



USAF DESIGN AWARDS PROGRAM

18TH USAF DESIGN AWARDS PROGRAM



"Congratulations to this year's winners! These award winners reflect the myriad of services we provide our customers and represent the level of quality we seek for all Air Force projects. They set the standard for excellence by improving our installations so we can carry out our Air Force mission more effectively. The winning entries clearly demonstrate an ability to influence the character and quality of our installations. They emphatically foster the image of the Air Force as a powerful, progressive and highly technical aerospace force committed to peace through strength. They also portray the integration of our technical and artistic knowledge with Air Force requirements to produce facilities and installations that are aesthetically attractive, technically sound, and compatible with the environment.

We should build on the success of these projects by capturing the team spirit that led to their excellence and apply these principles to all of our base improvement efforts. I therefore challenge the design community to apply the highest professional standards of excellence so that we can continue to improve our facilities and the quality of life for Air Force people worldwide."

A handwritten signature in blue ink that reads "Jim McCarthy". The signature is stylized and includes a long, sweeping flourish at the end.

James E. McCarthy
Major General, USAF
The Civil Engineer

This Annual Report marks the eighteenth year of the USAF Design Awards Program which was established in 1976 to recognize and promote design excellence. The Air Force sets no limits on the number or type of projects that can compete each year. There are seven project award categories. These include Planning and Urban Design, Housing Community Plans, Design Concepts, Interior Design, Facility Design, Adaptive Reuse, and Completed Military Family Housing.

This year the Planning and Urban Design and Housing Community Plan submittals were reviewed by a distinguished jury, composed of two members of the American Institute of Architects, one representative from the National Association of Home Builders, and one representative from the American Planning Association. One of the AIA members on this jury is also a member of the American Institute of Community Planners. Interior Design submittals were reviewed by two members of the Council of

Federal Interior Designers and one member of the Institute of Business Designers. All other categories were reviewed by the Architectural/Engineering Jury composed of three members of the American Institute of Architects, one Registered Professional Engineer representing the Society of American Military Engineers, and an architectural historian from the National Park Service.

With the selection of this year's award winning projects, the Air Force has honored over ninety-five completed projects, over seventy-five concept projects, seventeen planning projects, and eighteen interior design projects since the program began.

The Air Force Design Awards Program is a viable and important program which has become institutionalized within the Air Force. It is widely recognized throughout the federal government and is supported by the enthusiastic participation of notable professionals in the private sector.

CONCEPT DESIGN *Honor Awards*

Rehabilitation of Building 32
Wright-Patterson Air Force Base, Ohio
Fire Station and Gate House
Burlington International Airport, Vermont

FACILITY DESIGN *Honor Awards*

Composite Dining/Medical Facility
133rd Airlift Wing, St. Paul, Minnesota
C-130 Regional Simulator
133rd Airlift Wing, St. Paul, Minnesota

PLANNING AND URBAN DESIGN *Merit Award*

Visitor Center Landscaping
United States Air Force Academy, Colorado
AFMC Long Range Planning, Facility Infrastructure,
and Facility Quality Program

INTERIOR DESIGN *Merit Award*

Renovation of Lobby/Bookstore
Wright-Patterson Air Force Base, Ohio

CONCEPT DESIGN *Merit Awards*

Osan American High School
Osan Air Base, Korea
Upgrade Wherry Housing, Phase III
Kelly Air Force Base, Texas

CONCEPT DESIGN *Citation Awards*

Wastewater Treatment Plant and Force Mains
Cape Canaveral Air Force Station, Florida
Improve Appropriated Military Family Housing
Mountain Home Air Force Base, Idaho

COMPLETED MILITARY FAMILY HOUSING *Citation Award*

Page Manor Military Family Housing, Phase IV
Wright-Patterson Air Force Base, Ohio

PLANNING AND URBAN DESIGN *Citation Award*

Guide to Installation Excellence
United States Air Force Academy, Colorado

C O N C E P T D E S I G N *Honor Award*

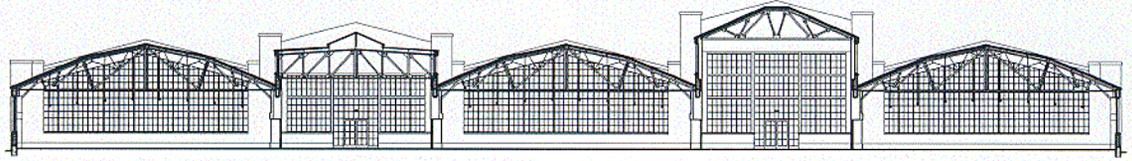


Rehabilitation of Building 32
Wright-Patterson Air Force Base, Ohio

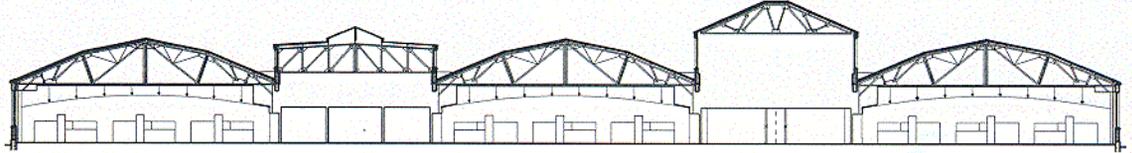
Design: KZF, Incorporated
Command: Air Force Materiel Command
Unit: 645th Civil Engineer Group

Jurors' comments:

"Preserves historic features while allowing new functional use."



Very true to original design."

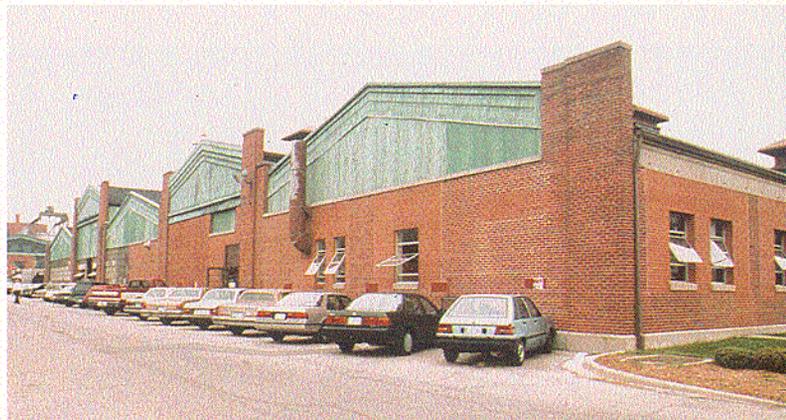


This renovation project successfully converts an old industrial facility into a modern office environment while restoring the character of the original building. It will serve as a transitional work area for personnel assigned to special projects. The generic work area provides efficient work space for 300 persons and is designed with the flexibility to accommodate changing missions. Building 32 was one of the original facilities constructed at Wright Field in 1927, when it served as an aircraft repair shop. The building has potential as a National Historic Landmark, and therefore requires restoration under the guidelines of the Secretary of Interior's Standards for Historic Preservation, the Ohio State Historic Preservation Office, the Base Historic Preservation Office, and the Historic Rehabilitation Recommendations report.

