Facility Excellence Guide






Commander's Intent

While the Command's wing and group commanders know their facilities and mission better than anyone and have a personal vision for what improvements are needed on their watch and beyond, the AFSOC Commander has asked commanders, facility managers and engineers at every level to stay engaged and "set the bar high" when it come to their installation's base comprehensive plan (BCP) or, as in the case of our special operations groups, their area development plan (ADP).

Lt Gen Wurster realizes that, while everyone has individual tastes with respect to style, color and materials, the urge to select faddish design themes and unusual or eclectic decors must be tempered by the current fiscal reality and the fact that we are a command that is engaged in combat. Still realizing the life cycle of our facilities is greater than 50 years, it is critical that we stay within Command standards.

Indeed, while everyone recognizes that limited funding can make it difficult to execute "quantum leap" improvements in facilities, it remains as important as ever that we "attack the low hanging fruit" and strive to make a difference in assuring our Airmen have the world class facilities they deserve.

As Lt General Wurster has said, "we see few limits to what we can accomplish in AFSOC over the next decade". To that end, I ask for the support of the facility professionals in AFSOC and the contractor community that supports AFSOC to focus their talents to these standards in order to assure AFSOC effectively is able to both "Employ the Force" and "Build the Future Force".

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Director, Installations and Mission Support

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Executive Summary 1

Investment in quality recruitment, motivation and

The Air Force Special Operations Command (AFSOC) is one of nine major Air Force commands, and the Air Force component of the United States Special Operations Command (USSOCOM). AFSOC was established at Hurlburt Field, Florida on 22 May 1990. The command focuses on special operations and unconventional warfare and can trace its lineage back to World War II and the 1st Air Commando Group. The command took part in the Korean War under the title of "Air Resupply and Communication Squadrons." However, it was in Vietnam where the command's numbers greatly expanded; at one point, 19 Air Commando Squadrons supported the war in Southeast Asia.

Today, AFSOC provides Air Force special operations for worldwide deployment and assignment to regional unified commands. On 20 June 2006, the Department of Defense announced AFSOC would accept ownership of Cannon Air Force Base and in August 2007 the Environmental Impact Statement was completed and a Record of Design was signed by SAF/IE, allowing AFSOC to stand-up the 27 Special Operations Wing at Cannon AFB on 1 October 2007. The AFSOC expansion to Cannon provides the Command a western U.S. base to enhance support for operations worldwide.

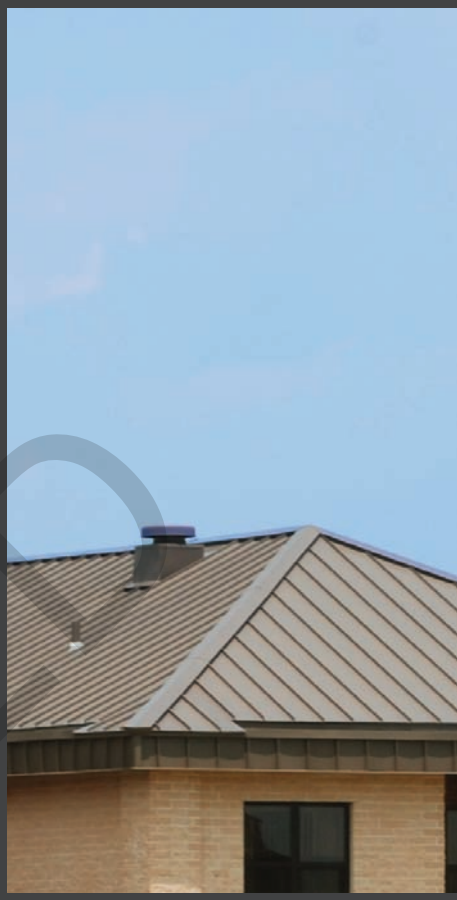
installations promotes

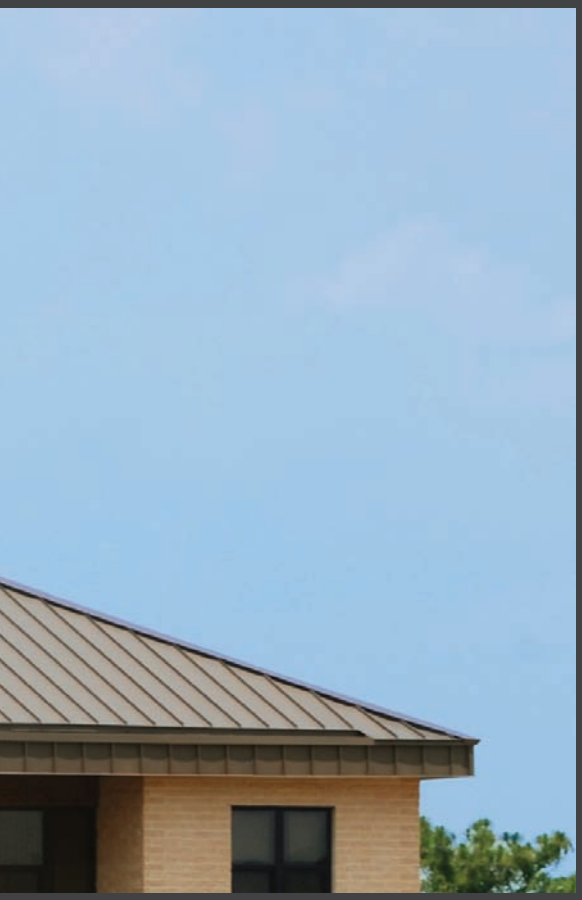
retention of key personnel.

AFSOC's mission is to serve as America's specialized air power organization, capable of delivering special operations power any time, any where. The command's forces are organized under two active-duty wings; one reserve wing; one National Guard wing; two overseas groups; and several direct reporting units.

Installation Excellence encompasses all aspects of AFSOC life – where we work, live, relax and play. Our installations provide the foundation for supporting our personnel and families in executing the AFSOC mission. They provide a home for our families and serve as a basis for mission readiness.

Investment in these quality installations promotes recruitment, motivation and retention of key personnel to support our mission. Excellence in the design, construction and maintenance of our installations has a direct correlation to our continued success. This Installation Excellence Guide is intended to support mission requirements by providing quality facilities that encourage pride and professionalism.





2 **Installation** Excellence

Architectural features should be compatible in function, mass, shape, color and texture.

2.1 How to Use This Guide

This Installation Guide serves as a reference document to be used by all levels of the AFSOC organization. It contains command policy and guidelines for installation excellence. The guide is intended as a planning aid and contains information necessary for developing and improving AFSOC installations. It is important that AFSOC Wing and Unit Commanders as well as all members of AFSOC recognize, understand and support the standards, policies and guidelines in this guide. Individual Commanders will implement the concepts of this guide specifically for their installation and their facilities.

Hurlburt Field and Cannon AFB will achieve facility excellence through attention to the long-range vision regarding how the installation should look and function in the future.

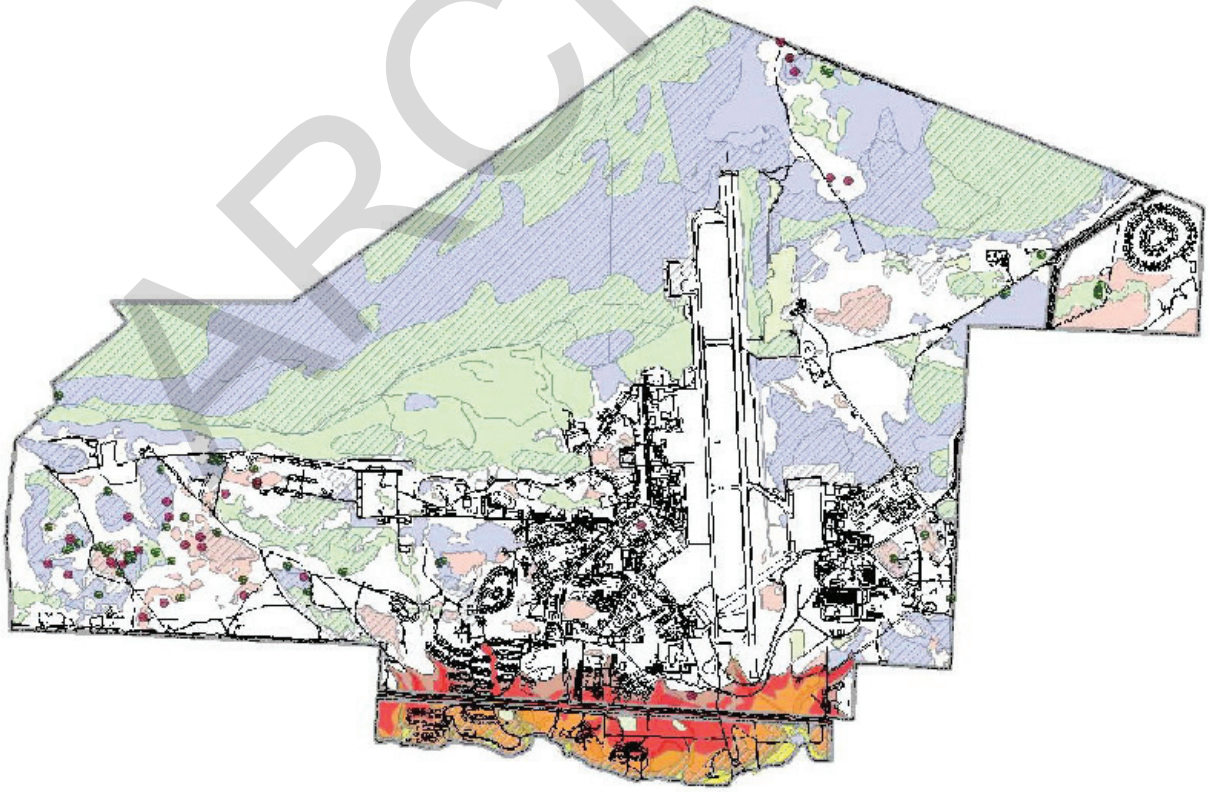
This guide should be used to focus project planning efforts in accordance with the AFSOC facility vision. It is divided into five main components: Installation Excellence, Visual District Areas, Guidelines, Facility Managers and References. Architectural Compatibility will provide guidance on what a model facility looks like for both the sub-tropic area of the Gulf States region, as well as the climate of the arid southwest region. The Design Guidelines describe concepts and information pertaining to site, landscaping, building exterior and interior components, security and sustainable concepts, all designed in concert with the AFSOC Facility Excellence Vision. The Reference Section provides a quick list of key information related to AFSOC facility excellence.

Each base should use this guide as a resource for all facilities, including tenant funded facilities on an AFSOC installation.

