



2006

design awards  
program





# United States Air Force 2006 Design Awards

For over three decades, the USAF Design Awards Program has been an effective means of recognizing outstanding contributions to the Air Force mission by design professionals around the world. This brochure details the teamwork of award winning professionals that have helped the Air Force maintain its reputation of design excellence. Throughout this document you will find the design principles that enable the Air Force to provide its airmen with quality facilities and installations.

The winners of the 2006 United States Air Force Design Awards Program exemplify the wide variety of facilities within the built environment occupied by our airmen. These projects have directly impacted countless airmen through facilities commemorating the history of our air and space programs as well as allowing our forces to work in a safe, durable, technologically advanced workplace. Each facility and installation is unique, reflective of local influences. Though unique, each facility plays an integral role in the development of the global Air Force community that is committed to sustaining the environment and our resources.

As we look to building for the future, our challenge into the next decade will be to use less energy, more recycled materials, and streamlined design and construction processes to ensure the Air Force and the Department of Defense build responsibly as we work to conserve our limited resources.

As we continually strive for superior facility design, I congratulate the winners of the 2006 USAF Design Awards Program.



DELWYN R. EULBERG

Major General, USAF

The Civil Engineer

DCS/Logistics, Installations & Mission Support





## 2006 Design Awards Program



This Annual Report marks the 31st anniversary of the United States Air Force Design Awards Program that 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 Studies and Design Guides, Sustainable Design, Concept Design, Interior Design, Landscape Architecture, Facility Design, and Military Family Housing.

For each year's competition, an effort is made to secure jurors of the highest professional standards, blending progressive professionals who are knowledgeable of design trends in the private sector with exceptional design professionals currently in government service who understand military terminology and design standards.

The United States Air Force Design Awards Program is a viable and important program that 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. The program is a proud recipient of the 2000 Federal Design Achievement Award, which recognizes exceptional design achievement from all sectors of the federal government.



## Honor Awards

### Planning Studies & Design Guides

The Green Plan

Grand Forks Air Force Base, North Dakota

### Concept Design

Chapel Facilities

Buckley Air Force Base, Colorado

Dormitory

Thule Air Base, Greenland

### Landscape Architecture

Dormitory Campus

Elmendorf Air Force Base, Alaska

### Facility Design

Small Arms Range

Wright-Patterson Air Force Base, Ohio

Base Supply Complex

Nevada Air National Guard, Reno

## Citation Award

### Planning Studies & Design Guides

Facilities Excellence Guide

Air Force Space Command

### Concept Design

C-5 Fuel Cell, Corrosion & Maintenance Hangars

Tennessee Air National Guard, Memphis

Character Development Center

United States Air Force Academy, Colorado

### Facility Design

Predator Squadron Operations/Aircraft

Maintenance Unit Facility

Creech Air Force Base, Nevada

C-17 Corrosion Control/Maintenance Hangar

Mississippi Air National Guard, Jackson

## Merit Award

### Planning Studies & Design Guides

General Plan

McChord Air Force Base, Washington

### Concept Design

Air Force Weather Agency Headquarters

Offutt Air Force Base, Nebraska

US Central Command Joint Intelligence Center

MacDill Air Force Base, Florida

Entry Control Facilities

McGuire Air Force Base, New Jersey

Kaiserslautern Military Community Center

Ramstein Air Base, Germany

### Interior Design

Squadron Operations Facility

Ellsworth Air Force Base, South Dakota

Air National Guard Readiness Center

Andrews Air Force Base, Maryland

Cyber Café

Peterson Air Force Base, Colorado

Air Mobility Command Heritage Hall

Scott Air Force Base, Illinois

### Landscape Architecture

Headquarters Building Landscaping

Kirtland Air Force Base, New Mexico

Cocheo Park

Vandenberg Air Force Base, California

### Facility Design

Hall of Missiles, USAF Museum

Wright-Patterson Air Force Base, Ohio

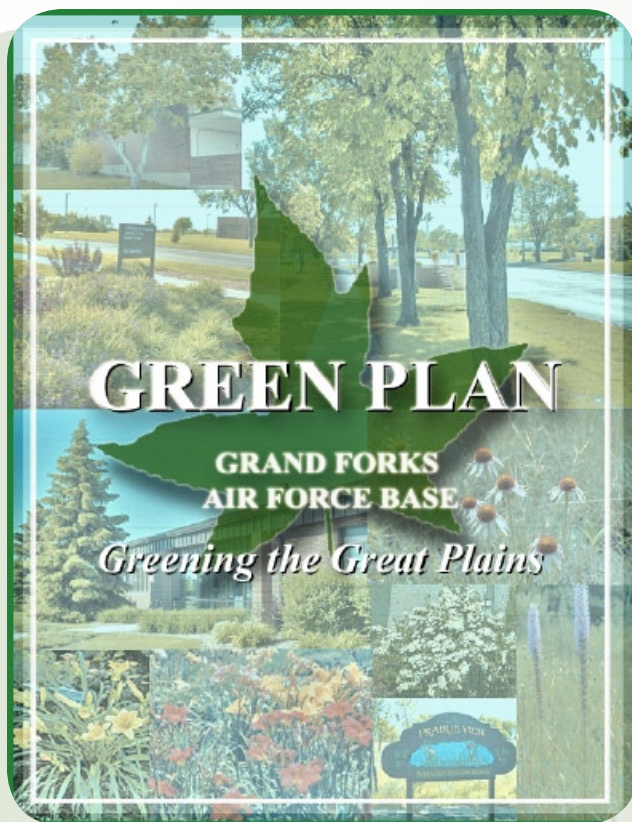
Visitors Center and Entry Control Gates

Schriever Air Force Base, Colorado

Base Civil Engineer Facility

Nevada Air National Guard, Reno





# honor award

## planning studies & design guides

### The Green Plan

Grand Forks Air Force Base, North Dakota

**Design Organization:** 319th Civil Engineer Squadron

**Using Command:** Air Mobility Command

Providing a cohesive approach to managing and improving the maintenance of natural resources, and enhancing the overall aesthetics at Grand Forks Air Force Base is the goal of this plan. It successfully improves the quality-of-life by promoting compatible, sustainable, and cost-effective landscape management by utilizing an installation plant palette and embracing the existing ecosystem. The plan integrates current maintenance standards where appropriate and builds on established natural resource management activities. The plan is compatible with and helps implement the base's Geographic Information System while working seamlessly with the installation's existing base landscape requirements contract. The plan eliminates unplanned plantings throughout the base and can be easily updated by in-house personnel. It has been effective in optimizing base-level efficiency and planning between engineering, environmental, and maintenance personnel. The integrated landscape designs included in the Green Plan are complete and ready for execution when funding becomes available.