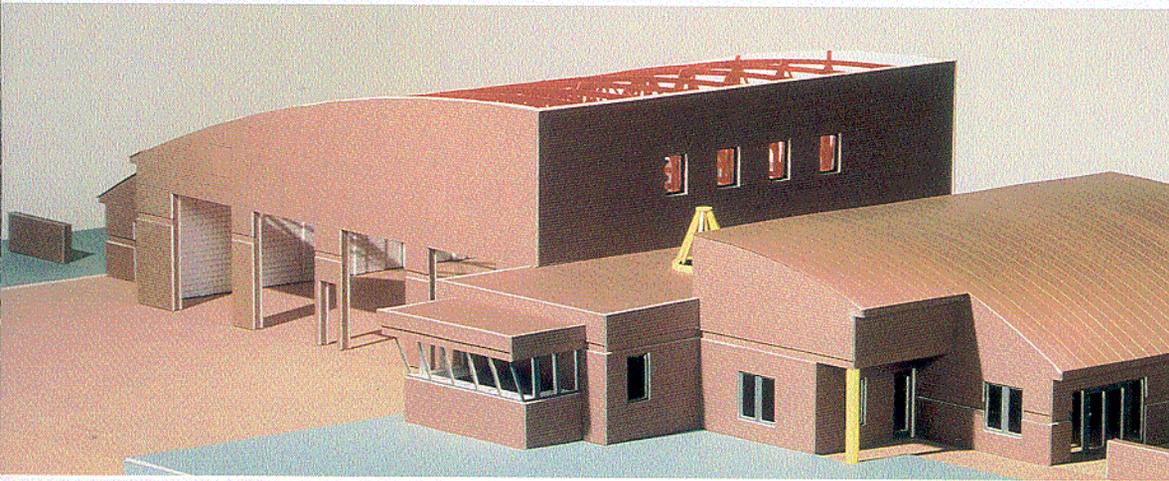
The facility is composed of five high bays, three of which are spanned by camel-back trusses. Two smaller but higher bays are situated between. The large clear spans of the three larger bays lend themselves to the proposed open office plan with its inherent flexibility. The two smaller bays are utilized for common use spaces such as conference rooms, copy rooms, and other support areas. Some of the original trusses will remain uncovered and will be painted an accent color. A central circulation corridor provides easy access to the office area while providing a convenient passageway through the building. Restrooms are located off this corridor.

Although the original structure was built in phases, each design phase respects the design features established in previous stages. Sixty years of uncoordinated alterations compromised the design integrity, leaving a variety of mismatched elements. Each phase will be restored to reflect its historic past. Over the years, the original steel sash windows were removed, and the openings infilled with brick and smaller windows. These openings will be restored to their original design using new steel sash windows with interior storm windows. The Art Deco entry which was added to the west facade will be restored to its original appearance, and the original roof vents will be restored to their original condition and color. Minor changes to the exterior of the building are necessary to accommodate the new functions. These changes are consistent with the original design features and comply with the Secretary of Interior's Standards for variance.

Before



C O N C E P T D E S I G N *Honor Award*



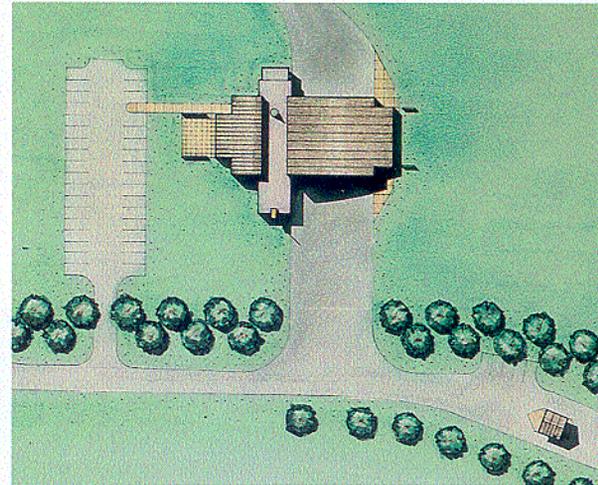
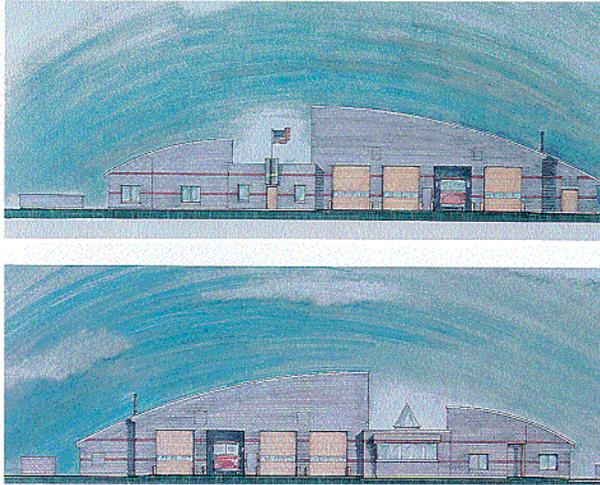
Fire Station and Gate House
Burlington International Airport, Vermont

Design: Smith Alvarez Sienkiewicz Architects
Command: Air National Guard Readiness Center
Design Agent: US Property and Fiscal Office, Vermont
Unit: 158th Civil Engineer Squadron

Jurors' comments:

*"Compliments the nearby
1930's hangars, borrowing
complementary forms.*

*Excellent handling of
scale between different
functional areas."*



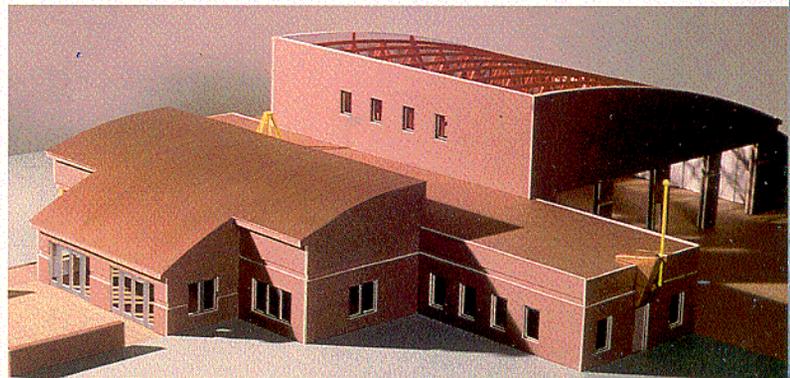
Reminiscent of the curved roof aircraft hangars which were the first buildings on the Vermont Air National Guard Base, the proposed Fire Station and Gate House create a visually powerful focal point at the entrance to the base. The simple but powerful exterior forms evoke the character of military airfields and reflect the dual nature of the building program, yet still maintain a human scale. Its prominent siting conveys a strong public visibility, being it is the first building seen upon arrival.

The Fire Station houses crash, fire and rescue equipment and provides administrative, training, maintenance and living areas for assigned fire fighters. The station will serve the base, Burlington International Airport, and the surrounding community. It will also function as a training facility for military personnel. The nearby Gate House will be the primary entry point to the base.

The Fire Station is sited parallel to the base entry road. The sweeping curved roofs of the building are broken to delineate the separate functional areas within the structure. The curved volumes contain the major building spaces such as the apparatus room, while the flat-roofed connecting element contains service spaces, such as offices, locker rooms and the bunk room. The raised control room is located at the end of this element providing a commanding view of the airfield, while on the opposite end a flag-pole marks a visual terminus to the access drive. Simple, durable exterior materials were selected which are compatible with other base facilities. The main entry to the building is deliberately understated since it is not a public facility. The apparatus room is organized to allow trucks to respond to emergency calls in both directions since the station provides fire protection to both the base and to surrounding communities. The interior materials are durable and tolerant of the local environment. Painted steel

trusses support a galvanized metal ceiling which reflects daylight throughout the space. The central location of the apparatus room allows adjacency requirements to be met without using a second floor. Energy efficiency is greatly enhanced in the apparatus room by an infrared heating system and an automatic exhaust system individually designed for the apparatus.

The modest Gate House matches the materials used in the Fire Station and works with the larger building to create a new and distinctive entrance to the base.



FACILITY DESIGN *Honor Award*



Composite Dining/Medical Facility
133rd Airlift Wing, St. Paul, Minnesota

Design: The Alliance, Incorporated
Command: Air National Guard Readiness Center
Unit: 133rd Civil Engineer Squadron

Jurors' comments:

"Excellent proportions;

major functions of

building are effectively

articulated. Very well

detailed building with

consistent scale."



