

3.0 COORDINATE WITH COS FOR MOST UP TO DATE CRITERIA

RECEPTION BARRACKS (RB)

3.1 GENERAL

Reception Barracks complexes are required by the Army to encompass living, dining, training, and administrative/command operations. This RB complex will be comprised of: Reception Barracks (RB) <RBCCP>and a Central Cooling Plant (CCP)</RBCCP>. These facilities, with outdoor training areas and any additional support facilities shall be arranged on the site as a unit to allow the soldiers to live, eat, train, and work together.

The RB is comprised of sleeping bays, restrooms, classrooms, storage, laundry areas and scrub rooms.

<RBCCP>CCP consists of enclosed space for equipment and required maintenance space. No administrative, conference, or operator office is authorized.</RBCCP>

3.2 FUNCTIONAL AND AREA REQUIREMENTS

Gross building area shall be calculated in accordance with International Building Code. Net area is measured to the inside face of the room or space walls. Minimum dimension where stated shall be measured to the inside face of the defining enclosure. Net area requirements for programmed spaces are included in this paragraph. If net area requirements are not specified, the space shall be sized to accommodate the required function and to comply with code requirements, overall gross area limitations, and any other requirement of this RFP. Area requirements for corridors, stairs, and mechanical rooms will typically be left to the discretion of the offer.

3.2.1. ACCESSIBILITY

Able-bodied soldiers occupy and manage the RB facilities. The Americans with Disabilities Act (ADA) requirements do not apply to the RB facilities. <RBCCP>ADA does not apply to the CCP.</RBCCP>

3.2.2. RECEPTION BARRACKS

3.2.2.1. Functional Space Requirements - First Floor

- (a) Vestibule: Provide an enclosed transition space between the exterior and interior of the building, at the primary entry point.
- (b) Stair Vestibule: Stair vestibule shall be the secondary ground floor entry into the sleeping bays and shall be located at the fire exit stairwell located with the back end of the covered training area.
- (c) Reception: Provide a reception area in the company operations area.
- (d) Offices: Provide private offices for the Company Commander (CO), Executive Officer (XO), 1st Sergeant (1st SGT) and Training Office (TRO). [See blue below](#)
- (e) Men's Toilet/Shower: Provide one shower stall and toilet facilities to serve the administrative personnel assigned to company. Provide a dressing area with a built-in wooden bench adjacent to the shower area. Length of bench shall be full width of shower minus 6 inches.

- (f) Women's Toilet/Shower: Provide one shower stall and toilet facilities to serve the administrative personnel assigned to company. Provide a dressing area with a built-in wooden bench adjacent to the shower area. Length of bench shall be full width of shower minus 6 inches.
- (g) Janitor: Provide a janitor's closet. Janitor's closet shall have a 10 inch deep floor mounted stainless steel mop sink, with hot and cold service faucet, a four holder mop rack and two 18 inch deep by 48 inch long heavy duty stainless steel shelves for storage of cleaning supplies. Janitor's closet shall have space for storage of buckets and vacuum.
- (h) Luggage Storage: Provide one lockable central luggage storage area partitioned into four separate and equal storage rooms. Each storage room shall be accessible from the central core of the central luggage storage area and shall have a lockable door.
- (i) Supply: Provide storage space for company supplies and equipment, weapons, and consumable supplies. Shipping and receiving functions are performed from company supply area. Provide a 7 feet high by 8 feet wide, overhead coiling door with ramp for exterior vehicular access. A built-in issue counter with a laminated sliding glass window shall be integrated with a lockable shall be a rolling shutter door between this room and the queuing corridor. Issue counter opening shall be 36 inches wide and 42 inches high minimum. Provide space in the supply room area for two Supply NCOs.
- (j) Secure Storage: Provide a secure storage area for high value items of electronic equipment, e.g. night goggles. Secure storage area shall be adjacent to the arms vault and shall be accessible from the company supply area only. Secure storage shall have 18 inch deep built-in storage shelves, spaced at 18 inches on center vertically and capable of supporting a minimum of 20 pounds per linear foot. Total linear footage of storage shelves shall be three times the perimeter of the storage room.
- (k) Mask Storage: Provide a mask storage room adjacent to the arms vault. Mask storage room shall have a lockable dutch-door with a supply shelf built into the bottom leaf. Mask storage room shall be accessible from the queuing corridor only. Mask storage room shall have 12 inch deep built-in storage shelves, spaced at 15 inches on center vertically and capable of supporting a minimum of 20 pounds per linear foot. Total linear footage of storage shelves shall be along the long wall of the storage room.
- (l) Arms Vault: Arms vault for storage of arms shall comply with Appendix G of AR 190-11, Physical Security of Arms, Ammunition, and Explosives. Arms vault door shall incorporate a steel dutch-door type day-gate with a steel issue shelf built into the lower leaf of the day-gate. Arms vault shall be adjacent to the company supply storage room and shall be accessible from the queuing corridor only.
- (m) Stairs: Provide 4 feet 6 inch minimum width stairs.
- (n) Corridors: Provide 6 feet minimum width corridors. Corridor in front of the administrative offices shall be 10 feet minimum width, to serve as a waiting area.
- (o) Queuing Corridor: Provide a queuing corridor minimum 6 feet wide, connecting the mask storage room, the arms vault and the company supply room.
- (p) Multipurpose Room: Provide two multipurpose rooms for fitness training and other purposes as determined by the battalion. Locate one multipurpose room at the rear end of each covered training area underneath the bathroom wings of the upper floors. Each multipurpose room shall have 48 inches high dry-eraser marker boards along entire length of front and side walls and one power operated 8'-0" x 6'-0" ceiling flush mounted projection screen at front of the room. Projection screen shall be flame retardant, mildew resistant, and white matte with black masking borders. Furnish and install a low profile ceiling mounted projector mount system with each projection screen. Ceiling mount shall consist of a steel ball joint and universal projector bracket. Ceiling mount shall project a maximum 6 inches below finished ceiling height, and shall securely attach to ceiling and structure above. Steel ball joint shall attach to the universal projector bracket with twist-lock engagement. Mount shall provide up to 30° roll or pitch adjustment and 360° yaw adjustment at ball joint. Two setscrews lock ball joint in position. Projector

mount shall be capable of supporting a 26 pound load. Furnish and install concealed electrical wiring, connections and accessories necessary for projector operation.

(q) Scrub Room: Provide two scrub rooms for equipment and weapons cleaning. Locate one scrub room at the rear end of each covered training area underneath the bathroom wings of the upper floors across from the multipurpose rooms. Each scrub room shall be furnished with a fixed continuous heavy gauge (minimum 16 gauge, type 304 stainless steel), 4 inches deep, stainless steel wash trough, sub-divided into six wash positions, along one wall. Each wash position shall be 4 feet wide and 3 feet deep, shall be separately drained and shall be furnished with a 9 inches high goose-necked, cold/hot water faucet with paddle type handles. Each scrub room shall also be furnished with a fixed 12 feet by 6 feet, minimum heavy gauge, type 304 stainless steel, 4 inches deep, stainless steel wash trough, sub-divided into four wash positions centered in the room for equipment cleaning. Each wash position shall be 6 feet wide and 3 feet deep, shall be separately drained and shall be furnished with a 9 inch high goose-necked, cold/hot water faucet with paddle type handles. Each scrub room shall be furnished with a fixed 3 feet deep by length of wall, minimum 16 gauge, type 304 stainless steel counter top, running the full length of one long wall of the room for weapons cleaning.

