lane and Zipmobile. The Zipper Lane creates an additional traffic lane available for Honolulu-bound vehicles using a barrier transfer vehicle or Zipmobile to move the series of connected concrete barriers from their stored position. The Zipmobile lifts the barriers about 4 inches off the road during the transfer so the pavement is not damaged.

This project scored fairly high in all categories due to its effectiveness in obtaining its objectives. The design concept is simple but innovative. It is much more economically feasible than building another highway although the contraflow concept is only an interim solution. Because it eases traffic congestion and promotes carpooling, the social benefits are high. Less stop-and-go traffic translates into less pollution in the air.

Other Nominations

Also in consideration was the "Prince Jonah Kuhio Kalaniana'ole Federal Building Main Chiller Plant Renovation" project by Mechanical Engineers of Hawaii Corporation. This entry was a hold over from the 1998 competition. Entries that do not place are automatically carried over one year.

Although the design of the chilled water air conditioning system is not unique, the engineering challenge lay in the complex problems faced in order to replace the existing system and integrate new equipment for more precise control and lowered operating costs.

Also in consideration was the "Sun Power for Schools" project submitted by Hawaiian Electric Company, Inc (HECO). A three-way partnership between the HECO Utilities, the State of Hawaii Department of Education, and participating customers, "Sun Power for Schools" is a program that offers a choice to customers that want to see renewable energy alternatives, for example by using photovoltaics.

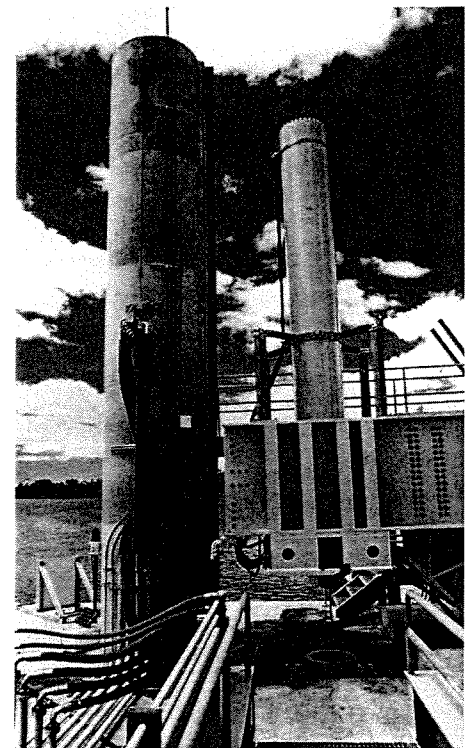
For this project, the social benefits of photovoltaic power installation lay in the increased awareness by school children and school personnel to the concept of renewable energy and how technology affects our lives in more ways

than video games and on-line purchasing. The use of renewable energy scores well in respect to environmental preservation. However, photovoltaic power sources are not yet cost effective for grid-connected systems.

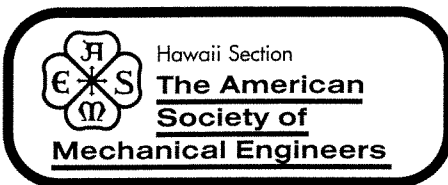
Judges

Three HI-ASME members served as judges. They included Ronald M. Flegal, Associate Professor, Engineering at Leeward Community College; James F. Grogan, retired and Director of HI-ASME; and Chester Kaitoku, Building Division, Department of Planning and Permitting, City & County of Honolulu, and current HI-ASME Chairman.

The Hawaii Section of the American Society of Mechanical Engineers holds this outstanding mechanical engineering project/design competition annually. Nominations are accepted up to April 30 of each year. Parsons Brinckerhoff for its role in the Admiral Clarey Bridge and The State of Hawaii Department of Transportation Highways Division for the "Zipper lane and Zipmobile" projects receive plaque awards to proudly display to the public.



Hydraulic lifts transition spans to permit pulling pontoon under fixed bridge.



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