

ARMY STANDARD DESIGN REQUIREMENTS FOR THE CHAPLAIN FAMILY LIFE CENTER FACILITY TYPE



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Omaha District



ARMY CHAPLAIN FAMILY LIFE CENTER FACILITY STANDARD DEFINITIVE DESIGN

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ARMY CHAPLAIN FAMILY LIFE CENTER STANDARD DEFINITIVE DESIGN

1 INTRODUCTION

1.1 DEFINITIVE DESIGN

This Standard Design package supersedes versions for this facility type previous to October 2014. It has been established after rigorous evaluation of Lessons Learned from the facilities designed and constructed from the 1989 Army Standard Design, from input by the members of the Army Facilities Standardization Committee (AFSC) and from Office of the Chief of Chaplains (OCCH) research of private sector churches begun in 2008 and extending over a period of several years. This Army Chaplain Family Life Center Standard Definitive Design has as its primary goal, the optimum support of military personnel and their families. The facility will serve all faiths and the military community without favoring any one distinctive group in orientation or design. The facility is intended for use anywhere in the continental United States or overseas locations. Many features have been incorporated into the design of this facility to give it the maximum ability to adapt to the different needs of the general military community. This definitive design has been prepared to meet criteria established by the OCCH, and the corresponding Architectural and Engineering design criteria established by the Headquarters U. S. Army Corps of Engineers (HQUSACE) for each project. Within this document, the terms designer, offerer, and contractor are to be considered as synonyms. This better allows this narrative to apply to all of the different acquisition tools used to acquire specific projects. The size and arrangement of spaces, their relationship to one another, and the form of the building are to remain constant during further development of this design into specific projects. **Design goals for construction type, code compliance, sustainability (LEED, energy reduction and efficiency goals), security (anti-terrorism) and similar concerns will need to be applied to specific projects as they are applicable.** These supplemental criteria will be identified for each specific project developed from this standard at the time design work is authorized. The core functional criteria used in the development of this facility type are as follows:

- A. Supports the changing needs of the warfighter and his/her Family by providing a facility that enables the conduct of quality Soldier and Family counseling services and programs that address the marital, family, and individual needs of Soldiers and Family members on Army garrisons.
- B. Support administrative activities necessary to operate and maintain the Chaplain Family Life Center in a manner that ensures maximum support for the military community and the Garrison.
- C. To do so in a facility that provides the highest levels of personal safety, resource integrity and construction technology while also inspiring and encouraging the Army community and the individual user.

1.2 CAPACITY AND SIZES

This Army Standard Design Chaplain Family Life Center facility type has capacity for training activities beyond the primary counseling needs of the facility.

The standard size of the Chaplain Family Life Center facility type is 5,330 gross square feet in area, and has office space for the Family Life Chaplain, a small NCO/Receptionist, counseling rooms, and training and other support spaces. On garrisons where a Division is attached, an additional 550 gross square foot option for two additional offices for the Division Family Life Chaplain and Family Life NCO will be provided. The standard size facility will provide a Chaplain Family Life Center with primary office and training space for not more than 70 occupants.

1.3 NOT USED

1.4 ROOM FUNCTIONS AND REQUIREMENTS

- A. The Chaplain Family Life Center includes individual offices for the Family Life Chaplain and two NCO/Receptionists, two counseling rooms, and an observation room placed in between them for the purpose of observing counseling sessions in each of the counseling rooms through the use of closed circuit television. A waiting room is located near the lobby and counseling rooms, and provides a room where clients can comfortably wait for their appointment time. A library/resource room will serve both clients and staff. Other primary spaces include an activity room for multi-purpose activities and events, and a training room for training of Chaplains and other participants.
- B. In addition to these primary spaces each Family Life Center will include appropriate circulation space, toilet facilities, kitchen, storage spaces, and equipment spaces for mechanical, electrical, communication and electronic equipment to support the total building and all of its functions. Carefully compare all of the criteria sections (Architectural, Interiors, Electrical, etc.) when planning a specific design project.

1.5 STANDARD DESIGN DRAWINGS AND INFORMATION

Copies of the drawing and text information that constitutes a Standard Design are available from the supporting Center of Standardization (Omaha) U. S. Army Corps of Engineers District, and numerous military web sites. The primary web site (the address potentially subject to change) to consult is:

“<http://mrsi.usace.army.mil/cos/SitePages/Home.aspx>”.

1.6 MANDATORY ITEMS

The **Army Standard** for Chaplain Family Life Center facility design and construction defines the mandatory Items that must be included in each Chaplain Family Life Center facility. The Army Standard also includes minimum criteria for some things that the Army Standard Design includes more complete and sometimes more stringent criteria. These more stringent criteria are a requirement for any project design developed from this Army Standard Design. The Army Standard is reproduced as follows:

Item	1.6.1 Criteria
Site Selection and Planning	The Chaplain Family Life Center should be in a location that is easily identified yet away from high traffic or command buildings to allow anonymity to users.
Primary Facility Scope and Capacity	Provide a Family Life Center with primary space for not more than 70 occupants. Provide a building scope of not less than 5,330 gross square feet. The Basis of Authorization. <ul style="list-style-type: none"> • The Family Life Center will be authorized on garrisons where a Family Life Chaplain is authorized by TDA. • The Family Life Center requirement will be one Family Life Center per garrison where a Family Life Chaplain is authorized by TDA.
Family Counseling Room	Provide a room that accommodates counseling for at least four adults and four children. Provide conduit to support the connection of a closed circuit television type camera for monitoring activities. The room must be large enough to allow the children a play area if they are too small to participate in counseling. A rectangular design is better than square, with an area of not less than 235 square feet.

Counseling Room	Provide a room that accommodates counseling for at least four adults. Provide conduit to support the connection of a closed circuit television type camera for monitoring activities. Provide an area of not less than 190 square feet.
Observation Room	Provide a room that is set between the two counseling rooms for the purpose of observing counseling in each room through the use of closed circuit television. The room must be large enough to accommodate 8 observers at one time. A cipher code door lock is preferred for this room to ensure controlled access. Provide conduit to support the connection of a closed circuit television type camera for monitoring and recording activities. Provide an area of not less than 190 square feet.
Library/Resource Room	Provide a room that will serve as a library/resource room for clients and other users. It will include bookshelves to display relationship education items that may be loaned to users. Provide an area of not less than 180 square feet.
Family Life Chaplain Office	Provide a room for an office for the Family Life Chaplain. It must include not only administrative space, but also meeting space for mentoring or counseling. Provide conduit to support the connection of a closed circuit television monitor for monitoring and recording of activities throughout the facility. Provide an area of not less than 220 square feet.
NCO Chaplain Assistant Office	Provide a room for an office for the NCO Chaplain Assistant. It will be adjacent to the entrance/lobby area so that traffic into the building can be observed. Provide conduit to support the connection of a closed circuit television monitor for monitoring building access and hallways. Provide an area of not less than 235 square feet.
Division Family Life Chaplain Office (Option)	Provide a room for an office for the Division Family Life Chaplain on those garrisons authorized a Division Family Chaplain. It must include not only administrative space, but also meeting space for mentoring or counseling. Provide conduit to support the connection of a closed circuit television monitor for monitoring and recording of activities throughout the facility. Provide an area of not less than 220 square feet.
Division Family Life Chaplain NCO Chaplain Assistant Office (Option)	Provide a room for an office for the Division Family Life Chaplain NCO Chaplain Assistant on those garrisons authorized one. It must be adjacent to the Division Family Life Chaplain's Office for monitoring of counselee appointments with the Division Family Life Chaplain. Provide conduit to support the connection of a closed circuit television monitor for monitoring building access and hallways. Provide an area of not less than 180 square feet.
Waiting Room	Provide a room where up to 10 clients can comfortably wait for their appointment time. The room will have a double-wide door opening but no doors. Provide an area of not less than 147square feet.
Activity Room	Provide a room with storage for multi-purpose activities and events. Provide conduit to support the connection of a closed circuit television type camera for monitoring activities. Provide an area of not less than 280 square feet. Provide an adjacent storage room of not less than 50 square feet.
Kitchen	Provide a kitchen facility that can be used to serve food for up to 40 people. Include a residential grade oven/range and a large refrigerator, along with counter space where food can be served. Provide appropriate support for quantities of electrically powered heating/maintaining/serving devices. Provide an area of not less than 135 square feet.

Training Room	Provide a large room that can be used for the training of Chaplains or other participants at the same time that counseling support activities are happening in the Activity Room. It must accommodate at least 30 participants in an area of not less than 700 square feet. Provide two storage closets of a total of not less than 100 square feet at the back of the room for table and chair storage, and an adjacent storage room of not less than 43 square feet capable of storing at least two television carts. Provide conduit to support the connection of a closed circuit television type camera for monitoring activities.
Lobby	An entrance lobby shall be designed that projects a professional and welcoming atmosphere. Provide conduits to support the connection of closed circuit television type cameras near the entrance and exists for monitoring building access and hallways. Provide an area of not less than 152 square feet.
Janitor's Closet	Provide a janitor's closet for a facility of this size. Provide an area of not less than 35 square feet.
Energy and Sustainability	Facility shall be designed to meet energy and sustainable design and development requirements as established by Federal Law and Department of The Army policy.
Accessibility	The Americans with Disabilities Act Accessibility Guidelines (ADAAG) will be met.
Family Life Chaplain Office	Provide a room for an office for the Family Life Chaplain. It must include not only administrative space, but also meeting space for mentoring or counseling. Provide conduit to support the connection of a closed circuit television monitor for monitoring and recording of activities throughout the facility. Provide an area of not less than 220 square feet.
NCO Chaplain Assistant Office	Provide a room for an office for the NCO Chaplain Assistant. It will be adjacent to the entrance/lobby area so that traffic into the building can be observed. Provide conduit to support the connection of a closed circuit television monitor for monitoring building access and hallways. Provide an area of not less than 235 square feet.
Division Family Life Chaplain Office (Option)	Provide a room for an office for the Division Family Life Chaplain on those garrisons authorized a Division Family Chaplain. It must include not only administrative space, but also meeting space for mentoring or counseling. Provide conduit to support the connection of a closed circuit television monitor for monitoring and recording of activities throughout the facility. Provide an area of not less than 220 square feet.

Additional aspects of the facilities that are mandatory for each Chaplain Family Life Center facility are as follows:

1. The basic spaces and their arrangement as shown on the plan portion of this design package.
2. Appropriate vehicle and pedestrian elements including bicycle parking, sustainability features and landscaping features. The nature of the site and the needs of the specific users must be accommodated.
3. Any enclosures structure must exhibit the same materials and substantial looking construction as the Chaplain Family Life Center facility. While intended to screen mechanical/electrical equipment or dumpsters for waste or recyclables, these structures should not be treated as an unrelated construction of any material or appearance.
4. **Using the most up-to-date code and government criteria and general industry criteria in effect at the time of the design process.** In addition, the Center of Standardization maintains a specifically assigned Project Coordinator and a Technical Representative available to assist in the application of this Army Standard design. The Technical Representative is particularly available to help with the host of historical and functional issues that led to its current form and should also be aware of the latest lessons learned and new developments not yet incorporated in the design, programming information and cost information. The Chief of Chaplains Office should also be contacted whenever a specific project is being proposed to get their assistance in developing programming data and current priorities.

1.7 OPTIONAL ITEMS

Optional items that may be included in this facility are as follows:

1. The provision of additional parking or access to existing adjacent parking to meet specific needs of the user or Garrison.
2. The provision of additional equipment spaces or yards (program scope) to accommodate unusual specific climates.

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2 SCOPE OF WORK

2.1 CHAPLAIN FAMILY LIFE CENTER

Provide an Army Standard Design Chaplain Family Life Center facility as defined herein with appropriate visual and structural adaptation to the assigned site. The Army Standard Design Chaplain Family Life Center facility is designed to support a “regular” counseling and training occupancy of 70 persons or less. Include all appropriate coordination with the site. Staff capacity will generally be 4 to 6 persons. Variations to the counseling / trainings staff might range from 6 to 12 total persons, combined. Provide an enclosure for “dumpster” containers. The basic plan is relatively fixed. The general concept behind the plan is to separate the counseling from the training activities, so that each can function independently from one another. Consequently, adaptations that focus on integration of the various activities are not acceptable.