2.2 General Planning

Command Policy

Regardless of use, all facilities on the installation must be efficient, healthy, safe and comfortable places to work, live and play. Budget allocations determine the rate we can add and revitalize facilities and infrastructure to ensure the success of our mission and the well-being of our people. To make development decisions predictable, fair and cost effective, use the "Principles of Smart Growth" during planning; encourage collaboration between all installation stakeholders during planning sessions; comply with compatibility guidelines to foster a strong sense of place for each installation; and ensure the General Plan and component plans are current, realistic and comprehensive. Provide quality housing and create pedestrian friendly districts. Preserve open space, natural beauty and critical environmental areas. Provide a variety of transportation choices such as walking, biking, running and installation transportation options. Reuse existing infrastructure, facilities and raw materials to the maximum extent possible. And finally, take advantage of compact building designs to minimize waste. Together, these plans should define a vision for the future of the installation.



2.3 Installation Compatibility

Command Policy

Our facilities must reflect our standards of excellence -- high quality planning, design, construction and maintenance. They should reflect pride in our organization, our mission and ourselves.

AFSOC policy incorporates sustainable concepts during planning, programming and design of all facilities including renovations and additions to existing facilities. Incorporate durable, low maintenance materials and high efficiency water and energy systems in the designs. Use natural or integral color materials compatible and consistent with the architectural theme and color scheme of the installation.

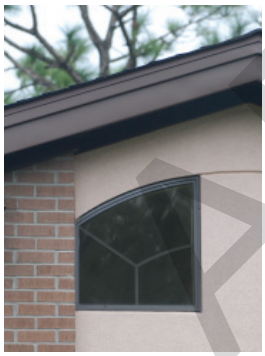
All new projects on AFSOC installations shall comply with installation specific Architectural Compatibility Guides.

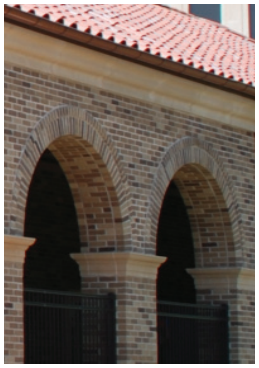
Gulf Coast Region

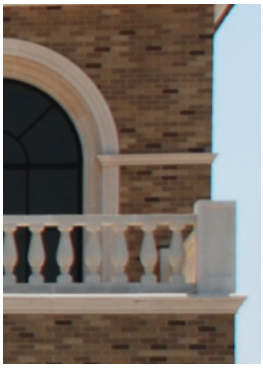
A mix of Spanish, French, English and Caribbean cultures are present in the coastal area. While these elements bring diversity to the region, there are common themes in much of the architecture. Structures are designed to withstand high winds from frequent hurricanes. Most structures are one or two-story with side and rear wings; pavilions; and multiple roof planes. Exterior materials include durable brown brick and block with intricate white/ beige stucco detailing to accentuate openings and entrance areas. Anodized bronze standing seam metal roofs, doors, windows and exterior light fixtures provide a consistent appearance throughout the installation. Doors and windows are symmetrical, often with multi-paned windows. Consistent detailing is a trademark of this region, from large scale components to smaller building details such as window awnings and entry features.

Southwest Region

The style of Southwest Architecture developed from the Native American and Hispanic traditions. Southwest architectural design originated from the two cultures' ideas for dealing with a harsh environment. The extremes of heat and cold called for protection from the sun in the summer and protection from winds in the winter. These extremes led to consistent one and two story designs with high mass walls. Religion also had a big impact on Southwest architecture which has taken its cues from early Spanish missions. Elements of Southwest architecture include arched entry porches, low-pitched red tile roofs, stucco walls, white sandstone details and rounded windows and doors. Exterior materials include multi-colored brown brick, balconies with elaborate grillwork and decorative tiles around doorways and windows.







2.4 Sustainable / Adaptable Facilities

Command Policy

The natural resources we depend on for energy and our survival are finite and therefore vitally important. Conservation and protection of all natural resources is essential. The Air Force Sustainable Design and Development (SDD) Policy, dated 31-Jul-07, reinforces the importance of sustainable development concepts in the planning, design, construction and operation of facilities and infrastructure. The goal is to: reduce the environmental impact and total ownership cost of facilities; improve energy efficiency and water conservation; and provide safe, healthy and productive built environments. To this end, and consistent with the requirements of the Energy Policy Act of 2005 (EPAct05) and Executive Order 13423, all Air Force construction projects, regardless of scope or funding source, shall endeavor to use the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) Green Building Rating Systems as their self-assessment metric. The key to the success of this policy is setting sustainable development goals early in the planning, programming and budgeting process and ensuring these goals are attained during design and construction.

LEED

Beginning in FY09, 100% of each MAJCOM's MILCON vertical construction projects, with climate control, shall be designed so that it is capable of achieving the 33 to 38 LEED points required for Silver certification. This is not an option. Sustainable features can not be eliminated to save scope or cut cost. To accomplish this goal, the Air Force will document SDD, EPAct05, and E013423 costs on the DD Form 1391, with a separate line item under primary facility costs identified as "SDD & EPAct05", beginning with the FY09 MILCON program. These costs will be programmed at 2% of the primary facility cost unless specific detailed costs are determined. When the costs exceed 2%, an explanation will be provided in block 10 of the 1391.

Process

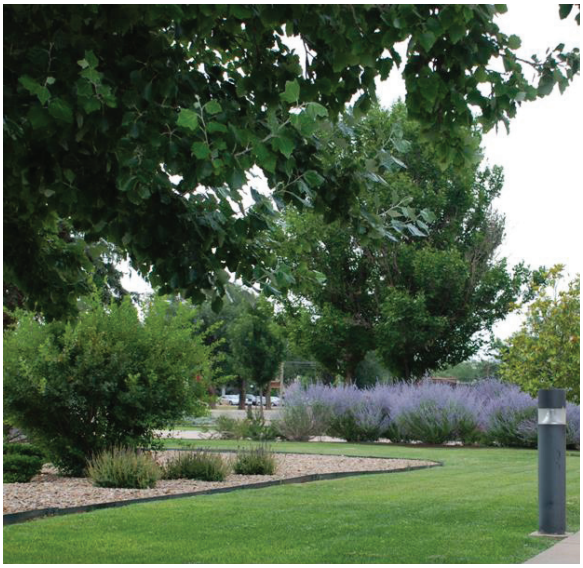
Implementation shall be monitored and documented by a LEED accredited professional. At a minimum, this will occur at the programming/ customer concept document, design charrette, final design and beneficial occupancy phases of all projects. Any decisions based on cost constraints leading to deletion of sustainable concepts, or certification of the project, shall be included in the documentation. The sustainable development implementation and validation process shall continue throughout the life of the facility.

Site Selection

Creating sustainable buildings starts with proper site selection. The location of a building affects a wide range of environmental factors such as security and accessibility; energy consumed for transportation; energy consumed for heating and cooling; impact on local ecosystems; and manner in which existing structures and infrastructures are used. Wherever possible, locate buildings in areas of existing development and consider renovating existing buildings and historic properties.

Landscaping

Maximize xeriscaping where possible. Select low maintenance plants that are disease and insect resistant. Temporary irrigation may be used for the establishment of plants. Minimize the use of fertilizers and pesticides. Preserve existing landscaping where possible. Provide ground cover and limit turf areas and areas requiring manual trimming. Use curbs, edging and walkways to define planting areas.



Energy Consumption

A building should rely on a mixture of conservation, passive design measures and fossil fuels for its operation. It should meet or exceed applicable energy performance standards. A sustainable building should be designed to take into account the energy and environmental impacts of operating and maintaining the building. Designers shall be encouraged to specify materials and systems that reduce the need for maintenance, and/or require less water, energy and toxic chemicals and cleaners to maintain.

Reduce heating and cooling loads through developed passive designs and conservation practices. Consider the building orientation when sizing and specifying windows. Locate landscape elements with solar geometry and building load requirements in mind. Use high-performance building envelopes to minimize heat gain and loss based on long-term product data.

Specify energy efficient HVAC and lighting systems. Consider the use of energy recovery systems that pre-heat or pre-cool incoming ventilated air. Use lighting systems that consume less than one watt per square foot for ambient lighting.

In general compliance with the HQ AFSOC Commander's Policy for Energy Conservation and any applicable installation standards should be incorporated into the planning and/or design for all projects.

Indoor Environmental Quality

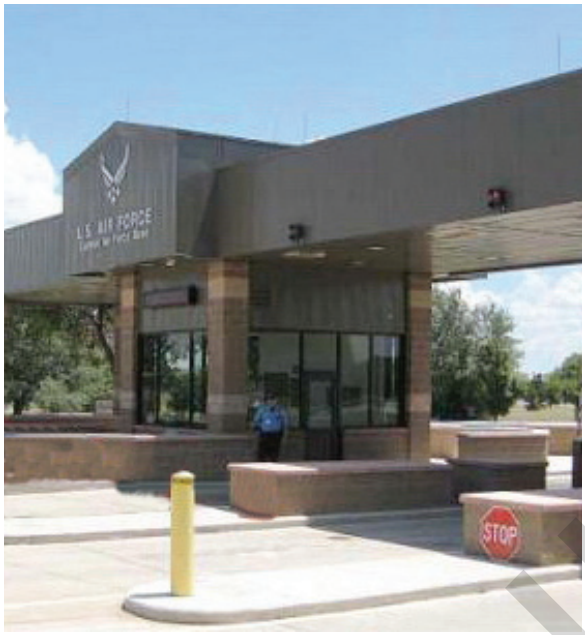
The indoor environmental quality of a building has a significant impact on occupant health, comfort and productivity. Among other attributes, a sustainable building should maximize day lighting, provide appropriate ventilation and moisture control. Avoid the use of materials with high-VOC emissions.

Visual District Areas 3

Visual Districts are areas of the installation where design components should have a unifying and consistent use and scale. Each of the visual districts has a defined sense of continuity based on the function, form, scale, color, texture and massing of the structures within that district.

The following sections describe each visual district, and begin to illustrate the desired design features for each district. For each district, appropriate design considerations will be established.

3.1 Installation Access



Command Policy

Main gates and entryways create lasting first impressions of the quality of our installations. The pride and professionalism of the Command is conveyed through these important points of access. Main arrival points to the installation must impart a commitment to installation excellence. Entrances, gates, visitor centers and airfield facilities must be designed and constructed to project a strong identity for each installation. Carefully consider the approach and arrival points at each installation and ensure they project an image of excellence.

Base Entrances

Entrances serve as the specific entry point for all personnel, visitors and deliveries. Carefully consider the arrival and departure to and from installations as well as the approaches from adjoining communities.

The Air Force Installation Entry Control Facilities Design Guide contains specific design guidance. Force protection will have primary consideration at all installation entrances. Give the departure side equal attention.