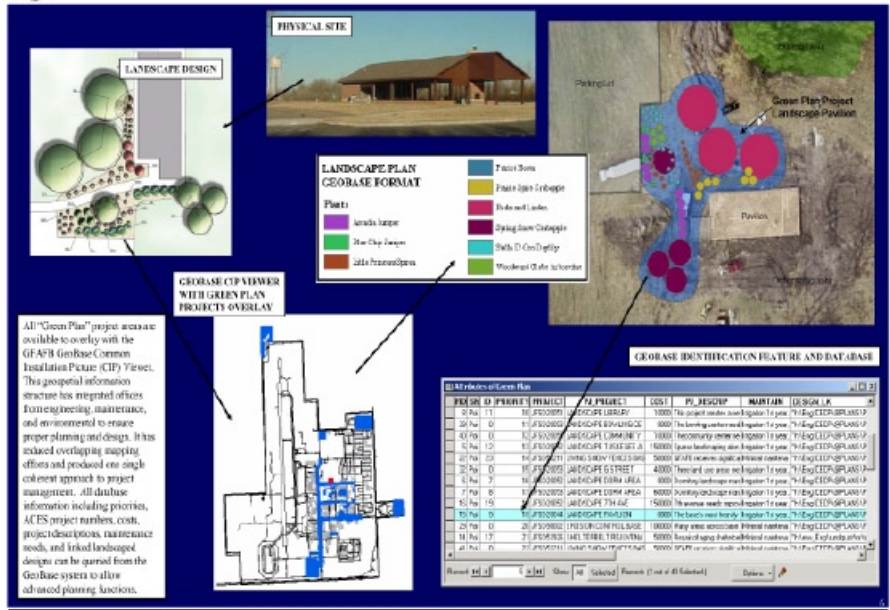


## Jurors' Comments

- Excellent example of planning as a grass roots participatory process
- Sets the bar for in-house planning and design efforts
- Use of multiple graphic techniques enhances the visualization process required to "sell" the planning concepts



## GEOBASE – "ONE INSTALLATION .... ONE MAP"



## Landscape Steen Blvd

JFSD200509 150K Awaiting Funds

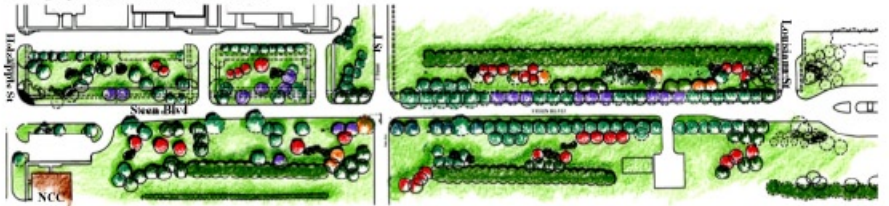
Entire View of Steen Blvd



Enlarged portion of Steen Blvd West Portion



Enlarged portion of Steen Blvd West Portion





## Chapel Facilities

**Buckley Air Force Base, Colorado**

**Design Organization:** HB & A

**Using Command:** Air Force Space Command

**Design Agent:** Omaha District US Army Corps of Engineers

**Base Engineering Organization:** 460th Civil Engineer Squadron

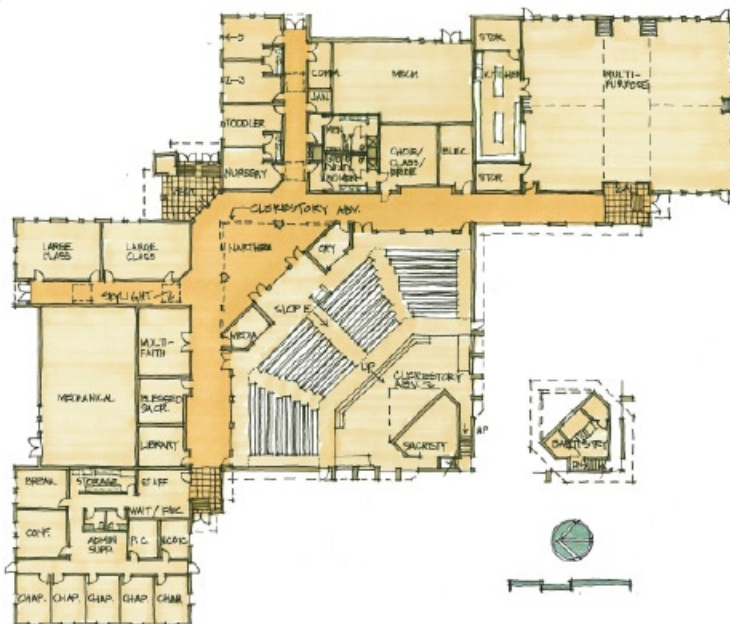
The concept for this new chapel uniquely supports the activities of many faiths including sacramental services, dedications, weddings, and memorial services. It will also provide a place for religious education and instruction, fellowship, family assistance, pastoral care, and various community and professional functions supporting the base's military residents. The dramatic and voluminous, light filled sanctuary with its sloping floor and visual connections to the earth and sky will create a refreshing experience that will lift the spirit, soul, and body. Clearly visible on its prominent site from on-and off-base, the chapel is adjacent to the new family housing area and within walking distance of other existing and planned community facilities. Fan-shaped plazas on the east and west allow for informal conversations while directing worshipers into the building. Gentle berms, exterior seating, pavement changes, and landscaping add visual interest, screen service areas, and direct views upward to the curved roof forms of the entry tower. The sensitive design solution interweaves light, sound, sight, surroundings, and interactions to affect an environment conducive for worship. A waterfall vestibule accompanied by plentiful natural light from the entry tower gives a sense of calm and refreshment. A carefully planned entry sequence begins at the plazas, continues into the generous narthex, into the nave, down the main hallways and continues into the sanctuary. Light streams in from the south, west and from above the baptistery and filters through the bowstring trusses to the sloped floor below.

# honor award





## concept design



## Jurors' Comments

- Outstanding presentation; exterior material selection blends with the environment accenting the graceful rooflines of the facility
- Interior is functionally very well organized





# honor award

## concept design

### **Dormitory**

**Thule Air Force Base, Greenland**

**Design Organization:** Baker & Associates

**Using Command:** Air Force Space Command

**Design Agent:** New York District US Army Corps of Engineers

**Base Engineering Organization:** 821st Support Squadron Civil Engineering

Thule Air Base's distinction as the Air Force's northernmost installation creates unique challenges for facility designers. The existing buildings on the base consist primarily of monochromatic, "gray box" structures. Initiated by two new facilities located nearby, this new dormitory continues the introduction of a modern, boldly-colored Danish vocabulary to the base. All three structures work well together to compliment the native Greenland vernacular. The new dormitory is elevated 36 inches above grade to provide ventilation, reduce the potential for snow drifts, and protect the permafrost from the radiant heat of the building. The building's modular design facilitates partial prefabrication to enable construction of the building shell within the short two to three month summer construction window. The dormitory is designed for a high level of energy efficiency and features a super-insulated building envelope. Due to the inherent time required to form, reinforce, place and cure, concrete floor systems have been replaced with multiple layers of gypsum board and rigid insulation on metal decking for a total thickness of almost a foot. Large, operable windows allow the occupants to enjoy the extended summer daylight. These windows feature PVC frames with built-in thermal breaks and double paned glazing filled with argon gas to reduce thermal conductivity.