The basic floor plan as presented here has been developed to meet building functional, sustainable and programmatic requirements. Slight revisions to the floor plan to accommodate variations in structural members or to optimize sustainability and facilitate functionality are acceptable. Examples include, but are not limited to the following: the sizing and location of fenestration, interior door locations and minor wall placement changes.

Significant revisions to the floor plan that increase sustainability while preserving programmatic and functional requirements as outlined in the Army Standard may be considered. Recommended changes to the floor plan will only be approved after going through a waiver submission process as outlined by the Office of the Assistant Chief of Staff for Installation Management (OACSIM).

Due to the potential length of the review and approval process, the waiver process might not be feasible for a specific project.

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3 FUNCTIONAL/OPERATIONAL REQUIREMENTS FOR THE CHAPLAIN FAMILY LIFE CENTER FACILITY TYPE

3.1 GENERAL REQUIREMENTS

A. Provide an Army Standard Design Family Life Center (CFLC) (facility type) as defined herein.

B. SPECIAL COORDINATION SUBMITTALS:

Provide the facility with a special list as a design submittal and again as an early construction submittal. This list will itemize the building features that are to be procured by the government to “fit” into the building fabric supplied by the constructor of the building. For example, a kitchen appliance that is not in the contract but is supported by casework, utilities, and similar features that are a part of the contract supplied “building fabric”. The list shall briefly describe the item and the depth/width/height being provided, the coordinating finishes/colors being provided, the utilities/capacities being provided and any other important note necessary for the government to properly select and purchase the item.

3.1.1 FACILITY DESCRIPTION:

Army Chaplain Family Life Center Facility requirements are for a facility intended to support military personnel and their families. The facility will serve all faiths and the military community without favoring any one distinctive group in orientation or design. The facility is intended to support the counseling and related education mission of the ministry program for the Garrisons military community. The size and arrangement of spaces, their relationship to one another, and the form of the building are to remain constant during further development of this design into specific projects. The associated floor plan (provided) has been specifically developed to provide certain required functional capacities and benefits to the Army for this type of facility (especially with regard to supporting a wide range of relatively different faith groups) and is mandatory. It includes an option for increased office requirements to allow the facility to better support the needs of a Garrison where a Division is attached. The design allows small children and special-needs users to be accommodated as well as adults and older children.

3.1.2 FACILITY DESCRIPTION:

A. FACILITY GOALS FOR THE SOLDIER COMMUNITY:

- 1) The facility is intended to support the counseling mission of the ministry program for the Garrisons military community. This includes supporting counseling, education and instruction, Chaplain outreach programs, family life ministry and religious pastoral care of many kinds. These goals will impact the layouts and designs of casework, hardware, decorating features, etc.
- 2) The facility is intended to support administrative activities necessary to operate and maintain the Chaplain Family Life Center in a manner that ensures maximum support for the military community and the Garrison. These goals will impact finish choices, quality and selection of features.
- 3) The facility is intended to provide the highest levels of personal safety, resource integrity and construction technology while also inspiring and encouraging the Army community and the individual user. These goals will also impact the layouts and designs of casework, hardware, decorating features, finish choices, quality and selection of features.

B. Facility Goals for the Soldier Community:

- 1) All of the individual and group activities require support from the Unit Ministry Teams (the assigned group of Chaplain Staff defined for each Garrison). In turn, these teams require support in the form of professional administrative, activity and personal counseling spaces. Team members will be seeking to support the military community members and their Garrison in three basic ways.
- 2) The Unit Ministry Team is responsible for coordinating the use of all the different spaces by all the different users, many of which will be from the general garrison military community. Good coordination will ensure the most efficient and effective use of the facility and the greatest number of satisfied users.
- 3) The Unit Ministry Team is responsible for planning and producing individual and group functions. These could range from counseling or instructing an individual to leading a group counseling activity.
- 4) The Unit Ministry Team is responsible for managing the maintenance and operation of the facility and its supporting equipment systems in a way that provides a safe, economical and nurturing environment within the facility and extends the life of the facility to the greatest extent practicable. This will allow the facility to fulfill its mission for many years to come in a very cost effective manner.

3.1.3. **ACCESSIBILITY REQUIREMENTS**

Provide the physically handicapped complete access to all appropriate spaces (equipment rooms and closets are examples of exceptions). There are spaces for which handicapped access needs to be limited in specific ways.

- A. INFANT/TODDLERS: Unlike other Standard Religious Facility Types, there are no requirements for the design of toddler specific handicapped accessibility features or spaces into the design of the Army Chaplain Family Life Center facility.
- B. COUNTERS: Setting all counter heights in a space or a facility to meet accessibility criteria as if they were the only users of the facility is wholly inappropriate. Counter heights for base cabinets and apron rails in all spaces may include appropriate portions for the use of the handicapped, but the rest of such features must be designed to accommodate typical adults without special needs.

3.1.4. **BUILDING AREAS**

- A. GENERAL: While this document includes considerable guidance regarding building area, the depth and scope of other competing criteria can lead to points of uncertainty. Contact the Center of Standardization for help clarifying any such questions that will assist in completing a specific design.
- B. GROSS AREA: Provide gross building area as directed. For some solicitations an Appendix A - AREA COMPUTATIONS will be provided and shall be used for this. Provide the gross building area as shown on the provided drawing. Note also that every building code, life safety code or similar document will want the gross and net areas of the building calculated a different way because they have to focus on specific issues. These other area computations are fine to include on design documents, per se, but must be included in the drawings and specifications with an appropriate label such as "Gross Area for Exiting Purposes Only." The phrase "GROSS SQUARE FEET or GROSS SQUARE FOOTAGE must be reserved for the definition herein if it is used on design or contract documents.

- C. HALF AND EXCLUDED SPACES: A comprehensive review of the drawings and associated calculations will reveal that there are features (canopies, for example) whose area is counted as one-half of actual in gross-area calculations and some features (inaccessible shafts and the thicknesses of partitions, for example) whose area is not specifically counted in net-area calculations.
- D. NET AREA: Net space area is defined as the area measured to the inside face of the surrounding partitions or walls. Additional defining information will sometimes be included in an “Appendix A- AREA COMPUTATIONS” section. Provide net area requirements for functional spaces as defined in the APPENDIX A – AREA COMPUTATIONS, a part of this document. If net area requirements are not specified in the Statement of Work or the AREA COMPUTATIONS, the space shall be sized to accommodate the required function, comply with code requirements, comply with overall gross area limitations and other recognized design principles.

3.1.5. **Adapt Build Model**

When an Adapt-Build Model is available to use as a basis for design and/or construction, it will be posted on the Center of Standardization (CoS) web site, noted in solicitation documentation, or made available upon request as follows:

CoS Web Site address: <http://mrsi.usace.army.mil/cos/SitePages/Home.aspx>

CoS address: U. S. Army Corps of Engineers, Omaha District
 CENWO-ED-DG
 1616 Capitol Avenue
 Omaha, NE 68102-4901

Attn: CoS Technical Representative

3.2 **FUNCTIONAL AND OPERATIONAL REQUIREMENTS**

3.2.1. **FUNCTIONAL SPACES:**

- A. GENERAL: In addition to the space requirements outlined in the following paragraphs all spaces should also be evaluated for incorporation of the latest media technology. See the section in the Electrical Requirements that identifies media applications. Carefully compare all of the criteria sections (such as Architectural, Interiors, and Electrical) when planning a specific design project.
- B. PRIMARY SPACES:
 - 1) **Family counseling and counseling rooms:** Provide Family Counseling Rooms. This facility should have well-designed counseling spaces as it will serve not just the Chaplaincy and various religious communities, but the entire military community including Soldiers as well as family members. Family Counseling and Counseling Rooms are utilized for counseling of military personnel and their families. It is imperative to provide complete confidentiality (protection against understandable speech leaking into adjacent spaces), privacy of counsel (protection against easy identification of those seeking counsel), and personal security (protection against inappropriate actions or false accusations of inappropriate actions of one person against another) be provided.
 - 2) **Observation Rooms:** An Observation Room shall be provided between the two counseling rooms. The room will be utilized to observe counseling sessions taking place

in each room through the use of closed circuit television. The room must be large enough to accommodate 7 observers at one time. The room shall include space for audio-visual recording equipment and a television for recording and watching sessions. The room shall have a white board mounted on one wall. Provide telephone, computer, audio-visual connections and a connection for closed circuit television monitor for the monitoring and recording of sessions. Like Counseling Rooms, it is imperative that Observation Rooms provide complete confidentiality (protection against understandable speech leaking into adjacent spaces), privacy of counsel (protection against easy identification of those seeking counsel), and personal security (protection against inappropriate actions or false accusations of inappropriate actions of one person against another) be provided.

- 3) **Library Resource Room:** The Library/Resource Room will serve as a library and distribution point for books, audio visual equipment, and training supplies that may be loaned to clients and other users. The primary feature to provide for this room is a warm, comfortable, quiet space. It should include one wall of bookshelves to display books and education items.
- 4) **Family Life Chaplain Office / Counseling & NCO / Receptionist:** This facility should have well-designed offices and administrative space as it will serve not just the Chaplaincy and various religious communities, but the entire military community including Soldiers as well as family members. Chaplain's offices are often utilized as a counseling space. It is imperative to provide complete confidentiality (protection against understandable speech leaking into adjacent spaces), privacy of counsel (protection against easy identification of those seeking counsel), and personal security (protection against inappropriate actions or false accusations of inappropriate actions of one person against another) be provided.
- 5) **Waiting Room:** This space is intended to provide a little more waiting capacity and privacy for counseling activities so as to create some separation between the training and counseling missions of the facility. The space will need to include features that allow for the control of light, sound and temperature with a maximum of ease and flexibility.
- 6) **Activity Room:** This room will accommodate a wide range of activities such as training, counseling, education, or children's events and activities. An adjacent storage room accessible from the Activity Room is provided. The Activity Room is meant to accommodate a variety of different activities and it should have finishes similar to a typical classroom space. An appropriately sized, flat screen television and a white markerboard will be provided at the front of the room. Substituting or adding a manually operated projection screen or other appropriate technology components for displaying images is also acceptable. Insure that proper connections for the use of audio/visual media presentations and activities are provided. If a projection screen is provided insure that there is support for a ceiling mounted projector at the proper location to project onto the screen. The Activity Room shall be provided with a closet for the storage of equipment and supplies.
- 7) **Training Room:** The classroom will be used for conducting training for Chaplains and other participants. It must accommodate at least 30 participants. Include two storage rooms at the back of the space for table and chair storage, and a storage room at the front of the space for storage of at least two television carts. Provide a total Training/Classroom area of not less than 700 square feet. The training classroom is intended to be a multipurpose space that is adaptable for a variety of group sizes and training formats. This room could be set up with rows of tables and chairs or with just chairs. Chairs shall be the stacking type and tables shall be the multi-purpose type with folding legs. Provide a white marker board and a flat screen television centered at the front of the room. Substituting or adding a manually operated projection screen or other

appropriate technology components for displaying images is also acceptable. Insure that proper connections for the use of audio/visual media presentations and activities are provided. If a projection screen is provided insure that there is support for a ceiling mounted projector at the proper location to project onto the screen. The Training / Classroom shall be provided with closets for the storage of equipment, tables, chairs and supplies.