This project provides a new facility which consolidates all functions of the old Dining Hall and Medical Squadron into a distinctive single, 22,900 SF building. The two story Medical Training wing provides space for physical examinations, immunizations, and laboratory work of unit members, storage of flight readiness items, and a repository for medical records. Training classrooms and offices are also included in this wing. The Dining Hall portion of the facility is the primary eating facility on the base and is capable of serving up to 1,500 meals on Unit Training Assembly weekends.

The building is sited close to a mature stand of oaks and is on axis with the new Base Administration Building. Additional landscaping has been added to enhance existing plant material and screen undesirable views. The entry plazas and the outdoor dining areas are spatially delineated through the use of landscape material. The facility respects established architectural compatibility standards of the base through appropriate proportions, color and materials. The dichotomy between the medical and dining functions housed in the building is expressed in the form of the facility. These two totally different functions are linked by an enclosed arcade, which provides a circulation spine linking the diverse functional areas.

The Dining Hall component features a scatter system servery adjacent to a large, open dining area accented by a large glass window. This window integrates the outdoor dining area while individual windows allow the penetration of natural light. The Medical Training component is served by an interior corridor which wraps around and through the medical functions of the building and doubles as waiting and processing space. While this level has few windows, the upper level provides commanding views from the offices and classrooms.

The design successfully reflects the tradition of the Wing as a cohesive unit comprised of diverse groups working toward a common goal.



FACILITY DESIGN *Honor Award*



C-130 Regional Simulator
133rd Airlift Wing, St. Paul, Minnesota

Design: RSP Architects, Incorporated
Command: Air National Guard Readiness Center
Unit: 133rd Civil Engineer Squadron

Jurors' comments:

*"Curved windows
articulate the activity
within. Relates
well to other facilities
and to the site.*

"Elegant details."



This facility houses the flight simulator for the Air National Guard Western Region in support of the C-130 training mission. The facility effectively meets the original project goal by enhancing the base entry, strengthening base identity, providing first-rate aesthetic and functional quality, reinforcing high-tech missions, and accommodating potential simulator upgrades and expansion.

The Simulator Facility is the first building seen as one enters the base along the curving drive from the gate house. In conjunction with the nearby Composite Support Building, the Simulator Facility reflects the base facility standards with its generous street setbacks, earth-tone brick, abundant green open space, and screened parking. The building is a simple composition of masonry masses of varying height. The functions within are emphasized by the massing, the height variations, and vertical reveals between elements. The various masses are tied together by horizontal brick reveals, precast concrete coping and window sills, and putty-colored aluminum window frames. The building projects a stable, clean character with visual interest created by massing and attention to detail.

The simulator bay, with its prominent corner location, height, and curved glazing, draws the attention of each visitor entering the base. The large glazing permits an immediate view of the state-of-the-art simulator. With its prime location and the simulator in operation 16 to 20 hours per day, the facility clearly announces the mission of the base. This clear view of the simulator continues within the facility, again emphasizing the bases training mission.

The simulator bay, while essentially sized for the current C-130 simulator, utilizes curved glazing areas on all four sides to provide additional volume to accommodate larger simulators or graphics modules. The curved glazing in one exterior wall is designed as a knockout panel for easy removal and replacement of the simulator. A gravel roadway is installed under the sod to provide vehicular access to this panel. The facility is designed to accommodate a second simulator by simply mirroring the building.



PLANNING AND URBAN DESIGN *Merit Award*



Visitor Center Landscaping
United States Air Force Academy, Colorado

Design: Thomas and Thomas Planning, Urban Design,
Landscape Architecture, Incorporated

Command: United States Air Force Academy

Unit: 54th Civil Engineer Squadron

Jurors' comments:

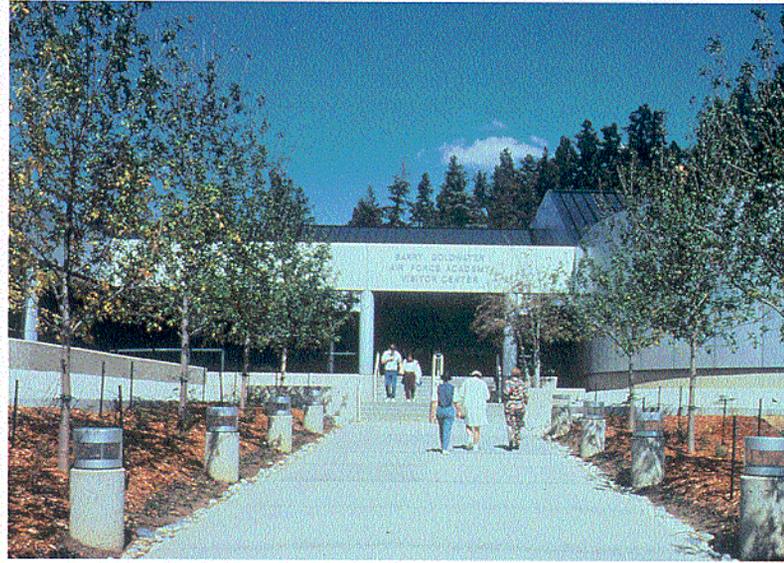
"Good transferable design. Sensitive treatment in integrating existing topography. Effectively ties parking areas to the building."

The United States Air Force Academy Visitor Center is the most frequently visited man-made facility in the state of Colorado, and for most guests provides their first impression of the Academy. The majority of visitors park at the Visitor Center and walk along the trail to the Chapel and Cadet Area.

The original siting of the Center created extremely steep and eroded slopes between the parking lot levels. The appearance of the area was stark, unappealing, and lacked visual focus. There were no directional queues for visitors, and the area lacked plant material and color. This project successfully addresses both the functional and aesthetic problems associated with the original design.

After a thorough site analysis, four alternative design concepts were developed to address the problems, opportunities and constraints of the site. After presentation to key Air Force personnel, a preferred scheme was selected and subsequently developed into the final design. The concrete retaining walls mirror similar walls found throughout the Academy grounds. They greatly reduce the steepness of the slopes and control the erosion problems between the parking areas. The terraces are divided into segments to help soften their visual impact and to allow for planting areas within the islands. Large, formally spaced shade trees along the pedestrian corridors and stairwells provide directional queues and create color and visual interest. This formal planting concept is also used to accentuate and identify the building entrance. A massing and layering of primarily native plant materials, providing a variety of textures, colors and seasonal interest were introduced to soften the expanse of pavement. The native vegetation adjacent to the parking lot and the building entrance help define the project boundaries and blend the project into its natural surroundings.

The majority of the plants in the design are native, drought-resistant varieties which minimize water and maintenance requirements. A drip irrigation system was installed for less drought-tolerant plantings, allowing more efficient watering while reducing slope erosion.



After

The resulting landscape creates a beautiful first impression of the Air Force Academy while solving problems specific to the site. This project enhanced the aesthetic quality needed at a major tourist attraction while maintaining the standard of design excellence established at the Academy.