### *Jurors' Comments*

- *Outstanding context*
- *Great response to local culture, environment, and construction in design*







# honor award

## landscape architecture

### *Jurors' Comments*

- *Elegant, understated, and practical approach to the development of the campus landscape; the landscape provides a backdrop, without being the center of attention*
- *Commendable, the result of a multi-year planning effort that resulted in a harmonious, well integrated natural and physical environment*
- *Outstanding overall integration of the natural and physical landscape elements as well as: landscape design, campus layout, and architectural compatibility; all work towards a cohesive environment, which for a nearly 10-year effort is admirable*





## Dormitory Campus Elmendorf Air Force Base, Alaska

**Design Organization:** Charles Bettisworth and Company, Inc.

**Design-Build Contractor:** Watterson Construction Co.

**Using Command:** Pacific Air Forces

**Design Agent:** Alaska District US Army Corps of Engineers

**Base Engineering Organization:** 3rd Civil Engineer Squadron



This pedestrian-oriented dormitory community exudes pride and provides a flexible living environment superior to private sector living alternatives. During winter months, the base is subject to extended periods of cold and darkness. Summers, by contrast feature long sunny days with moderate temperatures. Bounded on opposite sides by a steep forested hill and a large drainage swale, the site benefits from existing birch and spruce forests at the perimeter. These forests screen the site from other areas of the base and help to define the residential campus. The design solution enhances force protection by relocating vehicular circulation and parking to the perimeter of the site and establishes a series of “outdoor rooms” by using the new dormitories and community centers as a framework. The outdoor rooms create opportunities for both passive and active outdoor recreation, while providing pleasing views for dormitory residents. The landscape design places emphasis on main entrances, while adding color, contrast, form and texture at key locations. The design enhances the appearance of the new dormitories without overpowering or unduly calling attention to itself. The heavy timber and exposed wood beam architecture of the dormitory entrance canopies, walkways, and bus shelters are an integral part of the landscape and blend well with the surrounding forests, which were preserved as much as possible. The design addresses winter needs as well, with entry canopies, heated sidewalks at building entrances, and heated bus shelters. All of these elements are designed to prevent the accumulation of snow and ice and encourage year-round pedestrian activity. The campus design is an excellent example of successful adherence to a master plan through phased elements. The designer and design-build contractor recognized these elements and sought to improve upon them at every possible opportunity and now the residents are doing the same.





### *Jurors' Comments*

- *Uniquely and pleasantly designed*
- *Great use of varying facade depths to project shadows and light*
- *Excellent example of how a stereotypical industrial-type function can be tastefully designed*







## Small Arms Range

### Wright-Patterson Air Force Base, Ohio

**Design Organization:** Hayes, Seay, Mattern & Mattern, Inc.

**Using Command:** Air Force Materiel Command

**Design Agent:** Louisville District US Army Corps of Engineers

**Base Engineering Organization:** 88th Civil Engineer Directorate

This new Fully Contained Small Arms Range meets the critically important function of providing well-equipped, professional training resources for Air Force members and select local law enforcement officers. The new range blends with the existing historical environment without drawing attention to itself, yet is distinguished in character and meets operational requirements. In light of the inherently lethal activity that the facility supports, hazards are measured in several ways, each with its own design response. The building itself is fully contained structurally and environmentally to keep errantly fired projectiles or potentially toxic residues from escaping to the surrounding environment. The structure is essentially a vault, with seamless pre-cast, reinforced concrete walls and concrete slab ceilings. Airborne lead residues are captured by a specially-designed filtration system for collection and proper disposal. Range safety is enhanced through contemporary firing station design, with the firing range side of the building separated from support and instruction areas. Steel ceiling baffles in the range area deflect misfired rounds away from the firing line.







facility design

# honor award

## **Base Supply Complex** **Nevada Air National Guard, Reno**

**Design Organization:** DMJM with CH2M Hill & H+K  
**Using Command:** National Guard Bureau  
**Design Agent:** US Property & Fiscal Office for Nevada  
**Base Engineering Organization:** 152nd Civil Engineer Squadron

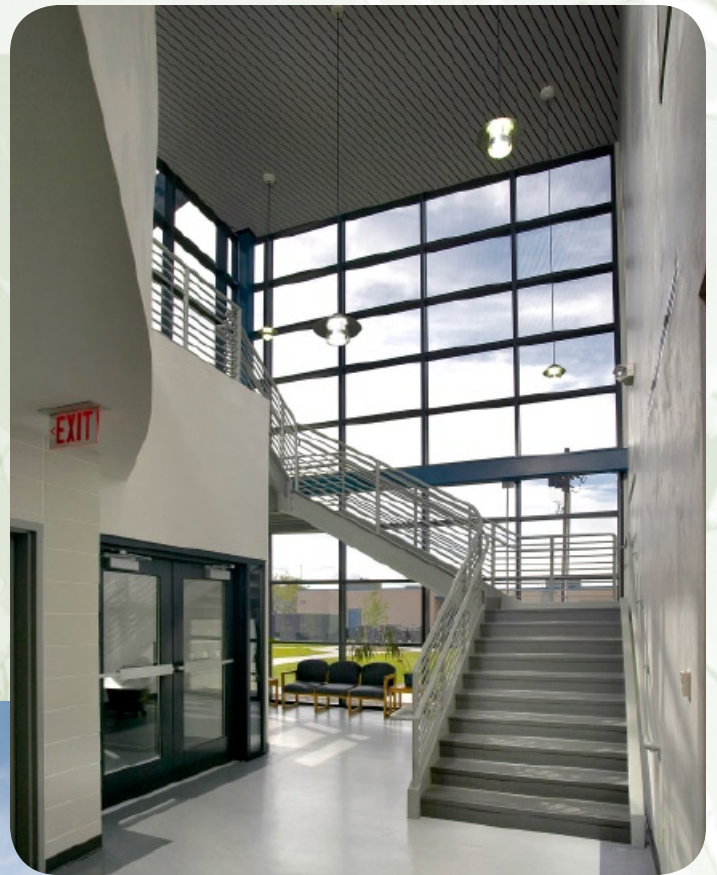


This mixed-use warehouse and administrative facility has become the most prominent building on the base and projects the installation's image of strength and professionalism to both visitors and military personnel. The project's goals of cost efficiency and functionality were met by an elegant design that helps define a unified campus by being the first structure built on the new 'Town Square'. This unity is enhanced by adherence to a strict material and color palette that incorporates existing buildings and those currently under construction while at the same time introducing new complimentary concepts. Many sustainable design elements were incorporated into the project, such as locally available materials, low-emissive glazing, and sun shades over the plaza. The design process included collaborative design charrettes, workshops and presentations with the stakeholders and the design team, affecting a true feeling of ownership for the final project.