C. SUPPORT SPACES

- 8) **Kitchen:** A kitchen shall be provided to serve the daily needs of staff members as well as small groups conducting training or meetings in the facility. The kitchen is planned for the storing and distribution of pre-prepared food only. High grade residential kitchen appliances should be provided along with an appropriate mix of wall and base cabinets and countertops. Provide spacing/accommodation for appliances in kitchen. Appliances should include an oven/range, one large refrigerator, microwave oven (many local facility users prefer to use combination microwave/hoods), two warming drawers, a single dishwasher and a double sink with a garbage disposal unit. Since residential ice makers are not usually designed for a high enough capacity to be appropriate for this facility, they may be commercial type appliances. Coordinate with the Contracting Officer's representative regarding the need for gas or electric ranges and provide all appropriate utilities to support the appliances. Some customers may have special preferences about appliances or features for this space and this may be considered in developing the design. Note that the appliance/casework arrangement shown is not intended to limit the designer. Variations that the designer feels will improve the functionality of the space are acceptable. Kitchen shall comply with ABA requirements. The kitchen requires the same basic finishes, cabinets and features as any typical residential kitchen. Provide appropriate materials and hardware for all casework features.
- 9) **Lobby:** Due to the nature of lobbies, their specific project characteristics must be coordinated with Garrison requirements since these requirements change over time. Provide the lobby area with power and communications support for a flat screen television to function as electronic message boards. Provide wall mounting brackets for the televisions.
- 10) **Janitor's Closet:** A Janitor's Closet with mop sink shall be provided. Since both wet and dry cleaning equipment may be present in this space finish materials that handle occasional wetting shall be provided. Janitor's closet shall include a floor mounted mop sink, shelving for supplies, hanging racks for mops and brooms. Additional shelving may be provided if required by the specific Installation or customer.
- 11) **Storage and Equipment Rooms:** These are dedicated spaces for general storage of facility furnishings and supplies. The storage rooms at the back of the Training Classroom are intended for storage of tables and chairs when they are not in use. Specific projects may introduce slight variations in what is to be stored and the designers must re-verify the storage requirements of their specific project and make adjustments as appropriate. In general, the quantities of furniture listed for the facility have been calculated out to specific numbers and sizes of commercially available storage dollies. These dollies have, in turn, been fitted into the storage spaces to ensure that there is enough storage space available. The sizes of storage dollies for the tables and chairs selected have an impact on the space needed for turning and maneuvering. Designers are advised to double check door opening sizes to assure proper clearances are maintained. See Paragraph Furniture and Equipment for information on storage dollies.
- 12) **Recycling / Vending Area:** A Recycling / Vending Area will be provided for two

vending machines and 5 recycling bins.

- 13) **Toilet Facilities:** These spaces are a natural requirement for any facility housing numerous groups of people and the capacity and placement has been optimized for this definitive design. These spaces should receive professional quality finishes and trim in a scheme of materials and colors that is inherently sanitary and resistant to moisture and is coordinated with the other facility spaces. Toilet rooms should be complete with fixtures and accessories such as mirrors, dispensers, waste containers, courtesy shelves and coat hooks. Check with the Installation regarding their preferences on the provision of soap and towel dispensers. Provide a pre-manufactured “pull-down” wall mounted baby-changing station in each of the toilet rooms. Consider providing a counter with inset lavatories instead of individual wall mounted lavatories. Where lavatories are placed on an outside wall, provide a short partition in front of the exterior wall for the fixtures and space for air to flow behind. Place plumbing in the inner partition. There is great diversity of design opinion related to toilet rooms, and particular fixtures and accessories that can work best in different arrangements. In consequence, it is acceptable to rearrange these spaces so long as the fixture count stays the same and visual privacy is provided. This means that the floor plan (within this perimeter) may vary from the floor plan shown in the Army Standard design.
- 14) **Vestibules:** Vestibules shall be provided at exterior entrances into the facility for the purpose of interior climate control and to allow personnel a space to orient oneself, deal with coats, watch and wait for a ride. This design definitive provides primary and secondary sets of spaces for this purpose as well as simple exits for Life Safety purposes. The vestibules are directly accessible from the exterior of the facility to the centrally located main entrance and at each end of the facilities main corridor. The vestibules are the main entry points into the facility. The main vestibule and doors, adjacent to the Lobby, should be designed as a focal point in the building design. Finishes and trim should clearly connect to the spaces with the highest quality of finish as well as with spaces of more simple finish. Where things are in relation to these spaces should also be relatively clear. Floor finish should consider the tracking in of water and dirt from the outside. Check with the Installation regarding their preferences on the provision of a recessed entry mat or similar soiling control device. Slightly higher ceiling volumes, decorated ceiling treatments, and special trim are appropriate for the main entry vestibule. Some Installations may desire a recessed type floor mat in the entry vestibules.
- 15) **Corridor:** The circulation for this facility is a double-loaded corridor with rooms and offices on both sides. It connects to the lobby at the main entrance and has secondary/emergency exits at both ends. Because the Corridor, lobby and vestibules will be the first space that personnel entering the facility will see, the corridor should receive professional quality finish, image and trim in a scheme of materials and colors that are inviting and coordinates well with all other spaces. The corridor is a key element in communicating a sense of continuity in the whole facility and should not be treated as merely a utility passageway.
- 16) **Mechanical, Electrical and Communication Rooms:** These spaces are a necessity for any occupied facility and each specific project developed from this Standard Design must include the optimum capacity and utilization of equipment space. This will require some coordination with each specific Installation. These spaces are generally provided with simple durable finishes and light colors. Though physically isolated from most of the rest of the building, acoustic separation shall be considered and provided where deemed appropriate.
- 17) **Exterior Canopy Area:** A covered entry of significant size is important and will

inherently enhance the facility. It also visually identifies the main entrance into the facility. Special paving, ceiling and lighting treatments of some sort would be appropriate for this area and should be designed to transition smoothly from the exterior character of the building into the interior character.

3.3 SITE FUNCTIONAL REQUIREMENTS

A. GENERAL:

- 1) The Chaplain Family Life Center facility should be in a location that is easily identified yet away from high traffic or command buildings to allow anonymity to users. It should not be located near an exchange, headquarters building, or dining facility. This facility should not be located within purely residential areas because of the large number of vehicles that will be associated with the facility.
- 2) This facility's location from the perimeter of the Garrison and from trash containers, roadways and parking lots will have an impact on what construction systems will be allowed (and vice versa) for the facility. This is described in UFC 4-010-01. Adjust the facility orientation on the selected site to take advantage of desirable views and according to recognized design principles. Parking acreage requirements for each facility will depend on how the facility is used and the availability of adjacent parking areas that may be used.
- 3) The design incorporated typical features for threat protection. The level of threat is to be defined by the garrison and is included in the project design criteria. These criteria are to be referred to for specific definitions and the security measures required to resist a prescribed threat. If greater levels of threat are indicated than accommodated by the typical features of this document, additional features can be added.

B. BUILDING ORIENTATION:

- 1) Site limitations may preclude some building orientations, but whenever possible, the building should be oriented to optimize energy usage, sustainability and functionality. When possible, locating the entrance doors away from the prevailing winds will help to save energy during colder months in northern climates. Southern exposures of the main entrances are desirable in certain areas to help remove ice buildup on walks. Windbreaks, trees for shade, and preservation of existing landscaping should be considered when selecting a building site, parking areas and walkways.
- 2) Site specific features may have a significant impact on how the building is oriented and located on the site, how much parking is required, the layout and amount of sidewalks, type and amount of landscaping, fencing, etc. Adjacent parking areas may exist that can be used if conflicts in use can be resolved. Certain existing structures or site features may need to be screened from view. In any case the final layout of the building and site will vary from site to site with the best solution quite possibly being one quite different from the one presented in this document.

C. Parking: The site should allow space for the building, a service drive, various walkways and necessary force protection distances from any indicated driveway or parking area. Parking acreage requirements for each facility will depend on the size of the facility, how the facility is used, and the availability of adjacent parking areas that may be used.

- 1) The average population of the **Chaplain Family Life Center building would be approximately 70 persons.**

- 2) At any facility the number of parking stalls needed depends on how many people drive to the facility. If no traffic analysis were done to indicate otherwise, the number of stalls allocated per this type of Facility would be 30% of the seating capacity of the building. If an analysis is done, the number of parking stalls shall be determined based upon the number of users, the level of ride sharing, available public transport, future growth, average employee absence, and the availability of parking areas adjacent to the facility that may be used during those periods of time when conflicts will not occur. Parking stall widths shall never be less than 9 feet wide. 90 degree parking is the most space efficient parking style and can be used in two directional lanes. Angle parking is usually only one way and less efficient space wise, but quicker and easier to get in and out of. The parking area shall be based on 350 to 400 square feet per parking stall. This square footage accounts for the parking stall the adjacent drive aisle; adjacent parking islands and drive aisles adjacent to the end of the parking lot. Extended drives for access to parking lots and service drives to maintenance areas and drop offs to the front doors, etc., are pavement areas that need to be calculated on a case by case basis depending upon the topography and location of the facility from existing transportation routes.
- 3) The Chaplain Family Life Center, with an average population of 70 persons would have a parking area with drive aisles totaling 48 parking stalls, or 2,140 square yards of paving. Additional paving for extended entrance drives, maintenance areas and drop offs should be added to this. **The acreage area necessary for accommodating the Chaplain Family Life Center is approximately 0.033 acres or 1450 SF.**

D. ACCESS DRIVES AND LANES:

- 1) The site plan indicates a drive approaching the building offset from the main entry. This design prohibits a straight line of access for vehicles to the front of the building for force protection reasons. A drop off drive is shown at the main entrance to the Chaplain Family Life Center facility. The necessity of this feature will vary at each garrison.
- 2) Normal access to the building is intended to be through the main entrance. Parking should be considered for overlapping groups of users who may be in separate areas of the facility.
- 3) A service drive of minimal width may be installed on the side of the building for access to the mechanical room. This drive may also serve as an access drive for fire department vehicles. In any case this drive must have a lockable gate or chain to prevent unauthorized access to that side of the building.

3.4 SITE AND LANDSCAPE REQUIREMENTS

A. GENERAL:

- 1) Existing environmental cues and sustainability issues will be the primary “drivers” for developing the site for specific projects. Landscaping should be designed to be low maintenance, and compatible with the environment in which the facility is located. Consideration should be given to the offices and classrooms located around the perimeter of the structure when locating plant material. Specific views of the buildings should be appropriately landscaped i.e., to enhance the main entrances to screen mechanical electrical equipment and large parking areas.
- 2) Site grading is seldom considered early on in a project. However this is a very important aspect of the project. The site elevation of the building can determine the visual-importance of the building in relation to the adjacent features. The location and elevation of the building will determine the slope and grade of the adjacent walks,

roadways, lawns and patios serving the building. The most appropriate grades for walkways to the building are 2%. Provide a smooth access (without resorting to ramps) for handicap access to the facility.

- 3) The amount and type of storm drainage will impact the site. Consider early on the type of roof drainage and how it will flow across the site. Avoid having downspouts spill out across walkways and main drives making them hazardous especially during freezing periods. Do not direct storm drainage across major walkways or into inlets near major pathways to or from the parking lot. Major drainage swales should not direct water near the main building. Avoid upward slopes near the main structure to avoid snow accumulation against the building and seepage of water into the structure.
- B. SITE STRUCTURES: Provide screen walls and other site features as appropriate and where directed in other paragraphs.
- C. SITE UTILITIES: Provide as appropriate. Adequate site lighting for pedestrians and cars should also be included in the design. Additional lighting for the facility to accent certain features of the building, landscaping or views should also be considered.
- D. LANDSCAPING/HARDSCAPING: Provide as Appropriate. Landscaping should be designed to be low maintenance, and compatible with the environment in which the facility is located. Consideration should be given to the offices and classrooms located around the perimeter of the structure when locating plant material. Specific views of the buildings should be appropriately landscaped i.e., to enhance the main entrances to screen mechanical electrical equipment and large parking areas. Mounding and landscaping can be used to deflect or reduce noise from certain areas. Plantings should be held away from windows and entrances for security purposes. Thick shrubbery and dense plantings should be avoided.
- E. SITE SPECIALTIES AND FURNISHINGS: Provide outdoor activity spaces where requested for specific projects. These could range from an adjacent patio to expand an indoor activity into the outdoors, all the way to a more developed covered or fully outdoor space. Available resources and local climate may encourage the investigation of such features for a specific project. A bicycle parking area should be located near the front entry to the building.

