

UNIFIED FACILITIES CRITERIA (UFC)

CONTINUOUS CHILD CARE FACILITIES



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U.S. ARMY CORPS OF ENGINEERS

NAVAL FACILITIES ENGINEERING COMMAND (Preparing Activity)

AIR FORCE CIVIL ENGINEER SUPPORT AGENCY

Record of Changes (changes are indicated by \1\ ... /1/)

Change No.	Date	Location



FOREWORD

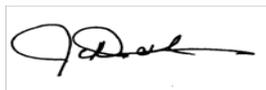
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- Whole Building Design Guide web site <http://dod.wbdg.org/>.

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**UNIFIED FACILITIES CRITERIA (UFC)
NEW DOCUMENT SUMMARY SHEET**

Document: UFC 4-740-15

Superseding: None.

Description: This UFC provides design criteria for Army, Navy, and Marine Corps Continuous Child Care Facilities. NOTE: The Air Force does not currently have a program for these facilities.

Reasons for Document: This UFC was developed to provide design requirements to accomplish the following:

- Assist planners to understand the facility requirements to ensure accurate space programs and budgets.
- Provide architects, engineers, and construction surveillance personnel with the essential, minimum requirements for the design and construction of a Continuous Child Care Facility.
- Clarify the operational intent of the facility design.

Impact: The following will result from the publication of this UFC:

- This UFC will reduce the initial cost of design and reduce costs associated with redesign of facilities that do not meet minimum standards. The design should also streamline facility operations.
- This UFC defines the primary programs accommodated by the Continuous Child Care Facility.

Non-Unification Issues: There are four minor unification issues:

- Army health regulations require an upgraded floor finish and a floor drain in the kitchen. However, all Services seek to replicate the appearance of a residential kitchen while meeting the required codes and durability goals for a government-owned facility.
- The Army does not provide an alarm on the crib/infant room exterior door.
- The Army requires a 4-ft. (1220mm) tall outdoor activity area fence versus the Navy and USMS's 5-ft. (1525mm) tall fence. The Navy requires the fence bottom to be buried.
- The Navy excludes all swing types except tire swings.

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CHAPTER 1 INTRODUCTION

1-1 SCOPE OF DOCUMENT.

This UFC provides requirements for evaluating, planning, programming, and designing Continuous Child Care Facilities (CCCFs). The information in this UFC applies to the design of all new construction projects, to include additions, alterations, and renovation projects in the continental United States (CONUS) and outside the continental US (OCONUS). This UFC is not intended as a substitution for thorough review during design by individual Program Managers and Operations Staff in the appropriate Service.

1-2 SCOPE OF FACILITY.

CCCFs provide around-the-clock child care to support DoD families. These facilities combine the strengths of in-home-style care with those of center-based facility care. Architecturally, the CCCF shall have the look and feel of a residential home, but it shall comply with the applicable codes and requirements in this UFC. There are two types of facilities and the facility type must be confirmed prior to project initiation with the agencies noted in Chapter 1, Program Authorities:

- Option A represents a facility that typically supports parents on shift work for whom the normal child development center (CDC) operating hours are not adequate. These children tend to only occupy the facility for the duration of one work shift and are typically limited to 12 years of age or less.
- Option B represents a facility that typically supports families of wounded warriors, shift workers, and emergency or crisis care and may on occasion accommodate an older child. These facilities also accept children for potentially longer periods of time than Option A.

These variations necessitate some changes to the bathroom configuration and minor provisions required to adapt the staff den/office to also serve as an isolation area for sick children. To accommodate the generally higher percentage of infants in Option A, a second diaper changing station is provided. The functional program spaces are listed and described briefly in Table 1-1 and described in greater detail in Chapters 2 and 4.

TABLE 1-1. CCCF FUNCTIONAL PROGRAM AREAS

Functional Program Area	Description
Foyer	Primary facility entry and ID check-in
Living room	Gathering and quiet social activity area
Play room	Gathering and play area with a variety of structured activity subareas
Dining room	Family-style dining area for all children, also accommodating table-based activities such as crafts and homework
Kitchen	Full-service, residential-style kitchen
Staff desk area	Area with a small desk for ad hoc administrative functions, typically located as part of another space
Crib/infant room	Sleeping space and infant activity area
Bedrooms	Separate rooms for boys and girls
Option A toilets	These toilets support the Option A facility configuration. They consist of unisex facilities located in close proximity to the bedrooms but also accessible from the living/activity spaces.
Option B toilets	These toilets support the Option B facility configuration. They consist of gender-specific facilities located directly off each bedroom and two separate unisex facilities located off the hall/public area.
Staff toilet	Unisex accessible toilet
Laundry	Laundry room and janitor functions
Storage closet	General facility storage
Staff den/office	Staff office that also serves as an isolation area for the Option B facility configuration
Staff storage	Area with lockable storage for staff personal items, typically located as part of another space
Outdoor storage	Storage with direct access from the outside
Outdoor activity area	Fenced activity area for all children, provided for both Options A and B
Option B outdoor activity area	A second activity area supports the Option B facility configuration and accommodates the potentially older children in a patio setting

1-3 USERS OF FACILITY.

The following are the typical facility users:

- Children.
- Staff. Trained staff occupies the facility at all times in numbers that meet program requirements for staff-child ratios.
- Parents. Parents typically only occupy the facility at pick-up and drop-off times.

1-4 PROGRAM AUTHORITIES.

Prior to project development, confirm the acquisition methodology and coordinate the design team composition and facility requirements with the following contacts for the appropriate Service:

- Army. Family Morale, Welfare, and Recreation Command (FMWRC), Child, Youth, and School Services and the Center of Standardization, Huntsville, AL.
- Navy. CNIC (N91), Navy Family Readiness, (Program Manager), and CNIC (N944A), Fleet & Family Readiness, (Facilities Support).
- Marine Corps. HQ USMC, Personal and Family Readiness Division, Construction Branch (MRD); HQ USMC, Personal and Family Readiness Division, Children, Youth and Teen Programs (MRY-3); and HQ USMC, Installations and Logistics, Land Use and Military Construction (LFL)

CHAPTER 2 PLANNING AND LAYOUT

2-1 SIZE DETERMINANTS.

CCCF size is determined by the facility configuration option (A or B) and, in some cases, the number of children to be accommodated.

2-2 SPACE PROGRAM.

An interactive spreadsheet is available to help develop a space program for a CCCF. It is completed by selecting the appropriate Service branch, the appropriate optional facility configuration, the number of children to be accommodated, if applicable, and the type of construction. Based on these three or four selections, the spreadsheet generates a draft space program. This draft program shall be confirmed with the agencies identified in Chapter 1, Program Authorities, and customized as necessary for the specific project and project site.

This spreadsheet is available as a downloadable Microsoft[®] Excel[®] file from the Whole Building Design Guide Website: <http://www.wbdg.org/zips/CCCFSpaceProgramTool.zip>

2-3 LOCATION DETERMINANTS.

Determine the most appropriate and cost-effective location for a CCCF based on the following factors. The agencies identified in Chapter 1, Program Authorities, shall approve the final site location.

2-3.1 Site Size.

The minimum site area for a CCCF is 2 acres (.8 ha), but additional area may be necessary. The final site area shall be determined by local conditions, the final building and site layout, and the code and military requirements identified in Chapter 3.

2-3.2 Function.

Locate the facility to serve the function and the target user groups:

- Facilities serving shift work parents shall be located near CDCs, installation family housing, or community support areas that are en route to primary shift-work areas.
- Facilities serving in-patient medical facilities should be located near those facilities.

Regardless of function served, avoid the locations noted under Chapter 2, Safety, below.

2-3.3 **Safety.**

Avoid locations near busy streets and intersections. If this is not possible, provide mitigation measures, such as bollards, to increase safety at pedestrian areas and playgrounds. Do not locate CCCFs directly adjacent to the following hazards or nuisances:

- Fuel or other HAZMAT storage buildings
- Maintenance shops, including woodworking and painting areas
- Dry-cleaning facilities
- Correctional/detention facilities
- Security areas
- Any facility producing odors, smoke, dust or pollution
- Explosives
- Radiation
- Utility substations and high voltage overhead power lines

Avoid locating CCCFs adjacent or near the following facilities to the degree possible based on land availability and mission:

- Service stations/convenience stores
- Unaccompanied housing facilities
- Aircraft runways/helipads (except for emergency medical facilities)
- Railroads

2-3.4 **Natural Environment.**

Ensure the availability of natural light in the site selection and orientation of the building. Select a site with as many natural amenities as possible for a beneficial learning environment. These include the following: nontoxic plants and trees; non-dangerous animals; earth forms; rolling terrain; and natural protection from the sun, wind and rain. Develop a site plan that makes the most of the site's existing natural resources.