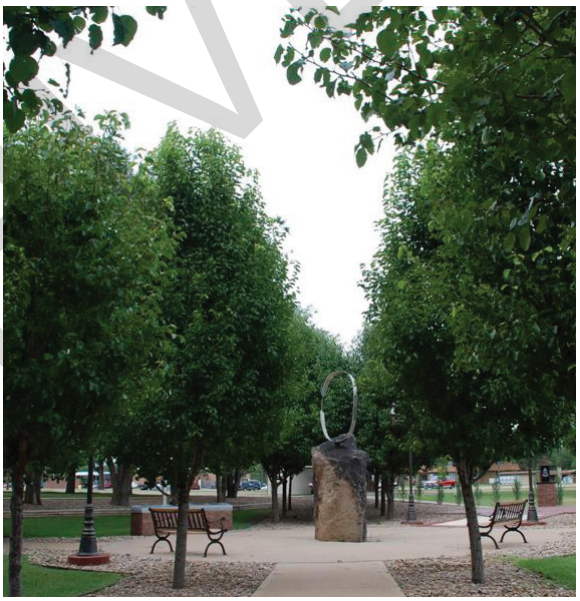
Provide for pedestrian and bicycle access. Landscaping should lend an attractive, professional image and not obstruct visibility for security purposes. Lighting should enhance security and visibility, but not blind drivers. Vehicular traffic flow through, around and between base entrance guardhouses and the visitor reception center should be uncomplicated and restricted to the entrance area.

Work with local officials in planning off-base development near the entrances. Focus on concepts that enhance security and limit congestion while improving the appearance of the installation.

Establish routes from base entrances to and from typical destination facilities such as the flight line district, Base Exchange, commissary, billeting office, etc. Ensure the departure routes are equally considered from these destinations.

Outdoor spaces should enhance and emphasize the installation and facilities. Feature memorials, ceremonial plazas and static displays as supporting elements. Provide outdoor spaces for transportation pathways, meeting places and resting places. Provide an appropriate scale of landscaping, furnishings and materials specific to the function of each outdoor space.

All facilities in the Installation Access District shall be maintained on a scheduled basis. Keep sites and facilities clear of clutter, unnecessary signage and unnecessary equipment. Involve installation maintenance personnel in the planning and design of facilities to ensure sustainable and maintenance factors are considered early in the design process. Ensure commissioning processes are part of all design and construction efforts. Include prefunctional and functional testing; equipment startup; verification of design intent; proper as-built development; operations and maintenance manuals; training; and facility turnover.

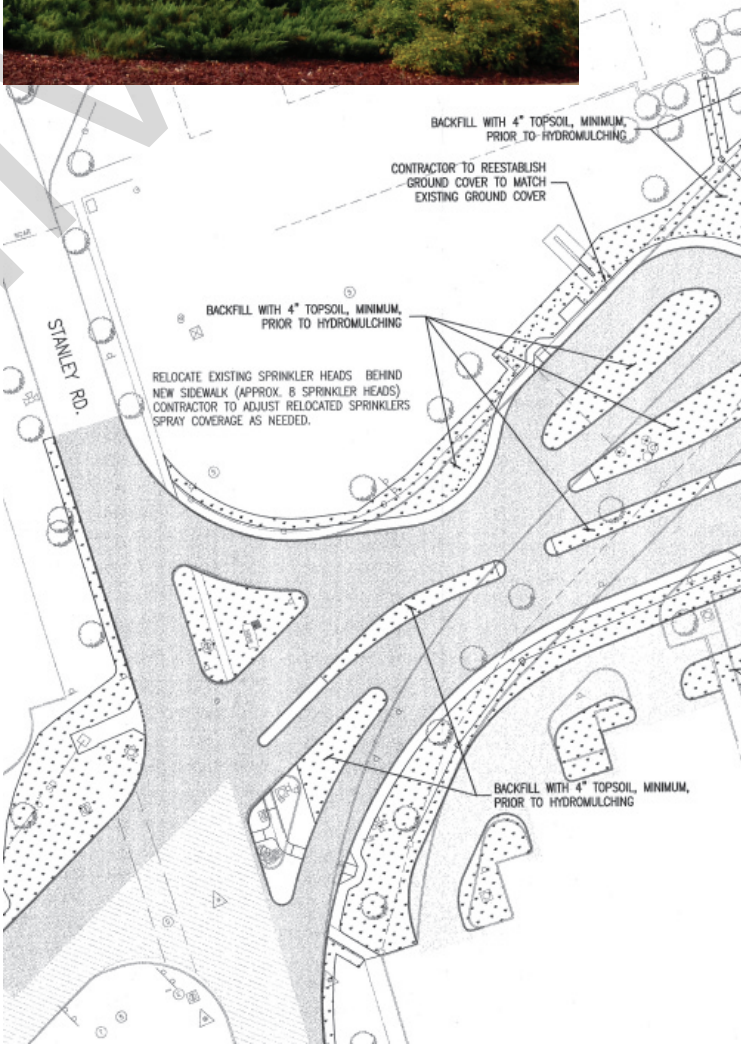


Gates

The purpose of the gate is to prevent unauthorized access and maximize vehicular traffic flow. Security, safety, capacity and image are the main priorities to consider. Designs should be simple and sturdy. Provide signage for entrance side as well as the departure side. Retractable bollards shall be installed at the entrance and departure side.

Guardhouses

Guardhouses should be compatible with adjacent facilities and be of permanent construction, preferably masonry or concrete. Provide adequate lighting and install heating and air conditioning at both Hurlburt Field and Cannon AFB. An integral restroom is desirable. Entrance guardhouses should be set well back from public roadways to allow stacking of vehicles entering and leaving the installation. Guardhouses should be sited on an island between opposing lanes of traffic and should provide access to traffic lanes in both directions. Provide a means for identification of on-duty security personnel (name and hometown).



Visitor Centers

General guidance for base entries is provided in Military Traffic Management Command's Traffic Engineering for Better Gates. Visitor Centers are located at the main installation entrance. The design should be compatible with the guardhouse. The Air Force Entry Control Facility design guide should be followed for traffic

circulation requirements. A customer service counter, restrooms and comfortable waiting area are key components of the center.

Traffic Flow

Curb cuts for vehicle turnarounds should be provided in front and in back of the guardhouse at the main gate. This allows the first-time visitor to access the visitor reception center before or after making contact with security personnel at the guardhouse. If base access is not desired or authorized, the traffic lane design should allow for easy exit. If access is desired and authorized, the flow from the visitor reception center should allow for an easy turn into traffic and back through the gatehouse checkpoint with a displayed visitor's pass. All commercial vehicle inspection facilities should be built and maintained at other than the main gates. Wherever possible, commercial vehicle inspections should be segregated at a gate dedicated to this function/free of other traffic flow.

Base Operations and Passenger Terminal

Base Operations and passenger terminals are important entrance points into the installation. Provide visual barriers between terminal and industrial areas. Provide a highly visible route for arriving and departing passengers.

3.2 Operations

Command Policy

The Operations District is the work center of the base. The consistent function of facilities in this district provides better opportunities for architectural compatibility. When renovating or designing new facilities in this district, elements such as roof pitch, downspouts, windows, signage, texture and colors should be consistent with the surrounding buildings. As the only exception in this district, the headquarters complex creates a commanding focal point with its unique style.

Administrative Areas

Administrative facilities usually contain offices, conference rooms and command centers. Provide consistently detailed buildings that support the importance of the facility. Ensure the main entrance of the facility is carefully designed and detailed. The layout of these facilities should consider views, energy conservation, ease of access and circulation.

Design the facility main entrance to clearly identify the preferred approach to the facility. Comply with force protection requirements for standoff distances while maintaining a pleasant pedestrian focus throughout the site. An area for pick-up and drop-off of visitors should be considered where appropriate. Ensure that vehicular and pedestrian traffic is separated. Allow for bike access.

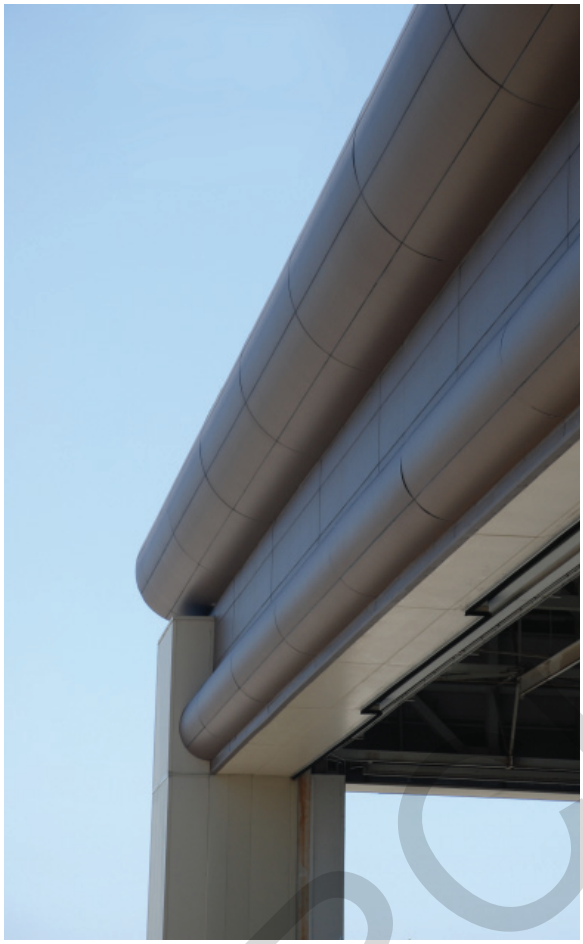
Education / Training

Training facilities should be well lit and spacious to create environments that are conducive to learning. Select tables, chairs and desks that are comfortable, durable and coordinated with the interior décor of the facility. Provide for acoustical control requirements between adjacent areas. Include all audio visual equipment and ensure all requirements are coordinated with the installation communications office. Provide training spaces comparable to university classroom settings. Ensure appropriate location of these facilities to housing and mission districts.

3.3 Maintenance and Logistics

Command Policy

Maintenance and Logistics facilities house functions supporting the primary mission of AFSOC. Excellent Maintenance and Logistics facilities are required to provide excellent services. Work centers must be efficiently configured, professionally maintained and conducive to providing excellent support. Plan configuration should be driven by function. Material selection should be driven by durability.



Flight Line and Industrial Areas

The Flight Line District includes aircraft storage, maintenance facilities and flight line administrative facilities. This district has a functional role characterized predominantly by large hangars and warehouse buildings. Renovations and new construction in this district should ensure consistency of details such as roof pitch, downspouts, fenestration, signage, texture and colors with surrounding buildings. Low slope shed or gable standing seam metal roofs matching installation standards are preferred.

3.4 Mission Support

Command Policy

Excellent mission support facilities deliver excellent services. Facilities that are efficiently configured and professionally maintained are conducive to excellent support. Mission support buildings help our community achieve the overall mission by providing a safe and comfortable environment in which to work. Mission support facilities should be easy to get to and adjacent to the mission facilities they support. Facilities should be sited to promote pedestrian circulation and minimize the need to drive between activities.

Personnel Support

Dining facilities should be comparable with commercial cafeterias. A designer with specific kitchen and dining facility experience is required. Locate the dining facilities close to mission support districts as well as the housing district. Specify commercial grade equipment and ensure the design considers peak period lines.