3.5 ARCHITECTURAL REQUIREMENTS

A. GENERAL:

This facility type is intended to be a key asset for the total Garrison and the military community, not a closed asset only for the private use of the Chaplaincy. Many Installation Design Guides have clear criteria established for appearance characteristics for specific areas of a garrison. Visual appearance and exterior material selections shall coordinate well with the patterns set by the Garrison and its existing adjacent facilities. Consult the Installation Design Guide, the Installation and/or building users regarding their preferences for things such as appearance characteristics, construction materials and finishes, bulletin boards and directories, and color schemes. The impact of climate, security and geography shall also be addressed appropriately. There may be reasons to control exterior noise from entering the facility that would require special treatment or STC ratings on major building components. Provide appropriate and adequate protection from the wind and wind driven precipitation for doors and entries. The development of interior design themes shall relate to the exterior design decisions made and it should receive a thoughtfully coordinated treatment throughout all interior spaces. These interior themes shall also be appropriate to the functions housed. Safety and

security for all users will require incorporating features such as thoughtfully placed locking hardware, handrails and non-slip (a generally “smooth matt” finish that shall limit the risks of foot slippage when wet, but not try to eliminate them by presenting a protruding abrasive grit or highly textured surface) floor finishes. Door hardware shall take into consideration the high volume of building users. Interior doors shall be of solid core wood with hardwood veneer to match the interior design material and color scheme. Though many of the interior spaces will require STC rated walls and ceilings for enhanced acoustic isolation, special STC rated doors are generally not necessary. Instead, provide gasketing and sound seals around standard solid core wood doors. Inclusion of complex or actuated sealing devices is not necessary or desired. Consult the Installation for local policy on electronic key card access systems for entry doors. Provide all appropriate (restroom, normally locked equipment room, normally-locked storage room, and very small closet doors are not appropriate) interior doors with narrow borrow lite windows. Rooms like the kitchen that may occasionally be left unlocked should be included. The doors to the Family Life Chaplain offices, Counseling rooms and Observation rooms should have a narrow borrow lite window that includes a “frosted” film or treatment to obscure detail, but still allow a passing observer to note the general placement of people and objects. The goal is to have no accessible space appear observation free. This has been demonstrated to deter temptation to inappropriate behavior or the claim of inappropriate behavior. Provide an exterior building appearance and massing that is coordinated with the plan of the facility. Provide appropriate windows for all appropriate spaces. Window sizes and placement are to integrate with the exterior design theme. Provide window area of a minimum of 10 percent of the exterior wall area (counting wall area below 10 feet above the finished floor). Provide a roof slope of at least 3 in 12 for all areas of roofing and snow guards over entrances or other features requiring protection along eave edges of low-friction roofing such as metal. Where porcelain tile is called for, install with epoxy grout.

- B. **WALLS:** The intent of the Army Standard Design for this facility type is to allow for the fullest possible range of exterior wall choices, particularly so that the facility can coordinate optimally with the Aesthetic themes of the Garrison upon which it is constructed.
- C. **ROOF SYSTEM:** The intent of the Army Standard Design for this facility type is to allow for the fullest possible range of roof choices particularly so that the facility can coordinate optimally with the Aesthetic themes of the Garrison upon which it is constructed.
- D. **OPENINGS:** The intent of the Army Standard Design for this facility type is to allow for the fullest possible range of exterior opening choices particularly so that the facility can coordinate optimally with the Aesthetic themes of the Garrison upon which it is constructed. In addition to the requirements elsewhere provide the following:
 - 1) **Family Counseling and Counseling Rooms:** Provide a door with a glazed borrow lite in the door to the counseling rooms. Borrow lite must include a “frosted” film or treatment to obscure detail, but still allow a passing observer to note the general placement of people and objects. Office doors shall be provided with locksets.
 - 2) **Observation Rooms:** Provide a door with a glazed borrow lite in the door to the Observation rooms and must include a “frosted” film or treatment to obscure detail, but still allow a passing observer to note the general placement of people and objects. A cipher code door lock is preferred for the door into the Observation Room to ensure controlled access.
 - 3) **Library Resource Room:** The door shall have a lockset.

- 4) **Family Life Chaplain Office/counseling & NCO/Receptionist:** Provide a glazed borrow lite in the door to the Chaplain's offices are required, but it must include a "frosted" film or treatment to obscure detail, but still allow a passing observer to note the general placement of people and objects. Office doors shall be provided with locksets.
 - 5) **Training Room:** The door shall have a lockset.
 - 6) **Kitchen:** The door shall have a lockset.
 - 7) **Janitor's Closet:** Provide janitor's closet entry door with a lockset.
 - 8) **Storage and Equipment Rooms:** The door shall have a lockset (coordinate the keying of these spaces with the Garrison group responsible for maintenance and operation).
 - 9) **Toilet Facilities:** The entry doors shall generally receive only latch sets although some Installations may prefer push pull hardware or dead bolt locksets, which can be operated by the cleaning or maintenance personnel.
 - 10) **Vestibules:** Provide vestibule entry doors (from the exterior) with panic hardware and locksets. Provide interior vestibule doors with appropriate push-pull devices.
 - 11) **Corridor:** Coordinate with the Contracting Officer's representative on the preferred location and provide one of the exterior entry doors for the building with a mechanical push-button or other special keyless entry device for staff use when the facility is closed for regular business.
 - 12) **Mechanical, Electrical and Communication Rooms:** Doors shall have a lockset. These doors are not keyed to be accessible to building occupants. Coordinate with the particular Installation for policy and guidance on this.
- E. **EXTERIOR SIGNAGE:** Provide electrical conduits and communication conduits for a future lighted and substantial exterior building sign with a message board at an appropriate area on the site.
- F. **ACOUSTICAL REQUIREMENTS:**
- 1) **Family Counseling and Counseling Rooms:** Partition construction around each space shall supply an STC rating of 45 or better.
 - 2) **Observation Rooms: :** Partition construction around each space shall supply an STC rating of 45 or better.
 - 3) **Library Resource Room:** Partition construction around each space shall supply an STC rating of 45 or better.
 - 4) **Family Life Chaplain Office/counseling & NCO/Receptionist:** Partition construction around each space shall supply an STC rating of 45 or better.
 - 5) **Waiting Room:** Partition construction around this space shall supply an STC rating of 45 or better to insure the acoustical privacy of adjacent spaces.
 - 6) **Activity Room:** Enhanced acoustic isolation (STC of 52 or better) should be provided by the walls and ceiling so that conversations are not heard in adjacent rooms.

- 7) **Training Room:** To ensure that conversations and audio equipment are not heard in adjacent rooms and the corridor, enhanced acoustic isolation (STC of 45 or better) should be provided by the walls and ceiling.
- 8) **Toilet Facilities:** Since activities in these spaces may contrast with the activities in adjacent spaces, enhanced acoustic isolation (an STC of 52 or better) should also be provided by the permanent partitions.
- 9) **Mechanical, Electrical and Communication Rooms:** As a minimum, walls next to occupied spaces should extend to the underside of the roof structure above.

3.5.1. **Finishes and Interior Specialties**

A. **GENERAL:**

- 1) The facility interior shall be a warm, comfortable, and professional environment through the appropriate use of building materials, furniture, finishes, fabrics, color, texture, and the generous use of wood. Coordinate wood finish, such as stain or paint, on a per project basis. Materials and features shall be of high quality, functional, easily maintained and furnished as described herein. In regions where similar materials such as natural stone tiles or other special flooring tiles are competitive in price and provide the same appearance and performance characteristics, these materials are also generally acceptable wherever porcelain tile is specifically called for herein. Recommend the use of several coordinating carpet patterns within the same color-way within the facility to provide variety and continuity between different functional areas. Provide wall and/or floor tile patterns using several coordinating colors in the toilets as appropriate. Tile patterns shall be appropriate to size and shape of rooms. Building finishes and details and furniture style, finish and fabrics shall be complementary and provide a completely coordinated interior design. The interior building appearance shall coordinate with the exterior building appearance. Consider spaces that open up to one another when selecting furniture and building finish and color selections. The criteria within this document identifies the level of quality and special requirements for finishes and furniture, yet provides flexibility for the designer to make creative and appropriate selections to meet User requirements. Dimensions provided are approximate.
- 2) All interior finishes and building equipment shall conform to applicable UFGS guide specifications, federal and military regulations. Interior and exterior building finishes and colors shall be coordinated with the user and garrison. In addition, the exterior building design shall comply with garrison exterior building guidance.
- 3) Unless otherwise noted, items in this section shall be Contractor Furnished/Contractor Installed (CF/CI). Dimensions provided are approximate. When a finish has not been included in this paragraph, finish selection will follow applicable standards and User requirements. Designers are not limited to minimum finishes listed in this section and Paragraph 3 and are encouraged to offer higher quality finishes in addition to materials that aid in meeting LEED requirements.

B. **INTERIOR FINISHES:**

- 1) **Family Counseling and Counseling Rooms:** Floors shall be carpeted, and walls shall be painted wallboard and/or an appropriate fabric or vinyl wallcovering. (However, vinyl wallcovering should be avoided in warm, humid climates.) Chair rail may be considered for protection from moving furniture or for different wall treatments. Wall base should be resilient or wood. Ceilings shall be standard suspended acoustic tile with recessed light fixtures. The appropriate ceiling height for this space can vary from 8'-0"

to 9'-0".

- 2) **Observation Rooms:** Floors shall be carpeted, and walls shall be painted wallboard and/or an appropriate fabric or vinyl wallcovering. Chair rail may be considered for protection from moving furniture or for different wall treatments. Wall base should be resilient or wood. Ceilings shall be standard suspended acoustic tile with recessed light fixtures. The appropriate ceiling height for this space can vary from 8'-0" to 9'-0".
- 3) **Library Resource Room:** Floors shall be carpeted, and walls shall be painted wallboard and/or an appropriate fabric or vinyl wallcovering. Chair rail may be considered for protection from moving furniture or for different wall treatments. Wall base should be resilient or wood. The appropriate ceiling height for this space can vary from 8'-0" to 9'-0".
- 4) **Family Life Chaplain Office/counseling & NCO/Receptionist:** Floors shall be carpeted, and walls shall be painted wallboard and/or an appropriate fabric or vinyl wallcovering. Chair rail may be considered for protection from moving furniture or for different wall treatments. Wall base should be resilient or wood. Ceilings shall be standard suspended acoustic tile with recessed light fixtures. The appropriate ceiling height for this space can vary from 8'-0" to 9'-0".
- 5) **Waiting Room:** Floors shall be carpeted, and walls shall be painted wallboard and/or an appropriate fabric or vinyl wallcovering. Chair rail may be considered for protection from moving furniture or for different wall treatments. Wall base should be resilient or wood. Ceilings shall be standard suspended acoustic tile with recessed light fixtures. The appropriate ceiling height for this space can vary from 8'-0" to 9'-0".
- 6) **Activity Room:** Floors shall be carpeted and walls shall be of painted wallboard. Wall base should be resilient. The door shall have a lockset. Ceilings shall be standard suspended acoustic tile with recessed light fixtures. The appropriate ceiling height for this space can vary from 8'-0" to 9'-0".
- 7) **Training Room:** Floors shall be carpeted and walls shall be of painted wallboard. Wall base should be resilient. Ceilings shall be standard suspended acoustic tile with recessed light fixtures. The appropriate ceiling height for this space can vary from 8'-0" to 9'-0" above finish flooring.
- 8) **Kitchen:** Floors shall be either seamless sheet vinyl or porcelain tile. Walls shall be of painted wallboard. Wall base should be integral cove base with seamless sheet vinyl or porcelain tile with porcelain tile floor. Ceilings shall be standard suspended acoustic tile with recessed light fixtures. The appropriate ceiling height for this space can vary from 8'-0" to 9'-0".
- 9) **Lobby:** Provide porcelain tile for the floor finish (integrate with recessed entry mats), porcelain tile base for the wall/floor trim, and painted wallboard for the wall finish. Chair rail may be considered for protection from moving furniture or for different wall treatments. Provide suspended acoustic tile with recessed light fixtures in a typical grid pattern exposed suspension system or a "feature" ceiling and light fixtures as appropriate. The ceiling heights shall be 9'-0" above the finished floor or as appropriate to integrate with the ceiling roof structure.
- 10) **Janitor's Closet:** Provide exposed concrete with a hardener applied for the floor finish, resilient base for the wall/floor trim, and painted water-resistant wallboard for the wall finish. Ceiling shall be standard suspended acoustic tile or painted wallboard with recessed lighting. The ceiling height shall be 8'-0" above the finished floor.
- 11) **Storage and Equipment Rooms:** Floors shall match that of the adjacent space. Walls

shall be of painted wallboard and wall base shall be resilient. Ceilings shall be standard suspended acoustic tile with recessed light fixtures. The appropriate ceiling height for this space is 8'-0" to 9'-0" above finish flooring.