2-3.5 **Combined Facilities.**

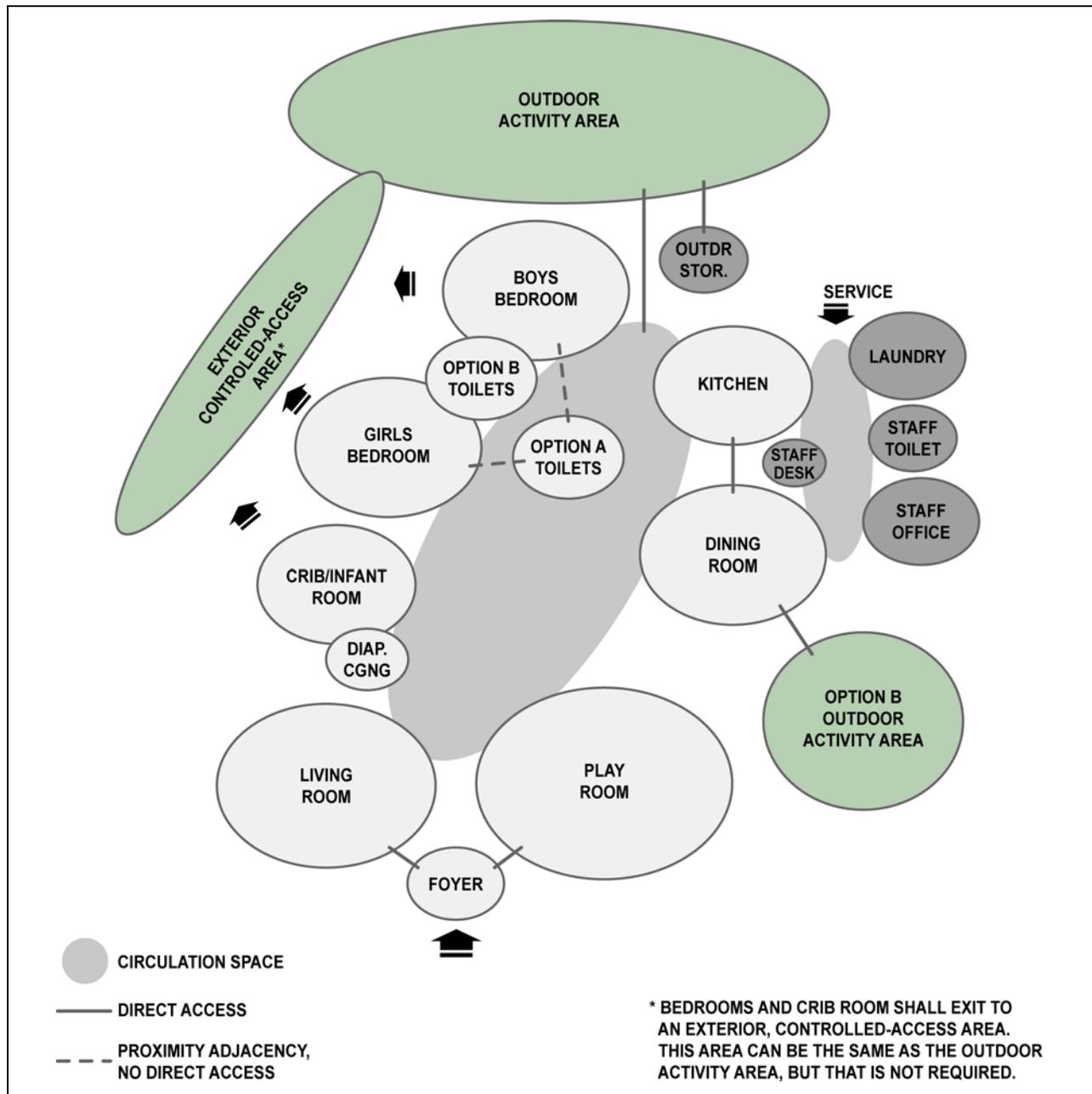
CCCFs shall not be combined with other facilities without approval by the agencies identified in Chapter 1, Program Authorities. Because of specialized operational

requirements such as evacuation drills, CCCFs shall only be approved to be combined with CDCs and School Age Care Facilities. If combined, the CCCF shall be located as a separate wing and on the ground level. Comply with Chapter 3 for fire protection separation and exit requirements.

2-4 LAYOUT AND ADJACENCIES.

The appropriate layout and adjacencies of the CCCF are illustrated in Figure 2.1. This diagram does not convey a building shape. Explore opportunities to dual-use circulation space as additional activity area for children—to the degree possible, open areas should easily flow from one to the other in order to maximize gross motor activity areas for children. See the Functional Data Sheets in Chapter 4 for additional information on the space types and their relationships to each other.

FIGURE 2-1. CCCF BUBBLE DIAGRAM



CHAPTER 3 GENERAL DESIGN CRITERIA

3-1 GENERAL.

UFC 1-200-01, "General Building Requirements" provides applicability of model building codes and government-unique criteria for typical design disciplines and building systems, as well as for accessibility, antiterrorism, security, sustainability, and safety. Use this UFC in addition to UFC 1-200-01 and the UFCs and government criteria referenced therein.

3-2 ACCESSIBILITY.

The specifications in UFC 1-200-01 and its references contain alternate specifications based on children's dimensions and anthropometrics for ages 3 and older. This UFC contains alternate specifications for younger children for water closets and lavatories. Also note the following guidelines for the purpose of the CCCF design:

- Children below the age of 3 years are not considered to be self-mobile wheelchair users; they are assisted and transferred by caregivers.
- Children age 3 and older are considered to be self-mobile wheelchair users.

3-3 CHILD ABUSE PREVENTION.

The facilities design is to keep children safe within the center, to safeguard them from outside intruders, and to protect them from hazards to the fullest extent possible. Visibility of all areas, interior and exterior, is a key element in the prevention of child abuse. Plan for maximizing direct visual access through building organization and design, placement of windows, toilet room design, and playground design (e.g., by eliminating walls, where possible, or using half walls, CCTV, vision panels, and convex mirrors). See 3-8.2 CCTV for details.

3-3.1 Building Perimeter.

Treat the perimeter of the building and play yards as a controlled filter with only one primary means of public access and egress. Control all service and emergency points, with access limited to authorized individuals.

3-4 ARCHITECTURE.

3-4.1 Stories.

CCCFs shall be one-story buildings constructed at or near grade.

3-4.2 Exterior Design.

The design shall reflect a residential, non-institutional character. For example, small-scale finish materials, such as bricks, are preferable to large pre-cast panels. The dimension of brick is more congruent with the size of a child and his or her home experience. Minimize the use of irregular geometry in the overall building design that results in wall angle other than 90 degrees in the bedrooms and living/activity spaces.

3-4.2.1 Entrance.

The building and the outdoor activity areas shall each have only one primary means of public access. Control all other service and emergency egress points, with access limited to authorized individuals. Design the entry approach to be visible by inside staff. Incorporate a point of reference or landmark that serves as a welcome and a transition. Visually separate the primary entrance from other entrances and service areas.

3-4.2.2 Roof.

Roofs shall be steep sloped.

3-4.2.3 Windows and Doors.

Windows and doors shall replicate a residential style and scale. Provide window area in each child-occupied room to meet the LEED® credit for Daylight and Views and provide operable windows in climates where appropriate to take advantage of natural ventilation, reducing the amount of mechanical ventilation as allowable by code.

The operable portion of windows shall be a minimum of 36 in. (915mm) above finished floor, such as a single-hung, top-operable unit. Operable windows shall include screens. Locate all windows so that children have visual access to the outside with a maximum sill height of 24 in. (610mm) above finished floor. Casement and other projecting-type windows shall not project beyond wall thickness.

3-4.3 Interior Design.

Design the interior spaces to dispel an institutional feeling, and use residential-style layouts, scales, and finishes. Ensure collaboration between interior designer, architect, and the agencies identified in Chapter 1, Program Authorities.

3-4.3.1 Interior Doors and Windows.

3-4.3.1.1 Interior Glass.

All interior glass must be tempered safety glass at a minimum and mirrors must be constructed with break-resistant materials. Laminated interior safety glass is preferred if budget allows.

3-4.3.1.2 Interior Doors.

Interior doors shall be solid wood panel. Provide vision panels at adult and child viewing heights in all doors, including closets and storage rooms, except toilets. Vision panels shall be sized and placed so a person opening the door can see if children are sitting or standing in front of the door.

Install hinge finger-pinch protection devices wherever doors are accessible to children. All locking doors shall be operable from the inside without a key and with a single motion (emergency passage).

3-4.3.2 Window Treatments.

All window treatments shall be either cordless, have cords that are out of reach of children, or have continuous-loop cords that are permanently anchored to the wall. Vinyl mini-blinds are not permitted. Any textiles used in window treatments shall have passed the tests specified in NFPA 701.

3-4.3.3 Counters, Casework, and Cabinets.

Counters, casework, and cabinets shall be of high-quality and durable construction. Specify Architectural Woodwork Institute (AWI) Premium or Custom for finishes per *AWI Quality Standards Illustrated, current edition*. Doors, drawers, and casework faces shall be wood veneer at a minimum. Specify .75-in. (20-mm) minimum thickness for plywood, plywood backing, and solid wood panels.

Countertops shall be solid surface/solid composite plastics only. All counters throughout the facility shall have rounded safety corners with a 1-in. (25-mm) radius in plan view and a .5-in. (12-mm) radius for horizontal edges.

3-4.3.4 Other Interior Construction.

Provide blocking for all wall- or ceiling-mounted equipment and furnishings. Provide residential-style trim throughout the facility.

No facility display boards shall use tacks, small magnets, or other choking hazards.

3-4.3.5 Finishes.

3-4.3.5.1 General.

For finish criteria in specific areas, see the Functional Data Sheets in Chapter 4.

3-4.3.5.2 Soft Floor Coverings.

Floor coverings shall be impervious to bacteria, fungus growth, odor retention, and comply with fire and sanitation requirements. Use carpet tiles that do not have large patterned designs, for example, games or alphabets. Comply with the following for all carpet tiles and area rugs:

- Backings shall be anti-microbial of synthetic or inorganic material. Use carpet tiles with an attached cushion and a releasable adhesive system. Ensure adhesive or binding components of the carpet do not emit toxic fumes.
- Fibers shall be stain and soil resistant 100 percent solution-dyed nylon. Minimum yarn face weight shall be 28 oz (1.04 kg/m²). Use heavy commercial wear classification carpet of level loop construction to minimize snagging.
- Ensure there are no tripping hazards at carpet/resilient transition. Area rugs shall be secured with a commercial-grade, two-sided carpet tape around the perimeter. Binding on rugs shall be heavy duty .375 in. to 1 in, (9.5 to 25mm) wide.
- Use carpets tested for Volatile Organic Compounds (VOCs) and that bear a Green Label from the Carpet and Rug Institute indicating that the carpet emissions are within the acceptable range.
- Use products containing less than 0.05 parts per million (ppm) of formaldehyde. Any product purchased with formaldehyde levels above 0.05 ppm must bear a label in accordance with 29 CFR 1910.1048.

3-4.3.5.3 Resilient Floor Coverings.

Resilient floor coverings shall be commercial-grade linoleum or vinyl sheet with heat-welded seams.

3-4.4 Acoustics.

3-4.4.1 Exterior Acoustics.

3-4.4.1.1 Noise Levels.

If noise levels at the CCCF exceed the following then comply with the acoustical criteria provided below:

- Outdoor activity area. Continuous: 70 dBA, Intermittent: 80 dBA
- Building exterior with sleeping and quiet areas placed next to exterior wall. Continuous: 60 dBA, Intermittent: 65 dBA
- Building exterior with sleeping and quiet areas protected and not located next to exterior walls. Continuous: 65 dBA, Intermittent: 70 dBA

3-4.4.1.2 Acoustical Criteria.

