

Design and Environmental Awards 1985

Winners of the 1985 Chief of Engineers Design and Environmental Awards Program were announced Dec. 12 in Washington, D.C.

Twenty-four Corps of Engineers projects were selected for awards by juries of distinguished professionals in the respective design disciplines. Ninety-eight Corps projects were entered in the worldwide competition.

Recently completed civil works and military construction projects

were eligible for entry in four competition categories: architecture, engineering, landscape architecture, and environment. Entries judged worthy of national recognition received one of three awards: honor award, award of merit or honorable mention award.

An honor award is given at the jury's discretion for a truly exceptional design or environmental accomplishment. An award of merit recognizes outstanding design or

environmental achievement. An honorable mention award may be presented to recognize a superior feature or concept of a project which would not otherwise qualify for an award.

The Chief of Engineers Design and Environmental Awards Program was begun in 1965 to recognize excellence in design and environmental achievement related to recently completed structures or area developments by the Corps of

Engineers and their professional design contract firms.

The program is part of the Army's support of the Federal Design Improvement Program and provides an incentive for design and environmental professionals to develop projects which exhibit excellence in function, economy, resource conservation, aesthetics and creativity, while being in harmony with the environment. The next competition will be held in 1987.

Landscape Architecture

Honor Award: Indian Bend Wash, Scottsdale and Tempe, Ariz. Design Firm: Cella, Barr, Evans and Associates. Design Agency: Los Angeles District.

This 7.5 mile-long floodway is an intricate combination of functional features designed to satisfy the health, safety, and recreational needs of the general public.

The design processes used to meet these needs include hydraulic design for flood control; landscape and environmental design to satisfy the demand for recreation facilities; and project beautification. Local residents and the Corps of Engineers developed the concept.

Jurors' comments: *The general feeling of grading, planting, watershed control, lighting, and graphics is excellent. This 7.5 mile greenbelt in a high-growth metropolitan area will someday be as important to Scottsdale-Tempe as Central Park is to New York City.*

Award of Merit: Chaplin River Local Flood Protection Beautification, Perryville, Ky. Design Agency: Louisville District.

This project called for beautification of a local flood protection project. A concrete retaining wall was designed to contain the Chaplin River enabling trees and land to remain intact. Land next to the redevelopment area became a pedestrian promenade, an unanticipated concept that delighted local sponsors and historic preservation interests.

Jurors' comments: *Operating within a tight budget, this project is a magnificent catalyst for future development excellence in the heart of a rural community.*

Honorable Mention Award: David W. Harris Riverfront Park, Huntington, W. Va. Design Firm: Ridenour Associates, Inc. Design Agency: Huntington District.

This plan provided for development of a public park on the river-



Honor Award: Indian Bend Wash



Award of Merit: Chaplin River Local Flood Protection Beautification

side of a floodwall.

Jurors' comments: *The jury endorsed in total the riverside simplicity of the grass slopes and amphitheatre including the entire upper level walkway.*

Honorable Mention Award: Chena Lake Recreation Area, Fairbanks, Alaska. Design: Alaska District and Portland District. Design Agency: Alaska District.

Chena Lake Recreation Area is a 2,178 acre multi-purpose recreation facility located 20 miles from Fairbanks, Alaska, on the Chena River.

Jurors' comments: *The big picture is fantastic here. In particular, the new peninsula seems quite*

handsomely done.

Honorable Mention Award: Long Shoal Public Use Area, Harry S. Truman Dam and Reservoir, Warsaw, Mo. Design Firm: Howard Needles Tammen & Bergendoff. Design Agency: Kansas City District.

Keeping the forest cover and terrain features while providing varied recreational facilities for the visitor were the main emphasis of this project.

Jurors' comments: *An excellent example of a threshold project-what the Corps should be doing as a baseline as it strives for and achieves excellence.*

Landscape Architecture jury members: John L. Wacker, presi-



Honorable Mention Award: Long Shoal Public Use Area



Honorable Mention Award: Chena Lake Recreation Area



Honorable Mention Award: David W. Harris Waterfront Park

dent and fellow, American Society of Landscape Architects, Weston, Mass.; Neil Porterfield, chairman, Department of Landscape Architecture, Pennsylvania State University, University Park, Pa.; and Stuart O. Dawson, principal, Sasaki Associates, Inc., Dallas, Texas.