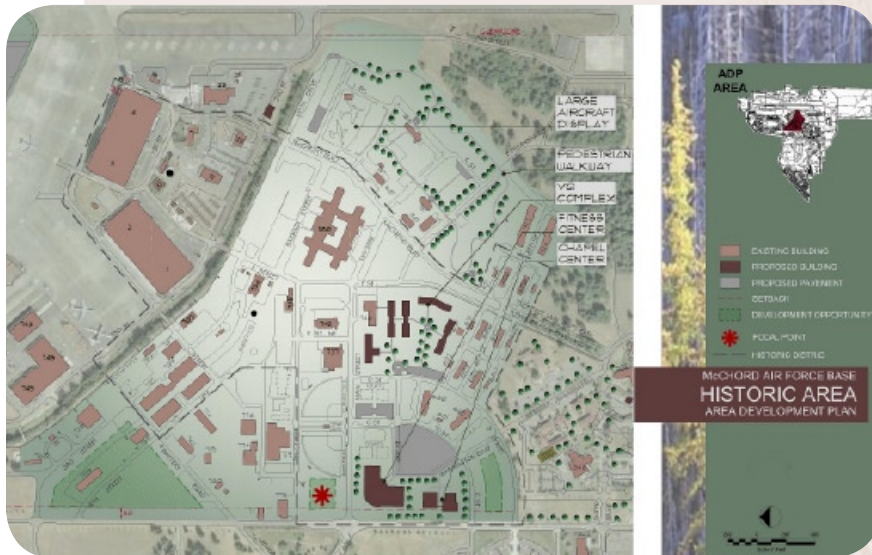
## *Jurors' Comments*

- *Breaks the mold for a supply complex*
- *Fantastic example of bringing various functional requirements together into one cohesively designed complex*
- *Great use of specific materials, color, and texture to create exciting exterior & interior spaces*





# planning studies & design guides



## merit award

### General Plan

**McChord Air Force Base, Washington**

**Design Organization:** HB&A

**Using Command:** Air Mobility Command

**Base Engineering Organization:** 62nd Civil Engineer Squadron

McChord's General Plan provides a strategic long-range vision of the base as well as the tools necessary to successfully achieve short and long term planning objectives. Key objectives for the plan include providing flexibility to accommodate existing and future growth, incorporating high levels of service and quality of life elements for the base, and promoting a complimentary and harmonious relationship between the base and the civilian community. The installation will continue to be shaped and redeveloped over time, and the General Plan recognizes this with five Area Development Plans that outline development strategies for very specific areas of the base. These plans embrace sensitive, responsible designs that recognize the interrelationships between operational and environmental requirements, while meeting special requirements of unique functions and users. The plan also calls for improving the base's overall infrastructure through a balanced program of preventative maintenance, demolition, and investment, retaining flexibility to reuse facilities and modify missions. Current and future decision makers will continue to benefit from the planning tools made available by this plan.

### Jurors' Comments

- Clear, concise description of the process used to analyze the Area Development Plans
- Great use of graphics to illustrate analysis process
- Well organized and concise documentation of comprehensive planning information in a format that is well structured for ease of access





## concept design

### **Air Force Weather Agency Headquarters Offutt Air Force Base, Nebraska**

**Design Organization:** Kenneth Hahn Architects

**Using Command:** Air Combat Command

**Design Agent:** Omaha District US Army Corps of Engineers

**Base Engineering Organization:** 55th Civil Engineer Squadron



Designed as a state-of-the-art office building and computer facility, this project will also be one of the first LEED™ certified sustainable buildings in the Air Force. A design charrette, questionnaires, interviews, reviews of the current facilities, and a needs assessment of the many user groups that occupy the building eventually led to the preferred solution. The major goals for the design concept include access by as many of the occupants as possible to daylight and views, a strong but flexible emphasis on mission operations, and providing an inviting workplace featuring close proximity of management spaces to their personnel. The final design has succeeded in responding to these design criteria throughout the building. The plan layout and circulation is very efficient and easy to comprehend by building occupants. The large glassed lobby provides abundant daylight and views, while controlling direct sunlight. Shared workspaces are abundant throughout the facility, and the floor plan carefully integrates leadership and technical support staff. A pleasant, warm and bright interior welcomes visitors and staff alike.



## merit award

### *Jurors' Comments*

- *Mass of the building is significantly reduced by the site layout and material selection*
- *Good use of natural materials and strong natural day lighting enhance the pleasing separation of public and office space*





concept design



# merit award

## US Central Command Joint Intelligence Center MacDill Air Force Base, Florida

**Design Organization:** Burns & McDonnell, Inc.

**Using Command:** Air Mobility Command

**Design Agent:** Mobile District US Army Corps of Engineers

**Base Engineering Organization:** 6th Civil Engineer Squadron

### *Jurors' Comments*

- *Handsome traditional building which tends to hide the true size*
- *Appropriate use of site and good response to local architecture*

This concept provides a functional, flexible and secure facility that consolidates the Joint Intelligence Center's leadership, management and support functions. It accommodates current staffing while allowing for manpower surges during times of war or conflict. Stringent security construction standards are met while still allowing daylight into interior work spaces. The new center conforms to the base's architectural compatibility plan while establishing an architectural vernacular for future facilities in the Central Command campus. Additionally, the facility must be sustainable, easily maintained, energy efficient and protect critical military communication links from severe storms and potential tidal surges. While the larger nearby Central Command Headquarters building lacks any particular architectural style, it unavoidably influences the design of the new facility due to its current dominance. The Joint Intelligence Center's exterior façade design will be intentionally subservient to other structures planned for the expanded Central Command campus. Open office environments are maximized and the majority of private offices are constructed using demountable partitions. High-tech workstations are designed to accommodate a temporary surge in occupancy. A raised floor system will serve as the HVAC supply plenum and will facilitate easy wiring and diffuser changes when workstations are reconfigured. Specialized windows that meet both Anti-Terrorism/Force Protection and high security criteria are sized and placed to maximize natural lighting into the workplace. Through applied innovation in site planning, systems selection, and construction materials specifications, the project is being designed to achieve a LEED™ Silver level of accreditation.



## Entry Control Facilities

McGuire Air Force Base, New Jersey

**Design Organization:** Parsons Evergreene LLC

**Using Command:** Air Mobility Command

**Design Agent:** Air Force Center for Environmental Excellence

**Base Engineering Organization:** 305th Civil Engineer Squadron



concept design

These new Entry Control Facilities with clearly separate and distinct operations will provide a series of base entries within the established architectural context. The design provides efficient, flexible, modern facilities within a richly detailed, architecturally compatible and spatially functional installation entrance. The new facilities are also very well integrated into the existing environment of highway access, historic venues and existing site features. A unique arched entrance canopy will create a “gateway” to the installation. The design provides a commercial entrance which handles the mission-essential logistics demands for both McGuire Air Force Base and adjacent Fort Dix as major east coast military deployment centers. The Entry Control Facilities include an Entry Screening Facility, Privately Owned Vehicles Inspection Facility, the entry canopy, and an Overwatch Facility. The project successfully marries new force protection access requirements with architectural compatibility and creates a thoughtfully designed entry to the installation. This infrastructure upgrade emphasizes the importance of the base’s mission, and the Air Force’s role in deterring terrorism well into the 21st century.

merit award

### *Jurors’ Comments*

- *The most elegant solution to a gate shelter design seen this year*
- *Pleasing, clean lines accent the attention to detail*





## Kaiserslautern Military Community Center Ramstein Air Base, Germany

**Design Organization:** JSK International Architekten und Ingenieure GmbH

**Using Command:** United States Air Forces Europe

**Design Agent:** LBB Kaiserslautern

**Base Engineering Organization:** 435th Civil Engineer Group



This 844,000 square foot complex will greatly enhance the quality of life for the entire European U.S. military community as it becomes a major retail, entertainment and community destination. The multi-functional facility conserves valuable real estate by combining retail, entertainment, dining, community services, a 350-room Visitors Quarters, merchandise processing, public circulation and facility support spaces under one roof. The function, shape, color, and texture of the new complex harmonize well with other nearby facilities. The sustainable features of the design, complying with strict European energy conservation, are not limited to the use of environmentally responsible building materials. The design includes pre-fabricated bathroom cells, columns, beams, and roof decking, drastically reducing the staging area needed on site as well as reducing construction time. The “green” roof system and the extensive 2,800-vehicle parking lot drainage system compensate for the extensive vegetation and tree removal from 24 acres of forest while reducing runoff and slowly releasing stormwater into catchment areas, reducing flood potential. The roof will also function as a natural cooler by lowering energy consumption in the summer months.