If environmental noise levels exceed the maximums noted above, provide the following acoustical treatments:

- Use acoustically laminated glass with a Sound Transmission Coefficient (STC) rating of 35 to 45, having an air space of 2 in. to 4 in. (50 mm to 100mm) for all window and door glazing. (Conventional double-glazing and thermal glazing is not effective in this case.)
- Use high-quality commercial doors with a minimum STC rating of 30 for exterior doors.

3-4.4.2 Interior Acoustics.

Design the facility to provide a comfortable acoustical environment and provide comprehensive sound isolation and sound absorption measures for individual spaces as appropriate. Provide acoustical design to prevent sound from noisy spaces such as toilets, mechanical rooms, and play rooms from having negative impact on the bedrooms and infant/crib room. Comply with the following:

- Partitions can be single layer gypsum wallboard but shall have cavity insulation and be completely caulked at the top and bottom of the partition.
- Provide acoustical baffles in all ductwork that penetrates partitions.
- Do not place electrical outlet boxes back-to-back.

At a minimum, provide the required sound transmission coefficient (STC) ratings identified in Chapter 4, Functional Data Sheets, for individual spaces. Use the “Suggested Design Values” STC ratings in UFC 3-450-01, “Noise and Vibration Control” as the basis for the sound design of partition, door and window assemblies if required. Utilize gypsum board wall “improvements” to increase the STC of gypsum board “Stud Type” partitions to achieve the project sound requirements. Unless indicated in Chapter 4, STC ratings do not need to be field verified.

3-5 PLUMBING.

All sinks shall have hot and cold water supplies.

3-6 MECHANICAL.

Mechanical equipment shall not be located in an attic space.

3-7 FIRE PROTECTION AND LIFE SAFETY.

Because the DoD staff-to-child ratio is less than that prescribed by NFPA 101 Life Safety Code[®], additional fire protection and life safety features are required. The additional features compensate for the reduced number of staff. Fire Protection requirements for CCCF are based on the most restrictive requirements of the NFPA

101[®], New Day-Care Occupancies, and New Residential Board and Care Occupancies. CCCFs shall also meet the requirements of 32.3 Large Facilities.

3-7.1 Use and Occupancy Classification.

This facility shall be classified as Use Group I-2.

3-7.2 Exit Requirements.

Comply with the following and see the Chapter 4 Functional Data Sheets for additional door hardware and exiting requirements:

- Dead end corridors of any length are not permitted.
- All doors in the egress paths shall be a minimum of 36 in. (915mm) wide and shall provide a minimum clear width of 32 in. (815mm).
- No means of egress or means of escape shall pass through any other occupancy in the same building.
- No CCCF shall be located above another occupancy.
- A CCCF that is combined with another facility shall have a minimum of a two-hour fire resistance rating between the occupancies.
- Emergency evacuation plans shall be incorporated into the overall facility signage package and shall be permanently displayed in enclosed frames.

All doors and exit paths from the facility except from the mechanical room shall comply with the following:

- Doors shall have full-width push pad panic hardware that meets Accessibility requirements. The contact or pressing surface must extend the full width of the door. This is to prevent snagging on evacuation cribs.
- Exits shall have a maximum drop of .25 in. (6mm) and ramps shall be equipped with all-weather non-slip surface for emergency evacuation of wheeled evacuation cribs and wheelchairs. All ramps shall meet Americans with Disabilities Act (ADA) requirements.
- Provide a smooth paved-surfaced evacuation route to a safe gathering area not less than 75 ft. (23m) from the facility for all exits and sleeping rooms. This route shall not cross any emergency vehicle access path, parking area or street, but the paved evacuation path shall connect to a public way and shall not dead end in grassed areas. The evacuation route shall meet ADA requirements. These routes shall comply with the lighting requirements for exterior pedestrian walkways per UFC 3-530-01, "Design: Interior and Exterior Lighting and Controls". Provide egress

gates with a minimum of 44 in. (1020mm) clear width in the outdoor activity area fences.

3-7.3 Emergency Lighting.

Provide emergency lighting to illuminate the staff desk area where the CCTV monitors are located (allowing staff to make emergency calls and carry out other duties necessary for the safety and security of the children) and in all areas required by NFPA 101[®]. Whenever possible, incorporate the emergency lighting into the normally provided lighting fixtures. Provide security lighting at all entries and exits.

3-7.4 Fire Separation.

Provide a one-hour fire resistive fire barrier around the following:

- Laundry room
- All storage rooms greater than 100 ft² (9.3m²)
- All boiler or fuel-fired heater rooms

3-7.5 Fire Suppression Systems.

Provide automatic sprinkler systems in accordance with NFPA 13. Comply with the following criteria:

- Provide wet pipe sprinkler system. Dry pipe sprinkler system may be used for those portions of the facility subject to freezing. Anti-freeze and pre-action systems are not permitted.
- Use quick response-type sprinklers in wet pipe sprinkler systems.
- Discharge inspectors' test connections to a safe, outside location onto a hard surface outside of the outdoor activity area or congregation areas. Indicate location on drawings.
- Make fire department connection (FDC) accessible without entering or transiting a children's play area or crossing a discharge path. Provide the FDC on the street side of the building within 150 ft. (45m) of a fire hydrant outside of a fenced area and arranged so that the hose lines can readily and conveniently be attached without interference from any near-by object.
- Domestic stoves shall be provided with a residential fire suppression system in the domestic hood or the stoves shall be equipped with burners and controls that have their temperature limited to a maximum temperature of 662 degrees F (350 degrees C).

- The allowance of NFPA 101[®] to omit sprinklers from occupancy conversions cannot be used.

3-7.6 Fire Detection and Alarm System.

Comply with the following additional requirements:

- Locate the control panels in environmentally controlled locations in the facility.
- Use fully addressable control panels with addressable detectors, supervisory sensors, pull stations, notification appliances and other devices.
- Provide a mass notification system that is combined with the building fire alarm system.
- Do not use loud and jarring devices such as bells, horns, and klaxons as they can severely frighten young children causing them to hide or panic.
- Provide manual pull stations with protective covers inside the facility at each exterior door except for the mechanical room.
- Provide smoke detection in all areas, including closets over 20 ft² (1.86m²), but excluding the kitchen and spaces that are not climate controlled, such as the attic and the mechanical equipment room.

3-7.7 Carbon Monoxide Detection.

Provide a protected premises carbon monoxide detection system in accordance with NFPA 720 for each building provided with fuel burning appliances. The carbon monoxide system shall include the following features:

- Automatic carbon monoxide alarm signal initiation.
- Notification of carbon monoxide alarms to building occupants using the audible and visual appliances of the mass notification system.
- Transmission of carbon monoxide alarms to the Base Fire Department as a supervisory signal in accordance with NFPA 72.
- Transmission of carbon monoxide detection system trouble and supervisory signals to the Base Fire Department in accordance with NFPA 72.
- Combination-type carbon monoxide detection systems that are integrated in operation with the building mass notification system and fire alarm

system and that meet the requirements of NFPA 72 for combination systems.

- Class B initiating device circuits, notification appliance circuits, and signaling line circuits.
- Install carbon monoxide detectors in accordance with the manufacturer's published instructions. Locate detectors on the ceiling in the same room as all permanently installed fuel-burning appliances. Also provide at least one carbon monoxide detector centrally located within each area served by a separate air handler.

3-7.8 Conversions.

A conversion from another occupancy to a CCCF shall comply with the requirements of this UFC and the NFPA occupancy chapters for New Board and Care and Day-Care. The requirements for Existing Board and Care and Existing Day-Care occupancies shall not be used.

3-8 ELECTRICAL.

All outlets accessible to children shall be listed tamper resistant and/or ground-fault circuit interrupted (GFCI) protected. Removable caps or plugs are not acceptable.

3-8.1 Lighting.

For the overall design approach, adapt the relevant Residential Housing and Childcare sections of UFC 3-530-01. However, maintain light levels at all times and the use of table and floor lamps should be minimized due to the potential for damage caused by active children. Security lighting shall be provided for all pedestrian walkways and building entrances and exits. See Chapter 4, Functional Data Sheets, for any specific light level and control requirements.

3-8.2 CCTV.

CCTV systems are considered an important supplement to direct visual access. Provide the infrastructure required to support the CCTV system with cameras located to ensure complete and unobstructed surveillance of child care areas. The agencies identified in Chapter 1, Program Authorities, will determine if funds will be provided, and the source of those funds, for the design and procurement of the equipment external to the outlet (cameras, monitors, operating consoles) in order to establish a complete and usable system. See Chapter 4, Functional Data Sheets for monitor and camera locations.

CCTV controls and recording equipment shall be located in a secure closet or cabinet. Recorded image capacity is required for 30 days of images. CCTV monitors include one desk monitor and one large monitor with accessible views for the parents and caregivers, coordinate monitors location with user. Provide conduit (minimum 19mm (.75)) and cabling in conduit for installation of system. CCTV may require outlets higher

in the ceilings, walls or both. Provide electrical service adjacent to the anticipated locations of cameras and monitors.

- Size Requirements. Provide .74SM to 1.11SM (8SF to 12SF) for CCTV recording and viewing equipment. Recording equipment is optional.
- System Selection. Consider the size of the image, clarity of the image, color of the image, and distance to the image on the monitor during CCTV system selection. For example, if a split screen of nine images is color rather than black and white, the images may be discernible 1500 mm (5 ft.) away; but if the images are black and white, they may only be discernible from 900MM (3ft.) away. If the split screen has four color images, it may be visible 2100MM (7ft.) away, and so on. Design the monitoring station with the specific CCTV system in mind to ensure effective usability.

3-9 **FURNISHINGS.**

Comply with following for furnishings in areas accessible to children:

- Furnishings shall have rounded corners and edges with a minimum .5-in. (12-mm) radius in plan view and for horizontal edges.
- Furnishings shall not splinter or have toxic surfaces.
- Furnishings that are 36 in. (915mm) tall or higher shall be secured to prevent tipping.
- To avoid suffocation, do not use beanbags or overly pliable or yielding cushions and pillows that will allow an infant or small toddler to sink into the material.
- All furnishings shall meet standards for child safety and pinch/entrapment protection in CPSC 202, *The Safe Nursery*.