Environment

Honor Award: Wilson Gaillard Disposal Island, Mobile County, Ala. Design: Mobile District and U.S. Army Engineer Waterways Experiment Station. Design Agency: Mobile District.

The 1,300-acre Wilson Gaillard Island project lies three miles offshore in Mobile Bay. It's a three-sided, diked containment island.

Jurors' comments: *The outstanding environmental features of this project are its use of dredge materials in a manner that is creative and useful, the stabilization of the island by vegetation, and the establishment of a marsh environment for the endangered Brown Pelican.*

Award of Merit: Spirit Lake Outlet Tunnel, Mount St. Helens, Wash. Design Agency: Portland District.

Hydrology considerations governed the tunnels minimum size and the gate capacity for the intake.

Jurors' comments: *Spirit Lake was created by a dam of debris from the volcanic explosion of Mount St. Helens. The tunnel has apparently solved a potentially dangerous environmental problem.*

Award of Merit: Eagles Roost Area Bank Stabilization, Pickstown, S.D. Design Agency: Omaha District.

The purpose of this project was to preserve the natural roosting habitat for wintering bald eagles.

Jurors' comments: *The completed project was effective in preserving the eagle roost and at the same time created a shoreline with an almost*

natural appearance.

Award of Merit: Indian Bend Wash, Scottsdale and Tempe Ariz. Design Firms: RGA Consulting Engineers and the Department of Botany and Microbiology, Arizona State University. Design Agency: Los Angeles District.

See Landscape Architecture Honor Award, page three for project description.

Jurors' comments: *This project is an integrated solution to flooding in a highly urbanized environment. The greenbelt portion of the floodway is a series of recreational areas. Native and tolerant plants were selected to provide shade and erosion control.*

Honorable Mention Award: Chief Joseph Dam Cultural Resources Program, Chief Joseph Dam, Wash. Design Firms: Office of Public Archaeology, Institute for Environmental Studies, University of Washington, and Central Washington Archaeological Survey, Central Washington University. Design Agency: Seattle District.

The project's main contributions were intensive cooperation with local Indian tribes, application of state-of-the-art remote sensing methods, and thorough understanding of prehistoric land use.

Jurors' comments: *Before the dam was completed, known archaeological sites were identified and studied and new sites were discovered and excavated.*

Honorable Mention Award: Documentary Film Program, Warm Springs Dam and Lake Sonoma, Sonoma County, Calif. Design Firm: Film Forms, Inc. Design Agency: San Francisco District.

Two films address this project. The first documents the numerous environmental concerns of the project and how they were addressed. The second film documents how biologists, archaeologists, and native Americans working on resource management problems carried out environmental programs.

Jurors' comments: *The films are used at the Visitors Center. They contribute to greater environmental appreciation and protection of resources.*

Environmental jury members: Kent J. Blumenthal, executive secretary, National Society of Park Resources, National Recreation and Park Association, Alexandria, Va.; Shelby D. Gerking, Ph.D., president-elect, American Fisheries Society, professor emeritus, Department of Zoology, Arizona State University, Tempe, Ariz.; and William L. Mills, Ph.D., member, Council on Environmental Quality, Executive Office of the President, Washington, D.C.



Honor Award: Wilson Gaillard Disposal Island



Honorable Mention Award: Chief Joseph Dam Cultural Resources Program



Award of Merit: Indian Bend Wash



Award of Merit: Eagles Roost Area Bank Stabilization



Honorable Mention Award: Documentary Film Program, Warm Springs Dam



Award of Merit: Spirit Lake Outlet Tunnel

Engineering

Honor Award: Warm Springs Dam, Sonoma County, Calif. Design Agency: San Francisco District.

This project provides water supply, flood control, hydroelectric power, and lake recreation. In order to provide greater stability from earthquakes, engineers sank a 307-foot control shaft into the hillside north of the dam's left abutment and drilled the outlet tunnel on a curved alignment designed to follow the soundest rock.