- 12) **Recycling/Vending Area:** Floors shall be vinyl composition tile or seamless sheet vinyl. Substituting porcelain tile for the floor finish is also acceptable. Walls shall be of painted wallboard. Wall base shall be resilient, integral cove base or porcelain tile as applicable. Provide suspended acoustic tile with recessed light fixtures in a typical grid pattern exposed suspension system for the ceiling finish and lighting format. The appropriate ceiling height for this space can vary from 8'-0" to 9'-0" above finished floor.
- 13) **Toilet Facilities:** Floors, wall base and walls shall be of porcelain tile, although the use of wainscots with painted wallboard above might also be considered. Decorative features, such as porcelain tile wall and floor patterns are recommended. Shower and drying area walls shall be provided with full height ceramic or porcelain tile. Ceilings shall be suspended painted wallboard with recessed light fixtures. Ceilings in the shower and drying area shall be suspended painted water-resistant wallboard. The appropriate ceiling heights for these spaces shall be 8'-0" above finished floor.
- 14) **Vestibules:** Floors and base in the entry vestibules shall be porcelain tile. This same material can be carried back into the waiting area or corridor space for some additional distance, with the rest of those spaces being carpeted. Some care will need to be given to the transition. Walls shall be of painted wallboard and/or an appropriate fabric or vinyl wallcovering. Chair rail may be considered for protection from moving furniture or for different wall treatments. A special ceiling treatment is appropriate for the main vestibule space, but all the finish treatments of this space will also need to transition smoothly into that used for the Lobby and Corridor. Ceilings shall be suspended painted wallboard or suspended acoustic tile in a typical grid pattern with recessed light fixtures. The appropriate ceiling heights for these spaces can vary from 8'-0" to 9'-0" above the finished floor.
- 15) **Corridor:** Provide carpet for the floor finish and resilient base for the wall/floor trim. Walls shall be of painted wallboard and/or an appropriate fabric or vinyl wallcovering. Chair rail may be considered for protection from moving furniture or for different wall treatments. Provide suspended acoustic tile with recessed light fixtures in a typical grid pattern exposed suspension system for the ceiling finish and lighting format. The ceiling heights shall be 9'-0" above the finished floor.
- 16) **Mechanical, Electrical and Communication Rooms:** Floors of the mechanical and electrical rooms shall be exposed concrete. The floor of the Communication Room may be either exposed concrete or vinyl composition tile. Walls shall be of painted wallboard and wall base shall be resilient. Finished ceilings are not required in these spaces and can generally be exposed to the underside of the roof structure. Light fixtures shall be suspended from the exposed roof structure.
- 17) **Exterior Canopy Area:** Provide exterior canopies or roof overhangs at each entrance with a weather, insect, bird, and vermin resistant ceiling material. Minimum height of canopy or overhang ceiling shall be 9'-0". Provide paved surface below with decorative accent and slip-resistant finish.
- 18) **Minimum Finish Requirements:**
 - a) **Carpet:** Commercial 100% branded (federally registered trademark) nylon continuous filament, permanent static control, loop pile with multi-color (geometric, bold, directional or floral patterns shall not be used), minimum

finished yarn weight of 20 oz./sq. yd, 1/8" gauge minimum, minimum pile weight density of 4725, synthetic backing. Carpet tile installation shall be with release adhesive.

- b) **Porcelain Tile**: Porcelain tile shall conform to ANSI A137.1, minimum commercial heavy grade only. Porcelain tile and trim shall be unglazed with the color extending uniformly through the body of the tile or glazed with body color consistent with glaze color.
- c) **Sheet Vinyl**: Sheet vinyl flooring shall be commercial grade with heat or chemical weld. Type shall be appropriate for intended use. Integral cove base is recommended.
- d) **Vinyl Composition Tile**: Vinyl composition tile shall conform to ASTM F 1066, Class 2 (through pattern tile), Composition 1, 1/8 inch thick, with color and pattern uniformly distributed through the thickness of the tile.
- e) **Wood Base, Cornice, Chair Rail and Other Wood Trim Items**: Shall be of same wood type, character and finish.
- f) **Resilient Base**: Base may be vinyl or rubber, 4 inches high and minimum of 1/8 inch thick.
- g) **Vinyl Wallcovering**: Vinyl wallcovering shall be vinyl coated woven or nonwoven fabric, contain bactericides and mildew inhibitors and be Type II.
- h) **Fabric Wallcovering**: Fabric with acrylic backing shall be colorfast, stain, and soil resistant, and shall comply with NFPA 101 for textile wall materials. Wallcovering shall be able to be cleaned by wiping, vacuuming or washing.

C. **INTERIOR SPECIALTIES**: Provide the following Interior Specialties:

- 1) **Signage**: Provide a complete interior signage system that coordinates with the interior design. The facility interior signage system shall be standardized throughout the building and shall be flexible to allow for the addition and deletion of signs and information. Room signs and building directories shall be provided. A directory shall be located in the entrance of the facility.
- 2) **Toilet Facilities**: Provide multiple robe hooks, a water resistant seat (inside the shower) and curtain rod for the shower.
- 3) **Window Treatment**: Provide horizontal blinds for all exterior windows except at building entrances.
- 4) **Marker Boards**: Provide marker boards in the Training/Classroom and Activities Room. Marker boards shall be wall mounted with a marker tray. Dry erase markings on marker board shall be removable with a felt eraser or dry cloth. Marker board size shall be 4'-0" wide x 3'-0" high.
- 5) **Entry Mats**: Provide entry mats at all entry vestibules and lobbies. Entry mats shall be of the shallow built-in type, classified for heavy commercial use and of dirt-hiding construction.
- 6) **Diaper Changing Units**: Provide one pre-manufactured unit specifically designed for diaper changing in the Women and Men's restrooms. The unit shall be wall mounted and designed to self-store up against the wall it is mounted on when not in the open position. Unit shall have safety features normally required for this type of unit. Depth in the closed position shall be 3".
- 7) **Adjustable TV Wall Mounts**: Provide adjustable TV wall mounts for flat screen TVs

in the Lobby, Training/Classroom, and Activities Room. Contact local suppliers for advice on selection. Coordinate with TVs being purchased as much as possible, but provide a relatively universally designed product so that the TV may be changed out over time. Wall mount shall have the ability to adjust for tilt, angle, horizontal and vertical placement of TV screen.

- 8) **Adjustable Media Player Mounts:** Provide adjustable media player wall mounts for media players in Training/Classroom and Activities Room. Contact local suppliers for advice on selection. Coordinate with media players being purchased as much as possible, but provide a relatively universally designed product so that the players may be changed out over time. Wall mount shall have the ability to adjust in relation to the TV screen.
- 9) **Fire Extinguisher Cabinets:** Provide fire extinguisher cabinets where fire extinguishers are required by UFC 3-600-01, NFPA 10, and NFPA 101. Provide semi-recessed cabinets in all finished areas. Travel distance to/from the extinguisher cabinets shall not exceed that required by NFPA 10. Fire extinguisher cabinets shall be capable of housing a 10 lb ABC portable fire extinguisher. Fire extinguisher door panels shall not be locked.

3.6 STRUCTURAL REQUIREMENTS

A. GENERAL:

A wide variety of structural systems may prove suitable for this facility. The design of structural systems shall be based upon applicable criteria.

B. DESIGN LOADS:

- 1) **Live Loads:** Live loads (including floor and roof live loads, snow loads, wind loads and seismic loads) shall be as specified in the most recent edition of the International Building Code (IBC).
- 2) **Dead Loads:** Dead loads shall consist of the weight of all materials of construction incorporated into the building including but not limited to walls, floors, roofs, ceilings, stairways, built-in partitions, finishes, cladding and other similarly incorporated architectural and structural items, and fixed service equipment including the weight of cranes.
- 3) **AT/FP Requirements:** UFC 4-010-01 provides guidance on project planning in conjunction with establishing standoff distances for buildings to parking, roadways, trash containers and Garrison perimeters. Minimum standoff distances cannot be encroached upon. These setbacks will establish the maximum buildable area. All standards in Appendix B of UFC 4-010-01 (9 February 2012) must be followed. In addition to the UFC cited in this paragraph UFC 4-020-02FA, (2005) Security Engineering: Concept Design; UFC 4-020-03FA, (2005) Security Engineering: Final Design; UFC 4-020-04FA, (2005) Electronic Security Systems: Security Engineering; and UFC 4-021-01, (9 April 2008) Mass Notification Systems also apply to the facility. The Chaplain Family Life Center Facility Standard design facilities meet the requirements of this paragraph provided the minimum standoff distances are achieved.
- 4) **Foundations/Slabs-on-Grade:** The foundation system shall be designed according to site specific soil conditions which will require a geotechnical site investigation.
- 5) **Construction Materials:** The local availability of building materials may be the deciding factor on the type of structural systems chosen.
- 6) **Design Analysis:** The Design Analysis shall include lists of design criteria, structural

design loads, structural materials with stress grades and/or ASTM designations, and calculations. A copy of the Foundation Analysis shall be included as an appendix to the Design Analysis.

- C. MODIFICATIONS TO EXISTING STRUCTURES: Structural requirements for modifications to existing structures shall comply with IBC 2006 Chapter 34 Existing Structures. Implementation AT/FP requirements of UFC 4-010-01 (9 February 2012) is mandatory for existing buildings when triggered by UFC 4-010-01 paragraph 1-8.2 Existing Buildings.

3.7 SEE PARAGRAPH 6.7 THERMAL PERFORMANCE - NOT USED

3.8 PLUMBING REQUIREMENTS:

- A. GENERAL: Provide appropriate underground and aboveground domestic water supply, storm, sanitary sewers and gas distribution. Toilet facilities, and floor drains make up the majority of the plumbing requirements in this facility. Provide a below sink garbage disposal for one side of each kitchen sink.
- B. DOMESTIC WATER: Domestic hot water for the various sinks shall be provided. Domestic water heating system shall comply with the requirements of the Energy Independence and Security Act of 2007 with respect to the use of solar water heating.
- C. PLUMBING FIXTURES: Provide “WaterSense” certified plumbing fixtures where available. Starting in FY14 all buildings’ plumbing systems will be required to have a maximum of 0.025% lead in the fixtures and piping.
- D. GAS PIPING: Gas should be utilized where feasible and available as main source of heating for domestic water heaters.

3.9 COMMUNICATION AND SECURITY SYSTEMS

- A. AV SYSTEM:
 - 1) **General Audio/Visual (AV) System:** Provide (the offerer (for design-build contracts)) a complete A/V System design, including a component list with brands, models, pricing, and a detailed functional description of how the system is intended to operate. Private sector or other designers (for design-bid-build contracts) provide essentially the same thing, but within the format limitations required by this different contract form. For example, specifications may include generic information instead of specific makes and models. The specific details of this will be provided when specific projects are initiated for design. This A/V system shall be a high quality, fully integrated audio-visual system for the facility that allows for all currently common media activities including the ability to integrate DVD, private and commercial television broadcasts. The system shall have some ability to be controlled by portable computer. The system may consist of component sub-systems, so long as all are fully integrated for operation throughout the facility. The system shall have the ability to transmit separate media to the Training/Classroom and Activity Room. The system shall also have the ability to allow the Training/Classroom and Activity Room to function together and share a single media presentation. From this A/V System design, also provide a complete supporting raceway system in the construction.
 - 2) **AV System Control:** The “primary” control point for the A/V system shall be located in the Multi-Purpose Area in a CFCI lockable media control console at the rear of the Training/Classroom, fully set up to control all media items and equipment. This console shall be placed so that it does not create line-of-sight problems. Contractor shall provide

additional control points for the A/V system in the following locations:

- a) In the Activity Room:
 - (1) Along one sidewall
 - b) All secondary control points shall have basic control functions for on/off/volume-of-each-speaker-grouping-in-the-space. Each secondary control point shall also have inputs points for a portable type computer. Each secondary control point shall have a lockable cover and be integrated into the supporting features.
- 3) **AV System Input:** The system shall be able to process input from all microphones. Provide Connections/accommodations for wired and wireless, hand-held, mounted, lapel clip and belt clip types of microphones. The contractor shall provide a minimum of 1 plug-in type microphone connection points evenly distributed in the Training/Classroom. The contractor shall provide a booster device (if needed) to accommodate wireless microphone input to the A/V system. Contractor shall also provide CATV input to the A/V system.
 - 4) **AV System Output:** The system shall include a low-level distribution loudspeaker system that provides uniformity of coverage between the frequencies of 100-12,000 Hertz. The system shall be capable of producing an intelligible signal at a minimum of 75 dB throughout the spaces. Speakers may be wall and/or ceiling mounted. Speakers shall also have volume-on-off control. Contractor may install volume control at each speaker, or have one control per room. Speaker arrays shall be designed for and located in the following rooms: Training/Classroom and Activity Room.
 - 5) **AV System Certifications:** The system shall be National Systems Contractors Association (NSCA) certified with R-ESI credentials for the system coordinator and C-EST credentials for the installing staff.