Provide a lobby for general patron conversation and gathering. A coat room and restroom will be located off the main lobby. A clear, unobstructed and efficient circulation path is required. The main dining area shall have a sense of openness and shall be separated from the food preparation and serving areas. Consider outside dining areas and multi-use functional areas that allow for flexibility.

Baffle serving line noise. Provide out-of-site alcoves for bus carts and microwaves. Lighting levels shall provide for a warm and inviting atmosphere. Use daylighting to limit the need for electric lighting and enhance the dining area atmosphere. Natural spectrum lamps are required to maintain the natural color of food. Avoid fluorescent lighting. Public and private areas shall be accommodated. Use only neutral colors to allow for future changes. Introduce color through the use of furnishings, plants and art work.

Base religious facilities must reflect our genuine concern and commitment to our people and families. The interior design package for religious facilities should convey a tranquil and spiritual environment serving all faiths. This can be achieved through the use of coordinated wall coverings, furnishings, floor coverings and accessories.

Provide administrative areas for staff to conduct day-to-day duties and private counseling. Include multi-purpose rooms that can serve as training areas. Install a kitchen with ample storage and workspace. Provide a high-quality public address system; full lighting control; and furnishings that are comfortable, attractive and professional. A nursery is provided in all religious facilities so parents may worship together. Provide a kitchen with ample work space and storage. Provide classrooms to support religious education programs.

Follow a comprehensive interior design plan for the chapel. The plan should include coordinated wall coverings, furnishings, floor coverings and accessories. The design should have universal appeal and should avoid permanent fixtures that are associated only with a specific denomination or belief.

Indoor Recreation

Fitness Centers should be designed as multi-purpose facilities capable of accommodating a full range of fitness activities. Entry foyers should provide furniture for waiting and resting. Sport courts should have adequate bleachers and viewing areas. Locker rooms should be well ventilated. Provide an adequate numbers of lockers, designed with materials that are easily cleaned.

Provide spacious change areas with wide benches and adequate lockers. Women's change areas should provide well-lighted, large mirrors and vanities with extra electrical outlets. Separate spas, steam rooms and saunas for men and women should be located near change room areas. Provide modern restroom and shower facilities. Privacy curtains or doors for showers and drying areas are encouraged.

Wall and floor coverings should be selected for safety, functionality, durability, appearance and sound control. Walkways and workout stations should be well defined to provide sufficient space for training.

Offer a full variety of fitness equipment with rooms for specialized cardiovascular equipment, aerobics and weights. Provide a variety of equipment tailored for all patrons (such as small weights). A storage area for weights, separate from traffic and workout areas, should be provided.

Air Force bowling centers should be comparable to commercial facilities. Functional offices, centralized sales and pro shop, an enclosed video

arcade, restrooms, a snack bar and separate locker rooms should be available. Automatic scoring machines are recommended.

Design clubs that reflect each installation's population. Ensure the main entrance and exterior appearances are attractive and professionally landscaped. Create inviting foyers with tastefully selected accessories, lighting and furnishings. Provide attractive lounges, dining areas, cashier cage, barber shop, coat room, telephone areas and game room. Kitchen equipment should be commercial quality.

Today's Air Force shopping facilities must compete with the changing and dynamic commercial interests off base. As such, excellent facilities are extremely important to the success of AAFES Base Exchange and DeCA's Commissaries, shoppettes, theatres, banking services, barber shops and hair salons. Base facilities must not only provide good value, but a variety of products in an exciting, clean and pleasant atmosphere. These facilities work better if grouped together.

All tenant facilities shall follow the installation compatibility guidelines and facility excellence guidelines. Although these facilities are commercial by nature, they should limit the use of advertising signs and banners affixed to facilities are prohibited. Free standing temporary signs announcing a special event or sale can be allowed but should be used with desecration. Case lot sales should be kept to the facility grounds and should be neat and organized.

Parking areas are developed using a shared-use plan with adjacent facilities with different operating hours such as the bank and theater. Provide dedicated employee parking with limited reserved spaces. Required handicapped spaces shall be provided without exception. Encourage pedestrian and bike travel through the use of sidewalks, pathways and adjacencies to the housing district.

Pick up and drop off areas are required for each of these facilities.

Outdoor Recreation

Locate outdoor recreational facilities near the population they serve. Place bleachers for football, soccer and softball fields on concrete pads to control erosion, eliminate settling and mitigate weed growth. Pads also improve litter and insect control. Provide sizable, durable and compatible refuse and recycling receptacles.

Athletic fields provide recreational opportunities where people can interact competitively, safely and enjoyably. Provide permanent and modern restroom facilities. Include attractive, clean and functional snack bar facilities. Mount field lights on storm-resistant poles and run all utilities underground. Follow AT/FP set back requirements for the placement of bleachers, etc.

Provide fun, creative and attractive spaces for users to enjoy. Stress safety by using impact-absorbing materials. Provide a variety of play spaces and adequate seating. Avoid dissimilar and multi-colored materials. Provide attractive landscaping, as well as restroom facilities and drinking fountains.

Picnic areas provide space for relaxation. They should be easily accessible from parking areas and provide good shelter. Garbage containers should be provided.

Golf courses should be well maintained and comparable to public facilities. The clubhouse should have a pro shop, separate restrooms and locker rooms. Tastefully designed lounge, snack bar, dining and patio areas should be provided.

Adequate storage for golf carts and golf club bags should be available. Waste cans, ball cleaners and durable, attractive and sheltered benches should be located at every third tee box.

The course should take advantage of and accent its natural features. Course maintenance may be improved by using underground sprinkler systems as well as incorporating the use of “gray water” to conserve potable water in arid areas.

All signage for outdoor recreation should be minimized but tastefully blended-in to the environment vice Air Force signage elsewhere on the installation.

3.5 Medical

Command Policy

Medical facilities must inspire patient and customer confidence in the health delivery system. Facilities must project the highest professional appearance from the public's initial contact at entrances, lobbies and reception to private consultation rooms, x-ray rooms and other private areas. Our customers and their families must feel they are receiving the best medical care available. Materials must be selected for durability as well as ease in cleaning

Medical Centers

Medical facilities must provide customers and visitors a sense of direction, whether arriving by vehicle or on foot. Reception and waiting lounges should be easily recognized, comfortable and close to the department where service is provided. They should provide reading and information centers. Comfortable seating should be arranged so as not to give patients the feeling of a long waiting period. No seating will be provided in hallways or spaces with designated activities.

Medical treatment areas where diagnostic or therapeutic care is given should have the appropriate medical equipment and mechanical and electrical systems to efficiently support them. Create an atmosphere where patient privacy and doctor-patient confidence is instilled.

Patient nursing rooms are usually for patient recovery after intense treatment in other areas of the medical center. Provide an appropriate space for the medical staff who will be providing care and monitoring patients. Natural light and a residential atmosphere help in the recovery process.

3.6 Housing and Dormitories

Command Policy

AFSOC housing must exemplify our quality-of-life philosophy by providing attractive, secure and comfortable places for our military members to live and raise families. Most military members consider housing the top quality-of-life benefit second only to the geographic location. Good housing improves morale and favorably affects job performance and retention. Housing and dormitory areas should have access to transportation, commuting patterns, services and education. Mitigate the environmental costs of auto-dependent development, by using existing infrastructure resources more efficiently and generating a strong foundation of support for neighborhood transit stops, commercial centers and other services. Dormitories should be a comfortable, permanent home for our unaccompanied members. Temporary Lodging Facilities and Visiting Quarters must meet the standards of the Air Force Lodging Program to provide quality temporary lodging.

Family Housing

AFSOC neighborhoods shall have quality, energy-efficient, sustainable, low-maintenance housing area that supports the needs of the military family and reinforces the development of a strong sense of community. Recreational opportunities, access to community facilities, adequate parking and landscaping are all components of a successful neighborhood. The installation housing should be comparable to well-developed, off-base housing areas of the same income level. Family housing typically consists of one- and two-story homes, either single family residences or duplexes. The design of family housing shall create a pedestrian friendly environment that encourages social interaction. The boundaries to these neighborhoods shall be clearly defined places with character.

Mass, scale, orientation and shape are key elements in new construction of housing. Family housing design shall strive to achieve a human

scale to the neighborhood that make walking and biking more attractive forms of transportation. Site development and landscape standards should be developed and enforced for elements such as privacy fencing, bus shelters and playground equipment. Visual screening between the housing district and other districts should be provided through the use of landscaping elements. The design of housing areas should diminish the importance of the automobile; and encourage walkways, paths, playgrounds and neighborhood parks. Low roof eaves, reduced setbacks and emphasis on pedestrian front entrances are desired. Key design components are storage, porches, adequate kitchen layout and adequate bathroom size and fixtures.

Materials that reduce overall maintenance requirements shall be used in the housing areas. A periodic maintenance program should be established to keep siding, trim, roofs, gutters, downspouts, appliances and utility systems well maintained.

The kitchen layout shall include an efficiently arranged work triangle. Generous cabinet space shall be provided. Provide direct access to the dining area and carport/garage.

Circulation patterns shall allow for various furniture arrangements by occupants. Ample closet and storage space are required. Acoustical isolation between units and between high noise areas such as the laundry room is essential. Provide a distinct entrance foyer.

A private patio, screened or fenced, with adjoining storage is necessary. Outside outlets shall be included at the front and back of each unit. One garage or covered parking space is required per unit. Thermal windows and doors are required for all conditioned spaces.

Refer to the following guides for information regarding the planning, programming, design and construction of both United States Air Force owned and privatized family housing: Design: Family Housing (UFC 4-711-01); Family Housing Planning, Programming, Design and Construction (AFI 32-6002); General Officer Quarters (AFI 32-6003); Privatized Family Housing (AFI 32-6007); and the Air Force Family Housing Guide.

Permanent Party Dorms

Dormitories are permanent residences for our unaccompanied members, and should provide a comfortable home. Dormitories, new or renovated, will provide facilities with shared kitchen, laundry, living room, private bedroom, bath and closet. Rooms will have exterior entrances. Dormitories should be well lit and designed with safety at the forefront. Include the appropriate amenities necessary to create a neighborhood. These facilities should be within walking distance of community support facilities and mission facilities.

Define main entrances with covered exterior landings and proper lighting. Identify facilities with professionally manufactured signs conforming to AFSOC sign requirements.

Site amenities include landscape areas with covered patios and adjacent barbecue grills. Separate dormitory modules should be interconnected with sidewalks and provide covered bicycle and motorcycle parking.

Create attractive and inviting dayrooms through the use of carefully selected room finishes and accessories such as artwork and plants to enhance the décor.

Bedrooms should have a full-length mirror, telephone jack and central TV antenna or cable connections. Provide built-in closets, window screens, smoke and heat detectors and individual room temperature control. Create inviting rooms with vanity sinks, refrigerators, hardwood furniture, lined drapes and a combination of direct and indirect lighting.