# merit award

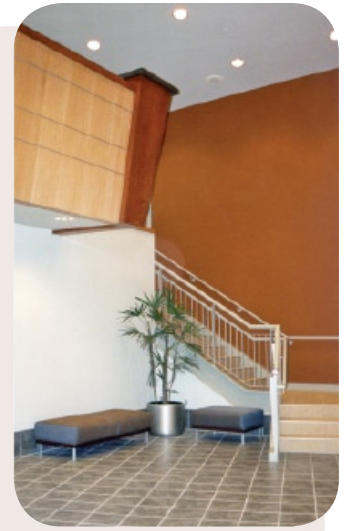
### Jurors' Comments

- This large, multipurpose facility uses great sustainable context and natural environmental features to reduce the scale and fit neatly on the site*



concept design





# merit award

## interior design

### Squadron Operations Facility Ellsworth Air Force Base, South Dakota

**Design Organization:** Leo A. Daly with Dean Kurtz Construction

**Using Command:** Air Combat Command

**Design Agent:** Omaha District US Army Corps of Engineers

**Base Engineering Organization:** 28th Civil Engineer Squadron

### *Jurors' Comments*

- *Strong interior architecture*
- *Great mix of materials*
- *Nice focus on interior elements*

This new Squadron Operations Facility consolidates functions from four separate facilities. The design objectives were to create a building that compliments the base's contemporary "Flight-Mission" architecture style, maximize the amount of natural light for the office and support spaces and to find an effective way to place a large one-story building on the steeply sloped site. The striking curved silver roof crosses the building at the mid-level elevation and creates the "hub" of the facility. It identifies the main entry to the building and contains the duty desk and scheduling areas. The tall lobby space is angled to capture views to the flight line, the B1-B bombers stationed nearby and the Black Hills beyond. The large masonry auditorium form compliments the curved roof and adds interest to the building composition, while shielding the entrance from the harsh northwest winds. The large mass of the single story building is broken down into three levels that follow the steeply sloping site. Raised clerestories provide natural light for the major circulation spaces as well as borrowed light for spaces located in the center of the building. Careful use of asymmetry, interesting roof forms and clean design detailing help produce a unique "high-tech" expression of the building's purpose and function.





### *Jurors' Comments*

- *Private offices avoid window walls and project a desirable message to cubicle-land by enhancing daylight introduction*
- *Excellent floor plan concept*
- *Solid design; very well-executed*

## merit award

### **Air National Guard Readiness Center Andrews Air Force Base, Maryland**

**Design Organization:** Gensler

**Using Command:** National Guard Bureau

**Host Command:** Air Mobility Command

**Design Agent:** National Guard Bureau – PARC

**Base Engineering Organization:** Air National Guard Readiness Center Engineering Division



The Air National Guard Readiness Center creates a professional working environment, providing a flexible space that can be easily adapted to meet future space and technology needs. The designers created a public “Main Street” with grouped conference spaces and shared support areas to encourage collaboration and teamwork. Glass-front offices and lower-height furniture panels visually connect users with each other and the outside environment. Flexible open workspaces can be easily adapted to meet future space and security requirements with minimal architectural modifications. Furniture products that function as a kit of parts were used to ease reconfigurations, increase functionality, and provide cost savings. This facility has a highly flexible interior environment that can be modified to meet future needs while maintaining its functionality and design character. The designer integrated a sensitive balance of security and accessibility with cutting edge technology. The dramatic interior spaces contribute greatly to this facility’s image and culture of professionalism, collaboration and teamwork.

interior design



## Cyber Café

Peterson Air Force Base, Colorado

**Design Organization:** 21st Civil Engineer Squadron

**Using Command:** Air Force Space Command

An inviting and culturally contemporary space for dorm residents was created by converting a day room and two dormitory rooms into a cyber café. The interior designer developed a striking theme for the café which is a cross between a trendy coffee shop and elements of “garage grunge” design. Grunge design elements include many separate images and textures, scratches, splotches, bits of text, grids providing a raw, dark look. This unique environment provides off-duty interaction of the dorm residents through various activities such as music, computer gaming, conversations, or even stand up comedy. Within the café are amenities such as a stage, lounge seating, computer and internet access in the café area, a beverage bar, and a secluded room for computer gaming. The total concept and design enhances a positive and inviting environment that attracts the dorm residents, providing recreation activities without having to leave the base. The design methodology for the cyber café incorporates unique collaborative ideas drawn from the chaplain representative and dorm council members. This is an excellent example of providing young airmen a place specifically and completely based on their input.



interior design

merit award



### *Jurors' Comments*

- *Communicates an appropriate message to the Air Force*
- *Color & finishes achieved desired goal*
- *Cost versus benefits is a good bargain for the Air Force – 20% under programmed amount*
- *Appropriately user-focused*



# interior design

## Air Mobility Command Heritage Hall

Scott Air Force Base, Illinois

**Design Organization:** Burns & McDonnell Engineering/AMC Design Center/PGAV, Inc.

**Using Command:** Air Mobility Command

**Base Engineering Organization:** 375th Civil Engineer Squadron

This Heritage Hall promotes a positive introduction to the Air Mobility Command mission and honors the ongoing teamwork of active duty personnel, Air National Guardsmen, Air Force Reservists, commercial partners, Department of Defense civilians, and contractors. The exhibits relate the history of the command, from the earliest years of powered flight to present day, its people and their families, and give a comprehensive overview of all aspects of the command's mission. Entering the outer lobby, visitors are taken back in time to the beginning of what would become the Air Mobility Command of today. Commemorating the first air refueling endurance event in 1929, a 1/5th scale model of The Question Mark soars overhead in formation under a floating cloud lit by blue cathode tube fixtures. In the exhibit area, stories are told in three "pocket theaters" formed by curved walls reminiscent of aircraft fuselages. Entering a larger space, one is presented with aircraft models of the current fleet as well as the story of the real assets of Air Mobility Command, its people and their families.