B. **TELECOMMUNICATIONS:**

- 1) **Community Antenna Television (CATV):** A CATV system shall be installed in accordance with the Technical Guide for Installation Information Infrastructure Architecture (I3A). A minimum of one (1) CATV outlet shall be located in the following rooms: offices, lobby and counseling rooms. A minimum of two (2) CATV outlets shall be located in the Activity Room and Training/Classroom.
- 2) **Telephone and Data:** Telephone and data outlets shall be installed in accordance with the Technical Guide for Installation Information Infrastructure Architecture (I3A), with the following exceptions. All offices shall have a minimum two (2) combination telephone and data outlets available for workstations. The Training/Classroom shall have a minimum three (3) combination telephone and data outlets. The Kitchen shall each have a minimum of one (1) combination telephone and data outlet. The Waiting room shall have a minimum two (2) combination telephone and data outlets.
- 3) **Public Address (PA) System:** The contractor shall make provisions to connect the phones to the A/V system audio for use as a PA system.
- 4) **Wireless Internet:** Wireless internet shall be installed in accordance with the Technical Guide for Installation Information Infrastructure Architecture (I3A). Wireless internet coverage shall be provided for the Activity Room, Training Room Lobby and Waiting Area.
- 5) **Closed Circuit Television (CCTV) System:** The CCTV system shall include CCTV monitoring of all Counseling Rooms, Activity Room, Training Room, Lobby, hallways,

and exterior entrances. The CCTV system design shall include overlapping view areas to ensure complete coverage. The CCTV system shall include cameras and camera support equipment including a viewing monitor in the Observation Room and in the space where the processing equipment is housed. It shall also provide for an auditable historic record.

C. SECURITY SYSTEM:

- 1) **Door Alarms:** All exterior doors except the main lobby entrance shall be exit only and shall set off an alarm when opened.
- 2) **Limited Access Areas:** NOT USED

D. MASS NOTIFICATION: Provide a mass notification system designed in accordance with UFC 4-021-01.

3.10 ELECTRICAL REQUIREMENTS

A. GENERAL: Lighting for this facility shall be according to all applicable criteria and shall take into consideration the functional needs of the spaces. This, along with fans and fractional horsepower motors, will make up the majority of the electrical loads for the facility.

B. LIGHTING REQUIREMENTS: Lighting for most spaces with suspended acoustic ceilings shall be of the recessed type. Lighting for the Activity Room shall receive special attention as to color accents in lighting, fixture type, and flexibility. Creative lighting techniques are encouraged. High lighting shall include some accommodation for maintenance and the changing of lamps. A dimming system shall be installed to control the Activity Room lighting. The dimming system shall be capable of controlling lighting down to 1%, and shall have a minimum 3 presets. All illumination levels shall be maintained illumination levels per IESNA recommendations.

C. POWER:

- 1) **Mechanical Equipment:** Requirements for heating, ventilation, and air conditioning system shall be determined by the project criteria package. Heating, ventilation, and air conditioning system may be distributed into several smaller units throughout the building because of difficulty in running duct systems through the building. Mechanical and Electrical rooms shall be separate. Each room shall have exterior access. Mechanical / Electrical rooms are not to be used for any other purpose unless agreed to by the appropriate mechanical / electrical designers. All exterior on-grade mechanical and electrical equipment shall be located within an enclosed area. Access around equipment shall be provided for service and air flow. In cold climates provide features that will protect plumbing, water lines, and other lines from freezing.
- 2) **Support Facilities:** Power outlets and microphone outlets will be located in close proximity to give the maximum amount of flexibility.
- 3) **Miscellaneous Equipment:** Contractor shall provide power for all CFCI and GFGI equipment that is identified in this document. This equipment includes, but is not limited to, ranges with ovens, full size refrigerators, stand-alone ice-makers, automatic dishwashers, garbage disposals, and microwaves in the kitchen.

- 4) **Kitchen:** Countertop outlets shall be provided per NEC 210.52 for kitchens. Countertop outlets shall be served by a minimum of 3 circuits.

3.11 HEATING, VENTILATING AND AIR-CONDITIONING (HVAC)

A. GENERAL:

- 1) The facility shall normally be heated and air-conditioned except that the storage and service areas may be ventilated and heated as required by code. The Kitchen shall be cooled not to exceed 85 degrees Fahrenheit and heated to maintain temperature no less than 68 degrees Fahrenheit. The janitor closet and restrooms shall be maintained at a negative pressure relative to adjacent areas. Mechanical rooms shall accommodate space for equipment maintenance access without having to remove other equipment. Mechanical, electrical and telecommunications rooms shall be keyed separately for access by garrison maintenance personnel and fire department.
- 2) With the exception of exhaust fan dedicated for restrooms and janitor closet, all primary equipment of the HVAC, and plumbing system(s) shall be located in the mechanical equipment room. This includes equipment such as air handling units, dedicated outside air system units, energy recovery units, pumps, central water heaters and water-to-water heat pumps. Air tempering equipment dedicated to provide zone control to different essential areas should typically be located in proximity to the areas served. This includes equipment such as variable air volume boxes, and water-to-air heat pumps. Accessibility for future maintenance to the mechanical equipment shall be taken in account in the design, selection and location of all mechanical equipment. Intake, relief and exhaust louvers shall be provided at the exterior of the building. Each louver shall be provided with a 2-position, parallel blade isolation damper located at or near the louver. Additional modulating flow control damper(s) shall be provided as required by the system equipment and control sequence.

B. **HVAC DESIGN:** The Heating Ventilating and Air Conditioning system(s) shall be based on geographical location, climate and applicable criteria listed in this document.

C. **MECHANICAL SYSTEM SELECTION:** Selection of mechanical systems and the energy sources for these systems shall be based on local availability, climate, building occupancy, energy consumption, maintainability, reliability and life cycle cost. In addition, all mechanical system(s) design and selection(s) shall comply with the requirements of applicable criteria listed in this document.

D. **CONCEALED ELEMENTS:** Conceal all mechanical systems, including the ductwork, in occupied spaces. Coordinate such that concealed shafts or pathways are provided where mechanical system(s) require them. Outdoor intake and relief or return louvers shall be designed in such a way that general public access to these components is restricted.

E. ZONING:

- 1) Provide carefully considered zoning to accommodate the optimum number of use combinations. Interior spaces should typically be in separate zones from exterior spaces. Zones separation shall be also based on systems isolation and operation. Areas such as the Classrooms and Multi-Purpose Room shall be served by systems that will provide individual temperature control in each space and should provide for economy of operation when only a few of these spaces are occupied.
- 2) Air distribution systems may include, but are not limited to, systems such as variable air volume, water-to-air heat pumps and variable refrigerant flow systems.

- F. ACOUSTICS: Acoustics is an important consideration in the design. Provide mechanical equipment items placed outside and adjacent to the building with screening and appropriate acoustic control. Also ensure that operating noises do not intrude into inhabited areas. Air distribution system(s) shall be designed to be less than or equal to 20 NC. Access clearances for servicing and proper airflow shall be provided when developing the screening and acoustic control of equipment located outside the building.
- G. HVAC CONTROL SYSTEM: Provide a direct digital control (DDC) system for control of the heating, ventilating and air conditioning system equipment. The control system shall provide automatic operation of the HVAC equipment, but shall also allow for override of system programming in order to accommodate varied uses of the facility. The HVAC control system shall be easily accessed by staff, but relatively secure from the general public. This facility will be used in many different ways. Some spaces will be filled to capacity at the same time that other spaces will be empty. For spaces where the number of occupants varies from just a few to a large number (such as the Worship Center), consideration should be given to the use of CO2 sensors to control the volume of outside air supplied to the space, based on the actual need in lieu of constantly supplying the volume of outside air required for maximum occupancy during all occupied hours. Provide densely-populated rooms (as defined by codes or LEED) with CO2 sensors to control the volume of outside air supplied to the space. Outside air should not be supplied to spaces during unoccupied periods or when spaces are in the warm-up or cool-down mode prior to occupancy. The requirement for integration into a Garrison-wide EMCS shall be investigated and appropriate provisions made. Integration of the building HVAC control system into the Garrison-wide EMCS shall be provided unless specific guidance is provided to the contrary.

3.12 ENERGY CONSERVATION REQUIREMENTS

- A. GENERAL:
- 1) Provide all appropriate energy conservation features. Coordinate issues such as siting, sustainability, and meeting all energy conservation requirements listed in other sections.
 - 2) Mandated federal criteria are regularly being revised to decrease such energy consumption by increasing energy efficiency. Documents, such as ASHRAE 189.1-2009, have been developed to focus building design on steadily improving their levels of energy efficiency.
 - 3) An energy analysis for the Chaplain Family Life Center was performed in accordance with ECB Number 2010-14 (28 June 2010), ECB Number 2011-1 (19 January 2011), and the U. S. Department of Energy (DOE) guidance issued in the Federal Register (NARA 2006) which states that savings calculations should not include “plug loads” (process loads) and implies that savings shall be determined through energy reduction cost savings. The energy analysis showed that this facility could meet the targeted energy reduction goals of ECB 2010-14. The target was 40% actual energy reduction from the base-line energy use defined in the criteria of ASHRAE 90.1-2007.
 - 4) As a result of this energy analysis, it is recommended that facilities provided for climate zones 1a & b, 2a & b and 3a, b & c have horizontal shades above the windows, shading grills, or other devices or building geometry (like being deeply recessed) techniques (clerestories close to the roof line may accomplish the same benefit with overhangs) to allow for meeting the required energy reduction savings.
 - 5) ECB 2012-13 has been issued since the energy analysis was conducted. This document states that when applying ASHRAE Standard 189.1 energy performance standards,

ensure that the minimum energy savings to be achieved, through performance or prescriptive paths, is at least 30 percent better than ASHRAE Standard 90.1-2007 (including process and plug loads). The U. S. Army has decided to include/use site energy for the HVAC, lighting, and hot water loads to determine the energy savings. The previously conducted energy analysis results meet the minimum levels outlined by this new ECB.

- 6) It is assumed that both the governing criteria and the energy target (as defined by the U. S. Government and organizations such as the United States Green Building Council (USGBC)) will change regularly. Provide every facility (these will generally be projects appropriated at specific times over several years) so that it meets the requirements of governing criteria and the energy target that are applicable at the time of project development.
- 7) Many federally mandated definitions/requirements or measures of energy consumption criteria (energy reduction cost savings) are not identical with other measures of energy efficiency or sustainability. Examples of different measures are those described in the USGBC "LEED" point criteria.
- 8) Provide a comprehensive analysis of energy consumption during specific project design processes and incorporate what appears to be the best/most-appropriate blend of features/characteristics that will reduce energy consumption of the facility to the minimum practicable levels. Also meet whatever the current mandates or criteria that apply at the time of the specific project under design.