Before



Before

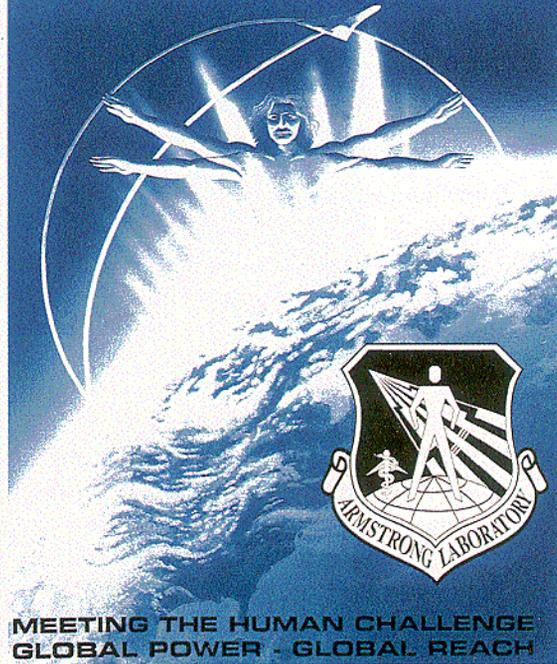
PLANNING AND URBAN DESIGN *Merit Award*

COMMANDER'S GUIDE TO FACILITY QUALITY



AFMC

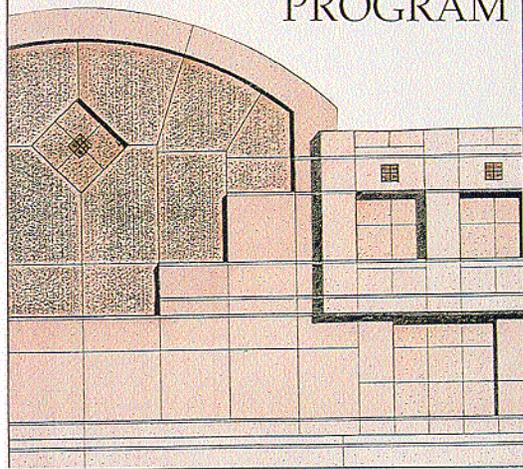
ARMSTRONG LABORATORY 2020



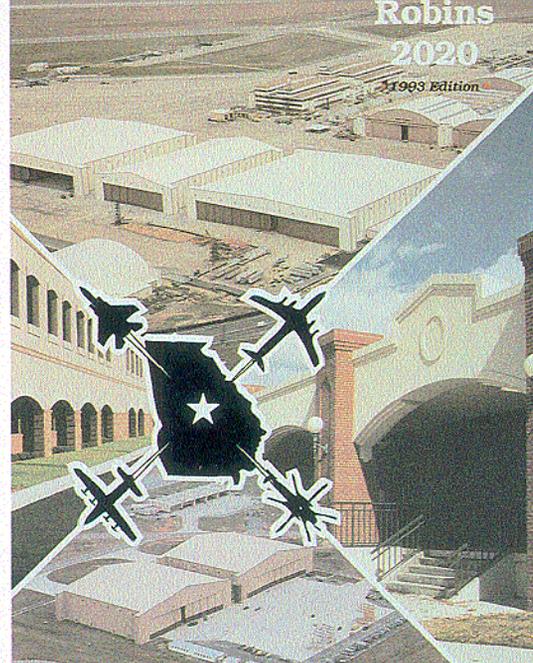
AFMC Long Range Planning, Facility Infrastructure, and
Facility Quality Program

Design: HQ Air Force Materiel Command

AFMC FACILITY QUALITY PROGRAM



Architectural Design • Comprehensive Interior Design • Design Awards



Jurors' comments:

"Effectively designed as a sales tool. Addresses infrastructure problems and needs. Demonstrates the Command's commitment to quality."

The Air Force Materiel Command is on the leading edge of acquisition, science and technology, test and evaluation, sustainability, and base operating support in the Air Force. Therefore, its facilities must reflect an image consistent with these roles. Concurrently, AFMC laboratories, product centers, test centers, and logistics centers have a history of growth and development that must be respected and in some cases preserved. The total replacement value of the command's diverse physical plant at its 14 major installations is over \$35 billion. To protect this investment and ensure wise stewardship of repair and construction funding, AFMC has placed increasing importance on long range planning, architectural compatibility, and infrastructure investment. Detailed, progressive programs to improve the facility planning, design and construction process were developed during the first eighteen months after the new command was established. Each program provides specific guidance to field commanders and civil engineers using a series of illustrated publications designed to summarize the most important aspects of base planning and facility design processes. The documents effectively simplify the decision-making process, enabling AFMC's leaders to make timely, informed decisions regarding their facilities and infrastructure as they shape the future development of their installations.

Three related programs combine to effectively determine the projected development of each major AFMC installation. Each program illustrates how a particular aspect of that development will improve the quality and visual character of each installation. Each of these programs is comprehensively outlined and illustrated in the AFMC Commanders Guide to Facility Quality. This executive summary is used by senior leadership to make critical decisions regarding facility and base development. The document also serves to educate others about the three programs.

AFMC's long-range planning, or 2020 booklets are executive summaries of each center's Comprehensive Plan. They show the center's projected development and illustrate how that development will affect the base through the use of detailed project listings and three dimensional graphics. The booklets include summary discussions of the base's physical profile, history, current missions, existing conditions, key areas of concern, and facility improvement strategies. Descriptions of the age and condition of facilities and infrastructure, incompatible land uses, environmental

constraints, traffic concerns and architectural compatibility are included. The booklets outline each center's goals and policies for development, serve to educate the decision-makers and sell the development concepts. They provide a forward-looking road map ensuring each center is developed using sound planning principles.

The AFMC Facility Quality Program sets the command's standards for architectural compatibility and comprehensive interior design, and establishes the command's Design Awards Program. It requires each center to publish architectural compatibility guides and interior design standards consistent with AFMC policy. These standards consider such factors as regional influences, historic preservation, local environmental factors, established base architecture, and the command's corporate image. The program has been instrumental in improving the quality of AFMC facilities, as evidenced by the high number of USAF Design Award Program winners in 1992 and 1993. This program allows each center to set individual standards tailored to their geographic region and to recognize cultural, historical and environmental influences that have shaped local design standards.

As with other large organizations, AFMC's aging infrastructure constitutes a growing concern. The AFMC Facility Infrastructure Program organizes and evaluates infrastructure requirements in nine categories. The rating program establishes a framework for evaluating each system based on its mission impact and current physical condition, therefore allowing infrastructure upgrade projects to be implemented on a priority basis. With proper funding, the program will result in systems which are 85 percent reliable by the end of the decade. The planned development of the centers will not be impeded due to inefficient or outdated infrastructure systems. A by-product of the program is the significant image improvement of AFMC's bases as old systems are demolished, screened or buried.

Each of these programs address a significant portion of the planning, design, and construction process. Collectively, they have led to dramatic improvements to AFMC's facility and infrastructure assets. Because of the solid foundation established by each program, the command is facing the future with the assurance that a sound development and improvement program is in place.

INTERIOR DESIGN *Merit Award*



Renovation of
Lobby/Bookstore
Wright-Patterson Air Force Base, Ohio

Design: Mark Beachler and Associates
Command: Air Force Materiel Command
Unit: 645th Civil Engineer Group

Jurors' comments:

"An inviting and interesting corridor approach. Successfully turns a dark space into a pleasing, inviting public space."



This interior renovation effectively transforms an outdated basement corridor, snack bar and card shop into an exciting and inviting shopping environment, creating a positive impact on personnel who work in and visit the area. The central hub of the renovated area is a new multi-purpose bookstore, which serves approximately 1000 shoppers per day. Subtle finishes, lighting and rhythmic columns of the corridor act as a contrasting backdrop for the bookstore's highly reflective finishes and dynamic lighting. An open-grid metal ceiling system and neon lights lead one's eye from the corridor into the bookstore.