Use appropriate interior finishes and colors. Use carpet in rooms and interior hallways. Select commercial quality materials and furnishings that are durable and maintainable. Refinish existing interior concrete block walls with wall covering over gypsum board furring. Provide appropriately decorated laundry rooms with sorting counters and hanger rods. Provide conveniently located recycling areas to promote the Air Force solid waste reduction program.

Additional Air Force dormitory guidelines can be found in the Air Force Policy Design Guide for Enlisted Dormitories.

Temporary Lodging Facilities

Quality apartment-style living quarters, housing families between assignments, should have living and dining areas separated from bedrooms and where possible a separate sleeping area for children. Provide typical kitchen appliances including a microwave. A color television, an iron and ironing board are also essential. Include appropriately decorated laundry rooms with sorting counters, hanger rods and locking doors. Provide adjacent parking areas to accommodate large recreational vehicles, boats and trailers. Ensure convenient loading and unloading of personal items at the main entrance or near rooms.

Visiting Quarters

Provide a full-length mirror, telephone jack, computer jack and central TV antenna or cable connections. Provide built-in closets, window screens, smoke and fire detectors and individual room temperature control. Make rooms inviting with vanity sinks, refrigerators, hardwood furniture, lined drapes and a mix of direct and indirect lighting. Use appropriate interior finishes and colors. Provide carpet squares in rooms and interior hallways. Select commercial quality materials and furnishings that are durable and maintainable. Refinish existing interior concrete block walls with wall covering over gypsum board furring.

Quality doesn't just happen. Inspiration, beauty and function combined with planning and hard work produce that result.

Guidelines 4

AFSOC facilities reflect the highest professional standards of planning, design, construction, operation and maintenance. All facilities, regardless of their use, must be efficient, healthy, safe and comfortable places for our people to work, live and play. Facility investment must be economical and prudent to avoid the appearance of “gold-plating” or waste. Programming of new MILCON facilities can be planned more effectively through the use of the MILCON Checklist provided in Part 8. Designs for new construction and renovation will incorporate low-maintenance or integrally colored materials and economical construction techniques without compromising a high quality, architecturally pleasing, professional appearance.

Ensure the General Plan and component plans are current and realistic. Use them to guide your investment in facilities. AFSOC Tenants shall comply with host architectural themes and standards for exterior and interior facility designs. Facilities shall be designed to meet the most stringent requirements outlined in the most current version of the International Building Code (IBC) and the Life Safety Code (NFPA 101).

4.1 Safety

Command Policy

Safety must be an essential part of the planning and design process. Planning measures to reduce our vulnerability or the perception of vulnerability upfront goes a long way toward protecting our most valuable asset – the highly skilled individuals critical to the success of our mission. Ensure proper lighting in the designs. Avoid creating unsafe concealed areas.

Fire prevention is a concern for all. Only fire rated materials shall be used. The Engineering Standards, Uniform Facility Criteria 3-600-01, and National Fire Protection Agency Manuals contain information pertaining to fire rated materials.

AFSOC directors will ensure that proper channels are used when renovating or modifying any part of their facility to include doors, walls and systems furniture. Per AFPAM 32-1125v1, the AF Form 332 is used to request and approve all work in an Air Force facility. All requests to renovate, modify or add onto a facility must be submitted to Civil Engineering Customer Service and signed by the facility manager or commander. Requests for systems furniture must also be submitted on an AF Form 332. No work shall start until an approved signed copy of AF Form 332 is on file in the facility manager's book.

4.2 Security

Command Policy

Security measures have an enormous impact on the visual aesthetics of the base. Safety measures should be integral to the design. Barriers and bollards should be consistent with the architectural theme of the base and should be of like materials, finishes and detailing.

Force Protection

Force protection is an essential aspect of today's facility designs. An objective approach that precludes the wholesale hardening of facilities or bases is required. Planners, designers and builders work with base security measures to provide a sound approach to keep our members and facilities safe. Threats may come from hidden explosives, chemical or biological agents, direct physical harm or psychological pressure.

New construction should integrate protection and security features into the master plans, site selections and base development. New designs will comply with requirements based on risk assessments. To ensure an aesthetically pleasing visual appearance, incorporate required force protection and security designs into landscape features. Comply with the minimum standards established in the current DoD Minimum Antiterrorism Standards for Buildings publication (UFC 4-010-01) and DoD Minimum Antiterrorism Standoff Distances for Buildings (UFC 4-010-02). Standoff distance, or the distance maintained between an inhabited structure and the potential location for an explosives detonation is a key component of force protection to reduce the blast effects on the structure.

When standoff distance is met, force protection standards are easily incorporated into the project without being costly or obtrusive. As standoff distance decreases, force protection requirements and cost increase. When standoff distance cannot be met, blend the force protection requirements into the design in as inconspicuous a manner as possible avoiding a massive or prison-like appearance.

Building perimeter security should be integrated into an attractive system of streetscape and landscape designs. When designing installation security measures, provide security in the context

of site beautification, rather than as a separate or redundant system of security components. Expand on the palette of elements that can gracefully provide perimeter security in a manner that does not clutter the landscape. Avoid the monotony of endless lines of jersey barriers or bollards, which evoke defensiveness. Provide perimeter security in a manner that does not excessively restrict or impede operational use of sidewalks or pedestrian and vehicular mobility, or impact the health of existing trees. Identify an implementation strategy that can be efficiently coordinated in the most cost-effective manner.

For more information on Force Protection planning, see the Air Force Guide on Force Protection Planning. The DoD Antiterrorism/ Force Protection Construction Standards are also available for reference.

4.3 Streetscapes

Command Policy

Streetscapes should be as well thought out as the buildings. Pedestrian friendly communities make pedestrian activity possible. Expand transportation options and create a streetscape that better serves a range of users -- pedestrians, bicyclists, transit riders and automobiles. Visitor's first impression is determined by the view of the land between our buildings. Excellence in outdoor spaces creates a friendly, inviting and enjoyable community. Carefully layout the buildings on each site. Create pedestrian friendly neighborhoods in the housing districts as well as the mission support and operations areas. Provide adequate open space while keeping walking distances appropriate. Minimize conflict between pedestrians, vehicles and installation equipment. Use area development plans to guide the development of common areas.

Building Orientation

Main building entrances should be oriented towards the major street accessing the site. If the site is at the intersection of two major streets, both building faces should be treated as primary entrances. Ensure designs meet all AT/FP requirements.

Streets

Safe and efficient traffic flow can be achieved by providing an effective network of primary, secondary and tertiary levels of streets. To enhance traffic flow, intersect streets at right angles. Avoid offset and skewed intersections. Asphalt paving should be used for most streets and vehicular parking areas. Minimize curb cuts along roadways and utility cuts that require patching. Design streets to accommodate traffic flow and direct vehicles to parking lots.

Curbs and Gutters

Curbs provide a barrier between traffic and pedestrians. They reduce the need for street repairs and re-direct storm water runoff. Never paint curbs. Use integral curbs and gutters for paved streets and parking lots. On perimeter, macadam and dirt roads, curbs may be excluded. Provide curb ramps at all intersections with sidewalks.

Use drought resistant plantings or other landscape features to minimize the need for grounds maintenance and irrigation systems in narrow areas between the street and sidewalks and consider sidewalks which are directly a part the curbs and gutters when possible.

Parking Areas

Parking areas should relate to facility entrances. Parking areas should include landscape elements to avoid visually overwhelming the facilities they serve. Functional lots can be developed to serve multiple facilities. Use consistent stall angles and sizing. 90-degree, 9-foot-wide spaces and two-way circulation aisles are preferred. Reserved spaces and on-street parking to residential areas should be restricted. Avoid the use of wheel stops. Use painted pavement markings to designate handicap parking.

Parking shall be restricted on streets. Diagonal or 90-degree parking should be avoided where vehicles back into streets. Parking areas should be divided into smaller lots rather that consolidating into one large parking lot. Use xeriscape elements to soften the visually hard qualities of the parking lot and avoid sprinkler-type irrigation around vehicles. A ten percent landscape-to-parking area ratio is appropriate. Use a four-inch wide, single white stripe to mark parking spaces. Designate distinguished visitor parking with portable signage maintained by facility managers. Curb plates or painted pavements for distinguished visitors is not permitted. Ensure signs comply with standards (refer to section 4.8).

Sidewalks

Pedestrian friendly communities are desirable places to live, work, learn, worship and play. Therefore, they are a key component of smart growth. Sidewalks should be constructed of concrete and should be at least 72” wide and 96” wide at the community center. They should be designed to link facilities and promote pedestrian use. Provide lighting for sidewalks that have heavy nighttime use. Provide a sidewalk on at least one side of every street. Avoid placement of utility fixtures, street furniture and landscaping too close to sidewalks.

Handicapped access with appropriate concrete striations shall be provided at intersections and crosswalks. Barrier or mountable curbs shall be provided in housing areas. Use 24-inch wide, reflective white stripes to denote crosswalks. Place the crosswalk stripes parallel to the roadway.

Paving

Typical paving on installations includes streets, parking lots, sidewalks and recreational trails. A well planned and developed system of streets and pavements promotes the safe and efficient movement of vehicles and pedestrians. A comprehensive pavement plan that addresses new construction as well as maintenance of existing infrastructure is an essential component of facilities excellence. The pavement plan ensures pavements are functional and safe and integrated into the installation’s natural and built environment.

Use asphalt paving for most vehicle areas. Avoid asphalt sidewalks and curbs. Use concrete for sidewalks and curbs. Utility or other cuts in pavement should be minimized as much as possible.

Special pavers may be considered for courtyards, plazas, entrances and other high profile areas. Repairs to pavement in these areas shall use the same color and style as used in the original construction.

When patching concrete pavements in highly visible areas such as the front of headquarters or base operations, use color additives to match the color of existing surrounding concrete

pavements. The concrete tint should be approved with submittals of color samples and additive specifications proposed by the supplier's batch plant. Use clear, as opposed to white pigmented, curing compound. An alternative to tinting in less visible areas is power cleaning. This process cleans the surfaces of adjacent concrete with a high-pressure water spray and lessens the color differential between new and existing concrete. In perimeter, outlying, or ramp areas, do not attempt to match tint color or power clean the concrete.

Materials

All facility materials should be durable, permanent and timeless. Ensure all materials are low maintenance and environmentally responsible. Avoid trendy, highly customized or experimental materials and colors. Use natural finish materials or pigment-impregnated materials wherever possible. Minimize painting. Where painting is required, use colors that are compatible and consistent with the architectural theme and the installation color scheme. Limit the exterior paint scheme to no more than three colors on any facility. Ensure all materials are appropriate for the local climatic conditions and respond to local energy efficiency practices.

4.4 Exteriors

Command Policy

The areas surrounding our facilities need to be well designed to create friendly, inviting, pedestrian communities. Each AFSOC installation will address site details through regional planning and design. Develop and enforce standards so that a professional image is maintained throughout the installation. Carefully site buildings to provide adequate open space. Keep the distances between buildings in common areas pedestrian friendly to reduce the potential conflict between pedestrians and vehicles.