3.13 FIRE PROTECTION REQUIREMENTS

A. GENERAL:

- 1) **Standards and Codes:** Provide fire protection and life safety features in accordance with UFC 3-600-01 and the criteria referenced therein.
- 2) **Qualification:** The Fire Protection Engineer (FPE) shall meet one of the conditions indicated in the UFC 3-600-01 and shall be part of the design team. Submit qualifications and credentials of the FPE at the start of the project. The FPE shall provide a letter at the completion of the design certifying the project meets UFC 3-600-01 and applicable codes. Fire Protection Engineer shall be responsible for all aspects of the life safety, fire sprinkler, and fire alarm systems for each facility. Fire Protection Engineer is responsible to provide the life safety and fire protection analysis.
- 3) **Fire Protection and Life Safety Analysis:** Provide a fire protection, building code and life safety analysis for all buildings in this project. This analysis shall be submitted in accordance with the provision described in section 01 33 00 Submittal Procedures and UFC 3-600-01. Provide an analysis per UFC 3-600-01 for each facility.
- 4) **Fire Protection Letter of Certification:** The Fire Protection Engineer who is the Designer of Record must provide a letter at 100% design submission in accordance with UFC 3-600-01 that the facilities meet all applicable codes, and Unified Facilities Criteria including NFPA and IBC.

B. FIRE SUPPRESSION SYSTEMS:

- 1) **Sprinkler System:** Provide complete sprinkler protection in accordance with UFC 3-600-01. Sprinkler protection shall be designed in accordance with UFC 3-600-01. Wet pipe sprinkler systems shall be provided in all heated areas and dry pipes sprinkler systems shall be provided in areas subject to freezing. Provide a hydrant flow test at the

site prior to starting the fire protection design. It is preferred to provide a fire sprinkler system without a fire pump. Refer to Paragraph 8.

- 2) **Sprinkler Service Main and Riser:** Sprinkler service mains shall be dedicated lines from the distribution main. Do not combined sprinkler service piping and domestic service piping. Sprinkler service mains shall be provided with an exterior post indicating valve with tamper switch reporting to the fire alarm control panel (FACP) inside of each building. Underground fire service pipe penetrating floors shall be provided with a pipe sleeve. The sprinkler riser shall include a double check type backflow preventer, a fire department connection and an exterior wall test connection for testing of backflow prevention assembly. The sprinkler system shall include an indicating control valve for each sprinkler riser, a flow switch reporting to the FACP, and an exterior horn and strobe at the location of the fire department connection. Each floor shall be provided with a separate control valve with tamper switch and flow switch. Coordinate with the local base fire department to determine the exact exterior notification appliance they prefer such as water gong, horn and strobe, etc.
 - 3) **Backflow Preventer:** Provide a double check valve assembly for all fire sprinkler water supplies. An exterior flush wall test connection with dual hose connections with OS&Y valve shall be provided to allow testing of the backflow preventer. Provide sign that says "Test Connection."
 - 4) **Fire Department Connection:** A fire department connection shall be provided for each building provided with a suppression (sprinkler) system. The location shall be accessible by the fire department, shall be unobstructed, and shall be within 150 feet from the nearest fire hydrant. Coordinate with the local base fire department whether they prefer a free standing connection versus a wall mounted connection.
 - 5) **Fire Pump:** The requirement for a fire pump shall be determined by the Contractor based on hydrant fire flow data from the project site and fire protection system design for the project. If required, a complete fire pump design and installation shall be provided for the facility. Fire pump design and installation shall comply with the requirements of UFC 3-600-01 AND NFPA 20.
 - 6) **Sprinkler System Materials and Components:** Materials and components for sprinkler systems and fire pumps shall be in accordance with UFC 3-600-01, NFPA 13 and NFPA 20. Sprinkler head type shall be quick response (wet pipe system only). Piping shall not be exposed in finished areas.
 - 7) **Area of Demand, Design Density and Exterior Hose Stream:** Area of demand, design densities and exterior hose stream shall be in accordance with UFC 3-600-01, Table 4-1.
 - 8) **Fire Water Supply:** Provide fire hydrant flow test(s) at the site prior to any design. Any flow data provided in the Appendix is for information only and not to be used to develop the fire protection design. Provide a water supply analysis per UFC 3-600-01 as part of the design to determine whether there is adequate water supply and duration for the project. Provide hydrants as required per UFC 3-600-01, and NFPA 1.
 - 9) **Kitchen:** If range is a commercial grade piece of equipment, provide Range with a commercial kitchen hood and wet chemical suppression system and automatic shut-off for electric or gas fuel sources per NFPA 96 and 90A. Design shall conform to UFC-3-600-01. If range is a residential grade piece of equipment, a residential hood may be provided and without a fire suppression system.
- C. **FIRE DETECTION AND ALARM SYSTEMS:** Provide an addressable type fire alarm system with addressable devices per NFPA 72, UFC 3-600-01, and UFC 4-021-01. Type,

function and location of the fire alarm annunciation panel shall be coordinated with the local Authority Having Jurisdiction (AHJ). For additional information refer to Electrical and Communication paragraphs in this section. Fire Alarm and Mass Notification Systems shall be controlled from a single panel. Coordinate with local base fire department for the type and style of the fire alarm system as well as the monitoring and reporting equipment.

3.14 SUSTAINABLE DESIGN

- A. Many features that make a facility sustainable can be integrated into a typical building and site. Reduction in the use of water is a key element that generally applies to every building and site. However, other very beneficial features/techniques (such as shading devices for buildings or building orientation for sites) or materials might also have application but need to have a more tailored building and site to be effective.
- B. The offerer (for design-build contracts) or designer (for design-bid-build contracts) is encouraged to suggest sustainable material substitutions or building feature modifications for consideration where they appear to provide benefit without appearing to interfere with functionality.
- C. See Paragraph 6.14 for additional Sustainable Design guidance.

3.15 SEE PARAGRAPH 6.15 ENVIRONMENTAL - NOT USED

3.16 SEE PARAGRAPH 6.16 PERMITS - NOT USED

3.17 SEE PARAGRAPH 6.17 DEMOLITION - NOT USED

3.18 SEE PARAGRAPH 6.18 ADDITIONAL FACILITIES - NOT USED

3.19 EQUIPMENT AND FURNITURE REQUIREMENTS

3.19.1. Furnishings

- A. GENERAL: Furniture shall not have sharp edges. Clips, screws, and other furniture construction elements shall be concealed where possible. Upholstery for office areas, lounge furniture and stacking seating shall meet Wyzenbeek Abrasion Test, 55,000 minimum double rubs. Furniture style details and finishes shall be compatible throughout the facility and coordinated within a room. Furniture finishes and fabrics shall be appropriate for intended use. Upholstery fabric (color, pattern and fiber content) shall be easily cleaned and help hide soiling. Provide patterned fabrics for seating to help hide soiling.
- B. ACCESSORIES:
 - 1) **Small Trash Receptacle**: Small trash receptacle, minimum 28 quart capacity. Size 1'-2" w x 10" d x 1'-3" h. Provide in all offices, counseling, library and waiting rooms.
 - 2) **Large Trash Receptacle**: Large trash receptacle, minimum 12 gallon capacity. Size 1'-3" in diameter x 2'-9" h. Provide in Training/Classroom and Activities Room.
 - 3) **Paper Recycle Receptacle**: Small paper recycle trash receptacle, minimum 28 quart capacity. Size 1'-2" w x 10" d x 1'-3" h. Provide in Vending/Recycling Room and next to copier in NCO/Receptionist.

C. DESK AND STORAGE: Furniture can be wood, plastic laminate or metal finish, coordinate finish material with the User. Preferred top for wood furniture is plastic laminate that closely matches adjacent wood with mitered solid wood edge. Glass tops shall be provided for furniture with wood tops. Tops for case goods with plastic laminate or metal construction shall be plastic laminate. Furniture constructed of particleboard with plastic laminate finish is not acceptable. Plastic laminate casegoods shall be constructed of high pressure plastic laminate, not low pressure plastic laminate. Box and file drawers shall have a heavy-duty suspension system. Furniture shall be constructed with concealed fasteners. Furniture storage shall be lockable. Verify with User if keyboard trays are required at desks; many Users prefer not to have keyboard trays since laptops are used. Recommend full modesty panel at primary work surface between personnel and guest. If provided at building walls, modesty panel shall allow access to wall electrical and data outlets.

- 1) **D1 - U-Shaped Workstation:** Workstation shall have a primary work surface with a pencil drawer and pedestal; desk height bridge with adjustable keyboard tray and mouse attachment; and secondary work surface with pedestal. Unit shall also have overhead storage, tackboard, and task light under all overhead storage, and modesty panels. A storage tower with coat storage shall be included. Storage shall be lockable. The size of the primary work surface shall be 6'-0" w x 2'-6" d. The size of the bridge shall be 3'-6" w x 2'-0" d. The size of the secondary work surface shall be 6'-0" w x 2'-0" d. The work surface height shall be 2'-6".
- 2) **D2 – Double Pedestal Desk:** Desk shall have two pedestals, adjustable keyboard tray and pencil drawer. Provide end panels and no front modesty panel to allow for power/comm access to the wall. Storage shall be lockable. Size of the desk shall be 5'-0" w x 2'-6" d.
- 3) **D3 - Administrative Workstation:** Workstation shall have a primary work surface with a pencil drawer and pedestal; desk height bridge with adjustable keyboard tray and mouse attachment; and secondary work surface with pedestal. Unit shall also have overhead storage, tackboard, and task light under all overhead storage, and modesty panels. Storage shall be lockable. The size of the primary work surface shall be 5'-6" w x 2'-6" d. The size of the bridge shall be 5'-0" w x 2'-0" d. The size of the secondary work surface shall be 6'-0" w x 2'-0" d. Coordinate requirement for "transaction" counter with customer.
- 4) **D4 - Five Shelf Bookcase:** Bookcase with 4 adjustable shelves. 3'-0" w x 1'-3" d x 5'-6" h. Bookcase shelving shall be deep enough to store required materials and supplies.
- 5) **D5 - Four Drawer Lateral File:** Lateral file cabinet with four lateral file drawers. Size shall be 3'-0" w x 1'-6" d x 4'-4" h.

D. SEATING:

- 1) **S1 - Desk Chair:** Ergonomic desk chair with adjustable arms, separate upholstered cushioned seat and back, back tilt and locking capability, pneumatic seat height adjustment, back height adjustment, seat depth adjustment, five star base on casters. Size 2'-0" w x 2'-2" d x 2'-8" to 3'-2" h.
- 2) **S2 – Guest Chair:** Guest chair with arms and upholstered cushioned seat and back. Wood back is also acceptable. Style shall complement the desks and desk chairs. Confirm with user if casters are required for additional flexibility. Size shall be 1'-9" w x 1'-11" d x 2'-6" h.
- 3) **S3 - Waiting Chair:** Waiting chair with arms and upholstered cushioned seat and back. Wood back is also acceptable. Style shall complement the desks and desk chairs. Size shall be 1'-9" w x 1'-11" d x 2'-6" h.

- 4) **S4 - Lounge Chair:** Fully upholstered lounge chair with enclosed arms. Armrests and legs/base may be wood, frame shall be solid hardwood with all parts glued and fastened. Size 2'-7" w x 2'-7" d x 2'-9" h.
- 5) **S5 : Sofa:** Fully upholstered sofa with enclosed arms.. Armrests and legs/base may be wood, frame shall be solid hardwood with all parts glued and fastened. Size shall be 6'-8" w x 2'-7" d x 2'-9" h.
- 6) **S6 - Stacking Chair:** Sled base stacking chair with upholstered seat and back shall stack a minimum of 10 on dolly and a minimum of 6 on floor, with glides. Glides shall be appropriate for floor finish. Frame shall be solid base stock with chrome plate or durable color finish. Size shall be 1'-7" w x 1'-11" d x 2'-7" h for the back and 1'-6" for the seat.
- 7) **S7 - Stacking Chair Dolly:** Dolly shall stack 10 S6 chairs and shall fit through single wide door with stacked chairs.
- 8) **S8 - Small Children's Chair:** Small stackable children's chairs for preschool through 2nd grade, fabricated of easily maintainable finishes, heavy-duty construction. Size 1'-4" w x 1'-4" d x 2'-0" h for the back and 1'-2" high for the seat.