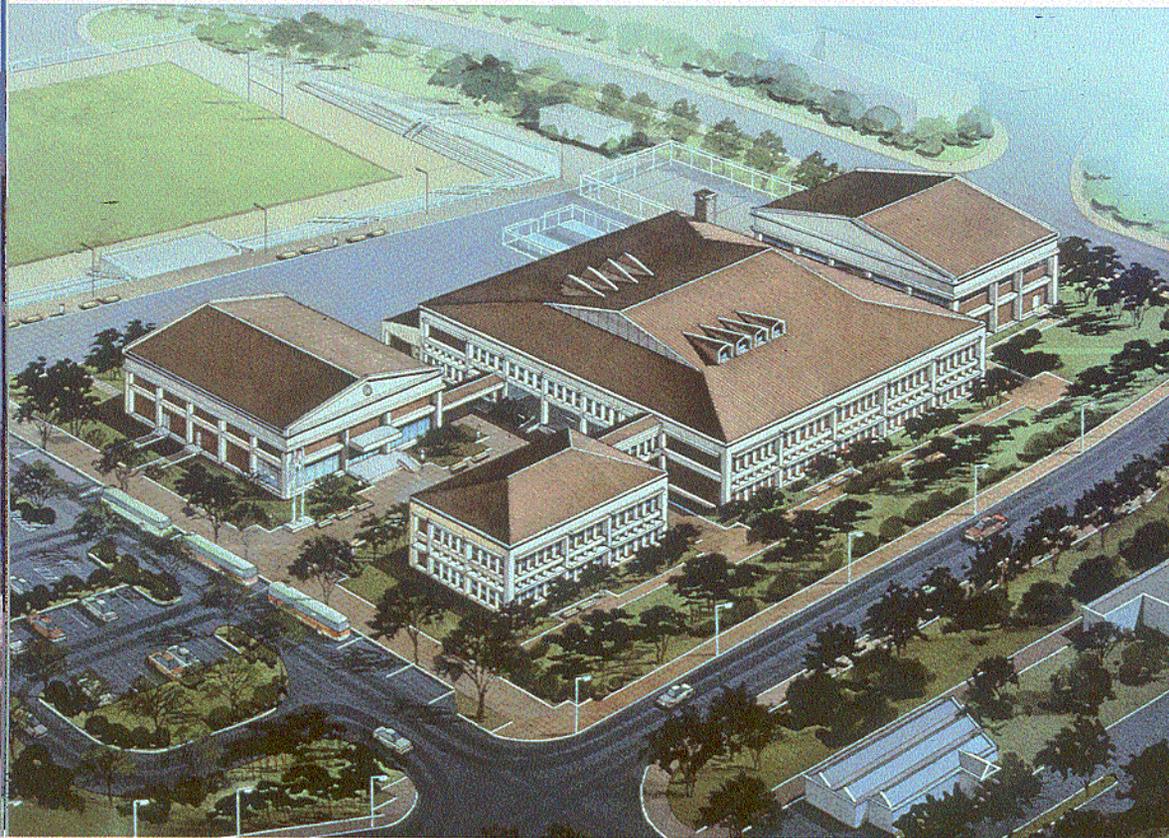
A rubber tile floor with a raised dial pattern was selected for the corridor because of its ease of maintenance and durability. Two rubber tile colors are used to create visual interest and to reduce the tunnel effect of the corridor. Inset carpeted areas identify seating areas and provide a more comfortable walking surface. Level loop carpet is installed throughout the bookstore, except at the snack area where rubber tile is used. Walls and columns in the corridor have been furred out to create visual interest and to visually shorten the apparent length of the space. The walls are finished with textured paint and textile wallcovering which are easily maintained and lend some sound absorption properties to the corridor. The glass walls surrounding the bookstore are etched with the store name and a distinctive pattern. The interior walls in the bookstore feature a slotted system which accepts various glass and acrylic display fixtures to accommodate changing merchandise displays. Suspended acoustical tile ceiling systems hide the overhead mechanical and electrical systems which were previously exposed. The corridor is illuminated by recessed cove lighting at the perimeter, supplemented by recessed incandescent down lights. The open grid ceiling above the central bay of the bookstore is accented with neon tube lighting. The remainder of the store is lit by a combination of track and cove lighting which effectively spotlights merchandise. The perimeter walls are highlighted by neon tube signage.

The corridors are furnished with a system featuring built-in planters for artificial plants. Simulated granite forms the lower portion of the seating modules, which are upholstered with fabric-feel vinyl. The furnishings are grouped to allow for small gatherings out of the main traffic flow.

Before



C O N C E P T D E S I G N *Merit Award*



Osan American High School
Osan Air Base, Korea

Design: AMKOR A&E, Incorporated/SAC International, Limited
Host Command: Pacific Air Forces
Using Command: Department of Defense Dependent Schools, Pacific Region
Design Agent: Far East District US Army Corps of Engineers
Unit: 51st Civil Engineer Squadron

Jurors' comments:

"Breaks down large

program into

manageable units.

Expresses itself well

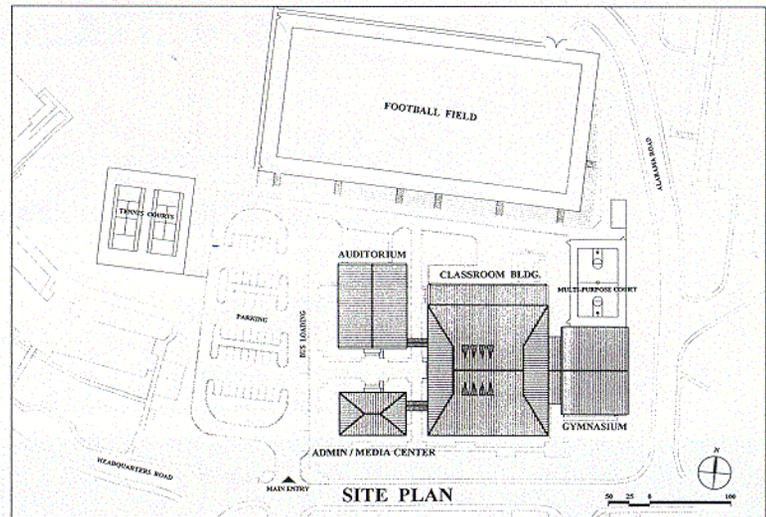
as an educational

facility; very orderly."

The mission of the Department of Defense Dependent Schools is to provide quality education for dependents of US military and civilian Department of Defense personnel stationed overseas. This facility provides a new 250 student high school to serve students at Osan Air Base, alleviating the practice of busing students to Seoul.

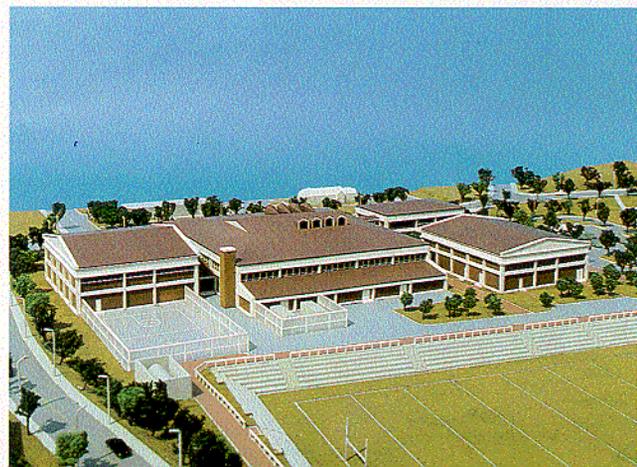
The design concept provides the students and faculty with an educational facility developed around a campus street which begins outdoors and continues through the interior spaces. This circulation spine creates an area where students and faculty can interact and walk between classes. Students disembark from school buses at the curbside drop-off. They then enter an outdoor exhibition area displaying student work and news. This is the outdoor portion of the campus street. The campus facilities are divided into three major structures. The Administration/Educational Media Center is housed in a two story structure with the Administrative Area on the first floor and the Educational Media Center on the second level. The Administrative Area is contiguous with the main school entrance and has sight lines to the bus loading area. The Education Media Center is positioned on the upper level away from noisy areas while allowing easy access from classrooms through an enclosed bridge. The Auditorium/Stage facility is located in a single story building sized to accommodate up to 450 persons. The Classroom/Gymnasium building consists of a single story gymnasium and a two story classroom structure. The central portion of the two story classroom structure is a two story high open Multi-Purpose space. This space is an indoor portion of the campus street where students dine, attend meetings, hold social events and congregate. High dormer windows bring natural daylight into the inner core of this space. All classrooms have exterior windows to provide natural daylight and ventilation. The Auditorium and Gymnasium are both designed to function as independent facilities for community or extracurricular activities.