Additional furnishing and equipment criteria for specific spaces within a CCCF are provided in Chapter 4.

3-10 **SITE WORK.**

3-10.1 **Landscaping.**

To ensure child safety, plants with thorns and poisonous or toxic plants are not permitted. Plants that produce fruits, nuts, or seeds that represent choking hazards, regardless of toxicity, are not permitted. Verify the selected and existing plant material for meeting these requirements—the submittal section of the specifications require written verification by the nursery contractor that plants with thorns, poisonous plants, toxic plants, or fruit bearing plants are not planted in the outdoor activity area. Refer to

a comprehensive, commercially-available field guide for lists of poisonous plants. See Appendix C for non-comprehensive lists of common poisonous and non-poisonous plants.

3-10.2 Site Circulation and Parking.

Service access shall not cross the outdoor activity areas. Provide a minimum of 10 parking spaces for staff and parents.

3-10.3 Site Plumbing.

Provide a minimum of one hose bibb on each building elevation. Install hose bibbs in a recessed wall box to prevent impact injury. Provide freeze-proof hose bibbs at locations where temperatures can drop below freezing.

3-10.4 Site Lighting and CCTV.

The site lighting shall be designed to accommodate exterior CCTV camera monitoring for security and child abuse prevention. Provide exterior camera outlets to cover all building entries, the main approach and the outdoor activity area.

CHAPTER 4 SPECIFIC DESIGN CRITERIA

4-1 INTRODUCTION.

This chapter identifies the specific design needs for the individual spaces. Building design criteria are provided in a standard Functional Data Sheet (FDS) table format that generally follows the Unifomat II/Work Breakdown Structure. The Interior Construction/Built-in Equipment category includes anything physically attached or plumbed to the building such as counters, cabinets, casework, toilet accessories, window treatments, laundry machines, and retractable overhead screens. The Furnishings and Equipment category includes loose/moveable items.

Outdoor activity area design criteria are provided in textual format following the FDS tables.

TABLE 4-1. FOYER

Description/ Usage	The foyer is the primary facility entrance and ID check-in area. The design should feel open, inviting, and homelike. This area will open up into the living room and play rooms, and parents and children should be able see these areas from the entrance.
Ceiling Ht.	8 ft. (2.4m) minimum. Vary the foyer ceiling height to help define the space and distinguish it from the adjacent living and play rooms.
Windows/Doors	The entrance door shall have a side light and shall have a residential style appearance and an emergency passage manual lock.
Interior Construction/ Built-in Equipment	Provide some sense of separation between the foyer and the living and play rooms to help define the area while maintaining visible connections between the rooms. Consider partial walls and/or 42-in. (1065-mm) high half-height walls. Provide a display board per Chapter 3 near the entrance of the room for posting messages and facility information.
Finishes	Walls. Semi-gloss epoxy painted gypsum wallboard. Floor. Resilient sheet flooring system such as vinyl or linoleum with a simulated stone or wood-grain pattern. Base. Resilient with residential (or millwork) profile, solid color or wood-grain. Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm) acoustical ceiling panels (ACP). Non modular construction shall use painted gypsum wallboard.
Plumbing	None required.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical. Provide 20 fc (215 lux) average general ambient and security lighting at entrance and exit.
Communication	Telephone. Provide one jack at the check-in desk. Data. Provide one jack at the check-in desk. CCTV. Provide outlets for camera coverage of the exterior entrance and the foyer interior. Coordinate interior coverage with adjacent spaces to ensure complete coverage while minimizing the outlet/camera count. See 3-8.2 CCTV for details. CATV. None required. Security. Provide a duress alarm that alerts the Installation security office. Actuator shall be located at the maximum accessible-compliant height above finished floor and shall include a flip-up protective covering.
Acoustics	No special provisions required.
Furnishings and Equipment	Floor mat.
Special Requirements	Provide a doorbell at the exterior door. A check-in area is required and may be near the foyer/main entrance or a secondary entrance. At this check-in area, provide a check-in desk, check-in computer, and phone. If the staff desk area (Table 4-6) is combined with the check-in area, coordinate layout and design features.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Children.
Min. net ft² (m²)	

TABLE 4-2. LIVING ROOM

Description/ Usage	The living room is a gathering and social activity area geared towards sedentary activities such as reading and television watching. The design should emulate a residential living room.
Ceiling Ht.	9 ft. (2.7m) minimum.
Windows/Doors	Provide windows per Chapter 3.
Interior Construction/ Built-in Equipment	None required.
Finishes	Walls. Semi-gloss epoxy painted gypsum wallboard. Floor. Resilient sheet flooring such as vinyl or linoleum with a simulated stone or wood-grain pattern, or carpet tiles per Chapter 3. Base. Resilient with residential (or millwork) profile, solid color or wood-grain. Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm) ACP. Non modular construction shall use painted gypsum wallboard.
Plumbing	None required.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical. Provide 20 fc (215 lux) general ambient and 40 fc (540 lux) at reading areas.
Communication	Telephone. None required. Data. None required. CCTV. Provide outlets for camera coverage of the interior. Coordinate coverage with adjacent spaces to ensure complete coverage while minimizing the outlet/camera count. See 3-8.2 CCTV for details. CATV. Provide one outlet and coordinate location with the furniture plan. Security. None required.
Acoustics	No special provisions required.
Furnishings and Equipment	Comfortable seating such as adult and child-sized lounge chairs, loveseats and sofas; side tables; TV stand; bookshelves; TV; DVD player; and area rugs (if no carpet) per Chapter 3.
Special Requirements	
	For use during project execution by the appropriate Service agency
Occupancy	Staff. Children.
Min. net ft² (m²)	

TABLE 4-3. PLAY ROOM

Description/ Usage	The play room is a gathering and social activity area geared towards energetic activities. It will include a variety of staff-structured play areas.
Ceiling Ht.	9 ft. (2.7m) minimum.
Windows/Doors	Provide windows per Chapter 3.
Interior Construction/ Built-in Equipment	Provide clip strips throughout the room for display of children's artwork directly below the chair rail.
Finishes	<p>Walls. Semi-gloss epoxy painted gypsum wallboard. Provide a chair rail at 36 in. (915mm) above finished floor with a washable wainscot below. Provide impact-resistant wallboard up to 48 in. (1220mm).</p> <p>Floor. Resilient sheet flooring system such as vinyl or linoleum with a simulated stone or wood-grain pattern.</p> <p>Base. Resilient with residential (or millwork) profile, solid color or wood-grain.</p> <p>Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm) ACP. Non modular construction shall use painted gypsum wallboard.</p>
Plumbing	None required.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical. Provide 30 fc (325 lux) general ambient.
Communication	<p>Telephone. None required.</p> <p>Data. None required.</p> <p>CCTV. Provide outlets for camera coverage of the interior. Coordinate coverage with adjacent spaces to ensure complete coverage while minimizing the outlet/camera count. See 3-8.2 CCTV for details.</p> <p>CATV. None required.</p> <p>Security. None required.</p>
Acoustics	Provide wall- and/or ceiling-mounted acoustical attenuation features.
Furnishings and Equipment	Child height tables and chairs, area rugs, and a variety of play items and toy packages as required by program.
Special Requirements	
	For use during project execution by the appropriate Service agency
Occupancy	Staff. Children.
Min. net ft² (m²)	

TABLE 4-4. DINING ROOM

Description/ Usage	The dining room emulates a large, family-style dining area for meals and other table-based activities such as homework and arts and crafts. It is open to the kitchen and may be open to the play room, but it should have some sense of separation from the play area and may be separated by circulation space.
Ceiling Ht.	9 ft. (2.7m) minimum.
Windows/Doors	Provide windows per Chapter 3.
Interior Construction/ Built-in Equipment	None required.
Finishes	Walls. Semi-gloss epoxy painted gypsum wallboard. Floor. Resilient sheet flooring system such as vinyl or linoleum with a simulated stone or wood-grain pattern. Base. Resilient with residential (or millwork) profile, solid color or wood-grain. Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm) ACP. Non modular construction shall use painted gypsum wallboard.
Plumbing	None required.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical. Provide 20 fc (215 lux) average general ambient.
Communication	Telephone. None required. Data. None required. CCTV. Provide outlets for camera coverage of the interior. Coordinate coverage with adjacent spaces to ensure complete coverage while minimizing the outlet/camera count. Provide monitors that are viewable from both the dining area and the adjacent kitchen/food preparation area. See 3-8.2 CCTV for details. CATV. None required. Security. None required.
Acoustics	No special provisions required.
Furnishings and Equipment	Adult- and child-height dining tables and chairs. High chairs.
Special Requirements	If the staff desk area (Table 4-6) is located here, coordinate layout and design features.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Children.
Min. net ft² (m²)	

TABLE 4-5. KITCHEN

Description/ Usage	The kitchen resembles a large, residential-style kitchen with ample preparation and food storage areas.
Ceiling Ht.	9 ft. (2.7m) minimum.
Windows/Doors	Provide windows per Chapter 3.
Interior Construction/ Built-in Equipment	<p>Provide a minimum of 20 linear feet (6.1m) of counter space with upper and lower cabinets. Cabinets shall have heavy-duty hinges with non-protruding handles/hardware and integral child safety devices/latches. Counters shall have an integral backsplash and shall be solid surface. Provide an island and/or peninsular counter with base cabinets.</p> <p>Provide heavy-duty, "professional" grade, built-in residential appliances: oven and range top with an exhaust hood and fire suppression system (also see Chapter 3, Fire Suppression Systems) and a two-door reach-in refrigerator/freezer with minimum capacity of 19 ft³ (.54 m³) refrigerator and 19 ft³ (.54 m³) freezer with a built-in ice maker.</p> <p>Provide an under-counter, commercial-grade dishwasher (NSF International approved). In Option B facilities, provide an additional under-counter ice maker and two under-counter refrigerators for self-service drinks. These accommodate the older children that may occupy these facilities.</p> <p>Confirm approved equipment providers with the agencies noted in Chapter 1, Program Authorities.</p>
Finishes	<p>Walls. Semi-gloss epoxy painted gypsum wallboard.</p> <p>Floor. Resilient sheet flooring system such as vinyl or linoleum with a simulated stone or wood-grain pattern. For Army, provide a slip-resistant quarry tile floor.</p> <p>Base. Resilient with residential (or millwork) profile, solid color or wood-grain. For Army, provide a quarry tile base.</p> <p>Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm), vinyl-coated ACP. Non modular construction shall use painted gypsum wallboard.</p>
Plumbing	Provide a two-compartment, under-mount stainless steel kitchen sink with a minimum .5 HP (.4 kW) garbage disposal and removable drain plug. Provide connections to the dishwasher, the refrigerator/freezer, and other equipment as necessary. Provide a single compartment, under-mounted hand-washing sink near the dining room. For Army , provide a floor drain.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical. Provide 20 fc (215 lux) general ambient and 50 fc (540 lux) at the counters.
Communication	<p>Telephone. None required.</p> <p>Data. None required.</p> <p>CCTV. Provide outlets for camera coverage of the interior. Coordinate coverage with adjacent spaces to ensure complete coverage while minimizing the outlet/camera count. See 3-8.2 CCTV for details.</p> <p>CATV. None required.</p> <p>Security. None required.</p>
Acoustics	No special provisions required.
Furnishings and Equipment	Microwave, toaster, coffee maker, cookware, cooking and eating utensils, dinner and drinkware, and paper towel and soap dispensers.
Special Requirements	<p>Ensure that staff standing at the food preparation areas can see the entire dining area and the CCTV monitors located therein. See 3-8.2 CCTV for details.</p> <p>Ensure access to a near-by storage closet/pantry.</p>
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Children.
Min. net ft² (m²)	