## merit award



### Jurors' Comments

- *Exceptionally handsome and creative design for exhibits*
- *Inviting and interactive*
- *Like the theme of being inside a fuselage*
- *Under programmed amount*





# landscape architecture

## Headquarters Building Landscaping

Kirtland Air Force Base, New Mexico

**Design Organization:** Chugach Management Services

**Using Command:** Air Force Materiel Command

**Base Engineering Organization:** 377th Civil Engineer Squadron

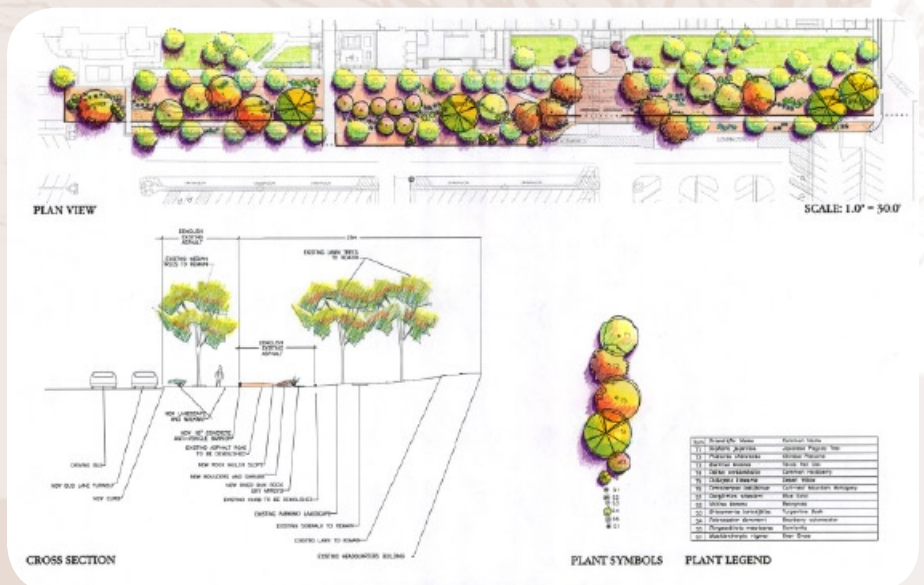
The Anti-Terrorism/Force Protection barrier and landscaping of the Headquarters building replaces an existing road that was rendered unusable by Jersey barriers that were placed to enforce the 25 meter building setback distance after September 11th, 2001. The design concept incorporates a meandering cobble swale echoing the dry arroyos which are commonly found in New Mexican alluvial soils. The landscape features many native, drought tolerant plants to create a cool and beautiful environment. The solution incorporated as many existing trees as possible while creating formality at the Headquarters entry and using more casual and flowing features elsewhere. Because of low annual rainfall exacerbated by an ongoing drought, no turf grass was used in the landscape. The many native shrubs used in the landscape are planted in and around the river-run stone to catch the maximum amount of runoff from seasonal rains. This highly sustainable design provides a restful environment as well as a cool and pleasant transition from the parking area to the building in otherwise harsh and arid surroundings.



merit award

## Jurors' Comments

- *Subtle and innovative protective barrier design; inoffensive integration of force protection into the landscape*
- *Landscaping is particularly appropriate in the context of the New Mexico landscape*
- *The force protection wall is well integrated into the building entrance and promotes a feeling of grand entry rather than restricting access*







# merit award

## landscape architecture

### Cocheo Park

Vandenberg Air Force Base, California

**Design Organization:** Katie O'Reilly Rogers

**Using Command:** Air Force Space Command

**Base Engineering Organization:** 30th Civil Engineer Squadron

Vandenberg's Cocheo Park was redeveloped because the existing facilities were very limited, deteriorated and not conducive to family enjoyment. The park lacked a coherent theme or unifying identity, was difficult to find, and had limited appeal to base personnel and their families. The designers used the song "America the Beautiful" to provide inspiration for the park's theme. The playground and picnic area have a maritime motif, depicting the line "...from sea to shining sea". The re-design takes advantage of some of the park's key assets, including a beautiful natural setting and large stands of eucalyptus trees that were planted many years ago as windbreaks. A picnic area and a state-of-the-art children's playground were placed to take advantage of the windbreaks which provide protection from harsh, cool coastal breezes. A new restroom facility was constructed as well as two new parking lots, and a new vehicular entryway loop. Because of the natural setting of the park, drought-tolerant, native and native-in-kind plant materials were carefully chosen to be both deer-resistant and tolerant of the coastal breezes, and moist, salt-laden air. A spouse's club meets daily at the new playground during the late morning hours for casual conversation while their young children play. The park has also become a favorite lunch spot where airmen meet their spouses and kids for some mid-day family time.

### *Jurors' Comments*

- *Conventional design solution with a memorable execution; particularly appropriate for a play environment*
- *Future generations of Air Force children will remember Vandenberg as the base with the lighthouse and ship playground*
- *Commendable effort to integrate the new planning and existing planting*



## Hall of Missiles, USAF Museum Wright-Patterson Air Force Base, Ohio

**Design Organization:** Hayes, Seay, Mattern & Mattern, Inc.

**Using Command:** Air Force Materiel Command

**Design Agent:** Louisville District US Army Corps of Engineers

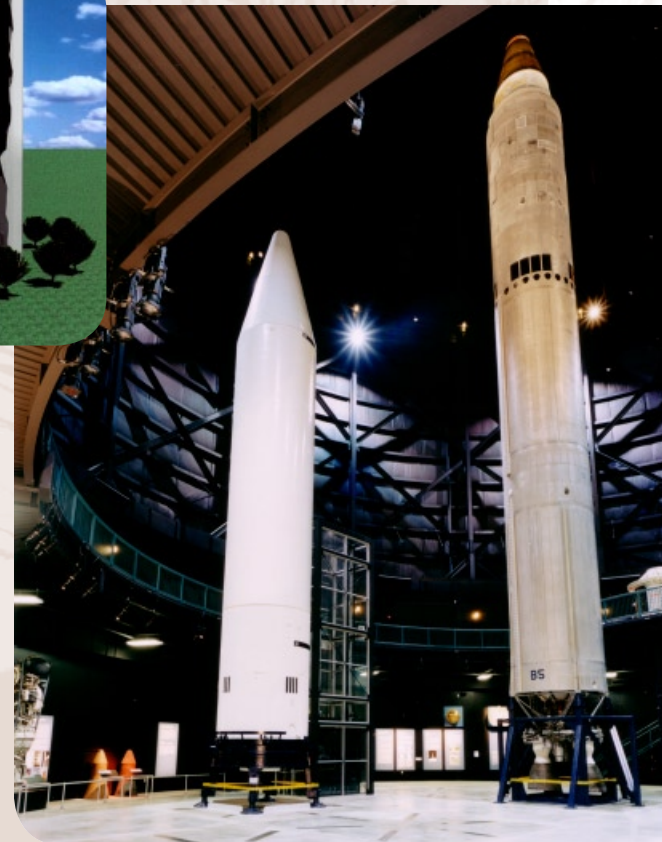
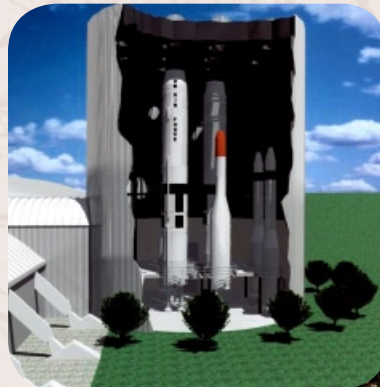
**Base Engineering Organization:** 88th Civil Engineer Directorate