The high school is situated on the main east-west axis of the base. Major classrooms are located on the south side of the facility to enhance lighting



and solar gain during the winter months. The workshops, power plant and kitchen areas are located on the north side of the facility. The ten foot grade differential occurring at the middle of the site has been incorporated into the design of the football field. Concrete step bleachers are conveniently built into the slope.

The facades of the buildings incorporate eyebrows for sun control and protection from inclement weather. An Energy Management Control System is utilized for efficient control and monitoring of the heating, ventilating and air-conditioning systems.



CONCEPT DESIGN *Merit Award*

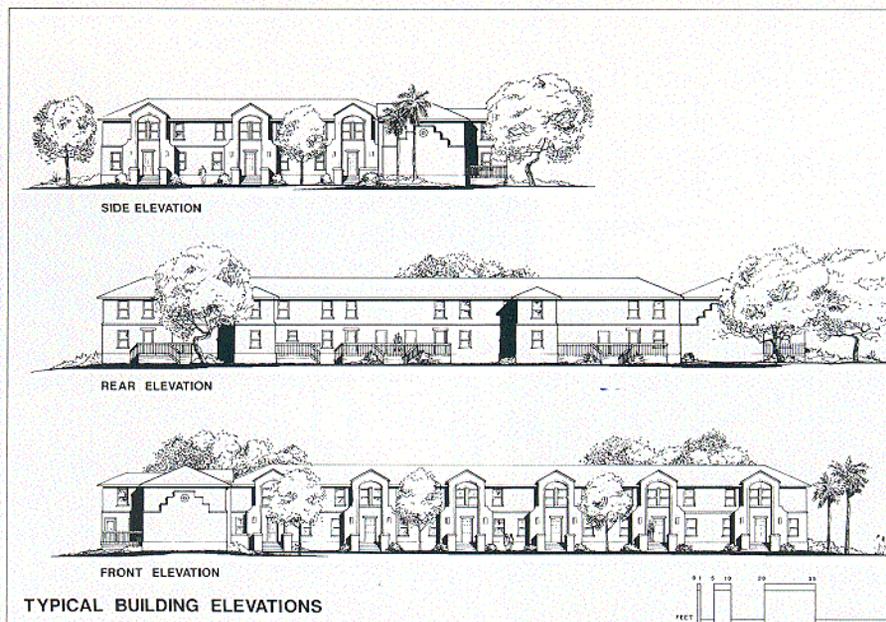


Upgrade Wherry Housing, Phase III
Kelly Air Force Base, Texas

Design: 651st Civil Engineer Squadron
Command: Air Force Materiel Command

Jurors' comments:

“Responds to and reinforces regional context. Effective identification and management of environmental concerns.”



Phase III of the Wherry Housing improvements at Kelly Air Force Base represents the first major step in the comprehensive revitalization program for the housing complex. Over a period of more than thirty years, numerous occupancy changes, a reduced level of maintenance, and lack of funding has caused these buildings to fall into a state of disrepair. Even though finish materials and mechanical and electrical systems had become outdated, these stacked apartment-style buildings offered a solid framework upon which to build. Characterized by long, monotonous facades lacking any articulation, the design challenges of this renovation were many and varied. The primary design goals were to promote a sense of individual housing unit identity, modify the units into townhouse apartments, enhance privacy, and instill pride of ownership in the residents. Individual unit identity is effectively accomplished by creating a new entry for each unit, expressed as a two story vertical element with a cross gable roof. The entrance stairs are paved with tile and accented by low buttressed walls. The existing inefficient mechanical/electrical systems will be replaced with new energy efficient systems. The existing asbestos siding will be removed and the building exteriors will be clad with an insulated stucco system. These modifications will greatly enhance the comfort level, energy consumption, and aesthetics of the buildings.

Another design goal was to promote a sense of belonging to the community by creating buildings which echo the local architectural style of the region and the base. This was done by utilizing stucco, arched openings, cornice details and accents to recall the Mission Style architecture prevalent in the area. Finally, the outdated and deteriorating interiors will be demolished to allow reconfiguration of the floor plans. The new layouts provide proper spatial relationships, modern kitchens, baths, finishes, and amenities to achieve the Whole House concept. This concept does not end with building renovation. Phase III includes burying overhead utilities, developing playgrounds, redesigning landscapes using xeriscape concepts, and promoting a coordinated self-help program for the residents.

Before



PLANNING AND URBAN DESIGN *Citation Award*



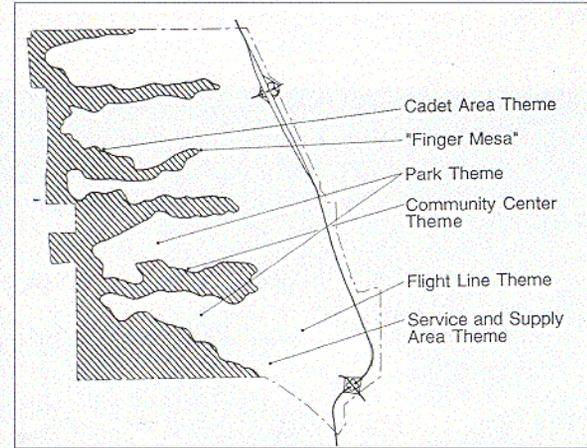
Guide to Installation Excellence
United States Air Force Academy, Colorado

Design: The Nakata Group
Command: United States Air Force Academy
Unit: 54th Civil Engineer Squadron

Jurors' comments:

*"Good set of urban
design standards.*

*Addresses basic
design elements."*



The purpose of this guide is to promote and maintain the high level of design quality found at the United States Air Force Academy. It successfully provides a consolidated source book of the most important guidelines and standards applicable to the Academy. The guide comprehensively and succinctly addresses all pertinent design issues and promotes consistent quality in buildings, their interiors and surroundings. The document is highly readable and is accessible to a wide ranging audience, from design professionals to dependent residents. It promotes a common level of understanding of the design standards by all the diverse groups that represent the Academy's population.

Development of this guide occurred in five phases: project scoping, site surveys/research, document design/contents draft, command briefing, and publication/dissemination. In the first phase, interviews were held with the Base Civil Engineer staff to define the audience, establish project parameters, identify design issues, and define points of contact. Secondly, the contractor surveyed and documented Academy facilities through photographs, interviews with key Academy personnel, and review of existing published standards. Next, several iterations of document drafts and reviews were initiated, and status reports were regularly forwarded to the command. The Superintendent and Department Heads of the Academy were given a final briefing, after which approval for final publication was given. Finally, the guide was published and distributed, and informational briefings were given to key personnel.

The Academy is already benefiting from the process used in producing the guide. The process required extensive communication between the Base Civil Engineer staff and other organizations on many issues, resulting in the adjustment and clarification of many existing design practices. Many of these organizations were not aware of the design standards already in place and therefore the discussions served to educate them on these issues. This source book of design guidance achieves the primary objective of establishing quality design standards.