(r) Mechanical, Electrical, and Telecommunications Rooms: Mechanical rooms shall accommodate space for equipment maintenance/repair access without having to remove other equipment. Mechanical, electrical and telecommunications rooms shall be keyed separately for access by Installation maintenance personnel. First floor exterior access is required for centralized mechanical. All telecommunications rooms shall be conditioned space. Refer to Mechanical, Electrical and Telecommunications Sections for additional information.

(s) Covered Training Area: Provide two covered training areas located under the sleeping bays.

(t) Boot Wash: Outdoor area for soldiers to rinse mud from field gear, boots and clothing. Boot Wash station shall be provided at three (3) locations- each building wing and the main building entrance. Each boot wash station shall consist of two freeze-proof hydrants located adjacent to a grated drain assembly complete with sand interceptor. Provide two spray nozzles on 60 inch long flexible hoses per hydrant.

3.2.2.2. Functional Space Requirements - Second and Third Floor

(a) Entry Vestibule: Entry vestibule for the sleeping bays shall be at the primary stairwell on each sleeping bay floor.

(b) Stair Vestibule: Stair vestibule shall be the secondary entry into each sleeping bay and shall be located at the fire exit stairwell located with the bathroom and laundry at the rear of each sleeping bay.

(c) Sleeping Bay: Each sleeping bay shall be designed to accommodate sixty trainees in a dormitory layout. Sleeping bays must be of equal size and able to accommodate one bunk 84 inches long by 42 inches wide and one wardrobe 42 inches wide x 24 inches deep for each trainee, with adequate circulation. Surge capacity requirements will be met by using double bunks. A minimum ceiling height of 9 feet is required. One sleeping bay in each B/COF shall be divided into two equal halves along the length of the bay, by a full height, insulated, gender separation wall. Gender separation wall finish shall be a minimum of one layer of 5/8 inch impact resistant gypsum wallboard on each side of wall framing. Wall assembly shall have a minimum rating of STC 50 and shall be one-hour fire rated. All furniture listed here are GFGI.

(d) Toilet/Shower/Dressing: Each sleeping bay shall have two separate and equal toilet/showers/dressing rooms. Each toilet/shower/dressing room shall have a dressing area and shall be furnished with a minimum of ten shower stalls, six water closets and six lavatories. Urinals shall not be substituted for water closets. Dressing area shall be furnished with continuous hardwood benches and mirrors. Benches shall be mounted on powder-coated steel pedestals permanently anchored to the floor. Benches shall run the entire length of the two longest walls of the dressing area. Furnish and install four full length wall mirrors each 16 to 24 inches by 72 inches, spaced evenly on one short wall of each dressing area. Furnish and install thirty wall mounted clothes hooks spaced evenly along the walls of each dressing area above the wood benches.

Lavatories shall be provided in a continuous solid surface material vanity top. Each lavatory shall be furnished with a combination stainless steel framed mirror and stainless steel shelf. Mirror shall be minimum 18 inches wide by 24 inches high. Stainless steel shelf length shall be full width of mirror and minimum 5 inches deep. Extend ceramic tile shower surround to ceiling. Provide tamper resistant showerheads.

(e) Laundry: Each sleeping bay shall have two separate and equal laundry rooms. Locate one laundry room adjacent to each toilet/shower/dressing area. Each laundry room door shall be 36 inches wide minimum. Each laundry room shall accommodate a total of five heavy-duty, extra capacity, commercial washers and six heavy-duty, extra capacity, double stacked commercial dryers. Contractor furnished and installed fixed heavy gauge stainless steel clothes folding/hanging tables measuring 2 feet deep by 5 feet wide, and one stainless steel laundry tray and sink are required features of each laundry room. Provide power receptacles, natural gas connection (where gas is available to site) and vent connections for all dryers. Dryers shall be exhausted to the exterior. Do not manifold dryer exhaust vents.

(f) Stair: Provide 4 feet 6 inch minimum width stairs.

(g) Corridors: Provide 6 feet minimum width corridors. Corridors along the platoon classroom area shall be 8 feet minimum width.

(h) **Drill Instructor (DI) Office:** Provide an administrative office adjacent to each sleeping bay on each floor. Each DI Office shall be designed to accommodate three work stations.

(i) DI Toilet/Shower: Provide a toilet and shower adjacent to the DI Office and accessible from the DI Office only. Furnish and install two single tier metal lockers in each DI toilet/shower. Each locker shall be 18 inches wide by 18 inches deep by 78 inches high, and shall be lockable.

(j) Platoon Classrooms: Provide a classroom adjacent to each sleeping bay on each floor. Each classroom shall be sized for 60-persons seating and space for an instructor. Each classroom shall have 48 inches high dry-eraser marker boards along entire length of front and side walls and two power operated 8'-0" x 6'-0" ceiling flush mounted projection screens at front of the classroom. Projection screens shall be flame retardant, mildew resistant, and white matte with black masking borders. Furnish and install a low profile ceiling mounted projector mount system with each projection screen. Ceiling mount shall consist of a steel ball joint and universal projector bracket. Ceiling mount shall project a maximum 6 inches below finished ceiling height, and shall securely attach to ceiling and structure above. Steel ball joint shall attach to the universal projector bracket with twist-lock engagement. Mount shall provide up to 30° roll or pitch adjustment and 360° yaw adjustment at ball joint. Two setscrews lock ball joint in position. Projector mount shall be capable of supporting a 26 pound load. Furnish and install concealed electrical wiring, connections and accessories necessary for projector operation. Windows shall have operable blinds.

(k) Platoon Classroom Storage: Provide a shared storage room for the two classrooms on each floor. Storage room shall have 18 inch deep built-in storage shelves, spaced at 18 inches on center vertically and capable of supporting a minimum of 20 pounds per linear foot. Total linear footage of storage shelves shall be two times the perimeter of the storage room.

(l) TA-50 Storage: Provide a TA-50 storage room for each sleeping bay on each floor. Each TA-50 storage room shall have 24 inch deep built-in storage shelves, spaced at 24 inches on center vertically and capable of supporting a minimum of 30 pounds per linear foot. Total linear footage of storage shelves shall be three times the perimeter of the storage room.

(m) General Storage: Provide one general storage room for each sleeping bay, adjacent to the TA-50 storage.