Landscape

Landscaping adds beauty and enhances our installations. Landscaping controls erosion, enhances energy efficiency and reduces site noise. Provide low maintenance, native, drought-resistant and disease-free stock. Review the installation approved landscaping plan prior to design. Take into consideration facilities along main thoroughfares. Require landscaping for all new facilities and include automatic irrigation systems where appropriate. Consider force protection when developing the landscape plan.

Xeriscaping should be the driving concept in any landscape plan. Xeriscaping is a method of landscaping that conserves water and energy through the use of creative and adaptive landscape design. Xeriscape designs minimize maintenance through the use of indigenous plantings and sound horticulture practices while providing attractive landscaping solutions.

The consistent use of regional plant life creates a more compatible environment. Refer to installation-specific plant list to identify regional species and appropriate use. To promote energy conservation, encourage selection of varieties that require minimum water and maintenance. Consult federal, state and local agricultural/ forestry agencies for information pertaining to the best types of trees and plants suited to a particular region. Indigenous or drought-resistant plants are required for all arid regions. Rock and gravel

landscape plans may be considered as long as features are provided to add color and interest. Varied contours provide additional interest.

Trees should be the focus of the landscape design. Avoid species that drop fruits, seeds, sap or have roots that damage infrastructure. Maintain trees by trimming and removing dead growth. Keep trees away from structures and remove those that cause infrastructure damage.

Screens, Walls and Fences

Sight barriers conceal unsightly equipment and provide visual and acoustical separation between facilities. Unsightly utilities, mechanical equipment and parking areas are examples of elements that should be screened from view with berms or landscaping. Screens, walls and fences should be compatible with adjacent facilities. Visual screens can be landscape elements, walls, or a combination of these elements. Screens shall be integrated into the force protection

plan. Landscaping screens shall use mature landscaping in conjunction with wall and fence screening. Ensure screen walls cover the entire item being screened.

Dumpsters and exterior recycling bins should be screened from main public ways. Ensure proper access for users and service vehicles.

Tall or extremely long barrier walls can be overwhelming if not designed properly. When

walls are used for screening, only low-to mid-height masonry walls should be considered. Provide a cap on all masonry walls and combine with landscaping to soften the wall face.

Develop a fence plan that defines the type, color, style and placement of all fencing on the installation. Provide complete perimeter fencing to provide installation security, prevent unauthorized entry and establish installation legal boundaries. Secure areas (class A), perimeter and flightline fencing shall be chain link. Use masonry screens matching the facilities served for dumpster enclosures. Rohn fencing shall be used around combat controller areas and pools. Avoid chain link fencing in high profile areas as well as wood or vinyl slats. Consider alternative to barbed-wire for high visibility, high security sites unless required by security AFI's.

Building Materials

Create a consistent architectural theme through the recurring architectural features of individual buildings, such as materials, roofs, doors and windows. Ensure these features and their details receive special attention.

Comply with base architectural compatibility standards. Architectural features should be compatible with one another in function, mass, shape, color and texture. This produces an overall clean, complementary and professional image. Metal clad pre-engineered buildings are not acceptable. Recurring materials in the Gulf Coast region include split face block, glass block, low sloped standing seam roofs and anodized aluminum windows and doors. Architectural features that have historically been repeated throughout the region include curved awnings at entryways, ionic columns, ionic pilasters and symmetrically placed windows. The Southwest region is characterized by the use of masonry, stucco and low sloped tile roofs. Prevalent architectural features include arched entry porches, decorative tiles around doorways and widows, rounded windows and doors and balconies with elaborate grillwork.

4.5 Interiors

Command Policy

Interior design delineates the quality, functional layout, finishes and furnishings in a facility. All interior spaces have a tremendous impact on job performance. To create quality interiors, designs should be complete and fully coordinated. All proposed designs should fully incorporate complementary details and spacing.

Trendy colors and themes which date an interior should be avoided. Neutral colors, enhanced with plants and artwork should be selected in all interior projects.

Interior Features

Entries — Create a positive first impression. Use high quality, economical finishes in the lobby, corridors and waiting areas. Use durable floor and wall finishes with appropriate color and pattern. Furniture must reflect a professional image. Common spaces at entries and high traffic areas may highlight individual units' achievements but avoid overwhelming these areas with these elements. Provide appropriate lighting that provides an inviting atmosphere that also considers energy conservation. Ensure all finishes are durable and are easy to clean and maintain.

Offices — Use matching low and mid-height systems furnishings for open offices where feasible. Coordinate these furnishings with those provided in private offices.

Conference Rooms — Reinforce the importance and purpose of the conference room through its design. Use tasteful artwork to provide color and promote a theme. Provide clear lines of sight for all conferees. Allow for teamwork rooms and additional meeting space in open offices. Provide ancillary storage space for equipment and coats.

Facilities Assembly Spaces — Create flexible spaces with well-defined seating arrangements and views for observation and visitors. Develop flexible, adjoining space that can either be opened or closed for special events. Include

supportive space and systems for equipment that is anticipated for use in the area.

Restrooms — Emphasize cleanliness and maintainability by limiting floor-mounted fixtures and horizontal surfaces. Design fixtures on a common wet wall. Vanities should be constructed of durable, attractive materials which can be easily cleaned. Hide the vanity support hardware, but maintain handicapped accessibility. Floors should be non-skid ceramic or stone tile. Provide a tile wainscot at walls with urinals or water closets.

Artwork — All artwork must follow established standards for matting and framing. Ensure the subject matter is appropriate for the particular application.

Colors – Bright and cheerful color selections can positively affect personnel. Paint walls with light neutral colors. Equipment colors shall be compatible with the interior finishes. Add color to spaces through artwork or plants.

Indoor Environmental Quality

The indoor environmental quality of a building has a significant impact on occupant health, comfort and productivity. Among other attributes, a sustainable building should maximize day lighting; have appropriate ventilation and moisture control; and avoid the use of materials with high-VOC emissions.

Materials

Provide durable, cost-effective, timeless finishes. Non-skid ceramic or stone tile flooring should be used in heavy traffic areas such as lobbies and restrooms. Stained concrete flooring may be used as an alternative. Stairways should be treated as primary corridors. Use carpet tiles at carpeted areas. Use neutral paint colors for walls and avoid the use of vinyl wall coverings. Introduce colors to corridors and offices through artwork. Provide suspended acoustical ceilings in office areas.

4.6 Furnishings

Command Policy

Furnishings shall be provided to serve the specific use requirements of the space. Only durable, low maintenance furnishings are to be provided. Ensure the colors and fabrics are compatible with other interior and exterior features and the installation color scheme. Verify the terms and the extent of the warranty period prior to the selection of furniture.

Site Furniture

Site furnishings shall provide a unifying visual character to the installation when properly installed and placed. Simple, attractive and coordinated site furnishings compliment the installation architecture and regional character. Use a single color as a unifying element in the base color scheme.

When used, benches should be covered or employ landscaping. Gazebos should be utilized in housing and dormitory areas; near the dinning halls; and in industrial and flightline areas for breaks when other equally desirable areas are not available.

Interior Furniture

Avoid visual clutter by developing a flexible interior furnishing layout. Allow for flexibility in updating electrical and communication service and equipment to all interior areas. Conceal all wiring to avoid visual clutter.

4.7 Lighting

Command Policy

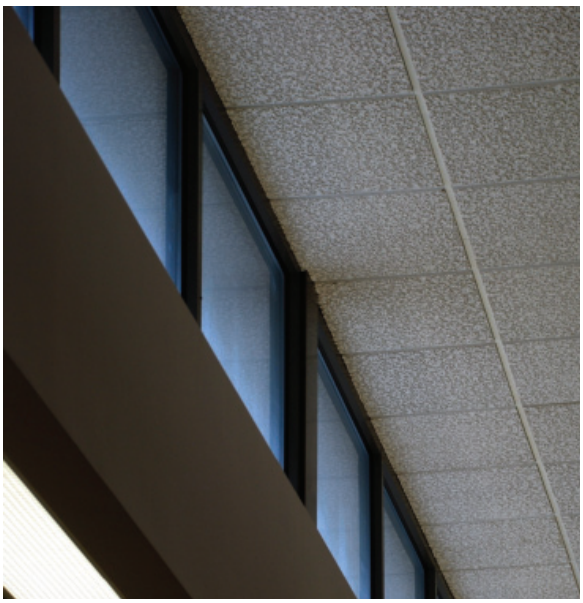
Lighting should increase safety and security, enhance appearance and create a sense of orientation. Designs should incorporate appropriate illumination levels and lighting controls. Illumination at building entrances and signage should be accentuated to allow easy identification at night. Lighting fixtures should be consistent in color temperature to avoid variations in hue. Ensure illumination levels and lighting controls relate to the specific operations performed in the space. Provide full-spectrum lighting where natural light is unavailable. Daylighting should be maximized.

Site Lighting

Exterior lighting should use uniform, consistent fixture styles, lamp types and finishes throughout the base. The standard finish for site lighting is anodized bronze. Adequate lighting should be provided where there is a change in grade requiring steps. The scale of site lighting should reflect the area of its use. Large scale lighting is appropriate for parking areas; pedestrian-scale lighting fixtures in high traffic walkways and plazas. In most cases, high and low pressure sodium lamps are appropriate, but ensure lamp types are consistent throughout the installation. Select site lighting fixtures that direct light to needed areas and minimizes overall site light pollution.

Interior Lighting

Lighting levels affect our ability to perform our work accurately and efficiently. Use day lighting for ambient lighting wherever feasible to minimize the use of electric lighting. Supplement natural light with integrated, high-performance ballasts, lamps, fixtures and controls. Reduce glare from natural and man-made sources in the field of view. Use task lighting to provide reduced levels of diffused, general illumination. Avoid specifying fixtures that require the use of expensive or difficult to get lamps.



4.8 Signage

Command Policy

Signs have a major affect on the appearance of our installations and the professionalism of our units. Only signs that communicate direction and location to functions and activities that warrant identification shall be used. The number of signs on each installation shall be held to the absolute minimum required for directions, identification and customer service. Visual clutter shall be kept to a minimum by condensing information to limit the number of signs or sign poles. The use of paper, cardboard, vinyl, banners, or yard sale signs is prohibited. Individual instances or isolated occurrences shall not be used as justification for additional signage.

Site Signage

Each AFSOC installation will ensure its signs are well designed, well maintained and properly located. Standardize the height of all signs by type. All sign posts shall be vertical.

Entrance districts provide an opportunity for landmarks and displays to reflect the unique character of the installation. Signage should be kept to a minimum. Prominently display the AF symbol IAW AF sign standards AFPAM 32-1097. Provide signage in accordance with UFC 3-120-01 Air Force Sign Standard.

Color – All exterior signs will be consistent throughout each installation. Federal Highway Administration PR Color #5 background is the AFSOC standard. Poles and backs of signs should be galvanized.