CONCEPT DESIGN *Citation Award*



Wastewater Treatment Plant and Force Mains
Cape Canaveral Air Force Station, Florida

Design: Mobile District Corps of Engineers
Command: Air Force Space Command
Unit: 45th Civil Engineer Squadron

Jurors' comments:

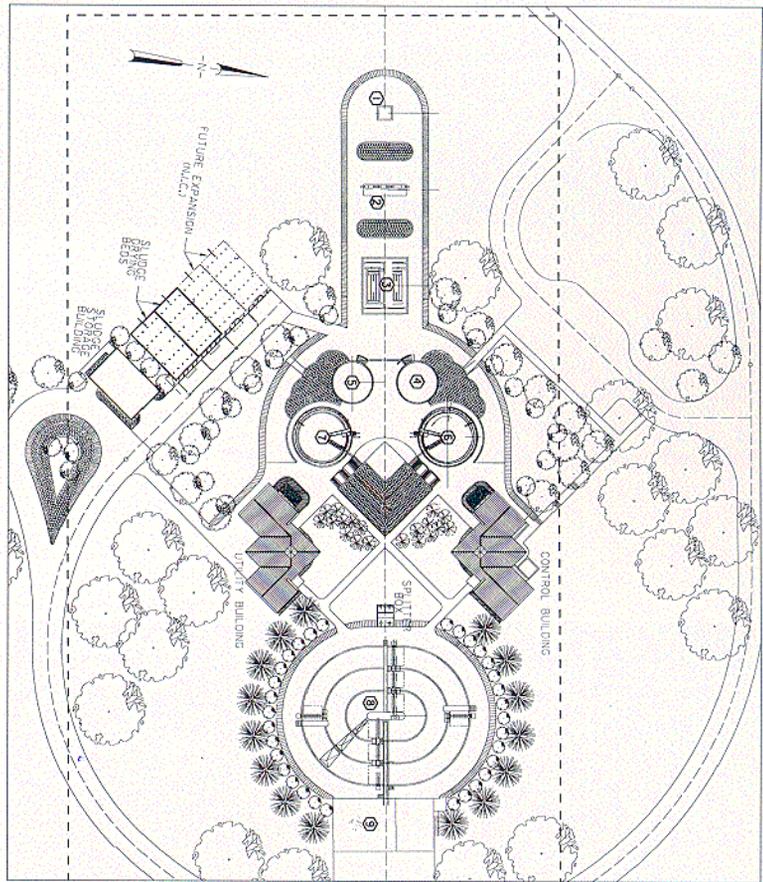
"Deserves commendation for effort to relate the site to its surroundings. Emphasizes that even a treatment plant should be executed with design excellence."

This project replaces seventeen individual outlying prefabricated wastewater treatment plants, in addition to the outdated and undersized main wastewater treatment plant. This proposed design provides a central wastewater treatment facility with the capacity to treat current and projected needs while meeting stringent State of Florida discharge standards. Additionally, the project will incorporate effective treatment technology into a facility with a high level of aesthetic quality. The facility is designed to minimize the number of personnel required to effectively operate the treatment systems.

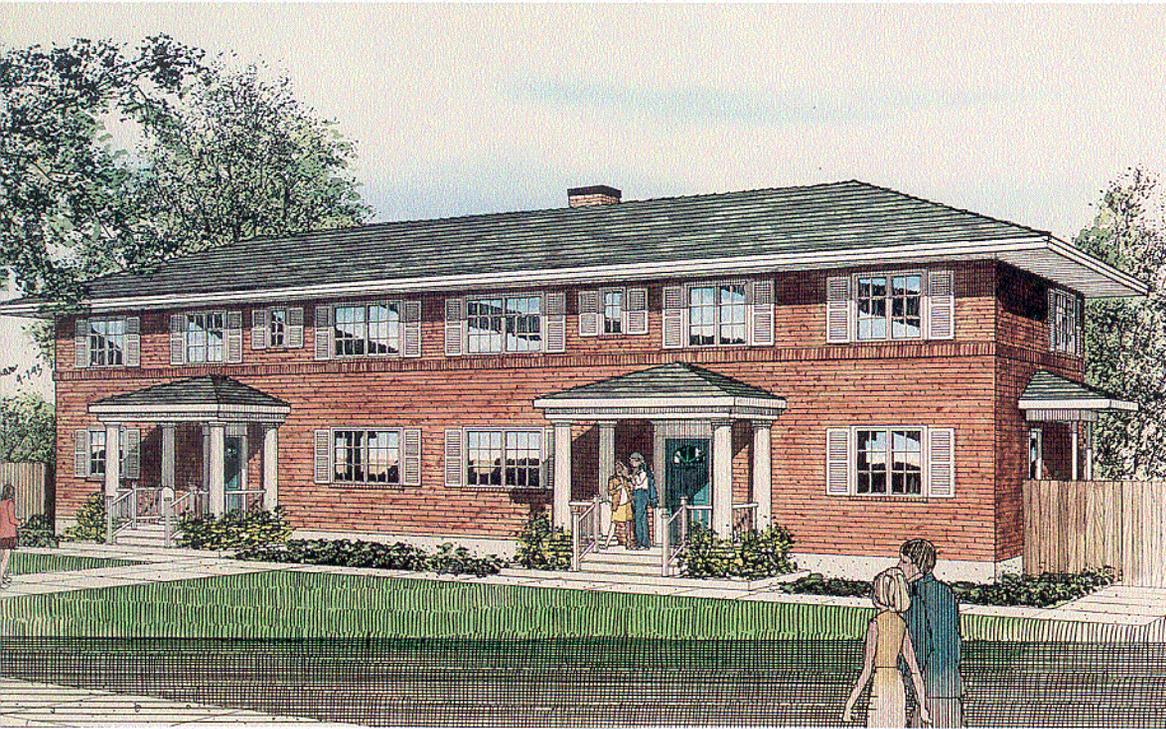
The facility applies numerous state-of-the-art treatment processes such as the Continuous Loop Reactor Basin in the heart of the complex. This structure minimizes operator involvement in effluent quality maintenance while complying with state and federal regulations. Although this particular facility requires more land area to achieve treatment than do other systems, it is easy to operate and provides a buffer in the event of shock loadings to the system.

Structural mass and open space are effectively utilized in the site design to create a balanced, sculptured appearance. A campus-like atmosphere is created by blending state-of-the-art architectural, construction and landscape design treatments. The Control and Utility Buildings are essentially mirror images of each other and serve as the central focal point of the design. The Control Room is situated to provide a commanding view of the processing units. Processing unit colors and details are compatible with the Control and Utility Buildings and enhance the unified appearance of the complex. The quantity of safety railing has been minimized by setting top elevations for tank structures at the appropriate railing height. Additionally, many steel stairs, platforms and catwalks are eliminated by sensitive site grading and structure placement. The industrial nature of this treatment facility is subdued by minimizing or eliminating from view the majority of exposed industrial and mechanical piping and equipment. By enclosing such items, the campus-like atmosphere is maintained, the noise level at the site is reduced, and maintenance requirements are minimized.

This facility is unique, not only for its high standards of aesthetics and treatment processing, but also its ability to function as a training facility for other USAF treatment center operators. It should set the standard for future USAF wastewater treatment facility designs.



CONCEPT DESIGN *Citation Award*



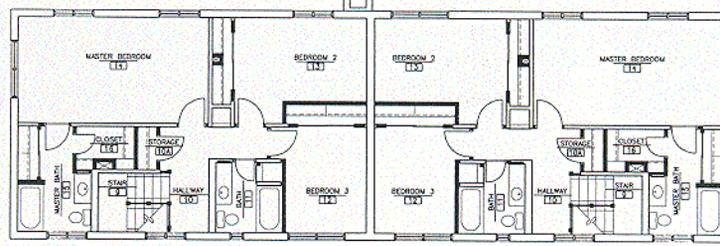
Improve Appropriated Military Family Housing
Mountain Home Air Force Base, Idaho

Design: Hummel, LaMarche and Hunsucker Architects, P.A.
Command: Air Combat Command
Unit: 366th Civil Engineer Squadron
Design Agent: Air Force Center for Environmental Excellence

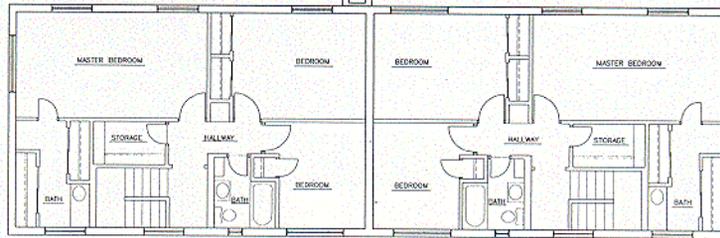
Jurors' comments:

"Unique in that user was heavily involved in charrette to identify needs and develop solutions. Strong identification of entries to individual units."