TABLE 4-6. STAFF DESK AREA

Description/ Usage	The staff desk area is a small administrative area with a desk for ad hoc administrative functions, typically located as a sub area of another space. Effective locations include combining it with the check-in area, the dining room/kitchen area, or off of circulation space.
Ceiling Ht.	8 ft. (2.4m) minimum.
Windows/Doors	None required.
Interior Construction/ Built-in Equipment	None required.
Finishes	Walls. Semi-gloss epoxy painted gypsum wallboard. Floor. Coordinate with adjacent areas. Base. Resilient with residential (or millwork) profile, solid color or wood-grain. Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm) ACP. Non modular construction shall use painted gypsum wallboard.
Plumbing	None required.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical.
Communication	Telephone. Provide one jack. Data. Provide a minimum of one jack. Note in Navy and USMC facilities, this jack does not need to conform to NMCI requirements. CCTV. Coordinate with adjacent spaces to ensure outlets for camera coverage. See 3-8.2 CCTV for details. CATV. None required. Security. None required.
Acoustics	No special provisions required.
Furnishings and Equipment	Small desk, desk chair, computer, and phone.
Special Requirements	Confirm the location and configuration with the agencies identified in Chapter 1, Program Authorities. Coordinate the design features with the adjacent spaces.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Children.
Min. net ft² (m²)	

TABLE 4-7. CRIB/INFANT ROOM

Description/ Usage	This room is a sleeping area for infants and pre-toddlers. It also accommodates diaper changing and bottle feeding.
Ceiling Ht.	9 ft. (2.7m) minimum.
Windows/Doors	Provide windows and interior door per Chapter 3. The exterior door shall meet the requirements for exit doors per Chapter 3. This exterior door shall have an automatic hold open device integral to the door or door closer. Flip down door stops are not permitted. Design door thresholds and hardware to facilitate the exiting of an evacuation crib with up to four children pushed and/or pulled by a single adult.
Interior Construction/ Built-in Equipment	<p>Provide window treatments per Chapter 3. Floor length draperies or vertical blinds are not permitted in this space.</p> <p>Provide a 34-in.-high, 24-in.-deep (865 x 610mm), 42 in. (1065mm) long (minimum) solid-surface changing counter with integral storage underneath and integral, retractable steps that lock in place. Provide a safety device on all sides of the changing surface area that extends 3 in. (75mm) above the surface of the mat (mats are typically 1 in. (25mm) thick). This changing surface shall be integral with the sink counter. Ensure all edges are rounded and surfaces are smooth.</p> <p>Provide hands-free paper towel (cone-type), soap, glove, and plastic bag dispensers within reach of the caregiver at the table. Provide a minimum of eight (8) compartmentalized cabinets 9-in.-wide, 9-in.-high, and 12-in.-deep (230 x 230 x 305mm) for storage of diapers and products. These cabinets shall be within easy reach of a caregiver standing at the station with one hand on the child.</p> <p>Confirm the need for a separate small counter area with base and upper cabinets and an under-counter refrigerator with the agencies indentified in Chapter 1, Program Authorities. Also see Special Requirements below.</p>
Finishes	<p>Walls. Semi-gloss epoxy painted gypsum wallboard.</p> <p>Floor. Resilient floor such as vinyl or linoleum with a simulated stone or wood-grain pattern, or carpet tiles per Chapter 3.</p> <p>Base. Resilient with residential (or millwork) profile, solid color or wood-grain.</p> <p>Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm) ACP. Non modular construction shall use painted gypsum wallboard.</p>
Plumbing	<p>At the diaper changing station, provide one deep, integral or under-mount (under-mount shall be stainless steel) sink with a swivel goose neck faucet, and hands-free operation. If sensor-operated controls are used, provide a 30 second automatic shut-off. Provide a dedicated shut-off valve.</p> <p>If the counter/refrigerator area is included, provide a separate adult-height handwashing sink at that counter.</p>
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical. Provide individual thermostats, a switched exhaust fan at the diaper changing area, and maintain 35 to 50% humidity.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical. Maintain a minimum of .5 fc (5 lux) at all times to accommodate child observation requirements but do not exceed 5 fc (52 lux) for sleeping. Normal operating light levels are 20 fc (215 lux) general ambient and 30-40 fc (320-430 lux) task lighting at the counters.

TABLE 4-7. CRIB/INFANT ROOM

Communication	<p>Telephone. None required.</p> <p>Data. None required.</p> <p>CCTV. Provide outlets for camera coverage of the interior. See 3-8.2 CCTV for details.</p> <p>CATV. None required.</p> <p>Security. Provide a local alarm at the exterior door that sounds whenever the door is opened.</p> <p>Army does not alarm the crib/infant room exterior door.</p>
Acoustics	<p>Provide partition construction with a minimum STC rating of 52 per Chapter 3, Acoustics.</p> <p>Interior doors and windows/vision panels do not need to be STC-rated.</p>
Furnishings and Equipment	<p>Provide cribs for sleeping and emergency evacuation. A minimum of two cribs shall be evacuation cribs that shall be of durable construction, be a maximum of 29 in. (735mm) wide, and have sturdy caster wheels approximately 4 in. (100mm) in diameter. The evacuation crib shall be able to support and transport a minimum of five 18-month-old children weighing a total of 120 lbs. (55 kg).</p> <p>Provide two foot-operated, covered waterproof, washable trash containers, with self-closing airtight lids. Provide area rugs if no carpet.</p>
Special Requirements	<p>Provide childproof latches or magnetic locks to any storage cabinets within a child's reach.</p> <p>Option A facilities: Provide a hall/public area-accessible diaper changing station on the wall shared with the crib/infant room diaper changing station. This second diaper changing area shall mirror the one described above. Provide a window between the two stations that is the full width of the changing tables and allows views between the areas by staff standing at the stations. Provide all the related components in the hall/public area station, including the diaper storage compartments, exhaust fan and the covered trash container for soiled diapers.</p>
For use during project execution by the appropriate Service agency	
Occupancy	<p>Staff.</p> <p>Children.</p>
Min. net ft² (m²)	

TABLE 4-8. BEDROOMS

Description/ Usage	Separate bedrooms for boys and girls.
Ceiling Ht.	9 ft. (2.7m) minimum.
Windows/Doors	Provide windows and interior door per Chapter 3. The exterior door shall meet the requirements for exit doors per Chapter 3. This exterior door shall have an automatic hold open device integral to the door or door closer. Flip down door stops are not permitted.
Interior Construction/ Built-in Equipment	Provide window treatments per Chapter 3. Floor length draperies or vertical blinds are not permitted in this space. Option A facilities: Provide the following in each room and in a public area usually just outside the bedrooms: pre-manufactured, compartmentalized, open-front cubbies with a shelf and minimum of two coat hooks. These cubbies shall be anchored to the floor and/or wall. Ensure that clothing stored in each individual cubby can be separate from and will not come in contact with clothing stored in other cubbies. Provide 36 in. (915mm) of clear space directly in front of cubbies. These cubbies accommodate the child-storage function for the typical ages of the child occupants of Option A facilities and are contrasted with the FF&E noted below for Option B facilities. Also to accommodate the faster turnover rate, Option A facilities shall have a 32 ft ² (3m ²) storage closet for cots and additional linens storage on shelving. Closet shall have twin-leaf doors with vision panels per Chapter 3.
Finishes	Walls. Semi-gloss epoxy painted gypsum wallboard. Floor. Resilient floor (with area rugs) such as vinyl or linoleum with a simulated stone or tile or wood-grain flooring pattern, or carpet tiles per Chapter 3. Base. Resilient with residential (or millwork) profile, solid color or wood-grain. Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm) ACP. Non modular construction shall use painted gypsum wallboard.
Plumbing	None required.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical. Maintain a minimum of .5 fc (5 lux) at all times to accommodate child observation requirements but do not exceed 5 fc (52 lux) for sleeping. Normal operating light levels are 20 fc (215 lux) general ambient and 30-40 fc (320-430 lux) task lighting at the side tables/beds.
Communication	Telephone. None required. Data. None required. CCTV. Provide outlets for camera coverage of the interior. See 3-8.2 CCTV for details. CATV. None required. Security. Provide a local alarm at the exterior door that sounds whenever the door is opened.
Acoustics	Provide partition construction with a minimum STC rating of 52 per Chapter 3, Acoustics. Interior doors and windows/vision panels do not need to be STC-rated.
Furnishings and Equipment	Twin beds with under-bed drawer storage and side tables. Option B facilities: Provide lockable trunks with each bed to accommodate storage for older children and provide one armoire per every two beds. Secure the armoire to the wall to prevent tipping.
Special Requirements	
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Children.
Min. net ft² (m²)	