(n) Janitor: Provide one janitor's closet on each floor, in the central core area. Janitor's closet shall have a 10 inch deep floor mounted stainless steel mop sink, with hot and cold service faucet, a four holder mop

rack and two 18 inch deep by 48 inch long heavy duty stainless steel shelves for storage of cleaning supplies. Janitor's closet shall have space for storage of buckets and vacuum.

(o) Mechanical, Electrical, and Telecommunications Rooms: Mechanical rooms shall accommodate space for equipment maintenance/repair access without having to remove other equipment. Mechanical, electrical and telecommunications rooms shall be keyed separately for access by Installation maintenance personnel. First floor exterior access is required for centralized mechanical. All telecommunications rooms shall be conditioned space. Refer to Mechanical, Electrical Telecommunications Sections for additional information.

3.2.2.3 Space Allocation Table

[img:RBspace.tif]

B/COF MINIMUM SQUARE FOOTAGE REQUIREMENTS NET SQUARE FEET (NSF)				
	1st FLOOR	2nd FLOOR	3rd FLOOR	TOTAL NSF
VESTIBULE	195	-	-	195
STAIR VESTIBULE	165 x 2	-	-	330
RECEPTION/CQ STATION	250	-	-	250
COMPANY COMMANDER (CO)	150	-	-	150
EXECUTIVE OFFICER (XO)	110	-	-	110
FIRST SERGEANT (1 st SGT)	120			120
TRAININIG OFFICE (TRO)	110	-	-	110
MEN'S TOILET/SHOWER	AS NEEDED	-	-	
WOMEN'S TOILET/SHOWER	AS NEEDED	-	-	
JANITOR	30	-	-	30
LUGGAGE STORAGE	360	-	-	360
COMPANY SUPPLY	800	-	-	800
SECURE STORAGE	245	-	-	245
MASK STORAGE	200	-	-	200
ARMS VAULT	380	-	-	380
STAIRS	AS NEEDED	-	-	
CORRIDORS	AS NEEDED	-	-	
QUEUING CORRIDOR	AS NEEDED	-	-	
MULTIPURPOSE ROOM	890 x 2	-	-	1,780
SCRUB ROOM	480 x 2	-	-	960
MECHANICAL, ELECTRICAL AND TELECOMMUNICATIONS	AS NEEDED	-	-	
COVERED TRAINING AREA	5,350 X 2			10,700
-	-	-	-	-
ENTRY VESTIBULE	-	195	195	390
STAIR VESTIBULE	-	165 x 2	165 x 2	660
SLEEPING BAY	-	5,350 x 2	5,350 x 2	21,400
TOILET/SHOWER/DRESSING	-	640 x 4	640 x 4	5,120
LAUNDRY	-	160 x 4	160 x 4	1,280
STAIR	-	AS NEEDED	AS NEEDED	
CORRIDOR	-	AS NEEDED	AS NEEDED	
DRILL INSTRUCTOR (DI) OFFICE	-	280 x 2	280 x 2	1,120
DI TOILET/SHOWER	-	84 x 2	84 X 2	336
PLATOON CLASSROOMS	-	950 x 2	950 x 2	3,800
PLATOON CLASSROOM STORAGE	-	70	70	140
TA-50 STORAGE	-	160 X 2	160 X 2	640
GENERAL STORAGE	-	70 X 2	70 X 2	280
JANITOR	-	30	30	60
MECHANICAL, ELECTRICAL AND TELECOMMUNICATIONS	-	AS NEEDED	AS NEEDED	

3.2.4. <RBCCP_NO>NOT USED</RBCCP_NO><RBCCP>Central Cooling Plant

Central cooling plant building shall accommodate space for equipment maintenance/repair.</RBCCP>

3.3 SITE REQUIREMENTS

3.3.1 Walks: Provide pedestrian walks within the designated construction area and connect to existing sidewalks, where applicable.

(a) Sidewalks shall be a minimum of 6 feet wide. Troop formation sidewalks shall be a minimum of 15 feet wide. Troop formation sidewalks that are also designed to support emergency and service vehicle traffic shall be a minimum of 20 feet wide per NFPA requirements. Walks paralleling buildings shall be located beyond the eave drip line and at least 5 feet from the foundation.

(b) Non-vehicular pedestrian and troop formation sidewalks shall be constructed of Portland Cement Concrete having a minimum nominal thickness of 4 inches. Joint patterns shall be designed in accordance with American Association of State Highway and Transportation Officials (AASHTO) standards and shall be uniform and symmetrical. The length to width ratio shall not exceed 1.25 for non-reinforced pavements.

(c) Troop formation sidewalks designed to support emergency and service vehicle traffic will be considered roadway pavements and shall be designed to meet AASHTO standards. Vehicular supported walks shall be constructed of Portland Cement Concrete having a minimum nominal thickness of 7 inches. Joints shall be designed in accordance with AASHTO standards and shall be uniform and symmetrical. The length to width ratio shall not exceed 1.25 for non-reinforced pavements.

3.3.3 <SITE_GOV>Not Used</SITE_GOV><SITE_DB> Site Structures and Amenities

(a) Dumpster Area: Dumpster enclosure area(s) and screening shall be located, designed and constructed by the Contractor. The Contractor is responsible for locating the dumpster areas in accordance with UFC 4-010-01 DoD Minimum Antiterrorism Standards for Buildings.

The GFGI dumpsters shall be located outside of restricted areas to allow for servicing activities. Dumpster pads shall be sized to accommodate <TRASH_DUMP>trash dumpsters only. No recycling dumpsters are required.</TRASH_DUMP> <RECYC_DUMP>both trash and recycling dumpsters.</RECYC_DUMP>. Dumpster screening shall be aesthetically and architecturally compatible with the building it serves and shall be designed in accordance with the Installations guidelines. </SITE_DB>

3.3.4 <SITE_GOV>Not Used</SITE_GOV><SITE_DB>Site Functional Requirements

(a) Privately Owned Vehicle (POV) Parking: POV parking, within the designated BT Complex construction area, shall be designed and constructed by the Contractor. The location of the POV parking area(s) shall be designed based on the Installation's site constraints. Parking can either be consolidated or spread out along the perimeter of the complex. The Contractor shall ensure that the location of parking complies with UFC 4-010-01. See paragraph 5.2.3 VEHICLE PAVEMENTS for additional information. POV parking shall be provided as follows:

- RB- 18 spaces per 240-man RB

(b) Service Drives: The Contractor shall provide service drives to each building. The drives shall be located in accordance with UFC 4-010-01. Where applicable, access to the drives shall be restricted as required by UFC 4-010-01. The pavement design shall be as required by paragraph 5.2.3 VEHICLE PAVEMENTS. Minimum access drive width shall be 24 feet. Drives shall be provided with curb and gutter. Minimum turning radius shall be designed as required for emergency vehicle access.