This unique gallery is a world-class museum addition for displaying a representative variety of Cold War era missiles in a suitably simulated storage silo environment. The addition fits comfortably within the context of existing museum structures as well as nearby historic facilities on Wright-Patterson Air Force Base. The addition adjoins a neighboring gallery in a manner that facilitates natural visitor progression through the exhibit space and offers seamless attachment to and appropriate alignment with the preceding museum sections. Contextual conformity was achieved by replicating the silo's "skin" treatment with that of the existing Quonset-like buildings and by maintaining the difficult, but desired architectural axis with the opposing IMAX structure. A mezzanine level walkway further enhances the visitor experience by permitting an elevated perspective of the exhibits. Lighting, life safety, and strict climate controls not only enhance the exhibit environment and provide dramatic display presentation, they also elevate the "silo" from a missile shelter to a true museum building. The gallery is dedicated solely to space and missile technology and provides a diverse and unified display of weapons that represent an important part of our national defense during the Cold War era.

facility design

merit award



### *Jurors' Comments*

- *Easily exceeded design objective; clearly demonstrates feeling of being in a missile silo*
- *Scale, materials, color, lighting, and multiple views play key role in design success*



## Jurors' Comments

- *Great blend of local natural materials with high-tech materials*
- *Varying exterior geometrical shapes work well with surrounding landscape*

## Visitors Center/Entry Control Gates Schriever Air Force Base, Colorado

**Design Organization:** Wilson & Company Engineers & Architects/HB & A

**Using Command:** Air Force Space Command

**Design Agent:** Omaha District US Army Corps of Engineers

**Base Engineering Organization:** 50th Civil Engineer Squadron



merit award

The Schriever Visitors Center and Entry Control Facilities provide modern, improved public access, traffic control and parking, and better force protection for installation personnel. The facility occupies a unique hillside position overlooking the base from the northwestern corner, taking advantage of the open and sweeping grasslands that converge with panoramic views of the Rocky Mountain Front Range. Materials follow the criteria required by the installation's Facilities Excellence Plan, using a combination of cultured buff sandstone, metal wall panels, and aluminum storefront. The sandstone is massed in simple geometric forms at opposite corners of the building to visually anchor the structure to the landscape. The floor plan incorporates large waiting areas and a full length customer service counter to provide flexibility and comfort for varying customer loads. Visitor center crowding has been greatly reduced and visitor satisfaction has skyrocketed. Visitors recognize the facility as the first place to stop and appreciate its easily accessible parking.

facility design







### *Jurors' Comments*

- *Excellent example of bringing various functional requirements together into one cohesively designed complex*
- *Great use of specific materials, color, and texture to create exciting exterior spaces*



merit award

## facility design

### **Base Civil Engineer Facility Nevada Air National Guard, Reno**

**Design Organization:** Hershenow + Klippenstein Architects

**Using Command:** National Guard Bureau

**Design Agent:** US Property & Fiscal Office for Nevada

**Base Engineering Organization:** 152nd Civil Engineer Squadron



This Base Civil Engineer facility is a complete renovation of the existing squadron building to expand personnel areas and add new operational areas. The existing facility had not been significantly improved since its original construction in 1980. Its administration areas, shops and storage areas were all inadequate. The entry road for the base is directly adjacent to the facility and presented a significant challenge for the designers to screen the service yard from the base entry gate. Screening was accomplished by studying the view corridors from the entry gate and then placing building masses to screen the yard. With an innovative and functional layout, the building now presents a very professional administrative face to the base's main entry and the "Town Square". The designers provided a curving, perforated screen wall across the front of the building to visually connect the addition and provide a coherent elevation. This element wraps around the industrial functions of the facility to screen these less visually attractive functions from view. The facility now has very attractive architecture, which fully demonstrates the intent of the Reno Architectural Design Guide and has an interior layout that is highly efficient, user friendly and bathed in wonderful natural lighting.



## Facilities Excellence Guide Air Force Space Command

**Design Organization:** Fennell Group  
**Using Command:** Air Force Space Command

The purpose of the Facilities Excellence Guide is to improve all aspects of the built environment and the quality of life for the families and individuals who serve in Air Force Space Command. The principal objective of the guide is to establish policy and guidance for safe, cohesive, and sustainable installations. As a harmonizing and sustaining theme for the guide, the development team conceived an image of "The Blue Line" - the outer region of the atmosphere protecting earth that appears as a thin, glowing blue line when seen from space. This is a very appealing metaphor and appears throughout the guide. The 2005 edition of the guide brings the program to the World Wide Web and provides numerous links to specific related programs, such as the U. S. Green Building Council's web site on sustainability. Web site resources are regularly updated to increase the level of usability. Designed as a working tool, the guide provides commanders, project managers, designers, and builders with the tools needed to develop installations consistent with the principles of design excellence. By following the prescribed policies and guidelines, and utilizing the available resources, commanders are maintaining continuity in the built environment and achieving excellence in design.

### *Jurors' Comments*

- *Innovative web documentation and subtle design guidelines through the use of rich supporting imagery*
- *A grand example of how to sell the Air Force core value of Excellence, especially to non-design professionals*

# citation award

## planning studies & design guides





## C-5 Fuel Cell, Corrosion & Maintenance Hangars Tennessee Air National Guard, Memphis

**Design Organization:** Frankfurt-Short-Bruza Associates, P.C.

**Using Command:** National Guard Bureau

**Design Agent:** US Property & Fiscal Office for Tennessee

**Base Engineering Organization:** 164th Civil Engineer Squadron

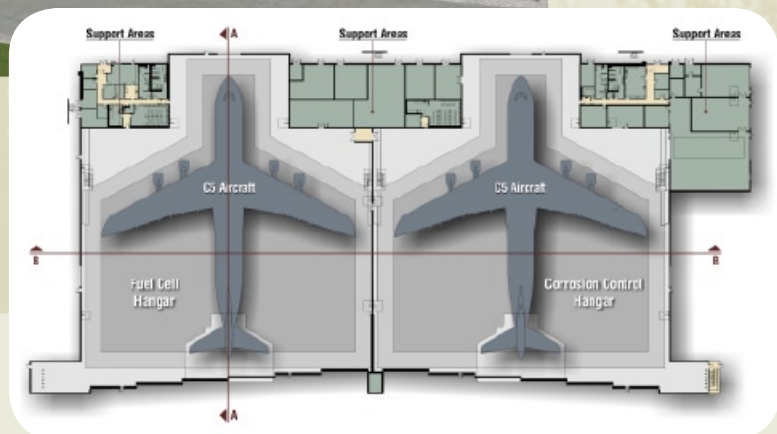
concept design

### Jurors' Comments

- *Multiple roof lines and building angles reduce the building's apparent scale resulting in a pleasing facility for the site*