TABLE 4-9. OPTION A TOILETS

Description/ Usage	These toilets support the Option A facility configuration and include two unisex toilets/bathrooms off of the public area/hallway near the bedrooms.
Ceiling Ht.	8 ft. (2.4m) minimum.
Windows/Doors	Provide lockable doors without vision panels. The doors shall be designed to allow opening from the outside during an emergency when locked.
Interior Construction/ Built-in Equipment	Provide a solid-surface countertop with a shatter-proof mirror over the lavatory. Provide toilet-tissue dispensers within reach of a child on the water closet. Provide a hands-free paper towel dispenser without serrated edges at the lavatory. Provide towel racks, shelving, and a screwed-in curved shower curtain rod at the tub.
Finishes	Walls. Semi-gloss epoxy paint with mold inhibitor on mold-resistant gypsum wallboard. Floor. Seamless sheet vinyl or linoleum with the edges turned up the walls a minimum of 6 in. (150mm) to form an integral coved base. Base. Integral. Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm) vinyl-coated ACP. Non modular construction shall use scrubable eggshell or semi-gloss paint with mold inhibitor on mold-resistant gypsum wallboard.
Plumbing	Comply with <i>Caring for Our Children, National Health and Safety Performance Standards: Guidelines for Out-of-Home Child Care</i> for water temperature control. In one of the two toilets, provide a child-height water closet with a seat height of 12 in. (305mm) and flush controls 20 to 30 in. (510 to 760mm) above finished floor and a child-height lavatory mounted at 22 in. (560mm) above finished floor with 19 in. (480mm) clearance for knee space. In the other toilet, provide standard accessible water closet and lavatory. All sinks shall have single-action, pre-mixing, automatic shut-off controls mounted within 14 in. (355mm) of the leading edge of the lavatory. In each room provide a one-piece, full-height, solid-acrylic combination bathtub and tub/shower surround with two recessed soap dishes, a non-slip surface, and fixed and handheld showerheads. Provide a floor drain in each room.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical. Provide humidistat-controlled exhaust system.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical.
Communication	Telephone. None required. Data. None required. CCTV. None required. CATV. None required. Security. None required.
Acoustics	Provide partition construction with a minimum STC rating of 45 per Chapter 3, Acoustics. Doors do not need to be STC-rated.
Furnishings and Equipment	
Special Requirements	
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Children.
Min. net ft² (m²)	

TABLE 4-10. OPTION B TOILETS

Description/ Usage	These toilets support the Option B facility configuration and include gender-specific rooms directly off of each bedroom and two unisex toilets off of the public area/hallway. The typical configuration of the gender-specific facilities includes three areas (toilet room, bath/shower room and lavatories) and is described in Special Requirements below.
Ceiling Ht.	8 ft. (2.4m) minimum.
Windows/Doors	Provide lockable doors without vision panels to the gender-specific toilet and bath/shower rooms and to the two unisex toilets. The doors shall be designed to allow opening from the outside during an emergency when locked.
Interior Construction/ Built-in Equipment	Provide a solid-surface countertop at the gender-specific lavatory. Provide mirrors over each lavatory. Provide toilet-tissue dispensers within reach of a child on each water closet. Provide a paper towel dispenser without serrated edges at each lavatory. Provide towel racks, shelving, and a screwed-in curved shower curtain rod at the tubs.
Finishes	Walls. Impervious tile up to 48 in. (1220mm) above finished floor with epoxy paint with mold inhibitor on mold-resistant gypsum wallboard above. Floor. Impervious tile. Base. Match floor. Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm) vinyl-coated ACP. Non modular construction shall use epoxy paint with mold inhibitor on mold-resistant gypsum wallboard.
Plumbing	Comply with <i>Caring for Our Children, National Health and Safety Performance Standards: Guidelines for Out-of-Home Child Care</i> for water temperature control. Gender-specific Toilet Rooms. Provide both a child-height water closet with a seat height of 14 to 15 in. (355 to 380mm) and flush controls 20 to 30 in. (510 to 760mm) above finished floor and a child-height lavatory mounted at 31 in. (790mm) above finished floor with 24 in. (610mm) clearance for knee space. Gender-specific Bath/shower Rooms. Provide a one-piece, full-height, solid-acrylic combination bathtub and tub/shower surround with two recessed soap dishes, a non-slip surface, and fixed and handheld showerheads. Gender-specific Lavatories. Provide two integral or under-mount lavatories. Unisex Toilets: In one, provide a child-height water closet with a seat height of 10 in. (250mm) and flush controls 20 to 30 in. (510 to 760mm) above finished floor and a child-height lavatory mounted at 17 in. (430mm) above finished floor. In the other, provide a child-height water closet with a seat height of 14 to 15 in (355 to 380mm) and flush controls 20 to 30 in. (510 to 760mm) above finished floor and a child-height lavatory mounted at 31 in. (790mm) above finished floor with 24 in. (610mm) clearance for knee space. All sinks shall have single-action, pre-mixing, automatic shut-off controls mounted within 14 in. (355mm) of the leading edge of the lavatory. Provide a floor drain in each space.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical.
Communication	Telephone. None required. Data. None required. CCTV. None required. CATV. None required. Security. None required.
Acoustics	Provide partition construction with a minimum STC rating of 45 per Chapter 3, Acoustics. Doors and windows do not need to be STC-rated.

TABLE 4-10. OPTION B TOILETS

Furnishings and Equipment	
Special Requirements	The gender-specific facilities are typically configured as follows: The main lavatory area is open to the bedroom with a separate private toilet/lavatory room off to one side and an accessible bath/shower room off to the other side.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Children.
Min. net ft² (m²)	

TABLE 4-11. STAFF TOILET

Description/ Usage	This is a unisex, accessible facility.
Ceiling Ht.	8 ft. (2.4m) minimum.
Windows/Doors	Provide a lockable door without a vision panel. The door shall be designed to allow opening from the outside during an emergency when locked.
Interior Construction/ Built-in Equipment	Provide a solid-surface countertop with a full-width mirror over the lavatory. Provide toilet-tissue dispenser, paper towel dispenser, built-in trash receptacle, and soap dispenser.
Finishes	Walls. Epoxy semi-gloss paint with mold inhibitor on mold-resistant gypsum wallboard. As an option, also provide impervious tile up to 48 in (1220mm) above finished floor. Floor. Resilient sheet flooring system such as vinyl or linoleum, or impervious tile. Base. Resilient with residential (or millwork) profile, solid color or wood-grain, or impervious tile. Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm) vinyl-coated ACP. Non modular construction shall use epoxy paint with mold inhibitor on mold-resistant gypsum wallboard.
Plumbing	Provide accessible water closet and lavatory. Provide a floor drain.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical.
Communication	Telephone. None required. Data. None required. CCTV. None required. CATV. None required. Security. None required.
Acoustics	Provide partition construction with a minimum STC rating of 45 per Chapter 3, Acoustics. Doors and windows do not need to be STC-rated.
Furnishings and Equipment	
Special Requirements	
	For use during project execution by the appropriate Service agency
Occupancy	Staff. Children.
Min. net ft² (m²)	

TABLE 4-12. LAUNDRY

Description/ Usage	The laundry room should be located near staff areas and an exterior wall. It includes the facility janitor functions.
Ceiling Ht.	8 ft. (2.4m) minimum.
Windows/Doors	Provide a lockable door with a vision panel per Chapter 3.
Interior Construction/ Built-in Equipment	Provide large, heavy-duty residential washer and dryer. Provide a built-in table for folding laundry and shelves for storage.
Finishes	Walls. Epoxy painted water-resistant gypsum wallboard. Floor. Sealed concrete, a resilient sheet flooring system such as vinyl linoleum, or impervious tile. Base. Rubber or match floor. Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm) vinyl-coated ACP. Non modular construction shall use epoxy-painted water-resistant painted gypsum wallboard.
Plumbing	Provide a laundry sink, connections to the washer, and a janitor's sink. Provide a floor drain. Provide recessed washing machine connector box for each utility connection to the machine.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical. Provide humidistat-controlled exhaust system to maintain a maximum of 50% relative humidity. Do not vent the dryer exhaust near a building entrance.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical.
Communication	Telephone. None required. Data. None required. CCTV. Provide outlets for camera coverage of the interior. See 3-8.2 CCTV for details. CATV. None required. Security. None required.
Acoustics	Provide partition and door construction with a minimum STC rating of 52 per Chapter 3, Acoustics.
Furnishings and Equipment	
Special Requirements	Confirm the need for HAZMAT storage provisions with the Installation Safety Officer.
	For use during project execution by the appropriate Service agency
Occupancy	Staff. Children.
Min. net ft² (m²)	

TABLE 4-13. INTERIOR STORAGE

Description/ Usage	Interior storage includes dry food storage and general facility items. The food storage should be located near the kitchen and the general item storage may be one or more additional storage closets, depending on final building configuration.
Ceiling Ht.	8 ft. (2.4m) minimum.
Windows/Doors	Provide a lockable door with a vision panel per Chapter 3.
Interior Construction/ Built-in Equipment	Coordinate with agencies noted in Chapter 1, Program Authorities, to provide the preferred shelving/storage system to maximize storage in these spaces.
Finishes	Walls. Semi-gloss epoxy painted gypsum wallboard. Floor. Resilient sheet flooring system such as vinyl or linoleum. Base. Resilient with residential (or millwork) profile, solid color or wood-grain. Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm) ACP. Non modular construction shall use painted gypsum wallboard.
Plumbing	None required.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical. In all storage areas large enough for a child to enter, provide occupancy-sensor-controlled minimum light level of 5 fc (52 lux). The occupancy sensor shall be sensitive enough to detect a small seated child. This is a child abuse/child safety requirement.
Communication	Telephone. None required. Data. See Special Requirements. CCTV. See Special Requirements. See 3-8.2 CCTV for details. CATV. None required. Security. None required.
Acoustics	No special provisions required.
Furnishings and Equipment	
Special Requirements	CCTV recording equipment may be located in a storage closet; confirm data and other requirements if this option is exercised. See 3-8.2 CCTV for details. Paint a horizontal red stripe on all walls at 20 in. (510mm) below finished ceiling to indicate maximum height of storage.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Children.
Min. net ft² (m²)	