(c) Troop Formation/Assembly Areas: Pavements for Troop formation/assembly areas, such as the pavement beneath the outdoor "Covered Assembly Areas" shall be constructed of Portland Cement

Concrete having a minimum nominal thickness of 4 inches. Troop formation areas that are designed to also support emergency and service vehicle traffic will be designed as roadway pavements and designed to meet AASHTO standards. Vehicular supported walks shall be constructed of Portland Cement Concrete having a minimum nominal thickness of 7 inches. Joint patterns shall be designed in accordance with AASHTO standards and shall be uniform and symmetrical. The length to width ratio shall not exceed 1.25 for non-reinforced pavements.

(d) Emergency Vehicle Access: Provide access in accordance with NFPA 1, UFC 3-600-01 and the Installation's requirements. </SITE_DB>

3.4 ARCHITECTURAL REQUIREMENTS

3.4.1 Hardware

3.4.1.1 <LOCKBOX_NO>Not Used</LOCKBOX_NO><LOCKBOX>Fire Department Secure Lock-Box: [LOCKBOX_DESCRIPTION] </LOCKBOX>

Finish Hardware: All hardware shall be consistent and shall conform to ANSI/BMHA standards for Grade 1. All requirements for hardware keying shall be coordinated with the Contracting Officer. Hardware finish shall conform to ANSI/BHMA A156 18; finish shall be Code # Extension of the existing installation keying system shall be provided. Installation keying system is Locksets shall have interchangeable cores. Cores shall have no fewer than seven pins. Cores for locksets other than those for mechanical, electrical, and telecommunications rooms shall be manufactured by [KEY_MANUFACTURER]. Locksets for mechanical, electrical and telecommunications rooms only shall be keyed to the existing Installation utilities master keying system. Deadbolt locks shall be installed on mechanical, electrical and telecommunications rooms keyed to the Installation keying system. Disassembly of knob or lockset shall not be required to remove core from lockset. All locksets and exit devices shall accept same interchangeable cores. Plastic cores are unacceptable. Door hardware and security requirements must be coordinated with the functional requirements, the room-by-room criteria, and the electrical security/fire alarm system requirements of this document. Provide all hardware necessary to meet the requirements of applicable codes for fire doors and exit doors. Provide closers for all doors opening to corridors and as required by codes.

3.4.2 Special Acoustical Requirements

3.4.2.1 Exterior walls and roof/floor/ceiling assemblies, doors, windows and interior partitions shall be designed to provide for attenuation of external noise sources such as airfields in accordance with applicable criteria. Provide sound insulation to meet a minimum rating of STC 49 at walls and floor/ceiling assemblies. At interior doors provide solid core wood doors in metal frame with sound insulation to meet a minimum rating of STC 25. In addition to the sound insulation required, video teleconferencing areas shall meet a Noise Criteria (NC) 30 rating in accordance with ASHRAE Fundamentals Handbook. Provide sound insulation to meet a minimum rating of STC 50/IIC 55 at floors separating sleeping spaces.

3.4.2.2 Sound conditions and levels for interior spaces, due to the operation of mechanical and electrical systems and devices, shall not exceed levels as recommended by ASHRAE handbook criteria. Provide acoustical treatment for drain lines and other utilities to prevent noise transmission into the interior of sleeping spaces.

3.4.3 Exterior Design Objectives

Provide durable and easily maintainable materials. Do not use exterior materials that require periodic repainting or similar refinishing processes. Material exposed to weather shall be factory pre-finished, integrally colored or provided with intrinsic weathering finish.

3.4.3.1 Exterior Walls: Provide durable materials. Where Exterior Insulation and Finish Systems (EIFS), or any other material except CMU or other Masonry material is used as exterior finish material, it shall be in conjunction with a CMU wainscot. EIFS shall be “high-impact” type and shall be “drainable” type.

3.4.3.2 Roof: Minimum roof slope for membrane roof systems shall be 1/4 inch per foot. Minimum roof slope for pitched roof systems shall be 3 inches per foot.

1. Roof Mounted Equipment: For roof mounted equipment, provide permanent access walkways and platforms to protect roof. Roof mounted equipment on pitched roof systems is unacceptable.

2. Roof access from building exterior is prohibited.

3. Any roof system provided shall include an unconditional warranty of a minimum of 20 years.

3.4.3.3 Trim and Flashing: Gutters, downspouts, and fascias shall be factory pre-finished metal and shall comply with SMACNA Architectural Sheet Metal Manual.

3.4.3.4 Bird Habitat Mitigation: The Contractor shall provide details in the design necessary to eliminate the congregating and nesting of birds at, on, and in the facility.

3.4.3.5 Exterior Doors and Frames:

(1) Main Entrance Doors: Aluminum storefront doors and frames with Architectural Class 1 anodized finish, fully glazed, with medium or wide stile for entry into lobbies or corridors. Provide doors complete with frames, framing members, subframes, transoms, sidelights, trim, applied muntins, and accessories. Framing systems shall have thermal-break design. Storefront systems shall comply with wind-load requirements of applicable codes and criteria including UFC 4-010-01.

(2) Exterior Non-entrance Doors: Exterior doors and frames opening to spaces other than corridors or lobbies shall be galvanized insulated hollow metal and comply with ANSI A250.8/SDI 100. Doors shall be heavy duty (grade 2) insulated with 18-gage steel cladding; top edge closed flush; A60 galvanized. Frames shall be 12-gauge, with continuously welded mitered corners and seamless face joints. Doors and frames shall be constructed of hot dipped zinc coated steel sheet, complying with ASTM A653, Commercial Steel, Type B, minimum A40 coating weight; factory primed. Fire-rated openings shall comply with applicable codes, and the requirements of the labeling authority. Door and frame installation shall comply with applicable codes and criteria including UFC 4-010-01.

3.4.3.6 Exterior Windows: Provide insulated, high efficiency window systems, with thermally broken frames complying with applicable codes and criteria including UFC 4-010-01. Curtain wall systems shall be capable of withstanding area wind loads, thermal and structural movement required by location and project requirements, and shall comply with applicable codes and criteria including UFC 4-010-01. Window sills shall be designed to discourage bird nesting.

3.4.3.7 Exterior Louvers: Exterior louvers shall have bird screens and shall be designed to exclude wind-driven rain. Exterior louvers shall be made to withstand wind loads in accordance with the applicable codes. Wall louvers shall bear the Air Movement & Control Association (AMCA) International certified ratings program seal for air performance and water penetration in accordance with AMCA 500-D and AMCA 511. Louver finish shall be factory applied.

3.4.4 Interior Design Objectives

Arrange spaces in an efficient, functional manner. Provide durable materials and furnishings that are easily maintained and replaced. Maximize use of daylighting. Provide interior surfaces that are easy to clean and light in color. Design RB barracks area with a residential ambience.

3.4.4.1 Signage: Provide room number sign with changeable two-line message strip signage. Changeable message strip signs shall be of same construction as standard room signs to include a clear sleeve that will accept a paper or plastic insert with identifying changeable text. The insert shall be prepared typeset message photographically enlarged to size and mounted on paper card stock.