This new hangar will improve aircraft maintenance operations and enhance workflow through integrated planning and technology. Building massing and material usage create a distinctive design solution that is in harmony with the base architectural standards and provides a low maintenance, aesthetically pleasing, energy efficient facility. The primary building function, the hangar bays, are the most prominent building features. The support functions which wrap the hangar bays are designed to reflect a more human scale. The proportion and scale of the masonry block base, brick, and cast stone horizontal bands relates to human scale, while the upper portions of the large aircraft hangars economically integrates two colors of metal wall and roof panels. Colored accent bands on the high bay and nose pockets plus the careful use of this color on the hangar and overhead doors provides visual interest and ties the structures together. Personnel entries are well-defined and wayfinding is enhanced by the use of full-height glazing and architectural sun screens. The efficient arrangement of shop and maintenance activities on three sides of the aircraft servicing bay reduces cycle times by placing people, services and materials directly adjacent to the aircraft. Easily accessible mezzanines open directly into the hangar bays.

citation award





## Character Development Center United States Air Force Academy, Colorado

**Design Organization:** Skidmore Owings and Merrill  
**Using Command:** United States Air Force Academy  
**Base Engineering Organization:** 10th Civil Engineer Squadron

### concept design

This new Character Development Center provides space for the study of ethics and honor, and includes space for administration, human relations training, symposiums, and seminars. Located at the intersection of the two formal open areas of the Cadet Area, the "Honor Court" and the "Terrazzo", the new center creates a visual and highly symbolic connection between these two spaces. A 150-seat auditorium, a 40-seat amphitheater and a 50-seat conference room surround a new courtyard and open onto a large assembly area. Conference rooms, break-out rooms, administrative functions, and support spaces are organized behind a wall of load bearing polymer composite that reinterprets the Italian 'Murano' glass mosaic walls found around the Academy. Carved into the Honor Court, a landscaped courtyard is created that both starts and culminates at the Terrazzo through a portal displaying the Cadet Honor Code, and establishes an organizational strategy for future expansion. The new Center is very well integrated into the established International Style architecture of the Cadet Area which was recently designated as a National Historic Landmark.

## citation award

### *Jurors' Comments*

- An outstanding adaptive reuse of space that preserves the original context and design of this historic campus*







### *Jurors' Comments*

- *Light roof color good choice for desert*
- *Excellent use of building materials to reduce massive scale; material types, shapes, textures, and colors combine to form an impressive structure not commonly found in hangar design*

citation award

## facility design

### **Predator Squadron Operations/Aircraft Maintenance Unit Facility Creech Air Force Base, Nevada**

**Design Organization:** Merrick & Company

**Using Command:** Air Combat Command

**Design Agent:** Los Angeles District US Army Corps of Engineers

**Base Engineering Organization:** 99th Civil Engineer Squadron

This new facility will support the Predator Unmanned Aerial Vehicle and serves as a home base and training site for civilian and Air Force personnel associated with this new aircraft. The facility's design balances traditional Air Force design standards with new, innovative details that reflect the character of the Predator and its important mission. The massing of forms indicates a clear line of the facility's functions. The hangar and the administrative wing are efficiently connected by a supply support spine. Trellised areas and benches are provided as well as benches on the north side of the facility. The public areas provide a theater and a lobby with unique, yet affordable finishes. The supply support function features an exterior staging area positioned in the hangar's shadow, providing an area for setting up mobility missions that is shielded from the hot Nevada sun. This project is an excellent example of how innovative design can enhance the mission of the Air Force and encourage camaraderie and esprit de corps in this command.



## facility design



### *Jurors' Comments*

- *Clearly demonstrates great multi-functional use at a grand scale*
- *Use of selected materials, colors, form, and texture to distinguish between hangar and administration areas reduced massive facility scale and easily identified differing functional areas*

## citation award

### **C-17 Corrosion Control/Maintenance Hangar Mississippi Air National Guard, Jackson**

**Design Organization:** CH2M Hill

**Using Command:** National Guard Bureau

**Design Agent:** US Property & Fiscal Office for Mississippi

**Base Engineering Organization:** 176th Civil Engineer Squadron

This new hangar is a state-of-the-art facility providing complete aircraft painting, corrosion control, composite materials shops, and personnel support spaces. Prior to beginning design, the design team researched lessons learned and best practices from several successful private sector and Air Force aircraft paint facilities and incorporated the best features of each into the new Air National Guard hangar. After extensive computer modeling, the mechanical system was designed to move air through the facility to create a laminar air flow across the aircraft. This system is activated during painting operations and virtually eliminates air turbulence by using the aircraft's own aerodynamic characteristics to provide smooth air flow, greatly improving the application of paint materials. The rectangular hangar shape allows a fifty percent reduction in the number of articulated work platforms required to service aircraft and saved \$3 million in construction costs. The full building height and width high-performance filter system allows non-airborne, non-paint-contaminated supply air to be recycled, resulting in a thirty percent energy cost reduction. This is the first new Air National Guard facility of this type, and sets the standard for similar future projects.





## Photography / Artist Rendering Credits

### Listed In Order

pages 4-5	Heidi Nelson, Kristin Rundquist, Cynthia Sondreal, Dustin Stuber, Christopher Harris
pages 6-7	HB&A
pages 8-9	Chris Arend Photography
pages 10-11	Dave Emery
pages 12-13	Bob Swanson
pages 14-15	HB&A
pages 16-17	Kenneth Hahn Architects
page 18	Don Yang
page 19	Brent Bowen & Robin Frye
page 20	JSK
page 21	Leo A. Daly
page 22	Craig Dugan
page 23	Rob L. Bussard
page 24	John Nagel
page 25	Donna Dunn
page 26	Victoria Ham-Hainsworth
page 27	Dave Emery & Stephen Grimes
page 28	James Jacobsen/HB&A
page 29	Vance Fox Photography
page 30	Fennell Group
page 31	Frankfurt-Short-Bruza Associates, P.C.
page 32	S.O.M.
page 33	Peter Lagomarsino
page 34	CH2M Hill



# Jury Members



## Planning, Urban Design, Landscape Architecture

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*Architect/Planner*

**Mr. Robert Preston**  
Nakata Planning Group, LLC  
Colorado Springs, Colorado  
*Planner*

**Dr. Michael Murphy**  
Texas A&M University  
College Station, Texas  
*Landscape Architect*

## Interior Design

**Mr. Bruce Sienkowski, IIDA (Chair)**  
2B Studio, Inc.  
Ada, Michigan  
*Interior Designer*

**Ms. Sandra W. Warner, IIDA**  
HQ Air Force Center for  
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Brooks City-Base, Texas  
*Interior Designer*

**Ms. Susan Boelman, IIDA**  
Created Design  
Littleton, Colorado  
*Interior Designer*

## Architecture and Engineering

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RVK Architects  
San Antonio, Texas  
*Architect*

**Mr. Jim Shelton, AIA**  
Overland Partners, Inc.  
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*Architect*

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*Architect*

**Mr. Robert Morris, PE**  
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San Antonio, Texas  
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## Acknowledgments

### **The Civil Engineer**

Major General Delwyn Eulberg

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Air Force Center for Environmental Excellence prepared this Annual Report.

### **Director, Air Force Center for Environmental Excellence**

Paul A. Parker

### **Graphic Design**

HOK Visual Communications  
Houston, TX

### **United States Air Force Design Awards Program Manager and Editor**

David M. Duncan, R.A.