TABLE 4-14. STAFF DEN/OFFICE

Description/ Usage	Private office for staff administrative functions. In Option B facilities, this room will also be used to isolate a sick child from the facility general population and for family counseling, as needed.
Ceiling Ht.	8 ft. (2.4m) minimum.
Windows/Doors	Provide a lockable door with a vision panel per Chapter 3.
Interior Construction/ Built-in Equipment	None required.
Finishes	Walls. Semi-gloss epoxy painted gypsum wallboard. Floor. Carpet tiles per Chapter 3. Base. Resilient with residential (or millwork) profile, solid color or wood-grain. Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm) ACP. Non modular construction shall use painted gypsum wallboard.
Plumbing	None required.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical. Option B facilities: Provide negative pressure.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical.
Communication	Telephone. Provide one jack. Data. Provide a minimum of one jack plus additional jacks as necessary for equipment such as a printer. Note in Navy and USMC facilities, this is the only jack that will conform to NMCI requirements. CCTV. Provide a monitor. Option B facilities: Provide outlets for camera coverage to accommodate use as an isolation room. See 3-8.2 CCTV for details. CATV. None required. Security. Provide a duress alarm that alerts the Installation security office. Actuator shall be located at the maximum accessible-compliant height above finished floor and shall include a flip-up protective covering.
Acoustics	Provide partition construction with a minimum STC rating of 45 per Chapter 3, Acoustics. Doors and windows/vision panels do not need to be STC-rated.
Furnishings and Equipment	Desk, desk chair, side chair(s), credenza, lockable filing cabinet, computer, printer, and other office equipment as necessary. Option B facilities: Also provide lounge seating and a couch.
Special Requirements	
	For use during project execution by the appropriate Service agency
Occupancy	Staff. Children.
Min. net ft² (m²)	

TABLE 4-15. STAFF STORAGE

Description/ Usage	The staff storage area is a small area with lockable storage for small personal items, such as coats and bags. It is located within or combined with other facility areas. Effective locations/combinations include the small desk area and the laundry room.
Ceiling Ht.	8 ft. (2.4m) minimum.
Windows/Doors	None required.
Interior Construction/ Built-in Equipment	The storage area can be configured as a counter with lockable upper cabinets and an adjacent lockable coat closet or as half-size lockers. See Special Requirements.
Finishes	Walls. Semi-gloss epoxy painted gypsum wallboard. Floor. Coordinate with adjacent areas. Base. Resilient with residential (or millwork) profile, solid color or wood-grain. Ceiling. Modular construction shall use 2 ft x 2 ft (610 x 610mm) ACP. Non modular construction shall use painted gypsum wallboard.
Plumbing	None required.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical.
Communication	Telephone. None required. Data. None required. CCTV. Coordinate with adjacent spaces to ensure outlets for camera coverage. See 3-8.2 CCTV for details. CATV. None required. Security. None required.
Acoustics	No special provisions required.
Furnishings and Equipment	None required.
Special Requirements	Confirm the location and configuration with the agencies identified in Chapter 1, Program Authorities. Coordinate the design features with the adjacent spaces.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Children.
Min. net ft² (m²)	

TABLE 4-16. OUTDOOR STORAGE

Description/ Usage	Room with direct access from the outside for storage of outdoor play equipment. This room may be located within the building footprint or as a separate shed structure. Confirm location with the agencies noted in Chapter 1, Program Authorities. If the room is located within the building footprint, access from the interior is not required. If it is an exterior shed, it shall be an enclosed, weather-tight, vandal-proof storage shed that is architecturally compatible with the CCCF.
Ceiling Ht.	9 ft. (2.7m) minimum. 7 ft. (2.1m) minimum if a separate shed.
Windows/Doors	Provide a lockable door with a vision panel per Chapter 3, including both interior and exterior door criteria. Door shall be a minimum of 48 in. wide (1220mm).
Interior Construction/ Built-in Equipment	Storage shelves, racks and/or bins, as necessary.
Finishes	Walls. Semi-gloss epoxy painted gypsum wallboard or CMU. If exterior shed, use a prefabricated wood or plastic shed that meets the child safety standards identified in Chapter 4, Play Equipment. Floor. Sealed concrete sloped to the door for drainage. Base. None required. Ceiling. Unfinished.
Plumbing	None required.
HVAC	Provide a system per Chapter 3, General, and Chapter 3, Mechanical. Ventilate but do not air condition.
Fire Protection and Life Safety	Provide system per Chapter 3, General, and Chapter 3, Fire Protection and Life Safety.
Power	Provide outlets per Chapter 3, General, and Chapter 3, Electrical.
Lighting	Provide system per Chapter 3, General, and Chapter 3, Electrical.
Communication	Telephone. None required. Data. None required. CCTV. None required. See 3-8.2 CCTV for details. CATV. None required. Security. None required.
Acoustics	No special provisions required.
Furnishings and Equipment	
Special Requirements	No HAZMATS are stored in this space. Paint a horizontal red stripe on all walls at 20 in. (510mm) below finished ceiling to indicate maximum height of storage. Locate storage to be readily accessible to the outdoor play area. If it is a separate shed, its placement shall not create blind spots in the outdoor activity area. Provide hard-surface pathways connecting storage with the outdoor activity area.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Children.
Min. net ft² (m²)	

4-3 OUTDOOR ACTIVITY AREA DESIGN CRITERIA.

4-3.1 General.

The CCCF outdoor activity area is similar to that for the CDC described in UFC 4-740-14, but on a much smaller scale. CCCFs will not provide separated (fenced) age-specific play areas and most will only have space for one or two pieces of equipment.

A certified playground safety inspector that is not affiliated to an equipment manufacturer shall design the playground or review and approve the final design. The outdoor activity area design and all features shall comply with the Consumer Product Safety Commission (CPSC) 325, *Public Playground Safety Handbook*, and with any other references in this UFC for specific design elements and features.

4-3.2 Layout.

If available area and site layout permit, provide separate areas for older and younger children. A separate area is required in Option B facilities where the age difference between children can be greater. The Option B area will typically be a covered patio.

4-3.3 Fencing.

Enclose the perimeter of the entire outdoor activity area with a fence. **Navy** and **USMC** fence shall be a minimum 5-ft. (1525mm) high fence. **Army** fence shall be 4-ft. (1220mm) high fence. Vinyl-coated chain link is the preferred fence material, and the final design shall comply with the following:

- Meet the Installation design standards to the degree possible while meeting these criteria.
- Exposed galvanized wire is not permitted.
- The top edge shall be selvage knuckled. The fencing components shall not expose sharp points or edges that could cut or puncture children's skin. All fastening devices used for fence construction shall be turned sideways or shall not project perpendicular to the fence surface beyond .125 in. (3.2mm). Fences shall have smooth caps and no finials or sharp picket tops.
- Space between vertical elements shall be no more than 3.5 in. (85mm).
- No openings in the fence shall be between .375 in. (9mm) and 1 in. (25mm) in size as pinch protection.
- Coordinate gate sizes to accommodate the evacuation cribs (See Chapter 4, Infant/crib Room).

- Perimeter egress gates shall only be operable from the interior side, have adult-controlled securing devices to prevent child operation, and pinch/crush protection on the hinges. In addition, design the gate to preclude operation by an adult reaching over the fence from the exterior side as a child-abuse prevention measure.
- Provide at least one access gate that is 8 ft. (2440 mm) wide for service vehicles.
- Ensure that fences do not impede caregiver supervision of children.
- For **Navy** projects, bury the fence bottom a minimum of 3 in. (75mm) below grade.

Additional information on entrapment dimensions is provided in CPSC 325.

4-3.4 **Play Equipment.**

4-3.4.1 **Industry Standards.**

Playground equipment and any shade structures shall comply with the minimum standards put forth in the guidelines listed below. In some cases, this UFC may include more stringent guidelines than those listed. In those cases, follow the criteria identified in this UFC. Use the most recent editions of the following publications:

- CPSC 325, *Public Playground Safety Handbook*.
- ASTM F1292, *Standard Specification for Impact Attenuation of Surface Materials within the Use Zone of Playground Equipment*.
- ASTM F1487, *Standard Consumer Safety Performance Specification for Playground Equipment for Public Use*.
- ASTM F1951, *Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment*.
- ASTM F2223, *Standard Guide for ASTM Standards on Playground Surfacing*.
- ASTM F2373, *Standard Consumer Safety Performance Specification for Public Use Play Equipment for Children 6 Months through 23 Months*.

4-3.4.2 **Additional DoD Standards.**

Show all use zones for play equipment on the site plan to ensure there is no conflict between play activities on the ground and swinging or jumping from the equipment. Do not overlap use zones.

4-3.4.2.1 **Selection Criteria.**

- **Novelty.** Select interesting play equipment with both simple and complex features. Select equipment that can be modified.
- **Flexibility.** Select a composite unit that stimulates a wide range of motor functions and that can be used equally well by one child or by several children simultaneously. Do not select themed items that are designed to look like specific objects.
- **Challenge.** Provide equipment that provides clear, graduated stages of accomplishment, e.g., variable-height steps or climbing equipment with landings at different heights.
- **Aesthetics.** Design children's playgrounds for appearance as well as function. Select equipment colors and styles that are appealing to children and compatible with the facility exterior. Integrate equipment with natural vegetation and landforms.

4-3.4.2.2 **Installation Criteria.**

The equipment purchasing agreement shall include a requirement for the manufacturer to inspect the equipment after installation and confirm in writing that installation conforms to manufacturer's instructions and to CPSC and ASTM Guidelines. Also provide a contractual agreement for a skilled, certified, independent playground safety consultant to inspect the entire playground after the installation is completed. Have experienced playground installers conduct or supervise installation.

4-3.4.2.3 **Exclusions.**

Do not use the following items in the outdoor activity areas, regardless of CPSC or ASTM approval:

- Animal-shaped, metal, or hard-seat swings. **Navy** excludes all swing types except tire swings.
- Wood equipment—wood equipment is not permitted due to maintenance concerns.
- Metal slide surfaces.
- Merry-go-rounds.
- Trampolines.
- See-saws.
- Zip lines.

4-3.4.2.4 **Exceptions and Modifications.**

The following is an exception to previous DoD policy: Tunnels and tunnel slides are allowed but require openings or view panels.

4-3.5 **Surfaces.**

CCCF outdoor activity areas typically have three categories of surface areas with specific requirements: use zones, wheeled toy pathways, and general. Comply with ASTM F2223, *Standard Guide for ASTM Standards on Playground Surfacing*, and the following criteria.