3.4.4.2 Bulletin Boards: In each RB provide one bulletin board per floor. Locate bulletin board at the main vestibule on the first floor and at the entry vestibule on the second and third floors. Bulletin boards shall be 4 feet high and 6 feet wide. Bulletin boards shall have a header panel and shall have lockable, glazed doors.

3.4.4.3 Corner Guards: Provide surface mounted, high impact resistant, integral color, snap-on type resilient corner guards, extending from floor to ceiling for wall/column outside corners in high traffic areas. Factory fabricated end closure caps shall be furnished for top and bottom of surface mounted corner guards.

3.4.4.4 Chair Rail: Chair rails shall be installed in areas prone to hi-impact use, such as corridors and lobby seating area.

3.4.4.5 Casework: Provide cabinets complying with AWI Quality Standards. Countertops shall have waterfall front edge and integral coved backsplash.

3.4.4.6 Fire Extinguisher Cabinets and Fire Extinguishers: Furnish and install fire extinguisher cabinets and fire extinguishers as required by applicable codes and criteria. Furnish a list of installed fire extinguishers (including location, size and type) to the Contracting Office Representative.

3.4.4.7 Interior Doors and Frames:

1. Provide hollow metal doors, or flush solid core wood doors as required. All door frames shall be hollow metal.

2. Wood Doors: All doors shall be wood doors except noted otherwise Provide flush solid core wood doors conforming to WDMA I.S.-1A. Stile edges shall be non-finger jointed hardwood compatible with face veneer. Provide Architectural Woodwork Institute (AWI) Grade A hardwood face veneer for transparent finished doors.

3. Insulated Hollow Metal Doors: Comply with ANSI A250.8/SDI 100. Doors shall be minimum Level 2, physical performance Level B, Model 2; factory primed. Provide insulated hollow metal doors for utility rooms, storage rooms and bathrooms.

4. Hollow Metal Frames: Comply with ANSI A250.8/SDI 100. Frames shall be minimum Level 2, 16 gauge, with continuously welded mitered corners and seamless face joints; factory primed.

5. Fire-rated and Smoke Control Doors and Frames: Comply with applicable codes, criteria and requirements of labeling authority.

6. STC ratings shall be of the sound classification required and shall include the entire door and frame assembly.

3.4.4.8 Window Treatment: Treatment shall be provided in all exterior windows. Uniformity of window covering color and material shall be maintained to the maximum extent possible throughout each building. Window stools shall be minimum ½ inch thick cast 100 percent acrylic polymer solid surfacing material. Blinds in RB barracks area shall be room darkening mini blinds.

3.4.4.9 Toilet Accessories: Furnish and install the items listed below and all other toilet accessories necessary for a complete and usable facility. All toilet accessories shall be Type 304 stainless steel with satin finish. Toilet accessories shall include the following:

(a) Toilet/Showers:

- (1) Glass Mirror/Shelf – 18 inch by 24 inch glass mirror on stainless steel frame with shelf at each lavatory
- (2) Hands free liquid soap dispenser – at each lavatory
- (3) Hands free paper-towel dispenser
- (4) Waste receptacle – recessed mounted at each lavatory/toilet area
- (5) Sanitary napkin disposal at each female toilet
- (6) Toilet paper dispenser – lockable multiple roll at each toilet
- (7) Sanitary toilet seat cover dispenser – at each toilet stall
- (8) Shower curtain rod, extra heavy duty – at each shower stall
- (9) Shower curtain, white anti-bacterial nylon/vinyl fabric shower curtain – at each shower stall
- (10) Soap dish – in shower
- (11) Double robe hook – adjacent to shower enclosure entry
- (12) Grab bars – as required by ADA

(b) Sleeping Bay Toilet/Shower/Dressing: Accessories shall include:

- (1) Glass Mirror/Shelf – 18 inch by 24 inch glass mirror on stainless steel frame with shelf – at each lavatory
- (2) Hands free liquid soap dispenser – at each lavatory
- (3) Hands free paper towel dispenser at each lavatory/toilet area
- (3) Waste receptacle – recessed mounted at each lavatory/toilet area
- (4) Sanitary napkin disposal - at each toilet, in one toilet wing, in sleeping bay with gender separation wall
- (5) Toilet paper dispenser – lockable double toilet paper dispenser at each toilet
- (6) Sanitary toilet seat cover dispenser – at each toilet stall

- (7) Shower curtain rod, extra heavy duty – at each shower stall
 - (8) Shower curtain, white anti-bacterial nylon/vinyl fabric shower curtain – at each shower stall
 - (9) Soap dish – in each shower
 - (10) Double robe hook – at each shower entry
 - (11) Combination tumbler/6 toothbrush holder – at each lavatory
- (c) Drill Instructor Toilet/Shower
- (1) Glass Mirror/Shelf – 18 inch by 24 inch glass mirror on stainless steel frame with shelf – at each lavatory
 - (2) Liquid soap dispenser – at each lavatory
 - (3) Combination paper towel dispenser/waste receptacle – recessed mounted at each lavatory/toilet area
 - (4) Toilet paper dispenser – lockable double toilet paper dispenser at each toilet
 - (5) Sanitary toilet seat cover dispenser – at each toilet
 - (6) Shower curtain rod, extra heavy duty – at each shower stall
 - (7) Shower curtain, white anti-bacterial nylon/vinyl fabric shower curtain – at each shower stall
 - (8) Soap dish – in each shower
 - (9) Double robe hook – in each shower dressing area
 - (10) Combination tumbler/6 toothbrush holder – at each lavatory

3.4.5 Finishes

3.4.5.1 Paint

- (a) All paints used shall be listed on the "Approved Product List" of the Master Painters Institute (MPI). Application criteria shall be as recommended by MPI guide specifications for the substrate to be painted and the environmental conditions existing at the project site.
- (b) Exterior surfaces, except factory pre-finished material or exterior surfaces receiving other finishes shall be painted a minimum of one prime coat and two finish coats. Paints having a lead content over 0.06 percent by weight of nonvolatile content are unacceptable. Paints containing zinc-chromate, strontium-chromate, mercury or mercury compounds, confirmed or suspected human carcinogens shall not be used on this project. Exterior paints and coating products shall be classified as containing low volatile organic compounds (VOCs) in accordance with MPI criteria. Application criteria shall be as recommended by MPI guide specifications. Provide an MPI Gloss Level 5 Finish (semi-gloss), unless otherwise specified.
- (c) Interior surfaces, except factory pre-finished material or interior surfaces receiving other finishes, shall be painted a minimum of one prime coat and two finish coats. Paints having a lead content over 0.06 percent by weight of nonvolatile content are unacceptable. Paints containing zinc-chromate, strontium-chromate, mercury or mercury compounds, confirmed or suspected human carcinogens shall not be used on this project. Interior paints and coating products shall contain a maximum level of 150 grams per liter (g/l)

of VOCs for non-flat coatings and 50 g/l of VOCs for flat coatings. Provide an MPI Gloss Level 5 Finish (semi-gloss) in wet areas and a flat finish in all other areas.