Directional Signs – Install only where required to provide clear direction to typical destination places accessed by first time visitors to the installation. Our bases are 'gated communities' and assigned personnel do not need to be guided by street signs any more than folks living off base. Directional signs should contain generic names only 'Fitness Center' vice 'Commando Fitness Center'. Include only four entries per sign.

Street Signs – The Command shield shall be included on all street signs. Street name signs shall be provided at all intersections and shall be a standard 6“ or 9” high. The sign width shall be a maximum of 30”. Reflective material is required.

Exterior signs will have a standard installation format, color and size as specified in United Facilities Criteria (UFC) 3-120-01, Air Force Sign Standard (www.hnd.usace.army.mil/techinfo/UFC/UFC3-120-01.pdf). All regulatory and warning traffic signs must comply with the National Highway Traffic Safety Administration requirements. Whenever possible, site signage should be combined with light or traffic control poles.

Building Signage

Identify buildings with either a free-standing or building-mounted raised-letter sign, but in the occasion when the building is set so far back from the main thoroughfares, free standing signs/ monuments with raised lettering can be used. Building numbers will be displayed on all buildings in addition to street addresses. Building signs will have a standard installation format, color and size as specified in United Facilities Criteria (UFC) 3-120, An address sign should be six to eight feet above grade at the main entrance and to the side of the door. Ensure individual letter-type signs affixed to buildings are readable from a reasonable distance on the frontage street. Taping temporary signs or notices on doors, walls, or windows is prohibited and should be dealt with as a facility abuse.

Interior Signage

Use consistent signs that can be easily changed. Keep the number of signs to an absolute minimum. Develop an installation-wide standard format and style. Signs shall be the minimum size necessary to accurately convey the intended message. Create a sign schedule for an entire building that establishes a hierarchy of the sizes of signs. Use only the approved lettering style for the installation. Include ADA-compliant designs for all signs. All signs shall conform to the prescribed color plan and standards for the installation. The use of temporary signage is discouraged. Use easels for the temporary display of posters and announcements. Designate a central point of contact to control the placement and removal of temporary signs and bulletins.

4.9 Energy and Water Conservation

Command Policy

Our facilities must facilitate energy and water conservation. Secretary Wynne's September 2007 Letter to Airmen asks, ". . .every Airman to make energy use a priority." Preserve open space, natural beauty and critical environmental areas. Provide a variety of transportation choices that include walking, biking and installation transportation. Take advantage of higher density building design to ensure lower overall maintenance costs. When locating a facility on a site, ensure orientation is considered to minimize heat gain and maximize natural ventilation.

Use sustainable design principles in all designs to include low water usage fixtures and equipment. Provide xeriscape concepts that require minimal maintenance and irrigation. Evaluate facility design for total life cycle costs. Our facilities and infrastructure should create built environments that are livable, comfortable, safe and productive.

Energy and Cost Reduction Initiatives

AFSOC implemented energy and cost reduction initiatives through the AFSOC/CC Energy Reduction Policy dated 18 October 2006. This memorandum provides design strategies; operational and maintenance initiatives; and requirements for energy conservation and reduction. The initiatives range from required temperature settings for facilities to renovations of existing buildings.

Energy Conservation

A building should rely on a mixture of conservation, passive design measures and fossil fuels for its operation. It should meet or exceed applicable energy performance standards. Reduce heating and cooling loads through developed passive designs and conservation practices. Consider the building orientation when sizing and specifying windows. Locate landscape elements with solar geometry and building load requirements in mind. Use high-performance building envelopes to minimize heat gain and loss based on long-term product data.

Specify energy efficient HVAC and lighting systems. Consider the use of energy recovery systems that pre-heat or pre-cool incoming ventilated air. Use lighting systems that consume less than one watt per square foot for ambient lighting.

Water Conservation

In many parts of the country, fresh water is an increasingly scarce resource. A sustainable facility should use lower quantities, control or treat site-runoff, use water efficiently and reuse or recycle water for on-site use when feasible. The protection and conservation of water should be considered throughout the life of the building.

5 Facility Managers

Command Policy

Facility Managers play a critical role as the Commander's representative to ensure each unit's facilities meet command facility excellence standards. In order to maintain our excellence in facility management during periods of austere funding for facilities, it is critically important that effectiveness is maximized. It is the role of the facility manager to ensure all components of facility management are addressed and individual facilities are maintained and operating properly for building occupants to effectively perform their duties. The facility manager has the most influence upon the quality of life within a facility. Facility management responsibilities may range from building custodial services to the large scale renovation or new construction requirements. It is command policy that all appointed facility managers attend mandatory training. Training sessions will include safety, force protection, direct scheduled work, work order requests and priority system, geobase/space utilization rules, service contracts, energy and water conservation, facility parking policies, facility excellence standards and HAZMAT storage requirements.

Operational and Maintenance Practices

No matter how sustainable a building is designed and constructed, its sustainability depends on responsible operation and proper maintenance. The use of toxic cleaning products can deteriorate indoor air quality. Failure to test sensor control points can compromise energy efficiency. Poor training can lead to early system failures. Buildings must be operated and maintained with the security, safety, health, comfort and productivity of their occupants in mind, and with an understanding of the next generation's need to reuse and recycle building components.

All facilities should be maintained on a regular basis. Keep sites and facilities clear of clutter, unnecessary signage and unnecessary equipment. Mechanical rooms and utility spaces should be locked and closely monitored by Base Engineering personnel. Involve installation maintenance personnel in the planning and design of facilities to ensure sustainable and maintenance factors are considered early in the design process. Ensure commissioning processes are included in all design and construction efforts.

6 Awards Program

Command Policy

Facilities Excellence is the result of hard work, planning and consistency in execution of approved concepts. The Air Force uses the awards program to motivate individuals to adhere to the principles of excellence. The following awards programs recognize facilities excellence. The Department of Defense Installation Excellence Program, the United States Air Force Design Awards Program, the United States Air Force Brigadier General Archie S. Mayes Award and the United States Air Force Major General Clifton D. Wright Award. The most important awards are between Commanders and people who make excellence happen in our environment. AFSOC Commanders should seek out this excellence and reward the efforts achieved.

7 Construction Considerations

Command Policy

Ensure construction lay down areas provide mesh screening to prevent unsightly views of construction storage and laydown areas. Construction sites shall be maintained and clean. Provide provisions for safety and security to prevent accidents and unauthorized entry into a construction zone. Adequate lighting should be provided. Signage must comply with base sign standards and sites should be kept to a minimum.

Ensure construction routes are designed to use secondary entrance gates and not the main entrance. Ensure provisions are included in the projects to maintain haul routes in a clean state, with no mud and debris dropped along the roads. Vehicles shall not be parked or driven on grass.

Park or drive only on designated areas. Ensure proper signage is included at all construction sites with safety information as well as point of contact information. In some cases, contractor haul routes and delivery schedules should be adjusted to avoid conflicts with peak rush hour traffic.

Project Checklist

This checklist applies to all projects large and small including self-help projects. Before building, purchasing, or installing items, the project manager will submit the following documentation for review and approval by the Architectural Compatibility Review Board (ACRB). Large projects requiring professional design services must submit this form along with the design package at each phase of the project. The list of items below the phase title is representative of what must be submitted at each phase. Project continuation is contingent on phase approval. Smaller projects not requiring full design services must submit project documentation as designated by the ACRB chairperson. All projects must comply with the Architectural Compatibility Plan (ACP) standards as verified by this checklist and the ACRB, unless a specific exception is approved by the chairperson.

Project Title: _____

Project Number: _____ **Project Address:** _____

Submitted By: _____

Type of Project: □ SABER □ MILCON □ O&M □ Self-Help □ Housing □ Other:_____
Full ACRB Review Required? □ Yes □ No **ACP Provided to Designer?** □ Yes □ No
Programming Documents Reviewed by ACRB? □ Yes □ No

REQUIREMENTS DOCUMENT / PROGRAMMING PHASE

□ Scope □ Project Description □ Adjacent Facilities Photos
□ Goals □ Objectives □ Future Project Considerations
□ Site Inventory / Analysis □ Other: _____
□ Coordinated with Subarea Development Plans
□ Coordinated with Other Planning Documents and Policies
□ Preliminary Solutions Allow for Full Compliance of ACP
(design not finalized until concept design is complete)
□ Budget □ Materials □ Furnishings
□ Colors □ Equipment

Date Submitted: _____
Date Resubmitted: _____
□ Design Complies with ACP Standards
□ Resubmittal requested
□ Comments Attached

By:_____**Date:** _____
User Approval:
By:_____**Date:** _____

CONCEPT DESIGN

Building
□ Style / Form □ Scale □ Massing □ Proportions
□ Materials □ Colors □ Wall Systems □ Ancillary Structures
□ Details □ Lighting □ Signs □ Roof Systems
□ Entrances □ Windows / Doors
Site Development
□ Site Selection □ Setbacks □ Utilities □ Lighting
□ Signs □ Furnishings □ Landscape □ Screens / Enclosures
□ Future Expansion Considered
Circulation
□ Parking □ Signs □ Lighting □ Paths / Walks
□ Landscape □ Roads / Service Drives □ Other: _____

Date Submitted: _____
Date Resubmitted: _____
□ Design Complies with ACP Standards
□ Resubmittal Requested
□ Comments Attached

By:_____**Date:** _____
User Approval:
By:_____**Date:** _____

FINAL DESIGN

□ Final design remains consistent with approved concept design and elements
□ Materials / Color Board (interior and exterior) □ Rendering
□ Catalog Cuts □ Landscape Development
□ Construction Documents □ Fascia / Gutters / Downspouts
□ Architectural Details
□ Cost Reduction (if Req.) Complies with ACP
□ Coordinated with Other Planning Documents and Policies
□ Coordination / Organization of Mechanical and Electrical Elements
□ Other: _____

Date Submitted: _____
Date Resubmitted: _____
□ Design Complies with ACP Standards
□ Resubmittal requested
□ Comments Attached

By:_____**Date:** _____
User Approval:
By:_____**Date:** _____

JUSTIFICATION FOR NONCOMPLIANCE

Explain:_____
_____

Design does not comply with ACP
By:_____**Date:** _____

Site Planning Checklist

In addition to using proven Air Force Community Planning practices when siting facilities, future facility site plans for HQ AFSOC, will incorporate the below urban planning principles to ensure a unified sense of community is established. These principles should be applied to all areas of the installation with the exception of single family residential areas. Additional site planning requirements, more restrictive than the principles below, can be developed for specific sub-areas of the installation to create a unique sense of place for specific activities. When applying these site planning requirements, ensure long-range facility and transportation requirements identified in the installations Base Comprehensive Plan are incorporated into the final site layout.