Jurors' comments: *The final design of a 319-foot high, rolled-earth dam was selected for its state-of-the-art solution to a complex foundation problem that had to account for the unpredictable forces of nature. Also noted is the forthright approach to legal, political, and design and construction challenges.*

Award of Merit: Richard B. Russell Dam and Powerhouse, Savannah River, Ga., and S.C. Design: Mobile District. Design Agency: Savannah District.

This project was designed for hydropower, flood control, recreation, and a potential water supply. The concrete dam portion of this project is a 195-foot high by 1,884-foot long gravity structure. The powerhouse has four 75-megawatt turbine generating units.

Jurors' comments: *This project was selected because it blends a solution to hydropower and flood protection requirements along with the need to provide a structure that is in harmony with the surrounding area.*

Award of Merit: Tennessee-Tombigbee Waterway Divide Cut, Tishomingo County, Miss. Design Agency: Nashville District.

More than 156 million cubic yards of material representing about 50 percent of the total excavation for the entire waterway were removed from this section.

Jurors' comments: *This is recognized as an immense and complex project which will provide great economic benefit to the region.*

Award of Merit: Tank Prewash Facility, Fort Polk, La. Design Firm: S.E. Huey Co. Design Agency: Fort Worth District.

This project includes two complete vehicle wash facilities along with settling and water supply lagoons, and all associated paving and site work.

Jurors' comments: *This is a cost-effective project, simple in execution, but resource conscious.*

Honorable Mention Award: Shuttle Assembly Building, Vandenberg Air Force Base, Calif. Design Firm: Bechtel National, Inc. Design Agency: Sacramento District.

The Shuttle Assembly Building is a 23-story high-bay, inverted U-shaped, steel-framed structure.

Jurors' comments: *This project represents a complex application of fundamental engineering principles.*

Honorable Mention Award: Wood Burning Plant, Fort Stewart, Ga. Design Firm: Rust International Corporation. Design Agency: Savannah District.

The Wood Burning Plant generates up to 96,000 pounds per hour of 400 degree F saturated steam from burning wood waste.

Jurors' comments: *This project was recognized as innovative, cost-effective, energy conservative, and environmentally sound.*

Honorable Mention Award: Grafenwoehr Range Upgrade Program, Grafenwoehr, West Germany. Design Firm: Louis Berger GMBH. Design Agency: Europe Division.

This program represents a 20-year leap in targeting technology. It uses computer controlled moving and pop-up target systems.

Jurors' comments: *This project represents the state-of-the-art in target technology, and also recognizes the sensitive political implications of projects in West Germany. The use of engineer troops in constructing this project was outstanding.*

Honorable Mention Award: Floating Ice Control Structure, Oil City, Venango County, Pa. Design Consultant: U.S. Army Cold Regions Research and Engineering Laboratory. Design Agency: Pittsburgh District.

This structure is on the Allegheny River, 2,000 feet upstream from the confluence of the river and Oil Creek.

Jurors' comments: *An inexpensive solution to a complex problem that provides major benefits to the city and county.*

Engineering jury members: Robert D. Bay, president, American Society of Civil Engineers, Black and Veatch Engineers and Architects, Kansas City, Mo.; Arnold L. Windman, president, American Consulting Engineers Council, Syska and Hennessy Inc., New York, N.Y.; Paul E. Pritzker, president, National Society of Professional Engineers, George Slack and Pritzker Associates, Quincy, Mass.



Honor Award: Warm Springs Dam



Award of Merit: Tank Prewash Facility



Award of Merit: Richard B. Russell Dam and Powerhouse



Award of Merit: Tennessee-Tombigbee Waterway Divide Cut



Honorable Mention Award: Shuttle Assembly Building



Honorable Mention Award: Grafenwoehr Range Upgrade



Honorable Mention Award: Wood Burning Plant



Honorable Mention Award: Floating Ice Control Structure

Architecture

Honor Award: Child Care Center, Fort Bragg, N.C. Design Firm: Ferebee, Walters & Associates, P.A. Design Agency: Savannah District.

The child care center provides full child care and development services for Army children. Individual care modules are tailored to the age group or type of development program required. Included are development and care modules for full day, half-day, or after-school and hourly drop-in programs accommodating children from six weeks to 12 years of age.