E. TABLES:

- 1) **T1 - Multi-Purpose Table (6'):** Tables shall be designed for heavy use, be adjustable in height, and have folding legs with automatic locking leg feature. Table shall be lightweight and tabletop shall be easily cleaned and maintained. All working parts shall be recessed behind an apron. Top surface and edge treatment shall withstand heavy use. Size shall be 6'-0" long x 2'-6" d x 1'-8" h to adjust to 2'-6" h.
- 2) **T2 - Multi-Purpose Table (5'):** Tables shall be designed for heavy use, be adjustable in height, and have folding legs with automatic locking leg feature. Table shall be lightweight and tabletop shall be easily cleaned and maintained. All working parts shall be recessed behind an apron. Top surface and edge treatment shall withstand heavy use. Size shall be 5'-0" long x 2'-6" d x 1'-8" h to adjust to 2'-6" h.
- 3) **T3 - Multi-Purpose Table (4'):** Tables shall be designed for heavy use, be adjustable in height, and have folding legs with automatic locking leg feature. Table shall be lightweight and tabletop shall be easily cleaned and maintained. All working parts shall be recessed behind an apron. Top surface and edge treatment shall withstand heavy use. Size shall be 4'-0" long x 2'-0" d x 1'-8" h to adjust to 2'-6" h.
- 4) **T4 - Children's Table:** Tables shall be designed for heavy use, be adjustable in height, and have folding legs with automatic locking leg feature. Consider lightweight tables and tables with easy clean surface. All working parts shall be recessed behind an apron. Top surface and edge treatment shall withstand heavy use. Size shall be 3'-0" long x 3'-0" d x 1'-8" h and adjust to 2'-6" high. Table height shall be appropriate for height of children's chairs.
- 5) **T5 - End Table:** Detailing and finish to match seating and other furnishings in room. Recommend a plastic laminate tabletop that can be easily cleaned and maintained. Size shall be 1'-11" w x 1'-11" d x 1'-10" h.
- 6) **T6 - Coffee Table:** Detailing and finish to match seating and other furnishings in room. Recommend a plastic laminate tabletop that can be easily cleaned and maintained. Size shall be 3'-4" w x 1'-8" d x 1'-6" h.

- 7) **T7 - Table Dolly:** Dolly type, size and quantity shall transport and store all of the T1 tables. Fully loaded dolly shall be capable of being maneuvered within the facility, fit through a singlewide door. Provide quantity to store all folding tables.

3.19.2. **Equipment**

A. **MISCELLANEOUS ITEMS:**

- 1) **M1 - Portable Podium:** Movable stand-up lectern, adjustable height shelf and angled reading shelf with pen rail to prevent items from sliding off shelf.
- 2) **M2 - Refrigerator:** Contact local suppliers for advice on selection. Each unit shall have a minimum 14 cubic feet of storage volume and include compartments for freezing and cooling. Not every standard refrigerator is wide enough to hold a typical bakery sheet cake, but these are often used for celebratory events. Clarify this when specifying the refrigerator. Swing of door shall be appropriate to traffic flow in kitchen. Select a high grade residential refrigerator. Refrigerator shall be Energy Star rated, Tier 1. An automatic icemaker is not required since facility will have an icemaker. Each facility shall determine what size, features, storage compartments and configurations are required to meet the requirements of the congregations since requirements may vary.
- 3) **M3 - Range:** Contact local suppliers for advice on selection. Recommend a single oven, automatic control, oven viewing window, clock, oven interior light, and four burners. Coordinate cooking surface type with User, ceramic or coil surface type. A residential style range will be sufficient for most facilities, but some garrisons may prefer a style range between residential and commercial. If a larger style range is chosen, the designer must revise the design to accommodate the different size.
- 4) **M4 - Dishwasher:** Contact local suppliers for advice on selection. Determine which capacity, control features, and dishware arrangements are required to meet the requirements of the congregations since requirements may vary. Dishwasher shall be Energy Star rated, Tier I. Coordinate size of dishwasher with kitchen layout, features and casework to assure it is compatible with the kitchen configuration.
- 5) **M5 - Ice Machine:** Contact local suppliers for advice on selection. A simple design of sturdy components and easily understood operation controls is recommended. Unit shall be shall be Energy Star Tier 1 rated and use modern refrigerants. The speed of ice production and the amount of ice storage capacity can vary widely. Determine facility requirements. Discuss options with local supplier and type of ice required (cubes, half cubes, crushed, etc.) if there is a preference. Consider the unit's noise production and heat load.
- 6) **M6 - Microwave:** An under wall cabinet, over-the-range combination microwave oven and exhaust hood, coordinated with casework and other appliances. Unit shall have a minimum of 1.9 cubic feet of interior capacity and a mix of control features. Contact local suppliers for advice on selection. Microwave shall be units designed to heat or reheat food items. This microwave unit is to be the kind of unit that is combined with a range hood in a coordinated assembly. Units shall include control switches for selection/adjustment of functions, timing, and power. A variety of additional options are available, as are a range of quality and performance characteristics. Note, if Installation preferences, code interpretations, or similar issues appear to make separate microwaves and hoods a better choice, this is also acceptable.
- 7) **M7 - TV:** Contact local suppliers for advice on selection. Flat screen televisions shall be units designed to receive input from media players, antennae or cable feeds and to

show such programming as selected. Units shall include a hand-held controlling “remote”, channel selection, volume control, adjustment for brightness, and focus. A variety of additional options are available, as are a range of quality and performance characteristics.

- 8) **M8 - Media Player:** Contact local suppliers for advice on selection. Media Players shall be units designed to receive input from media transfer devices and to transmit it to networks, televisions or other displaying devices. Units shall include a hand-held controlling “remote”, adjustment for volume and programming/feature selection. A variety of additional options are available, as are a range of quality and performance characteristics.
- 9) **M9 - Warming Drawers:** An in-the-base-cabinet under counter unit coordinated with casework and other appliances, capable of temperature adjustment to hold food in an optimally warm condition prior to serving.

3.20 FACILITY SPECIFIC REFERENCES - NOT USED

APPENDIX A

ARMY STANDARD DESIGN AREA COMPUTATIONS

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APPENDIX A

ARMY STANDARD DESIGN AREA COMPUTATIONS

ROOM NUMBER	ROOM NAME	SQ. FEET	NOTES
108	FAMILY COUNSELING ROOM	235	
110	COUNSELING ROOM	190	
109	OBSERVATION ROOM	190	
104	LIBRARY / RESOURCE ROOM	180	
103	FAMILY LIFE CHAPLAIN OFFICE / COUNSELING	220	
111	NCO CHAPLAIN ASSISTANT OFFICE	236	
102	WAITING	147	
120	ACTIVITY ROOM	280	
122	STORAGE	50	
124	TRAINING / CLASSROOM	700	
125	STORAGE	50	
126	STORAGE	48	
123	STORAGE	43	
115	KITCHEN	135	
114	VENDING / RECYCLING	135	
101	LOBBY	152	
100	VESTIBULE	118	
105	VESTIBULE	62	
119	VESTIBULE	62	
112	MEN	220	
113	WOMEN	220	
121	JAN	35	
116	ELEC	55	
117	COMM	42	
118	MECH	163	
127/128	CIRCULATION	704	
	WALLS, PARTITIONS AND SHAFTS	615	
	SUB TOTAL OF BUILDING ENVELOPE	5287	
	HALF THE CANOPY AREA (86 X .5)	43	
	TOTAL FACILITY AREA / SCOPE	5,330	
	OPTION FOR 2 ADDITIONAL OFFICES		
107	DIV. FLC OFFICE / COUNSELING	223	
106	DIV. FLC NCO OFFICE	181	
	CIRCULATION	89	
	WALLS, PARTITIONS AND SHAFTS	57	
	SUB TOTAL FOR OPTION OF 2 ADDITIONAL OFFICES	550	
	TOTAL FACILITY + OFFICE OPTION AREA / SCOPE	5,880	

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APPENDIX B

ARMY STANDARD DESIGN SYSTEMS DESCRIPTIONS

INDEX

DESCRIPTION 1 CLOSED CIRCUIT TELEVISION (CCTV) EQUIPMENT SYSTEM

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APPENDIX B

ARMY STANDARD DESIGN SYSTEMS DESCRIPTIONS

DESCRIPTION 1 CLOSED CIRCUIT TELEVISION (CCTV) SYSTEM

This system is to enhance the safety and security for people in the facility and to protect the facility itself by providing visual monitoring of spaces. Properly designed electronic CCTV systems can increase the success and ease of meeting these goals.

The Army Standard Design requirements for this system are that it shall include CCTV monitoring of all hallways, exterior entrances and other spaces as required by the Standard Definitive Design. The CCTV system design shall include overlapping view areas to ensure complete coverage. The CCTV system shall include cameras and camera support equipment including a viewing monitor at an administrative office and in the space where the processing equipment is housed. It shall also provide for an auditable historic record.

Note: By Army Regulation, MILCON (MCA) funding cannot generally provide the equipment for this system. MILCON (MCA) funding can currently provide infrastructure support only. The equipment must be procured and installed by the Garrison with separate funds. Where a project is to be acquired by the Request-For-Proposal (RFP) design-build process, the contract shall call for the submittal of a design proposal of sufficient detail to evaluate general quality and appropriateness. This design will then form the basis for what supporting infrastructure is to be included in the construction.

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APPENDIX C

ARMY STANDARD DESIGN COST INFORMATION

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CI14306 Chaplin Family Life

Estimated by CENWO-ED-C
Designed by CENWO-ED
Prepared by SLK

Preparation Date 8/8/2012
Effective Date of Pricing 8/8/2012
Estimated Construction Time 360 Days

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<u>Description</u>	<u>UOM</u>	<u>Quantity</u>	<u>ContractCost</u>	<u>ProjectCost</u>
Summary			1,528,149	1,528,149
			<i>288.82</i>	<i>288.82</i>
Building	SF	5,291.0	1,528,149	1,528,149
			<i>31.34</i>	<i>31.34</i>
Substructure	SF	5,291.0	165,841	165,841
			<i>32.58</i>	<i>32.58</i>
Superstructure	SF	5,291.0	172,389	172,389
			<i>462.38</i>	<i>462.38</i>
Exterior Closure	LF	346.0	159,983	159,983
			<i>25.18</i>	<i>25.18</i>
Roofing	SF	5,291.0	133,253	133,253
			<i>34.18</i>	<i>34.18</i>
Interior Construction	SF	5,291.0	180,845	180,845
			<i>21.38</i>	<i>21.38</i>
Interior Finishes	SF	5,291.0	113,129	113,129
			<i>17.20</i>	<i>17.20</i>
Plumbing	SF	5,291.0	90,992	90,992
			<i>59.77</i>	<i>59.77</i>
HVAC	SF	5,291.0	316,239	316,239
			<i>5.45</i>	<i>5.45</i>
Fire Protection System	SF	5,291.0	28,847	28,847
			<i>19.78</i>	<i>19.78</i>
Interior Electrical	SF	5,291.0	104,667	104,667
			<i>11.71</i>	<i>11.71</i>
Other Electrical Systems	SF	5,291.0	61,964	61,964

APPENDIX D

ARMY STANDARD DESIGN DRAWINGS (UNDER SEPARATE COVER)

INDEX

G-101	COVER SHEET AND INDEX
C-101	COMPOSITE SITE PLAN
A-110	COMPOSITE FLOOR PLAN
A-200	EXTERIOR ELEVATIONS
I-110	COMPOSITE FURNITURE PLAN



US Army Corps of
Engineers®
Omaha District

CHAPLAIN FAMILY LIFE CENTER 3D BIM - ARMY STANDARD DESIGN

VARIOUS LOCATIONS (CONUS)

DRAWING INDEX		
SHEET NUMBER	SHEET ORDER	SHEET TITLE
G-101	1	COVER SHEET AND INDEX
C-101	2	COMPOSITE SITE PLAN
A-110	3	COMPOSITE FIRST FLOOR PLAN
A-200	4	EXTERIOR ELEVATIONS
I-110	5	COMPOSITE FURNITURE PLAN