Project Title: _____
Project Number: _____ **Project Address:** _____
Submitted By: _____
Type of Project: ☐ SABER ☐ MILCON ☐ O&M ☐ Self-Help ☐ Housing ☐ Other: _____

BLOCK LAYOUT:

Date Submitted: _____
Date Resubmitted: _____
☐ Complies with Standards
☐ Resubmittal Requested
☐ Comments Attached

Community Planner Approval: _____
Date: _____

- ☐ When developing large parcels, create streets through the development to interconnect the local traffic in the area, rather than creating self-contained developments
- ☐ New development will not be allowed to vacate (eliminate) existing rights-of-ways, disrupting the existing transportations grid, to form mega/super blocks
- ☐ Redevelopment of properties/blocks where rights-of-way were previously vacated shall be required to establish a new network of side roads and alleys

BUILDING PLACEMENT/ORIENTATION:

Date Submitted: _____
Date Resubmitted: _____
☐ Complies with Standards
☐ Resubmittal Requested
☐ Comments Attached

Community Planner Approval: _____
Date: _____

- ☐ Buildings shall orient toward the right-of-way. If there is more than one right-of-way, such as a corner or double frontage lot, every façade that faces a right-of-way shall have architectural detail and appearance consistent with the primary façade.
- ☐ Building pads shall reinforce street edges on principal streets and secondary streets
- ☐ Front yard and side-corner setback for buildings from primary streets shall be the minimum distance allowed by FP/AT requirements.
- ☐ All facilities that abut an arterial or local road shall orient the main façade to the "main street"
- ☐ Large facilities (such as the BX, Commissary, Consolidated Support Centers, supply warehouse, etc.) must provide linear building (i.e. outparcels) that meet required setbacks along primary and secondary right-of-ways. These linear buildings shall be designed to frame the street, enclose parking lots, and create entrance boulevards, rather than be designed as "islands" in a parking lot.

PEDESTRIAN CIRCULATION

Date Submitted: _____
Date Resubmitted: _____
☐ Complies with Standards
☐ Resubmittal Requested
☐ Comments Attached

Community Planner Approval: _____
Date: _____

- ☐ Eight-foot sidewalks shall be required along all rights-of-way adjacent to developed sites. All other sidewalks shall be a minimum of five-feet wide.
- ☐ All sidewalks shall be slightly raised at a different grade than any adjacent vehicular pavement and shall be landscaped and have pedestrian scale lighting.
- ☐ Sidewalks shall be provided to connect the primary building entrance to the road right-of-way, external sidewalks, and/or outparcel development
- ☐ Pedestrian passages shall be provided between facilities at mid-block locations connecting vehicle parking areas to external sidewalks and rights-of-ways

CROSSWALKS

Date Submitted: _____
Date Resubmitted: _____
☐ Complies with Standards
☐ Resubmittal Requested
☐ Comments Attached

Community Planner Approval: _____
Date: _____

- ☐ All street crossings will have six-foot wide crosswalks
- ☐ Signalized intersections will include signalized pedestrian crossing equipment on all intersection approaches
- ☐ Crosswalks on all major rights-of-ways will be of concrete pavers or textured concrete. If pavers are used, a concrete header will be installed between the asphalt and pavers.

VEHICULAR CIRCULATION AND PARKING

Date Submitted: _____
Date Resubmitted: _____
☐ Complies with Standards
☐ Resubmittal Requested
☐ Comments Attached

Community Planner Approval: _____
Date: _____

- ☐ Drive-through lanes must be designed with pedestrian safety as the first priority
- ☐ A pass-through lane shall be required for all drive-throughs to allow a vehicle to exit the drive-through stacking lane in order to provide a way out (around) of the stacking lane.
- ☐ Mixed-use and large scale development shall incorporate bicycle parking/storage.
- ☐ Parking lots of with two or more double rows shall have a continuous six-foot wide landscaped strip between the sections. This landscaped strip shall run parallel to the circulation flow.
- ☐ Parked cars shall be screen from the rights-of-way using landscaping
- ☐ Consolidated/shared parking is highly encouraged to reduce pavement requirements
- ☐ Parking areas shall be designed to avoid vehicular/pedestrian conflicts

Site Planning Checklist

- ☐ Parking areas shall be located behind the building face to prevent parking from dominating the image of the site
- ☐ Large parking lots shall be visually and functionally segmented into smaller lots with landscaped islands and canopy trees. No single parking lot section shall exceed 100 parking spaces without a landscape sidewalk, with canopy trees, for pedestrian connections to nearby facilities
- ☐ No parking lot containing more than 20 vehicles shall be dead ended requiring vehicles to back up to turn around if the lot is full.

SERVICE AREA/UTILITIES

- ☐ Outdoor storage, trash collection, and loading docks/areas shall not be located adjacent to residential areas
- ☐ Loading areas or docks, outdoor storage, car wash and refueling facilities, waste disposal, mechanical equipment, satellite dishes, truck parking, and other service support equipment shall be located behind the building line and shall be fully screened from view of adjacent properties
- ☐ Living walls of plant material should screen electrical transformers, back flow preventers, etc. to the extent that FP/AT standards and operations and maintenance of these items allows.

Date Submitted: _____
Date Resubmitted: _____
☐ Complies with Standards
☐ Resubmittal Requested
☐ Comments Attached

Community Planner Approval: _____
Date: _____

JUSTIFICATION FOR NONCOMPLIANCE

Explain:_____
_____
_____

Date Submitted: _____
Date Resubmitted: _____
☐ Variance Approved
☐ Resubmittal Requested
☐ Comments Attached

Community Planner Approval: _____
Date: _____

Site Plan Approved: _____ **Date:** _____

MILCON Programming Checklist
#PRG-001 Review 1391's

	Date Completed:				PM Signature:
Project #:		**Project Manager**:			
Project Title:		**FY**:			

ACTION	**Required? Y/N/NA**	**Date Complete**	**Charrette Reference**		**Notes**
			Narrative	**Cost Estimate**	
Supporting Utilties:					
Has Site Plan been delineated to show force protection limits and adequate facility and parking space?					
Has Installation CE and Comm identified utility lines, capacity, distance to utility connections and any special actions [e.g., relocation of existing utilities]?					
- Water?					
- Sewer?					
- Electricity?					
- Gas?					
- Comm?					
- Storm Water?					
Special Design Elements:					
Have Special Design Elements been considered?					
- Documentation of coordination with Security Forces, Fire Department, Communications, Safety, Maintenance and Environmental ?					
- New RPIE items[e.g., bridge crane, kitchen equipment]?					
- Removal and relocation of existing equipment or RPIE items [e.g., HVAC, kitchen equipment, bridge crane]; removed and returned to Government; or removed by Government?					
- Elevator(s) and stairways been included in multi-story projects?					
- Lightning protection?					
- If ADAL, have Fire Protection measures been studied?					
a. Sprinkler?					
b. Sufficient space in existing fire alarm panel for addition?					
c. Fire pumps and surge tanks and associated space?					
d. Standpipes and associated space?					
- Historically significant facility?					
- Sufficient space for central UPS?					
- Soil conditions require any special foundations such as piles or backfilling?					
- Seismic bracing [If Hurlburt/Moody, Hurricane Code?					
- Is the facility mission criticial?					
a. Emergency generator?					
b. Seismic bracing/bullet-proof construction [e.g., blast reinforcement & glazing]?					
- Flight line glide limits?					
- Mass notification system?					
- Documentation from User identifying all electrical equipment (e.g., computers, printers, FAX, copiers, individual UPS, SIPR, PDS alarm, JWICS, STEs, red phones, etc)? If so, are power and HVAC adequate?					
- Force protection measures?					
a. Set-back distance reasonably achievable?					
b. If set backs cannot be achieved, fortified wall structures?					
- If large paving project, has location for batch been considered?					
- Operational Security?					
a. Secure vault, armory or SCIF?					
b. Entrapment areas?					
c. Card readers or other special door hardware?					
d. Interior and exterior cameras required?					
e. Sound rated construction for sound attenuation in doors and frames, walls, and ductwork?					

MILCON Programming Checklist
#PRG-001 Review 1391's

Project #:	**Project Manager**:
Project Title:	**FY**:

ACTION	Required? Y/N/NA	Date Complete	Charrette Reference		Notes
			Narrative	Cost Estimate	
f. Open storage?					
Environmental Factors:					
Have environmental issues been addressed?					
- LEEDS certification? [Air Force standard is design to minimum LEEDS certification level]					
- IRP site?					
- Other environmental issues?					
a. Wetlands? [e.g., mitigation]					
b. Endangered Species?					
c. Special Landscaping? [e.g., replacement trees]					
d. Cultural Resources?					
e. Natural Resources?					
e. Irrigation?					
f. Sound attenuation measures for aircraft noise contours [ACUIZ]?					
Construction Schedules					
Have impacts to the construction schedule been considered?					
- Phasing?					
- Temporary facilities for phased occupancy or interim storage?					
- Time and day limits on site access?					
- On-site staging areas adequate?					
- Security clearances or escorts?					
Acquistion Strategy					
Has an acquisition strategy [Design-Bid-Build or Design-Build] been determined?					
If construction project is not competed has impact on costs been considered?					
Other Cost Drivers					
Have design costs been identified and are they consistent with acquisition strategy?					
- Rendering?					
- Comprehensive Interior Design?					
- Structural Interior Design?					
- Meets AF % goals?					
- Companion O&M components such as furniture, wall systems or equipment in the appropriate O&M FY?					
Has VE study been included or can the study be waived? [Can be waived if PA < $10M, project is Design-Build, or facility is "typical simple structure or similar to facility built within last 5 years. Also, consider special funding by AF ILEC.]					
Cost Estimate:					
Have all extraneous project costs been addressed in estimate [e.g., was PACES estimate used to capture additional costs]?					
- Area cost factor?					
- Cost escalation factor? [Construction phasing may increase escalation.]					
- Demolition?					
a. Asbestos?					
b. Lead-based paint?					
c. Parking Areas?					
d. Utilities?					
e. Transite [pipe, siding, panels]?					
f. Building number[s]?					
Has an Economic Analysis [PA >$2M] or cost analysis been completed?					

Note: The purpose of this checklist is to ensure the PA reflects sufficient funds to build the facility required - e.g., incorporates extenuating criteria not generally captured by the OSD Pricing Guide.

9 References

Command Policy

All projects on AFSOC installations shall comply with the most current version of the following references.

Air Force Sustainable References Guide

Air Force Installation Entry Control Facilities Design Guide

Traffic Engineering for Better Gates

UFC 3-120-01 Air Force Sign Standard

Smart Growth Network

Sustainable Communities Network (SCN)

The Air Force Sustainable Design And Development (SDD) Policy dated 31-Jul-07

Energy Policy Act of 2005 (EPAct05)

Executive Order 13423

United States Green Building Council's (USGBC)
Leadership in Energy and Environmental Design (LEED) Green Building Rating System

VCSAF's 12 Sep 06 Memo.

AFH 32- 1084

Engineering Standards, Uniform Facility Criteria 3-600-01

National Fire Protection Agency Manuals

AFPAM 32-1125v1

AF Form 332

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