4-3.5.1 **Use Zones.**

Use zones are the areas under and around playground equipment and are defined by ASTM F1487. A required submittal is the commercial playground safety surface manufacturer's warranty and liability in the specifications and transfer to the Using Service. Include a written verification by the manufacturer that the playground safety surface meets the requirements of the CPSC 325 and ASTM in the submittal section of the specifications.

DoD prefers poured-in-place resilient safety surfaces. Approval from the using Service agencies identified in Chapter 1, Program Authorities, is required for any other use zone surface material.

4-3.5.2 **Wheeled Toy Pathways.**

If space and budget will accommodate wheeled toy pathways, the acceptable materials include concrete and stone and masonry pavers. The edge of pathways shall be tapered for transitions and shall not create trip hazards. Joints shall be not wider than .5 in. (12mm) because they may cause toys to tip. Adjacent grading and/or sod installation shall be within .75 in. (19mm) of the pathway surface height and shall allow for settlement to minimize replacement. Comply with the following when designing the wheeled toy pathways:

- **Modular paving.** Use non-grouted interlocking type pavers on sand placed over a continuous concrete setting bed. Install brick, stone or other non-interlocking type paving in grout over a continuous concrete setting bed. Do not install non-interlocking paving on sand in play areas, as the modular units may settle unevenly, resulting in a hazardous irregular surface. Where winter freezing is common and where poor soils occur, use a gravel base under concrete and reinforce to prevent cracking and deterioration. Integrally colored pavers are encouraged to create visual interest.
- **Concrete.** Add color additives or surface finishes to improve the appearance of concrete and reduce glare. Avoid smooth steel trowel finishes, which can become slippery when wet. Where winter freezing is

common and where poor soils occur, use a gravel base under concrete and reinforce to prevent cracking and deterioration. Cast-in-place concrete over a well-compacted sub-grade is the most durable, maintenance-free paving material for hard surface areas.

4-3.5.3 General.

This encompasses any portion of the outdoor activity area not included in the other two defined areas. Use grass or other natural landscaping surfaces. Use grass primarily in open, active play areas, passive play areas, and areas with low traffic levels. Do not use grass where wear and maintenance will become a problem. Locate grass in sunny areas where it will dry out quickly after rain. Artificial turf is not recommended for use as a playground surface; it can be abrasive, convey an unnatural impression, and can result in significantly higher surface temperatures than natural turf. Prior to approving artificial turf, confirm negative lead content from an independent lead-certified laboratory. See Chapter 3, Landscaping, for more information on non-paved areas.

APPENDIX A REFERENCES

- ASTM F1292, *Standard Specification for Impact Attenuation of Surface Materials within the Use Zone of Playground Equipment*, ASTM International, www.astm.org
- ASTM F1487, *Standard Consumer Safety Performance Specification for Playground Equipment for Public Use*, ASTM International, www.astm.org
- ASTM F1951, *Standard Specification for Determination of Accessibility of Surface Systems under and around Playground Equipment*, ASTM International, www.astm.org
- ASTM F2223, *Standard Guide for ASTM Standards on Playground Surfacing*, ASTM International, www.astm.org
- ASTM F2373, *Standard Consumer Safety Performance Specification for Public Use Play Equipment for Children 6 Months through 23 Months*, ASTM International, www.astm.org
- AWI *Quality Standards Illustrated*, Architectural Woodwork Institute, www.awinet.org
- Caring for Our Children, National Health and Safety Performance Standards: Guidelines for Out-of-Home Child Care Programs*, American Academy of Pediatrics, <http://www.aap.org/>
- 29 CFR 1910.1048, *Occupational Safety and Health Standards, Toxic and Hazardous Substances, Formaldehyde*, Occupational Safety & Health Administration, www.osha.gov
- CPSC 325, *Public Playground Safety Handbook*, The Consumer Product Safety Commission (CPSC), <http://cpsc.gov/>
- CPSC 202, *The Safe Nursery*, The Consumer Product Safety Commission (CPSC), <http://cpsc.gov/>
- Green Label program, Carpet and Rug Institute, <http://www.carpet-rug.org>
- International Building Code, International Code Council <http://www.iccsafe.org>
- LEED® Green Building Rating System, The United States Green Building Council, www.usgbc.org
- NFPA 13, *Standard for the Installation of Sprinkler Systems*, National Fire Protection Association, <http://www.nfpa.org>
- NFPA 72, *National Fire Alarm and Signaling Code*, National Fire Protection Association, <http://www.nfpa.org>

NFPA 101, *Life Safety Code*, National Fire Protection Association, <http://www.nfpa.org>

NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*, National Fire Protection Association, <http://www.nfpa.org>

NFPA 720, *Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment*, National Fire Protection Association, <http://www.nfpa.org>

UFC 1-200-01, *General Building Requirements*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 3-450-01, *Noise and Vibration Control*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 3-530-01, *Design: Interior and Exterior Lighting and Controls*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 4-740-14, *Design: Child Development Centers*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

Whole Building Design Guide, National Institute of Building Sciences, <http://www.wbdg.org>

APPENDIX B SPACE PLANNING

B-1 OPTION A FACILITY SAMPLE SPREADSHEET.

Figure B-1 shows a sample completed spreadsheet for a typical Option A facility.

FIGURE B-1. SAMPLE OPTION A FACILITY CCCF SPACE PROGRAM

Sample Option A Facility CCCF Space Program		
Select Service Branch:	Navy	
Facility Type	Select type of facility:	Option A
Facility Sizing	Select no. of boys/girls:	6
Navy and USMC facility sizing is based on a standard of 8 infants and allows either 4 or 6 each of boys and girls.	Number of infants:	8
	Number of boys:	6
	Number of girls:	6
Modular Construction	Select yes or no:	No
The use of modular construction will affect the net-to-gross requirements. Select 'Yes' to program the use of modular construction.		
<u>Program Spaces</u>		
		m ² ft. ²
Foyer		11.15 120
Living room		30.10 324
Play room		40.13 432
Dining room		33.44 360
Kitchen		22.30 240
Staff desk area		1.86 20
Crib/infant room		48.31 520
Diaper changing/food prep		6.50 70
Bedrooms		100.33 1,080
Option A toilets		
Child-height toilet		8.36 90
Accessible toilet		8.36 90
Staff toilet		4.18 45
Laundry		7.90 85
Storage		11.15 120
Staff den/office		9.29 100
Staff storage		1.39 15
Outdoor storage		7.43 80
	Subtotal - Total Net Building Area	352.18 3,791
	Net-to-gross	118.09 1,271
Covered exterior space	(Located in the outdoor activity area.)	18.58 200
	Subtotal - Gross Building Area	488.86 5,262
<u>Exterior Program Spaces</u>		m ² ft. ²
Parking		325.15 3,500
Outdoor activity area		185.80 2,000
	Subtotal - Net Site Program Spaces	510.95 5,500
	TOTAL BUILDING FOOTPRINT + EXTERIOR PROGRAM	999.81 10,762

B-2 OPTION B FACILITY SAMPLE SPREADSHEET.

Figure B-2 shows a sample completed spreadsheet for a typical Option B facility.

FIGURE B-2. SAMPLE OPTION B FACILITY CCCF SPACE PROGRAM

Sample Option B Facility CCCF Space Program																																																																																																											
Select Service Branch:	Army																																																																																																										
Facility Type	Select type of facility: Option B																																																																																																										
Facility Sizing Army facility sizing is fixed and based on 6 infants and 7 each of boys and girls. <table border="1" style="float: right; margin-left: 20px;"> <tr> <td>Number of infants:</td> <td>6</td> </tr> <tr> <td>Number of boys:</td> <td>7</td> </tr> <tr> <td>Number of girls:</td> <td>7</td> </tr> </table>			Number of infants:	6	Number of boys:	7	Number of girls:	7																																																																																																			
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Modular Construction Select yes or no: Yes The use of modular construction will affect the net-to-gross requirements. Select 'Yes' to program the use of modular construction.																																																																																																											
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APPENDIX C POISONOUS AND NON-POISONOUS PLANTS

Many popular house and garden plants are considered poisonous and can produce symptoms ranging from minor to severe. Table C-1 provides a non-comprehensive list of common plants that are known to be poisonous. Table C-2 provides a list of plants for which no evidence currently exists of a poisonous quality. These lists are provided by the Maryland Poison Center. Within the United States, check with local extensions of the US Department of Agriculture for more information about the nature of common plantings in specific locations. These lists are not intended to serve as a guide for plants to use or not use but are merely provided for informational purposes. See Chapter 3 for more information on landscaping and plant selection.

Refer to a comprehensive, commercial field guide for a complete list of poisonous plants.

TABLE C-1. COMMON POISONOUS PLANTS

Amaryllis	Jerusalem cherry
Azalea	Jimsonweed
Barberry	Jonquil
Black locust	Lily-of-the valley
Boxwood	Mistletoe
Caladium	Mountain laurel
Castor bean	Narcissus
Chinaberry	Nephthytis/Arrowhead
Chinese evergreen	Nightshade family
Chrysanthemum	Oak (acorns)
Crown of thorns	Peony
Daffodil	Philodendron family
Dumbcane/Dieffenbachia	Poison ivy/oak/sumac
English ivy	Pokeweed
Euonymous	Privet
Four o'clock	Rhododendron
Fruit pits or seeds	Snowball bush/Hydrangea
Gladiola	Water hemlock
Holly	Wisteria
Hyacinth	Yew
Iris	

TABLE C-2. COMMON NON-POISONOUS PLANTS

African violet	Marigold
Christmas cactus	Mulberry (ripe berries only)
Coleus	Norfolk pine tree
Corn plant	Peperomia
Crocus	(spring) Petunia
Dandelion	Poinsettia*
Dogwood	Prayer plant
Dracaena	Pyracantha/Firethorn
Easter lily	Rose
Ferns	Rubber tree plant
Ficus*	Sansevieria/Snake plant
Forsythia	Scheffiera*
Fuchsia	Spider plant
Geranium	Swedish Ivy
Hibiscus	Tulip*
Honeysuckle	Wandering Jew
Impatiens	Wax plant
Jade plant	Wild strawberry/Snakeberry
Lilac	Zebra plant

* Sap may be irritating.