3.4.5.2 Minimum Interior Finishes-General

- (a) Designers are not limited to finishes listed in the following INTERIOR FINISHES table(s) and are encouraged to offer higher quality finishes.
- (b) Wall, ceiling and floor finishes and movable partitions shall conform to the requirements of the IBC, NFPA and UFC 3-600-01 Fire Protection Engineering for Facilities. Where code requirements conflict, the most stringent code requirement shall apply.
- (c) All walls shall be minimum 5/8" painted gypsum board, except where stated otherwise. Gypsum board shall be paperless gypsum board. Use impact resistant gypsum board in vestibules, corridors, stairs, laundry, vending areas and storage areas.
- (d) All ceiling finishes shall be minimum 5/8" painted gypsum board, except where stated otherwise. Gypsum board shall be paperless gypsum board.

3.4.5.3 RB Interior Finishes

[img:RBfinish.tif] [allyson](#)

B/COF INTERIOR FINISHES																
	Floors				Base			Walls				Ceiling		Remarks		
	RESILIENT FLOORING	PORCELAIN OR QUARRY TILE	CERAMIC TILE	RECESSED ENTRY MAT	SEALED CONCRETE	RESILIENT BASE	PORCELAIN OR QUARRY TILE	CERAMIC TILE	GYPSUM WALL BOARD - PAINT	LAMINATED GLASS, INSUL. CURTAIN WALL SYSTEM	FULLY GROUTED REINF. CMU OR REINF. CONCRETE	CERAMIC TILE	GYPSUM WALL BOARD - PAINT		ACOUSTICAL CEILING TILE	REINF. CONCRETE
1ST FLOOR																
VESTIBULE		•		•			•		•	•						9'
STAIR VESTIBULE	•			•		•			•				•			9'
RECEPTION		•					•		•				•			9'
CQ STATION		•					•		•				•			9'
CO	•					•			•				•			NOTE 10
XO	•					•			•				•			
1 ST SGT	•					•			•				•			
TRO	•					•			•				•			
MEN'S TOILET/SHOWER			•				•		•				•			NOTE 1 AND 4
TOILET/SHOWER			•				•		•				•			NOTE 1 AND 4
JANITOR			•				•		•				•			NOTE 2
LUGGAGE STORAGE	•					•			•				•			
COMPANY SUPPLY	•					•			•				•			
SECURE STORAGE	•					•			•				•			
MASK STORAGE	•					•			•				•			
ARMS VAULT				•		•			•	•				•		
STAIRS	•			•		•			•	•			•			NOTE 6
CORRIDORS		•					•		•				•			9'
QUEUING CORRIDOR		•					•		•				•			9'
MULTIPURPOSE ROOM	•					•			•				•			9'
SCRUB ROOM			•				•		•		•		•			NOTE 4 AND 8
MECHANICAL				•		•			•				•			NOTE 9
ELECTRICAL				•		•			•				•			
TELECOM.	•					•			•				•			
COVERED TRAINING AREA				•												9'
2ND and 3RD FLOOR																
ENTRY VESTIBULE		•					•		•	•			•			9'
STAIR VESTIBULE	•					•			•				•			9'
SLEEPING BAY	•					•			•				•			9'
TOILET/SHOWER/DRESSING			•				•		•		•		•			NOTE 1 AND 4
LAUNDRY		•					•		•				•			NOTE 4
STAIR	•			•		•			•	•			•			NOTE 6
CORRIDOR		•					•		•				•			9'
DI OFFICE	•					•			•				•			
DI TOILET/SHOWER			•				•		•		•		•			NOTE 1 AND 4
PLATOON CLASSROOMS	•						•		•				•			10'
STORAGE	•					•			•				•			
TA-50 STORAGE	•					•			•				•			
GENERAL STORAGE	•					•			•				•			
JANITOR			•				•		•				•			NOTE 2
MECHANICAL	•					•			•				•			NOTE 9
ELECTRICAL	•					•			•				•			
TELECOM.	•					•			•				•			

[img:RBfinish2.tif]

1. ALL WET WALLS IN TOILET ROOMS SHALL HAVE 4'-0" HIGH CERAMIC TILE WAINSCOT. ALL SHOWERS SHALL HAVE FULL HEIGHT CERAMIC TILE WALLS. VANITY TOPS SHALL BE CAST 100 PERCENT ACRYLIC POLYMER SOLID SURFACING MATERIAL WITH WATERFALL FRONT EDGE AND INTEGRAL COVERED BACKSPLASH.
2. WALLS ADJACENT TO JANITOR'S SINK SHALL HAVE A 4'-0" HIGH CERAMIC TILE WAINSCOT.
3. NOT USED
4. ALL COUNTERTOPS SHALL HAVE A MINIMUM OF 4" HIGH BACKSPLASH.
5. NOT USED
6. RISERS SHALL BE PAINTED STEEL. STAIR LANDINGS AND TREADS SHALL HAVE RESILIENT FLOORING OR SEALED CONCRETE. PROVIDE TREADS WITH SLIP RESISTANT NOSING.
7. PAINT STRUCTURE.
8. PROVIDE 6'-0" HIGH CERAMIC TILE WAINSCOT ON ALL WALLS
9. CEILING MAY BE PAINTED EXPOSED STRUCTURE IF ALLOWED BY APPLICABLE CODE
10. EXTEND PARTITIONS TO DECK. PROVIDE SOUND INSULATION TO MEET A MINIMUM STC RATING OF 49 AT WALLS AND A STC OF 28 AT DOORS.

3.5 STRUCTURAL REQUIREMENTS

Design and construct as a complete system in accordance with APPLICABLE CRITERIA.

3.5.1 Live Loads

- | | |
|---|---|
| (a) Elevated Slabs | 60 pounds per square foot (psf) minimum |
| (b) Slab On Grade | 150 psf minimum |
| (c) Barracks Bays w/o Partitioned Rooms | 80 psf |
| (d) Centralized Laundry Area | 150 psf, (but not less than actual equipment loads) |

3.6 MECHANICAL REQUIREMENTS

3.6.1 Plumbing

3.6.1.1 Domestic water heating system shall be sized in accordance with UFC 3-420-01, Appendix E, except as amended herein. Hot water consumption shall be based on 2 gpm per shower head with a delivered temperature of 110 deg F. Peak period duration shall be 19 minutes (3 groups with 5 minutes of shower operation each and 2 minutes of transition between groups). In addition to simultaneous shower operation, all lavatories and washing machine demand must be included without diversity. Hot water storage capacity shall be based on 75% usable storage and a storage temperature of 140 deg F. Domestic hot water shall be provided by separate water heating boiler and tank systems or storage water heating systems, located within the barracks mechanical rooms.

Domestic hot and cold water pipe sizing shall be based on all fixtures operating simultaneously. Waste stacks, building waste drains, venting and lift stations shall be sized with consideration to the increased flow rates as well.