New Second Floor Plan



Existing Second Floor Plan

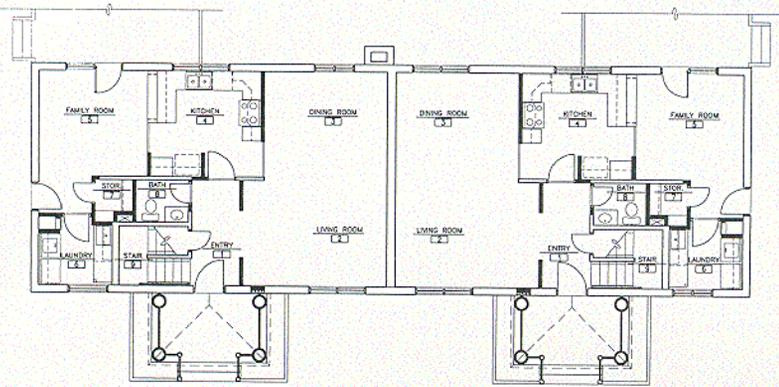


The goal of this renovation project was to upgrade the Eagle View housing units to meet officer housing standards, enhance the identification of each unit, promote neighborhood ambiance, and correct the deficiencies and maintenance problems inherent with the existing structures. This project will greatly improve the functionality and aesthetics of the housing units and enhance quality of life for the residents.

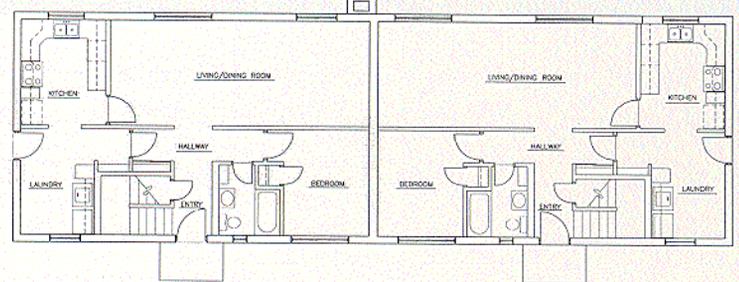
A design charrette, involving designers, users, and project managers was initiated to determine renovation requirements and to develop several alternative design proposals. The group concluded that the original 1948 character of the structures should be restored. The brick veneer facades will be complemented by recreating the original window style and opening sizes using high quality, vinyl-clad wood windows. These windows greatly enhance energy efficiency and require minimal maintenance. Large front entry porches and shutters are also proposed. The new entry porches recapture the historic period of the buildings. The street-side location enhances social interaction among residents. These porches also project a strong element which readily identifies the location of each individual living unit within the building. Redwood decks are proposed at the rear of each unit to accommodate outdoor activity and social interaction.

Many deficiencies in the existing floor plans and building systems were identified during the charrette process, and all were successfully addressed. Plumbing, electrical and mechanical systems will be replaced and/or improved, the cellars waterproofed, and secure storage areas will be provided. A family room and second bathroom will be added, and the long, narrow living/dining room area will be reconfigured to accommodate more flexible furniture arrangements. The location of the kitchen has been revised to allow a more open flow between the kitchen, family room and dining room.

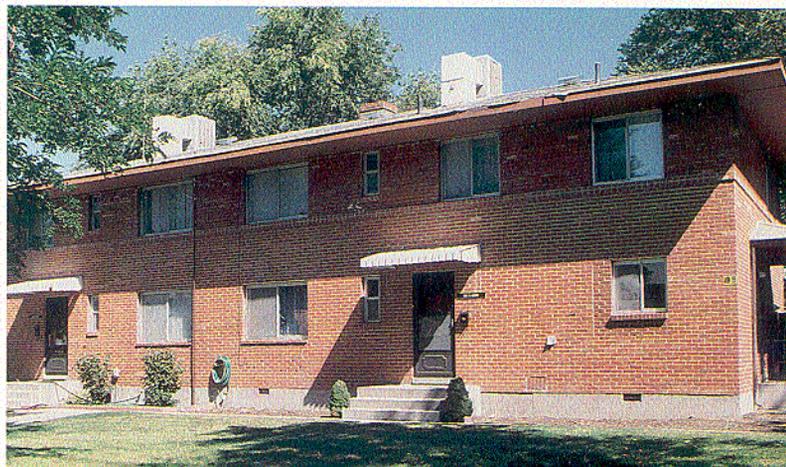
New First Floor Plan



Existing First Floor Plan



Typical Existing Building



COMPLETED MILITARY FAMILY HOUSING *Citation Award*



Page Manor Military Family Housing, Phase IV
Wright-Patterson Air Force Base, Ohio

Design: Edge and Tinney Architects, Incorporated
Command: Air Force Materiel Command
Unit: 645th Civil Engineer Group

Jurors' comments:

"Greatly improves individual unit identity.

Supersedes the institu-

tional rigidity usually

associated with Military

Family Housing."

After



After



This project involved renovation of 85 housing units in a large complex originally constructed in 1955. Minor alterations and improvements had occurred over the years, but the original design remained essentially unchanged. The renovation included installation of reliable roof systems, new living unit entrances, new privacy-screened patios, exterior storage sheds, and general site improvements. Additionally, minor changes to the interior configuration of the units were undertaken to bring the units into compliance with building codes and Air Force Family Housing requirements.

The renovation is the fourth phase of a multi-phased effort to upgrade the entire Page Manor complex in accordance with the 1987 Page Manor Master Plan. The primary goals and objectives of this plan were to generate community pride, create distinct neighborhood identity, and reinforce the tenants sense of ownership by creating individual unit identity and amenities.

New pitched roofing systems were installed to enhance aesthetics while alleviating roof leaks. Deteriorated exterior building materials were removed and replaced with new exterior treatments. Old, poorly planned landscaping and sidewalks were removed and upgraded, as were kitchen and bath cabinets and fixtures. The roofs, exterior facades, and new unit entrances of this neighborhood phase have been developed in a Tudor style, versus Colonial and Contemporary styles of previous phases. Sidewalks were designed to provide focus on neighborhood activity areas, to help define individual exterior space, and to allow additional space behind each unit for private patios and storage sheds.

Improvements to this housing area have been enthusiastically received by the residents. Since they perform their own lawn and landscape maintenance, their pride is evidenced by the extreme care the grounds receive. This renovation project has resulted in a renewed sense of community pride and ownership.

Before



JURY MEMBERS

PLANNING AND URBAN DESIGN

Chris Basham, AICP, AIA (Chair)
GRW Engineers, Incorporated
Lexington, KY
Planner/Architect

Stephan Cochran, APA
American Planning Association
Washington, DC
Planner

M. Michael Miller, AIA
The Harris Group
Reston, VA
Architect

Steve Scully
National Association of Home Builders
Upper Marlboro, MD
Engineer

INTERIOR DESIGN

Sandra W. Warner, CFID (Chair)
Air Force Center for Environmental Excellence
San Antonio, TX
Interior Designer

Carolyn Settles
Settles Associates
Arlington, VA
Interior Designer

Jean Uhlarik, CFID
Resolution Trust Corporation
Rosslyn, VA
Interior Designer

ARCHITECTURE/ENGINEERING

R. Mikeual Perritt, AIA (Chair)
Air Force Center for Environmental Excellence
San Antonio, TX
Architect

Kirk Cordell
National Park Service
Atlanta, GA
Architectural Historian

Warren J. Cox, FAIA
Hartman Cox Architects
Washington, DC
Architect

John A. Spordis, PE
HDR, Incorporated
Alexandria, VA
Engineer

Amy Weinstein, AIA
Weinstein Associates
Washington, DC
Architect

USAF Design Awards Program Director and Editor
David M. Duncan, R.A.

The Civil Engineer:
Major General James E. McCarthy

Deputy Civil Engineer:
Dr. Robert D. Wolff

This Annual Report was prepared by the Design Group Directorate
of the Air Force Center for Environmental Excellence.

USAF DESIGN AWARDS PROGRAM