It accommodates a total of 167 children with approximately 22 staff persons. Architectural response emphasizes the discrete nature of the individual care modules. Each is given its own identity through scale and color scheme. Modules are grouped within the building according to age and time of operation. All equipment and furnishings are sized for the age group using the particular care module.

Jurors' comments: *This project has a wonderful residential scale and character for expression of a child care center. It has a proper sense of place. Arrival points are expressed well. The site plan is thoughtful and considerate of the existing environment. The architectural expression reduces the scale to an intimate homelike space.*

Award of Merit: Richard B. Russell Powerhouse, Savannah River, Ga. and S.C. Design Firm: Gatje Papachristou Smith and Mobile District. Design Agency: Savannah District.

The powerhouse was designed to provide a unique experience for the visitor. It features a glass enclosed promenade deck leading to a visitation overlook at the spillway and an elevator access from the generator floor to the dam's top. A spiraling upper and lower terrace leads to a platform and walkway. Space is devoted to providing visitors with an active experience.

The basic architectural theme of the project is a controlled dramatization of the essential qualities of a powerhouse: the technological reason for the powerhouse, the sequen-

tial nature of its internal organization, and its overall configuration. These qualities are expressed in the architectural design.

Jurors' comments: *Although this project is unusual architecture and might be considered more engineering than architecture, it combines the sciences and art of each discipline. Coping with the environment to provide energy, we are impressed with the integration of humanistic qualities within a utilitarian project.*

Honorable Mention Award: Greers Ferry Visitor Center, Greers Ferry Lake, Little Red River, Cleburne County, Ark. Design Firm: Cromwell Truemper Levy Parker & Woodsmall Inc. Design Agency: Little Rock District.

This project was built to accommodate a substantial annual increase of visitors to a large, rural lake and regional recreational facility that was already developed. The visitor center serves two purposes. It provides administrative office space for Corps personnel, and provides facilities for exhibit displays and program presentations highlighting the regional history and development from prehistoric times to the present.

Jurors' comments: *We were impressed with the use of natural materials both inside and out, and the clean integration of solar collectors.*

Honorable Mention Award: Alert Facility (Energy Conservation subcategory), Fairchild Air Force Base, Wash. Design Firm: Environmental Concern, Inc., P.S. Design Agency: Sacramento District.

The Alert Facility building required a single-story design for immediate exit without the impediment of stairs or ramps. The building houses 64 tanker alert crew members in 32 rooms. It's used 24 hours a day. Because of the earth-sheltered design, landscaping is used to prevent erosion. Located on a direct north-south axis the building takes advantage of solar energy.

Jurors' comments: *This earth-bermed and concrete solution satisfied the strong program requirements for a windowless, high security, and low noise level living environment adjacent to active Air*



Honor Award: Child Care Center



Award of Merit: Richard B. Russell Powerhouse

Force base runways.

Honorable Mention Award: Personnel Service Center (Interior Design subcategory), Robins Air Force Base, Ga. Design Firm: Cooper Carry and Associates, Inc. Architects, and W.C. Morgan & Associates, Inc. (Interior designers). Design Agency: Savannah District.

The project consists of a consolidated facility for various military and civilian personnel functions.

Jurors' comments: *There is a good integration of interior architecture which compliments the overall building design. The use of brick in the interiors provides a continuity of materials which creates a pleasant inside/outside design solution. The*

introduction of natural light through clearstory windows further reinforces this concept. The compatible furniture and colors integrate well.

Architecture jury members: John A. Busby Jr., president and fellow, American Institute of Architects, Jova/Daniels/Busby Architects, Planners, Interior Designers, Atlanta, Ga.; Robert E. Gramann, national vice president, American Institute of Architects, GBBN Architects, Cincinnati, Ohio; R. Bruce Patty, past president and fellow, American Institute of Architects, Patty Berkebile Nelson Associates, Inc., Kansas City, Mo.



Honorable Mention Award: Personnel Service Center



Honorable Mention Award: Alert Facility



Honorable Mention Award: Greers Ferry Visitor Center