Domestic hot and cold water hose bibs shall be provided in laundry rooms and latrines for use in area cleanup/wash down.

Shower heads and lavatory faucets shall be water conserving type with a maximum rated flow rate of 2.0 gpm or less. Urinals shall be the waterless type. Water closets shall be the siphon jet, flush valve type. All water closet and lavatory fixtures shall be hands free type operation.

3.6.1.2 Provide scrub room and boot wash drains with easily maintainable sand interceptors.

3.6.1.3 Laundry facilities shall be considered commercial laundries with respect to the International Plumbing Code (IPC) and shall be provided with easily maintainable solids interceptor(s) in accordance with the IPC.

3.6.1.4 <RBCCP_NO>Not Used</RBCCP_NO><RBCCP>The central cooling plant shall have all necessary plumbing to allow for make-up water, maintenance, leakage and condensate drainage, blowdown drainage, and anything else necessary for a fully functional and maintainable central cooling plant .</RBCCP>

3.6.2 Heating, Ventilating and Air-Conditioning (HVAC)

3.6.2.1 All HVAC air handling units shall be located in mechanical equipment rooms accessible through equipment room doors. Mechanical rooms shall be sized for ease of service and maintenance of equipment. Access for maintenance shall not require entry into the sleeping bays or classrooms. Air filters shall be located in duct or unit mounted filter boxes within the mechanical room.

HVAC system selection shall be in accordance to ASHRAE 90.1. The HVAC system shall provide continuous outside air ventilation to each space and centralized exhaust systems with heat recovery between exhaust and the incoming outside air.

Storage and laundry spaces may be served by single zone heating and ventilating fan coil and/or forced air systems, respectively. Laundry rooms must be provided with sufficient tempered makeup air either from transfer air via the air handling systems serving the living/sleeping modules or their own air handling systems. Storage and electrical spaces must be ventilated to limit summer interior temperatures and minimally heated (45 deg F). Communications spaces require separate cooling (24 hour cooling if required by the Installation Directorate of Information Management (DOIM) or similar organization).

HVAC design loads must include plug loads of 6 watts/sf in classrooms and 1.5 watts/sf in sleeping bays. HVAC design loads must also account for surge population in sleeping bays and classrooms.

3.6.2.2 Heating, mechanical ventilation and air-conditioning shall be in accordance with ASHRAE Standard 62; design supply air volumes in occupied spaces shall be not less than 0.8 cubic feet/minute/square foot (cfm/sq. ft). Heating and cooling load calculations shall allow for a minimum of 0.3 air changes per hour from incidental infiltration for all building spaces. For severe winter climatic areas incorporation of low intensity, gas-fired infrared heating systems may be considered for adjoining covered training or assembly areas.

Continuous ventilation air must be provided throughout each building for indoor air quality, building pressurization, and makeup of exhausted air. Exhaust airflows and people ventilation shall be provided as required by ASHRAE Standard 62. In sleeping areas, provide either 15 cubic feet/min./person or 10% of supply airflow for building pressurization plus makeup air for all exhausts, whichever is greater. Exhaust calculations shall include all dryers on at same time (200 cubic feet/min./dryer) and exhaust for shower, drying areas and toilet exhaust, etc. The overall building shall be positively pressurized by approximately 10% to exclude unplanned infiltration. All ventilation air shall be provided using one or more dedicated outdoor air units. Dedicated outdoor air units shall continuously supply dehumidified, tempered air to the building. Supply air conditions from the dedicated outdoor air unit(s) shall be between 70 and 75 degrees F dry bulb and no greater than 51 degrees F dew point.

3.6.2.3 For purposes of prevention of respiratory illness, supply and return air in sleeping bays must be arranged to prevent air movement across multiple bunks. Supply and return air must be ducted to air distribution devices located between every other bunk.

Ductwork in sleeping bays shall be designed to prevent placement or concealment of contraband. Round ductwork is recommended. Ductwork and controls shall also be designed to provide two separate zones within each sleeping bay such that a longitudinal privacy partition may be installed to divide the bay.

For freeze protection, air handling unit heating coils shall either be placed in the pre-heating position or preheating coils shall be provided where mixed air temperature may fall below design cooling supply air temperatures or less than 45 degrees F or where stratification may occur. Freeze protection provisions shall be specifically documented.

3.6.2.4 HVAC controls shall be in accordance with UFC 3-410-02A. Building and central plant HVAC controls shall be fully integrated and connected to any existing post-wide Utility Monitoring and Control System (UMCS). The UMCS shall be able to monitor, and either directly or indirectly control HVAC systems as required by the installation.

Building HVAC air handling systems shall incorporate controls for temperature or enthalpy based all-air economizers (type & controls per ASHRAE Std 90.1 and be able to set occupied spaces in setback or setup temperature modes to conserve energy.

Due to possible fluctuations in trainee populations, HVAC controls must incorporate controls software and hardware to facilitate building or space shutdown or reduced utilization at various times during the year. During unoccupied times buildings or spaces must continue to be minimally heated (55 deg F), cooled (85 deg F dry bulb, 55 deg dew point) and ventilated (0.06 cfm/sf) to conserve energy, preclude molding problems, etc.

3.6.3 Fire Protection

Fire suppression systems shall be designed in accordance with the latest edition of UFC 3-600-01. However, the B/COF shall be classified as mission essential and shall be provided with sprinkler protection regardless of other criteria or code provisions. The facility shall be protected throughout by a complete automatic sprinkler system. Fire alarm systems shall be addressable type with addressable devices. The type, function and location of the fire alarm annunciator shall be coordinated with the local authority having jurisdiction.

3.7 ELECTRICAL AND TELECOMMUNICATIONS REQUIREMENTS

Select electrical characteristics of the power system to provide a safe, efficient, and economical distribution of power based upon the size and types of loads to be served. Use distribution and utilization voltages of the highest level that is practical for the load to be served. The effect of nonlinear loads such as computers, other electronic equipment and electronic ballasts shall be considered and accommodated as necessary. Voltage drop shall not exceed the maximum allowed per ASHRAE 90.1. Transient voltage surge protection shall be provided for B/COFs.

3.7.1 Power

Power shall be provided for all installed equipment requiring power including all Government Furnished Contractor Installed equipment and all GFGI equipment. Power poles are not allowed.

3.7.1.1 Duplex receptacles shall be provided per NFPA 70 and in conjunction with the proposed equipment and furniture layouts.

3.7.1.2 Each CATV outlet shall have a duplex receptacle mounted adjacent to it.

3.7.1.3 In addition to receptacles required elsewhere in the RFP provide one duplex receptacle per wall in all normally occupied spaces unless otherwise noted.

3.7.1.4 For housekeeping purposes provide a minimum of one 120-volt, 20A duplex receptacle per corridor. No point along corridor wall at 18 inches above finished floor shall be more than 25 feet from a

receptacle. Provide a minimum of one 120 volt, 20A duplex receptacle in the lobby for housekeeping purposes.

3.7.1.5 Provide duplex receptacles mounted adjacent to lavatories. A minimum of one for every two adjacent lavatories shall be provided. Where toilet has only one lavatory, provide a receptacle.

3.7.1.6 In addition to the I3A Technical Guide requirements, two 120 Volt, 20 Amp receptacles each on a dedicated circuit shall be provided on the telephone backboard in each telecommunications room.

3.7.1.7 A minimum of two 120-volt, 20A duplex receptacles shall be provided in each mechanical room and one in each electrical and telecommunications room in addition to NFPA 70 requirements.

3.7.1.8 Each data outlet in classrooms shall have a duplex receptacle mounted adjacent to it.

3.7.1.9 Provide a duplex receptacle for the CQ workstation adjacent to the telecommunications outlet.

3.7.1.10 Provide four duplex receptacles spaced evenly along exterior walls in each sleeping bay and two evenly spaced along each end wall.

3.7.2 Grounding

In addition raised flooring shall be grounded to the building's primary grounding electrode.

Interior lighting controls shall be provided in accordance with ASHRAE 90.1. Local manual controls shall supplement automatic controls in offices, classrooms, sleeping bays; and specialized areas such as scrub rooms, multipurpose rooms and covered training areas. Compact fluorescent lamps of 13 watts or less shall not be used.

3.7.3.1 An un-switched fixture with emergency ballast shall be provided at the entrance to each arms vault.

3.7.3.2 Covered training areas shall be illuminated to a level of 15 foot-candles.

3.7.3.3 Reception area shall be illuminated to a level of 10 foot-candles. CQ workstation within the lobby shall be illuminated to a level of 30 foot-candles.

3.7.3.4. Sleeping bays shall have lamps with a Correlated Color Temperature of 3000k (This requirement supersedes the requirement stated in paragraph 5.)

3.7.3.5 Mechanical rooms, supply rooms, arms vault, TA-50 storage rooms, multipurpose rooms, mask storage room and electrical rooms shall be illuminated to a level of 30 foot-candles.

3.7.4 Telecommunications System

Telecommunication outlets shall be provided per the based on functional purpose of the space within the building and in accordance with other provisions of this RFP. Telecommunications design must be performed and stamped by a Registered Communications Distribution Designer (RCDD) with two years related experience or person with five years related experience. The information systems designer must prepare the test plan, and witness and certify the testing of telecommunications cabling. In the I3A Technical Guide, the word "shall" will be substituted for the word "should" throughout the document. The I3A Technical Guide shall be considered to be MANDATORY criteria.

3.7.4.1 Provide voice and data connection capability to all workstations.

3.7.4.2 The required connection capability in classrooms is a minimum of one voice outlet per room and one data outlet per occupant.

3.7.4.3 Connectivity shall be provided for pay phones within the covered training areas per local telephone company requirements.

3.7.4.4 All copper cabling, patch panels and connectors shall be Cat 6 unless noted otherwise. Cabling infrastructure shall be as shown in Figures 1 thru 4 of the UFC 3-580-01 Telecommunications Bldg Cabling Systems Planning/Design.

3.7.4.5 Number of patch panel ports for horizontal cabling shall be determined by the number of jacks within the building plus 10% spare capacity.

3.7.4.6 Equipment racks shall be 84 inches in height. A minimum of 36 inches (measured vertically) of vacant space shall be provided in each equipment rack for GFGI equipment.

3.7.4.7 In addition to the cable tray requirements in the UFC 3-580-01 Telecommunications Bldg Cabling Systems Planning/Design cable tray shall be installed around the entire perimeter of all telecommunications rooms.

3.7.4.8 Separate Cat 6 modular patch panels shall be provided for incoming outside plant copper cable. Patch panels shall be connected to 110 type blocks as shown in figure of UFC 3-580-01 Telecommunications Bldg Cabling Systems Planning/Design. Four pair Cat 6 cable shall be provided to each Cat 6 port on the patch panels. The number of patch panel ports shall be determined by the number of jacks within the building plus 10% spare capacity.

3.7.4.9 Cable size between protector module and 110 type blocks shown in Figure of UFC 3-580-01 Telecommunications Bldg Cabling Systems Planning/Design shall be Cat 3 minimum and shall match the size of incoming outside plant copper cable.

3.7.5 Video Teleconferencing

Video teleconferencing capability shall be provided in each classroom.

3.7.6. Intrusion Detection System (IDS)

An Intrusion Detection System (IDS) shall be provided for each arms vault. Provide a control panel, balanced magnetic switch, motion sensor, and duress switch unless specified otherwise in paragraph 6. System requirements shall be coordinated with the Installation.

3.7.7 CATV

All CATV outlet boxes, connectors, cabling, and cabinets shall conform to the UFC 3-580-01 Telecommunications Bldg Cabling Systems Planning/Design unless noted otherwise. All horizontal cabling shall be homerun from the CATV outlet to the nearest telecommunications room. CATV connectivity shall be provided in: all classrooms, multipurpose rooms, drill instructor offices

3.7.8 Mass Notification

Mass notification system shall meet intelligibility requirements up to a distance of 30' from the building's perimeter and in all court yards. Visible notification appliances are not required on the building's exterior walls.

3.7.9 Door Status/Alarm Monitoring System

A door monitoring system consisting of a door status/alarm panel and door balanced magnetic switches shall be provided. The monitoring system shall provide door status/alarms on all doors leading into and within sleeping bays in order to accommodate gender segregation. System shall allow each door alarm to

be individually activated or deactivated. Door status/alarm panel shall be located in the reception area near the CQ workstation. Panel shall provide both an audio and visual signal when alarm is activated.

3.8 FIRE ALARM REQUIREMENTS

3.8.1 There shall be one complete addressable Fire Alarm System for each building. This system shall consist of a Fire Alarm Panel, a communication device, initiating devices and notification devices. Class A addressable systems shall be installed.

3.8.2. All software, software locks, special tools and any other proprietary equipment required to maintain, add devices to or delete devices from the system, or test the Fire Alarm system shall become property of the Government and be furnished to the Contracting Officer's Representative prior to final inspection of the system.

3.8.3. The fire alarm system shall be designed by a professional Fire Protection Engineer and installed by a National Institute for Certification of Engineering Technologies (NICET) 3 technician.

3.8.4 Smoke detectors shall be provided in all sleeping bays.<SMOKE1> Smoke detectors in bedrooms shall be monitored. Tampering with a smoke detector shall send a trouble signal. Trouble signals shall be transmitted to the fire department.</SMOKE1><SMOKE2> Smoke alarm signals shall not be transmitted to the fire department.</SMOKE2><SMOKE3> Smoke alarm signals shall be transmitted as a supervisory signal to the fire department.</SMOKE3><SMOKE4> Smoke alarm signals shall be transmitted as an alarm signal to the fire department.</SMOKE4>